

Challenges of globalization

I. Globalization debates

1. When did globalization begin? The O'Rourke-Williamson (2004) position

Globalization is described in economic terms: geographical market integration and, specifically, commodity market integration. The advance of market integration is measured in terms of commodity price convergence: the worldwide convergence of the prices of the same commodities. Globalization is said to begin in the early 19th century because commodity price convergence started around the 1820s. In this period, China is viewed as an autarkic economy and is therefore not considered a significant actor in the dynamics of global market forces.

2. When did globalization begin? The Flynn-Giráldez (2008) position

Globalization begins with the sustained interaction (in a deep and permanent manner) of all sufficiently populated land masses. The beginning of globalization cannot be ascertained by using exclusively statistical evidence: the identification of the onset of globalization must involve cultural, demographic, ecological, economic, epidemiological, political... evidence. All this evidence points to the beginning of the sixteenth century as the start of the process of geographical connection between the three roughly equal-sized regions that partition the planetary surface: the Pacific Ocean, the Atlantic Ocean plus the Americas, and the Indian Ocean plus Africa and Eurasia. Globalization is a historical process with origins in the 16th century. China's demand has always shaped globalization, its birth included. Europe was not the sole source of the global integration dynamics: European traders acted mainly as intermediaries.

O'Rourke, Kevin; J. G. Williamson (2004): "Once more: When did globalisation begin?", *European Review of Economic History* 8, 109-117.

Flynn, Dennis O.; Arturo Giráldez (2008): "Born again: Globalization's sixteenth century origins (Asian/global versus European dynamics)", *Pacific Economic Review* 13(3), 359-387.

3. Globalization 1.0, 2.0, 3.0 (Thomas Friedman, 2007)

Thomas Friedman offers a similar typology of globalization episodes. In this account, states were the key agents in Globalization 1.0 (1492-1800), which hinged on the ability of states to mobilize resources. Multinational companies were the key agents in Globalization 2.0 (1800-2000), which involved the integration of labour and good markets, first through improvements in transport and next through improvements in communications. Individuals are the key agents in Globalization 3.0 (2000-?), who are being empowered by a convergence of digital technologies (personal computer, fiber-optic cable and software). This convergence has created a truly global community where anyone has access to massive amounts of information and can produce discoveries and innovations.

Friedman, Thomas L. (2007): *The world is flat 3.0. A brief history of the twenty-first century*, Picador, New York.

4. Waves of globalization (Fred Spier, 2010)

Spier (2010, pp. 168-183) identifies three waves of globalization.

- First wave. Triggered by the European transatlantic voyages at the end of the 15th century. It was made possible by the exploitation of the energy stored in winds and ocean currents for transportation. Eurasia, Africa and the America became interconnected. A global trade network dominated by European states was established. Modern science was created during the first wave.

- Second wave. The second wave is the outcome of industrialization. The Industrial Revolution (end of the 18th century and beginning of the 19th century) was made possible by the attainment of a new complexity level based on the use of machines and the solar energy stored in fossil fuels (coal and oil). The Goldilocks conditions for industrialization initially favoured a single country: Great Britain. Its example was nonetheless quickly followed by other countries. Those countries that industrialized successfully reached unprecedented wealth levels, that eventually reached most of the population. Apparently, the continuation of the second wave required the elites to

share the wealth created by industrialization with the rest of the population. Affluence was no longer a privilege of elites. Modern science and technology spread to businesses and society. A global division of labour also developed.

- Third wave. An ongoing wave associated with the current information technology revolution: electronic computers, global electronic networks, modern data technology... The term 'globalization' was coined during this wave. It is still uncertain whether the third wave will produce global convergence (in standards of living, cultural and political institutions, ideologies, world views, economic structures...).

Spier, Fred (2010): *Big history and the future of humanity*, Wiley-Blackwell, Chichester, UK.

5. The globalization slowdown thesis (Antimo Verde, 2017)

Presuming that the middle and lower classes are capable of affecting the future of globalization, Verde (2017) claims that globalization will inevitably slow down if the middle classes manage to protect their interests politically. This conclusion follows from the analysis of three questions.

- Which actors would be more interested in limiting the expansion of globalization because they are worse off under globalization? His answer is that middle and lower-middle classes of developed countries (and of some developing countries) are the main losers of globalization. He lists some structural causes for this: skill-biased technological changes; aging; predominance of the financial sector; unfair competition from the developing countries; unfair free trade; delocalization of production activities; diminished role of trade unions; detrimental distributional effects caused by the adoption of national policies forced by the globalization process; globalization itself...
- Which factors would justify an anti-globalization reaction? Immigration, terrorism and rising inequality are presented as non-temporary reasons or problems that would lead the middle classes to oppose and react against globalization.
- How would the losing actors organize an effective reaction against the globalization process? By using their votes to protect their interests: middle and lower classes will elect political parties that propose to adopt anti-globalization national policies. If, as usual, such classes constitute the majority of the electorate, then the political change that will put brakes on globalization seems guaranteed.

Verde, Antimo (2017): *Is globalisation doomed? The economic and political threats to the future of globalisation*, Palgrave Macmillan, Cham, Switzerland.

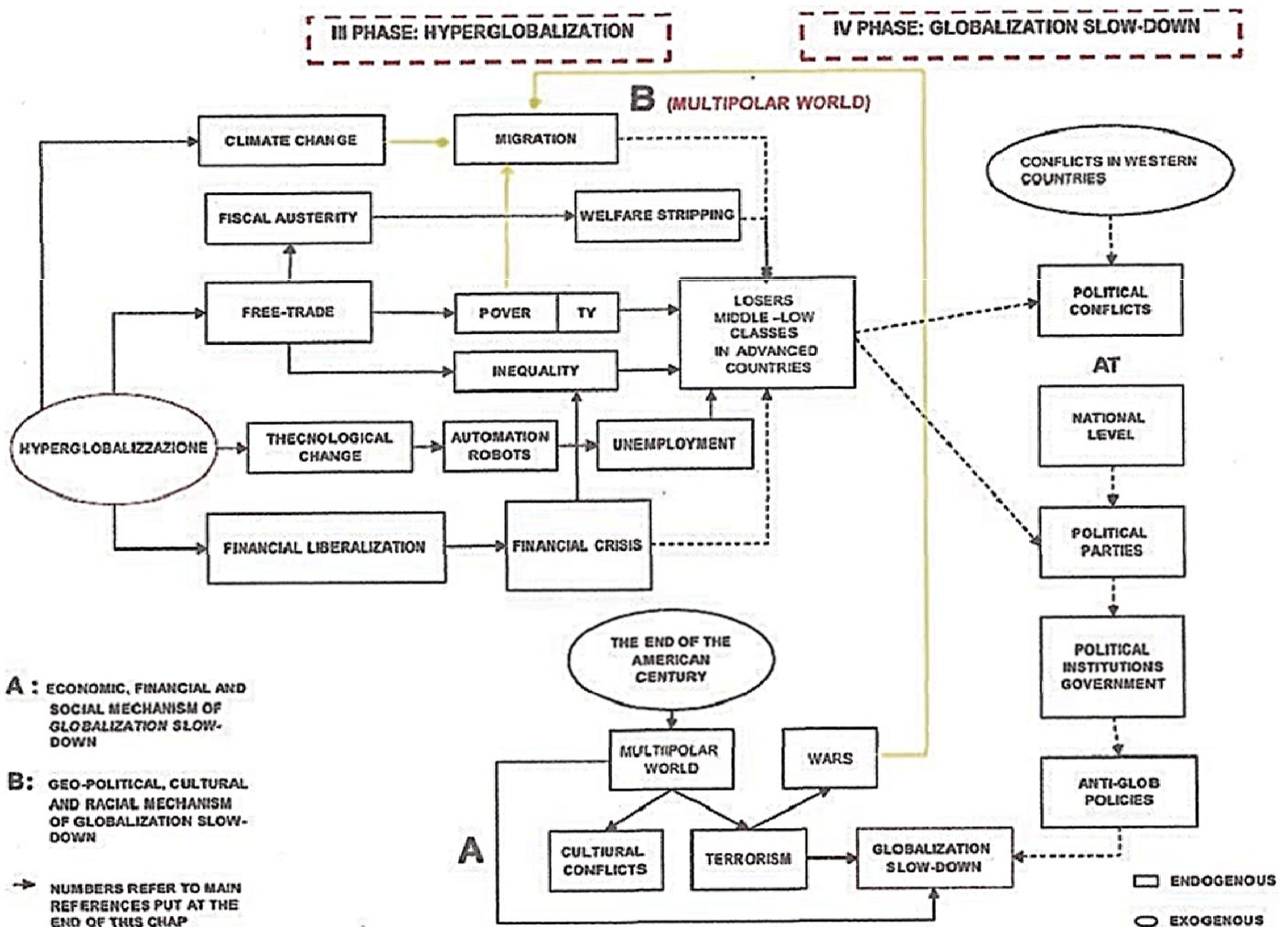
6. Is globalization prone to recurrently generate backlashes and collapses?

- "Globalization is not only a process that occurs somewhere out there—in an objective and measurable world of trade and money. It also happens in our minds, and that part of globalization is often more difficult to manage. To understand both the process and our reactions to it, we need a historical grounding."
- "The phenomenon of globalization has today become a ubiquitous way of understanding the world, but people who used the concept as a tool of analysis failed to understand its volatility and instability."
- "Globalization not only involves international movements of goods, people, and capital, but is also associated with transfers of ideas and shifts of technology, which affect and restructure our preferences. In consequence, globalization generates continuous uncertainty about values."
- "Globalization is vulnerable to periodic financial catastrophes, which involve very sudden alterations of concepts of value. That is, our values themselves are reevaluated during such crises. During a crisis, unexpected and apparently random linkages become apparent. People begin to see in what complex ways the world has become interconnected."
- "The perception of instability calls into question the sophisticated techniques devised for monetary management (...) In the uncertainty of globalization setbacks, the experience of the past becomes a powerful template for understanding the contemporary predicament (...) Today, we look back to the Great Depression of the late 1920s and 1930s as a model for what can go wrong when globalization breaks apart."
- "Politics and economics are inextricably and inherently linked, and politics provides an alternative to market mechanisms for the management of globalization crises."
- "When breakdowns occur, reconstruction is extremely difficult and involves a long and arduous effort for the rebuilding of social trust. Value renewal takes time."

7. Globalization cycles: can the future of globalization be seen in its past?

- “Globalization is not only a process that occurs somewhere out there—in an objective and measurable world of trade and money. It also happens in our minds, and that part of globalization is often more difficult to manage. To understand both the process and our reactions to it, we need a historical grounding.”
- “All of these previous globalization episodes ended, almost always with wars that were accompanied by highly disruptive and contagious financial crises. Globalization is often thought to produce a universalization of peace, since only in a peaceful world can trade and an interchange of ideas really flourish. But in practice, a globalization of goods, capital, and people often leads to a globalization of violence.”
- “It is thus possible to speak of globalization cycles, with long periods of increased interchange of goods, and flows of people and capital. But then something happens. People feel there has been too much interaction; they draw back from the global setting and look instead for protected areas in which they can be safe from global threats and global devastation. The shock or trauma is often connected with financial collapse, especially the profound uncertainty that financial disaster brings.”

James, Harold (2009): *The creation and destruction of value. The globalization cycle*, Harvard University Press, Cambridge, MA.



Antimo's (2017, p. x) mechanism of globalization slowdown

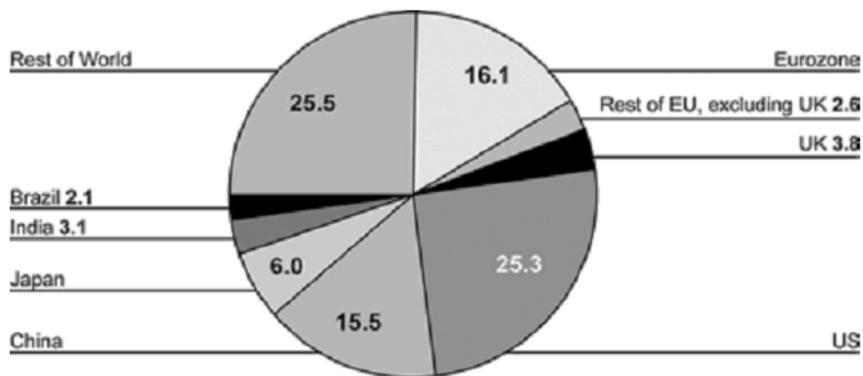
8. Five globalization myths (John Agnew, 2018)

- “The first myth is that the world is ‘flat.’ Associated above all with the American journalist Thomas Friedman, this perspective sees the world as an increasingly undifferentiated investment surface in which trade and investment flow (or will soon flow) relatively unhindered from place to place. At the same time,

the presumption is that this process brings unambiguous benefits to the world as a whole (...) The corollary that Friedman sees as following from this trend in the diffusion of production, the decreased relevance of states to the world order, does not follow. Indeed, China's very economic success has had much to do with its state-organized response to new global opportunities rather than being a simple outcome of increased free trade *tout court*."

- "The second myth is that globalization as we are experiencing it is entirely new."
- "Contemporary globalization is also often merged with the overlapping but hardly analogous idea of liberalization (usually under the label of neoliberalism to distinguish it from classical nineteenth-century liberal thought). This third myth is important because it implies that globalization has at root a singular ideological inspiration: to replace states with markets. From this viewpoint, globalization is a political movement rather than a socioeconomic process (...) It is clear that globalization has several aspects to it that have had nothing much to do with neoliberalism (...) globalization, in the sense of increased reliance on markets and consumer capitalism, is not simply an ideological projection invented in the 1970s (...) but the result of US government sponsorship of a 'free-world' economy during the Cold War (...) Globalization has its ideological roots in this process, not just in the neoliberalism of the 1980s."
- "Whatever its precise ideological provenance, however, from this viewpoint globalization must be antithetical to the welfare state. At least this is the typical story told by both its proponents and by its critics. This is the fourth myth of globalization. The presumption here is that under conditions of globalization states will be disciplined by global 'markets' to cut back on their welfare services (pensions, unemployment benefits, etc.) because, if they do not emulate other states that do so they will be left at a competitive disadvantage when it comes to attracting inward investment (...) Yet (...) economic development has always required infrastructure investment and investment in public services to make the private investment pay off at all. Indeed, a case can be made that under conditions of enhanced competition for capital investment, states need to increase their spending on education and infrastructure rather than reduce it."
- "The fifth myth of globalization is that There Is No Alternative (TINA) to it (...) There is no destiny to contemporary globalization. It has appeared under US geopolitical sponsorship and could be attenuated as the United States goes into geopolitical decline. Even if that happens, an invigorated Chinese government shows signs of wanting to pick up the slack in the face of Trump's "America First" campaign. As a consequence, globalization could begin to take on a different form."

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|----------------|--------------------|
| 1. Netherlands | 11. Finland |
| 2. Ireland | 12. Portugal |
| 3. Belgium | 13. Norway |
| 4. Austria | 14. Cyprus |
| 5. Switzerland | 15. Spain |
| 6. Singapore | 16. Slovakia |
| 7. Denmark | 17. Czech Republic |
| 8. Sweden | 18. Luxembourg |
| 9. Hungary | 19. France |
| 10. Canada | 20. United Kingdom |



KOF Globalization Index 2016

Shares of world GDP (2016) · <https://www.imf.org/en/Data>

<https://www.statista.com/statistics/268168/globalization-index-by-country>

https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD

The KOF Globalisation Index measures the economic, social and political dimensions of globalisation

"Larger national economies tend to rank lower in globalization because of lower dependence on foreign transactions: the United States ranks 34, Germany 27, Brazil 75, Japan 48, India 109, and China 73."

9. Further ideas on globalization (John Agnew, 2018)

- "In writing about globalization and sovereignty there has been little commentary on how globalization has been accompanied by a seemingly countervailing process of political-economic fragmentation."

- “What is new about contemporary globalization is the increasingly global dominance of images and practices intimately related to the marketplace society and the speed at which transactions traverse the world.”
- “... the global is still intricately interwoven with the local. In one sense there is no such thing as the ‘global.’ It exists only as an emergent property; the global is made up of webs of interaction, movement, surveillance, and regulation between people and institutions with discrete locations in particular places. What is new is the density and geographical scope of the weave.”
- “Much of the sociological hype about globalization sees it as synonymous with homogenization, as if the whole world were becoming alike culturally and economically. The literature on time-space compression might also suggest such a prospect, if only on the distant horizon. In fact, there is considerable evidence that globalization is polarizing the world as a whole between geographical haves and have-nots: between regions and localities tied into the globalizing world economy and those outside it (Internet and all) and between those who have received a ‘leg up’ into this economy, on the one hand, and those who may have to remain outside it, on the other.”
- “... the globalizing world economy is not an economy of national territories that trade with one another, notwithstanding the tendency of the World Bank and other international organizations to portray it this way. Rather, it is a complex mosaic of interlinked global city-regions, prosperous rural areas, resource sites, and ‘dead lands’ increasingly cut off from the technologies of timespace compression that fuel globalization. All of these are widely scattered across the globe, even if there is a basic global north-south structure to the world economy as a whole. Some of the prosperous areas, for example, can be found within even the poorest countries.”
- “... the major geographical anchors of the new global economy are overwhelmingly located in North America, Europe, and East Asia. For example, during the period 2005–2015, the United States, the EU, Japan, and China accounted for 65 percent of the inflows of foreign direct investment (FDI) and 72 percent of the outflows, and the G-20 group of countries accounts for 58 percent of global FDI stock. Trends suggest, however, that since the 1980s the US has become relatively less important as both a source and a destination for FDI whereas certain poorer countries have become relatively more important as both destinations and as sources; China, Brazil, South Korea, Mexico, and Malaysia are the outstanding cases. This has happened even as American companies and finance still exercise tremendous power over global markets. The ‘grotesque sovereignty’ represented by Donald Trump’s administration in the US from 2017 onward (...) seems unlikely to bring back the jobs in coalmining and steelmaking that he promised, their loss owing much more to the impact of technology than that of globalization.”
- “The world of spatial variation in economic potentials and political identities is simply too complex for the binary thinking—globalization versus states, markets versus states, and so on—that characterizes so much discussion of sovereignty under contemporary political-economic conditions. We remain mired in nineteenth-century either/or thinking about territory versus the global. Globalization and sovereignty are tied together in a wide variety of ways across the world. We can expect such pluralism to continue.”

Agnew, John (2018): *Globalization and sovereignty. Beyond the territorial trap*, Rowman & Littlefield, Lanham, MA.

10. The misleading view of globalization: The new age of global instability (Chris Harman, 2010)

- “This whole process was baptised ‘globalisation’ by the 1990s. It was bracketed together with neoliberalism as representing a whole new phase of capitalism –for enthusiasts a phase very different to any previously. They held not only that the world should be organised according to the free flows of capital, without any intervention by governments (...) We lived, it was said, in the age of multinational (or sometimes transnational) capital, of firms moving production at will to wherever it could be done most cheaply. It was (...) a world of ‘weightless’ production, where computer software and the internet were much more important than ‘old fashioned metal-bashing’ industries, and where the absolute mobility of capital had completely detached it from any dependence on states.”
- “As Suzanne de Brunhoff noted: ‘Even though huge financial flows of mobile capital are daily circulating round the globe, a global single market of capital does not exist. There is no single world rate of interest and there are no single world prices for produced goods... Financial assets are denominated in different currencies which are not ‘perfect substitutes’ (...) Not only did the popular globalisation accounts overstate the degree

of mobility of capital, they also provided a much distorted view of what that mobility involves. Alan M Rugman pointed out that of the big multinationals 'Very few are 'global' firms, with a 'global' strategy, defined as the ability to sell the same products and/or services around the world' (...) The pattern was not one of capital flowing effortlessly over a homogenous worldwide landscape. It was 'lumpy,' concentrated in some countries and regions (...) 'All that is solid' did 'melt into air' as Marx had put it –but not in the way the crude globalisation theory held. For capital's old companion, the state, entered into the process at every point."

- "The internationalisation of firms' operations, far from leading to less dependence on state support, increases it in one very important respect. They need protection for their global interests. A whole range of things become more important to them than in the early post-war decades: trade negotiations for access to new markets; exchange rates between currencies; the allocation of contracts by foreign governments; protection against expropriation of foreign assets; the defence of intellectual property rights; enforcement of foreign debt repayments. There is no world state to undertake such tasks. And so the power of any national state to force others to respect the interests of capitals based within it has become more important, not less (...) The successor to the state capitalism of the mid-20th century has not been some non-state capitalism but rather a system in which capitals rely on "their" state as much as ever , but try to spread out beyond it to form links with capitals tied to other states. In the process, the system as a whole has become more chaotic."
- "The interaction between the great powers is not the peaceful concert of nations dreamt of by certain apostles of neoliberalism and free trade. There are contradictory interests, with military force a weapon of last resort for dealing with them. The greatest source of instability has come from the attempts of the US to permanently cement its position at the front of the global pecking order."
- "The growing role of finance had its impact throughout the global economy. Every upturn in the recession-boom cycle after the early 1980s was accompanied by financial speculation, causing massive rises in the US and British stock markets in the mid-1980s and mid-1990s, the huge upsurge of Japanese share and real estate prices in the late 1980s, the dotcom boom of the late 1990s, and the housing booms in the US and much of Europe in the early and mid-2000s. Along with these went successive waves of takeovers and mergers of giant companies."
- "The first big growth of international finance in the 1960s was a result of the way the growth of international trade and investment and US overseas military expenditure associated with the Vietnam War –led to pools of finance ('Euromoney') which had escaped the control of national governments. The next big growth came with the recycling of massively expanded Middle East oil revenues through the US banking system –revenues that were a product of the increased dependence of productive capital on Middle East oil. The restructuring of productive capital took place increasingly (...) across national borders, even if mostly it was regional, not global, in scope (...) But industry could not restructure in this way without having financial connections across borders. It required international financial networks if it was to repatriate profits or establish subsidiaries elsewhere in the world (...) Capitalism internationally went through nearly four decades in which profitability was substantially lower."
- "Globally this meant there was a growing pool of growth of money capital-money in the hands of productive as well as non-productive capitals-searching for outlets that seemed to promise higher levels of profitability. Hence the pressure on firms to deliver short-term rather than long-term profits. So too the succession of speculative bubbles and the repeated 'Minsky' shifts from speculation to Ponzi schemes in which financiers used the money entrusted to them by some investors to pay off other investors and line their own pockets (...) The financial system expanded as a consequence, since it played a key part in collecting together the funds for speculation, and could then use the assets whose value had increased because of speculation as collateral for borrowing more funds. There developed a mass of capital wandering round the world looking for any opportunity where it seemed there might be profits to be made."
- "Capitalism became a global system in the 20th century in a way it had not been before. Not only were there global markets and global finance but capitalist industry and capitalist structures of consumption arose in every region of the globe, although unevenly. As that happened a tendency noted in its embryonic form by only the most far sighted thinkers of the 19th century, including Marx and Engels, developed until by the end of the century it was visible to everyone who cared to look. This was the tendency for the system to undermine the very process of interaction with nature (...) The most dramatic expression of this has been the way the accumulation of certain gases in the atmosphere are raising the global temperature and producing climate change. Capitalist industry and its products always had devastating environmental effects."

- “It is the sort of interaction of the economic, the environmental and the political we should expect to see repeated again and again in the 21st century, producing recurrent, very deep social and political crises that frame the choice between global catastrophe and revolutionary change.”

Harman, Chris (2010): *Zombie capitalism. Global crisis and the relevance of Marx*, Haymarket Books, Chicago, Illinois.

11. Globalization and deglobalization (social change in world-historical perspective)

“Global social change did not begin in the late twentieth century with the latest wave of globalization. Social change, of course, has been around for as long as there have been human societies. Some forms of social change began to take on global aspects as early as the sixteenth century. The Age of Discovery, which led to regular European contact with and exploitation of Asia, subSaharan Africa, and the Americas, ushered in massive, global-scale changes in human society and regional ecosystems.”

“The pace of global social change accelerated dramatically with the late eighteenth-century Industrial Revolution, culminating in the first wave of what can properly be called ‘globalization.’ The United Kingdom of Great Britain was the world leader in industrialization, an exporter of the key technologies (railroads, steamships, and telegraph communications), and the advocate of free trade policies and the gold standard (...) The decline of British hegemony was accompanied by a decline of economic globalization from 1880 to 1900 and then by a period of imperial rivalry—two world wars with Germany. The deglobalization of the late nineteenth century and the first half of the twentieth has been called the ‘Age of Extremes.’”

“Between the wars was a short wave of economic globalization in the 1920s followed by the stock market crash of 1929 and a retreat to economic nationalism and protectionism during the depression of the 1930s. Fascism was a virulent form of zealous nationalism that spread widely in the second-tier core and the semiperiphery during the Age of Extremes. This was deglobalization. The point here is that globalization is not just a long-term trend. It is also a cycle. Waves of globalization have been followed by waves of deglobalization in the past, and this is also an entirely plausible scenario for the future.”

“Whether or not the current wave of globalization continues, it is certain that many important processes of social change will continue to occur primarily at a global level. So long as we live in an integrated world-economy, the competition among the people and countries of the world for scarce resources (...) will continue. Domestic political change within the countries of the world (...) will continue to be influenced by supernational forces. The physical environment we live in (...) will continue to be shared and shaped by all of us. All humans will continue to contribute to—and be affected by—global forces of social change. The continuing decline of U.S. hegemony and emerging challenges to the policies of neoliberalism and neoconservatism that have been the responses of global elites to the contradictions of the most recent wave of globalization are likely to lead to a new period of deglobalization.”

“...the coming period of contestation is also an opportunity to create global democratic cooperative institutions that set up a more sustainable relationship between human society and the natural environment and more humane and just relationships among the peoples of the world. A global democratic and collectively rational commonwealth will probably emerge eventually unless we manage to completely extinguish ourselves.”

Chase-Dunn, Christopher; Salvatore J. Babones; eds. (2006): *Global social change: Historical and comparative perspectives*, The Johns Hopkins University Press, Baltimore, Maryland.

12. Thomas Friedman’s (2007) flat world and triple convergence

In Friedman’s view, flatness of the world means that “more people can plug, play, compete, connect, and collaborate with more equal power than ever before”. The flattening of the world is interpreted as an equalizing force: it empowers more people to “reach farther, faster, deeper, and cheaper than ever before”. In a flatter world, power and opportunities are equalized, as people have more and better tools to exchange, compete and cooperate. In his opinion, “this flattening of the playing field is the most important thing happening in the world today”. According to Friedman, the most important force shaping the world economically and politically in the 21st century is the triple convergence “of new players, on a new playing field (the flat world), developing new processes and habits for horizontal collaboration”, the new players coming from outside the West and the new playing field being the flat world.

Friedman, Thomas L. (2007): *The world is flat. A brief history of the 21st century*, Picador, New York.

13. The world is broken (Gabor Steingart, 2008)

Globalization is not flattening the world, but mismanaging it.

- The world is not flat for workers. Globalization has created a global labour market dominated by a race to the bottom in salaries and a loss of power of the workers' associations. Jobs migrate to the lowest bidder. Current globalization has for the first time globalized the markets for all the factors of production: capital, labour, energy and raw materials. Many of the unpleasant features of globalization stem from connecting significantly different economies (the West and the Rest). Globalization avoided those features when more similar economies are involved (Europe and North America, 1945-1975).
- The national welfare state is in retreat, leaving people more vulnerable to the adverse effects of globalization and benefiting a few (or a larger part of the population but insufficiently).
- The great knowledge transfer. This transfer is allowing developing countries to move from agriculture to services without going through industry. That means that the rich countries cannot rely on the presumption that only low-paid, unskilled, routine (blue-collar) jobs could go abroad: white-collar workers will be the victims of the next great wave of offshoring.
- Capitalism is not just exploitative of labour, but also the natural resources. "China, the country with the most impressive growth rates in recent years, also tops the list of countries with little respect for their people and environment".
- Benefits are asymmetrically distributed: "It's like being in a crowded lifeboat. Only if one of the passengers jumps into the water can the other nine survive." (Jagdish Bhagwati)

Steingart, Gabor (2008): *The war for wealth. The true story of globalization, or why the flat world is broken*, McGraw-Hill, New York.

14. Seven fallacies of the globalization debate (Gabor Steingart, 2008)

- (1) Societies are problem-solving organizations. The natural progression for a developed economy is to move from an industry-based to a service-based economy. In fact, industrial work is merely shifting to Asia.
- (2) Economics and morals have nothing in common. The way commodities are produced and services provided is not a merely technical question, but is subject to moral judgment.
- (3) The new world is flat. There is a dark side in free trade: when the West imports goods from Asian economies, their labour and environmental unfair practices are imported as well and this endangers jobs in the West. Trade is politics and the political world is not flat.
- (4) Globalization is a tide that lifts all boats. Even if this is the long run outcome, globalization is so far delivering asymmetric results: upper classes benefit comparatively more than the rest.
- (5) Globalization creates peace. Conflict persists but now the struggle is conducted on the economic field (it can be interpreted that the US won thus the Cold War). Increasing economic interdependence does not prevent military conflict (as the First World War illustrates).
- (6) Governments can no longer take care of their people. Politicians tell that globalization is omnipotent, a force of nature that has weakened the power of states, when it is them who have chosen to relinquish or not make use of that power ("Arguing against globalization is like arguing against the laws of gravity", Kofi Annan). The rise of China was a political not a market project: it was the achievement of politicians, not market forces. It is not Big but Smart Government what is needed.
- (7) Globalization is a hot issue. Globalization should be subject to anyone's scrutiny, not something outside our comprehension or control. Democracy means taking control of, or at least shaping, history. "The challenge is to figure out how to ensure that globalization serves the people", not the other way round.

15. Salient features of current globalization (Thomas Hylland Eriksen, 2014)

- "Disembedding, including delocalization. Globalization implies that distance is becoming irrelevant, relative, or at the very least less important. Ideas, songs, books, investment capital, labor, and fashions travel faster than ever, and even if they stay put, their location can be less important than it would have been formerly. This aspect of globalization is driven by technological and economic changes, but it has cultural and political implications."

- “Speed (...) Anything from inexpensive plane tickets to cheap calls contribute to integrating the world (...) However, acceleration is uneven, and relative slowness may be just as significant as relative speed. Different parts of societies and cultural worlds change at different speeds.”
- “Standardization (...) The rapid increase in the use of English as a foreign language is suggestive of this development, as is the worldwide spread of similar hotels and shopping centers, as well as the growing web of international agreements and industry standards.”
- “Connections. The networks connecting people across continents are becoming denser, faster, and wider every year.”
- “Mobility. The entire world is on the move, or so it might sometimes seem. Migration, business travel, international conferences, and not least tourism have been growing steadily for decades.”
- “Mixing. Although cultural crossroads, where people of different origins met, are as ancient as urban life, their number, size, and diversity is growing every day. Both frictions and mutual influence result (...) The instantaneous exchange of messages characteristic of the information era leads to probably more cultural mixing than ever before in human history. However, cultural mixing does not necessarily lead to the breakdown of boundaries between identities.”
- “Risk. Globalization entails the weakening, and sometimes obliteration, of boundaries. Flows of anything from money to refugees are intensified in this era. This means that territorial polities have difficulties protecting themselves against unwanted flows. Typical globalized risks include AIDS and other epidemics, transnational terrorism, and climate change (...) Most of these risks cannot be combated efficiently by single nation-states.”
- “Identity politics. Politics founded (...) in the maintenance and strengthening of particular collective identities (...) Identity politics, whether nationalist, ethnic, religious, or regionalist, are direct responses to globalizing processes, which seem to threaten the local.”
- Alterglobalization. “The new social movements, ranging from ATIAAC in France to the Occupy movement in the United States, the Slum Dweller Alliance in Mumbai, and *los indignados* in Spain, are not opposed to global connectedness as such but reject the narrowly profit-seeking neoliberalist version of globalization, which they see as dehumanizing and oppressive. What these diverse organizations have in common is resistance to the disembedding tendencies of globalization, and they may be described collectively as reembedding movements.”

- Globalization entails both the intensification of transnational connectedness and the awareness of such an intensification.
- Globalization is largely driven by technological and economic processes, but it is multidimensional and not unidirectional.
- Globalization entails both processes of homogenization and processes of heterogenization: it makes us more similar and more different at the same time.
- Globalization is a wider concept than Westernization or neoimperialism and includes processes that move from south to north as well as the opposite.
- Although globalization is old in the sense that transnational or even global systems have existed for centuries—indeed for millennia—contemporary globalization has distinctive traits due to enhanced communication technology and the global spread of capitalism.

Eriksen, Thomas Hylland (2014): *Globalization. The key concepts, second edition, Bloomsbury, London.*

16. Optimistic view of globalization

The optimistic view of globalization contends that continued technological progress is possible and that is enough, through permanent economic expansion, to deal with distributional and stability problems. This view seems to rely on the naïve belief in a benevolent invisible hand: left by itself, humanity unintendedly will take good care of itself. The tenet is that competition (for resources, markets, power...) is always and everywhere good. This view emphasizes the importance of the economic dimension of globalization.

17. Pessimistic view of globalization

- (1) All technologies have unforeseen unintended consequences, some of which could be very damaging (devastating even?) and impede the continuation of technological progress (climate change, ecological catastrophe). And despite conceding the viability of an indefinite technological progress, there is the likely possibility that technology will get out of control and become autonomous of humanity.

- (2) It remains to be proved that a planet with a finite amount of material resources can sustain technological progress forever.
- (3) Even if the adverse effects of possibilities (1) and (2) are neutralized, technological solutions do not operate in a social vacuum: social institutions (social technologies) must be devised, implemented and shown to be durable to deal with the social problems created by new technologies and expanding economic processes.
- (4) Even if the technological, environmental and social obstacles in (1), (2) and (3) are overcome, there is a final obstacle: humanity has not so far made the moral progress equivalent to the technological (or even the institutional) progress made so far (the best minds are selected to carry out technological and scientific activities but apparently not to rule people). States and corporations (the main players in globalization) are not in charge of the intellectual more capable nor the morally more virtuous individuals. If globalization is not subject to control, humanity is making a risky bet on its survival (to remain on a run-away train). If the decision is to control the globalization process, it is yet to be proved that the controllers will subordinate personal, national or short-run interests to global and long-run interests. Selfish, myopic and dishonest individuals have shown themselves to be better players in the power game than altruistic and virtuous people. Hence, those more likely to drive the global vehicle are the least capable of driving it safely.
- The pessimistic view regards cooperation as the only strategy for long-run survival at the same time that sadly realizes that we have not yet learned how to cooperate at a global scale (and is unlikely that we will ever do: history shows that divergences are ultimately solved by force not by pact). This view emphasizes the importance of the political dimension of globalization.

18. Two views on the benefits and costs of globalization

- Critics: globalization has exploited people in developing countries, caused massive disruptions to their lives and produced few benefits in return.
- Supporters: reductions in poverty achieved by countries which have embraced integration with the world economy, with China and India being the current poster-countries of such success.

Yotopoulos, Pan A.; Donato Romano (eds.) (2007): *The asymmetries of globalization*, Routledge, London and New York (especially chapter 10: "What have we learned about globalization?").

19. Globalization is 'the great event of our time' (Martin Wolf, 2004, p. ix) and works

Wolf (2004) offers the conventional arguments in support of liberal market economies: they contribute to prosperity, democracy and personal freedom. He contends that, despite some not so favourable consequences, the world would be worse under alternative economic systems (or at least the systems supported by the critics of liberal market economies). Wolf also remarks that, in some aspects, globalization has not advanced as much as in previous episodes. He considers the biggest failure of current globalization the insufficient transfer of capital and knowledge to the developing economies. He adds that there is in fact too little globalization:

"the chief obstacle to making the world work better (...) is not its limited economic integration, as critics of economic globalization argue, but its political fragmentation. It is the deep-seated differences in the institutional quality of states that determine the persistence of inequality among individuals across the globe. The big challenge (...) is to reconcile a world divided into states of hugely unequal capacities with exploitation of the opportunities for convergence offered by international economic integration. In short, if we want a better world, we need not a different economics, but better politics." (pp. 11-12)

Wolf, Martin (2004): *Why globalization works. The case for the global market economy*, Yale University Press, New Haven and London.

20. Globalization is an asymmetric process (leading to differentiated outcomes).

Rich countries are in a better disposition to rip the benefits of globalization. The preconditions for the success of globalization are more likely to be more easily satisfied by the rich countries: physical, educational and social infrastructure (transportation networks, human skills, trust, political institutions...). These preconditions are also necessary to produce high-reputation goods (positional goods: trade in services, decommmodified goods, currencies), the type of goods that are becoming increasingly important to benefit from globalization. Reputation is the key competitive factor in a globalized economy and is not subject to the traditional analysis based on

comparative advantages. There is an entry cost to benefit from globalization that the poorer countries cannot pay. In view of this, globalization seems to bestow its benefits asymmetrically, delivering disproportional trade benefits to the richer countries.

21. Is globalization driven by technology or by politics?

Is globalization essentially an inexorable (deterministic) process or essentially a contingent process driven by the decisions of individuals (and, in principle, a reversible project)? In the second case, are the involved individuals just an elite (politically and/or economically powerful individuals)? Is globalization ultimately an economic or a political phenomenon?

(Globalization = extension and intensification of economic, political and social activities across borders, political and geographic = make the planet smaller)

22. Globalization vs globalisms

Globalization can be viewed as a set of processes under which interdependence at the global level is increased. Globalisms are ideologies that ascribe some meaning or value to globalization. Steger (2013, ch. 7) identifies three main globalisms.

- Market globalism. It is considered the current dominant ideology. Market globalism is associated with neoliberalism. The five claims of market globalism are:
 - (i) Globalization = Market integration + Market liberalization
 - (ii) Globalization is inevitable and irreversible
 - (iii) Globalization takes care of itself: no one is in charge of the process
 - (iv) Globalization is good: it benefits everybody
 - (v) Globalization helps democracy to spread.
- Justice globalism. It proposes the construction of a new world order based on principles of egalitarianism, global solidarity and distributive justice ('Another world is possible'). It opposes the globalization from above of market globalism (globalization as an elite project) with a globalization from below (globalization of the people, for the people, by the people). The five claims of justice globalism are:
 - (i) Neoliberalism creates global crises
 - (ii) Neoliberal (market-driven) globalization has increased inequalities
 - (iii) The solution to global problems requires democratic participation
 - (iv) Another, better world is both possible and needed
 - (v) Power to the people, not to corporations.
- Religious globalisms. Religious globalisms (jihadist Islamism, for instance) oppose both market and justice globalisms. They intend (i) to mobilize religious communities to defend their faiths from non-religious ideologies (consumerism, secularism, liberalism) and (ii) to give complete preeminence to religious principles, values and beliefs over secular rules and political institutions. In some cases, any means is acceptable to achieve this goal.

Steger, Manfred (2013): *Globalization. A very short introduction*, Oxford University Press, Oxford, UK.

23. Globalization as an egg-chicken problem (Lindsey, 2001)

- View 1 (popular view): globalization occurred first and that forced governments to adopt pro-market policies and reforms.
- View 2: globalization has been a deliberately chosen response to failures of centralization. The reaction to the problems caused by those failures was the removal of controls over the economy (economic liberalization). In this view, governments were not forced to accept market-friendly policies; rather, it was the exploration of the pro-market alternative that has made globalization possible. Causality then runs backwards: pro-market policies and reforms came first and globalization was the consequence.

Lindsey, Brink (2001): *Against the dead hand. The uncertain struggle for global capitalism*.

24. Globalization: key concepts (Thomas Hylland Eriksen, 2014)

“(1) The enrichment of the working class of the core, metropolitan or First World nations within capitalist social structures; (2) the massive and growing income disparity between the people living in advanced capitalist societies and those living in peripheral, economically extraverted or dependent capitalist societies; and (3) the widespread racism, ethnic chauvinism and xenophobia pervading First World society today.”

Eriksen, Thomas Hylland (2014): *Globalization. The key concepts*, 2nd edition, Bloomsbury, London.

25. Global markets create global tensions

Global markets are engines of creative destruction, generating progress through cycles of expansion and contraction of economic activity (economic crises) and financial speculation (financial crises). In this global markets resemble national markets. The difference is one of scale: there is no isolated place where to seek protection from the activity of global markets. Global capitalism delivers prosperity by destroying occupations, industries, sectors, countries and ways of life. One of the victims of globalization is the career: middle-class worker can no longer occupy their working lives with a single vocation. Globalization is also a threat to the peace between states: lacking institutions of global governance, states struggle for the control of natural resources.

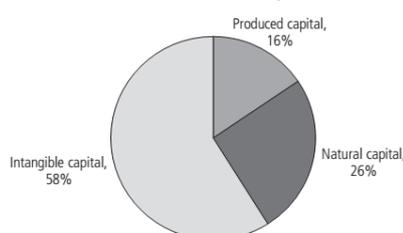
26. Globalization does not imply homogeneity, uniformity or cultural convergence

Globalization is not an end-state towards which all economies are converging or will converge. The increasing global interconnection of economic activity accentuates the unevenness of international development: developing (peripheral) economies become more dependent on investment from developed (core) economies. Hierarchical relations between states are not disappearing: they are transformed. There are also dimensions of society that resist the impact of global markets: local realities and cultures are modified by contact with the rest of the world, but not necessarily uniformized or homogenized. The local has the opportunity to have a global reach rather than the global dissolves the local. Instead of stimulating cultural convergence, globalization makes cultural differences more evident and contributes to reinforce/deepen the differences. The lack of a common global language encourages communications media to focus on specific cultural and linguistic groups, contributing to create barriers between them. Cultures (and religions) are still segmented. New forms of capitalism are created by putting in contact global markets with local business cultures.

27. Globalization questions

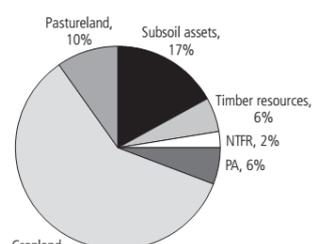
Who is right in their perception of globalization, the hyperglobalizers (utopians) or the globalization sceptics? Are the latter correct in not considering that globalization has made the world economy radically different from any international economy that has existed. Are utopians just presenting fantasies and illusions as realities? Is the current globalized/international market rather orderly or disorderly? Today's global economy is the result of (i) an unceasing stream of new technologies, (ii) unfettered market competition and (iii) weak or fractured social institutions. Since no one is in charge of the process, what ensures that it will not get out of control? For low-income countries, the figures on the right show: (i) that having natural capital a larger share of total wealth than produced capital, managing natural resources appears to be a key strategy of a development policy; and (ii) that intangible capital (human capital and institutional quality) is the preponderant form of wealth.

Figure 1 Shares of Total Wealth in Low-Income Countries, 2000



Source: Authors.
Note: Oil states excluded.

Figure 2 Shares of Natural Wealth in Low-Income Countries, 2000



Source: Authors.
Note: Oil states excluded.
NTFR: Nontimber forest resources. PA: Protected areas.

28. 'Clash of globalizations' (Kevin Gallagher, 2013).

Trade politics in the 21st century is characterized by a clash between developed economies supporting a global trade regime that reinforces their comparative advantage in capital and knowledge-intensive goods and developing economies that eventually want to move from primary commodities and light manufacturing, the areas in which they currently have comparative advantage, to higher value-added production.

Gallagher, Kevin P. (2013): *The clash of globalizations. Essays on the political economy of trade and development policy*, Anthem Press, London.

29. Us vs them: The failure of globalism (Ian Bremmer, 2018)

"Many people believe that 'globalism' and 'globalization' have failed them. These would-be leaders have a talent for drawing boundaries between people. They offer a compelling vision of division, of 'us vs. them,' of the worthy citizen fighting for his rights against the entitled or grasping thief. Depending on the country and the moment, 'them' may mean rich people or poor people, foreigners or religious, racial, and ethnic minorities."

"Today, the watchword is inequality. We have always known the world remained an unfair place, but most of the world's elites believed, with plenty of evidence, that globalism was the solution, not the problem. But while the elites convene for debate, more people are getting frustrated (...) People are angry. They no longer believe that hard work and education are enough. They don't see a path, and they feel they've been lied to. For decades (...) Are the globalists scared? Absolutely not. The United States and global economies surged in 2017 and 2018, and there is no looming global revolution, no World War III that will force change on us all. Public anger is a chronic condition we've learned to live with."

"This book is about ongoing political, economic, and technological changes around the world and the widening divisions they will create between the next waves of winners and losers. It's about the ways in which people will define these threats as fights for survival that pit various versions of 'us' against various forms of 'them.' It's about the walls governments will build to protect insiders from outsiders and the state from its people."

"'Countries are no longer nations but markets. Borders are erased... Everyone can come to our country, and this has cut our salaries and our social protections. This dilutes our cultural identity.' Marine Le Pen's four sentences capture every important element of the anxiety rising across the Western world. The borders are open, and the foreigners are coming. They will steal your job. They will cost you your pension and your health care by bankrupting your system. They will pollute your culture. Some of them are killers."

"Globalization—the cross-border flow of ideas, information, people, money, goods, and services—has resulted in an interconnected world where national leaders have increasingly limited ability to protect the lives and livelihoods of citizens. In the digital age, borders no longer mean what citizens think they mean. In some ways, they barely exist."

"Globalism—the belief that the interdependence that created globalization is a good thing—is indeed the ideology of the elite. Political leaders of the wealthy West have been globalism's biggest advocates, building a system that has propelled ideas, information, people, money, goods, and services across borders at a speed and on a scale without precedent in human history (...) Sure, more than a billion people have risen from poverty in recent decades, and economies and markets have come a long way from the financial crisis. But along with new opportunities come serious vulnerabilities, and the refusal of the global elite to acknowledge the downsides of the new interdependence confirms the suspicions of those losing their sense of security and standard of living (...) In the United States, the jobs that once lifted generations of Americans into the middle class—and kept them there for life—are vanishing. Crime and drug addiction are rising. While 87 percent of Chinese and 74 percent of Indians told pollsters in 2017 that they believe their country is moving "in the right direction," just 43 percent of Americans said the same."

"Many of the storms creating turmoil in the U.S. and Europe—particularly technological change in the workplace and broader awareness of income inequality—are now headed across borders and into the developing world, where governments and institutions aren't ready."

"It is not rising China, a new Cold War, the future of Europe, or the risk of a global cyberconflict that will define our societies. It's the efforts of the losers not to get 'fucked over,' and the efforts of the winners to keep from losing power. Not just in the United States and Europe, but in the developing world too, there will be a confrontation within each society between winners and losers."

“Us vs. them’ is a message that will be adopted by both the left and the right. Antiglobalists on the left use ‘them’ to refer to the governing elite, ‘big corporations,’ and bankers who enable financial elites to exploit the individual worker or investor (...) Antiglobalists on the right use “them” to describe governments that cheat citizens by offering preferential treatment to minorities, immigrants, or any other group that receives explicit protection under the law.”

“Human beings want security, opportunity, and prosperity, and governments want to claim credit for providing these things. Both the government and the governed want to believe they have the means to retake control of their circumstances when they believe these things are threatened. This is the battle line between us and them.”

Bremmer, Ian (2018): *Us vs them. The failure of globalism, Portfolio/Penguin, New York.*

30. Adverse effects of globalization (Ian Bremmer, 2018)

- **Economic insecurity: globalization creates and shifts wealth.** “Globalization creates new economic efficiency by moving production and supply chains to parts of the world where resources—raw materials and workers—are cheapest. In the developing world, the influx of capital from wealthier nations has created the first truly global middle class. In the developed world, this process bolsters the purchasing power of everyday consumers by putting affordable products on store shelves, but it also disrupts lives by killing livelihoods as corporations gain access to workers in poorer countries who will work for lower wages (...) Trade has not become as toxic a political issue in Europe as in the United States.”

“Beyond trade, globalization boosts technological change by exposing businesses of all kinds to international competition, forcing them to become ever more efficient, which leads to greater investment in game-changing innovations. Advances in automation and artificial intelligence are remaking the workplace for the benefit of efficiency, making the companies that use them more profitable, but workers who lose their jobs and can’t be retrained for new ones won’t share in the gains (...) As a result, large numbers of U.S. factory jobs have been lost not to Chinese or Mexican factory workers but to robots (...) Broadening the effect, the introduction into the workplace of artificial intelligence is also reducing the number of—and changing the skill sets needed for—a fast-growing number of service sector jobs (...) ‘Globalization,’ says Le Pen, is “manufacturing by slaves for selling to the unemployed.””

- **Cultural anxiety.** “The second way in which globalism creates fear centers on identity. Globalization doesn’t just move factory-built products. It also moves people, feeding public anxiety by shifting the racial, ethnic, linguistic, and religious makeup of communities, sometimes abruptly. In the United States, as in many European countries, there’s an especially strong sense of national identity based on racial, ethnic, and religious affinity. Add the migrant crisis that brought the largest influx of homeless people since World War II, many of them Muslims fleeing violence and oppression in the Middle East and North Africa, and Europeans begin to feel much less secure about the future of their nations (...) Finally, globalism also inspires fear by enabling connectivity. The instantaneous global flow of ideas and information connects more people more quickly than ever before and gives them new opportunities for education, collaboration, and commerce. But it also gives them more to be angry about, new ways to broadcast that anger, and new tools to help them coordinate protest.”
- **“The battle of us vs. them will only become more intense.”** (1) “There is little reason to believe that a decades-long trend toward greater inequality and a greater sense of economic unfairness, particularly in the United States, will be reversed anytime soon.” (2) “Nor should we expect a sudden narrowing of economic strength between the wealthier countries of Northern Europe, where unemployment is relatively low, and the poorer countries of Southern Europe, where unemployment remains stubbornly high. Resentments over bailouts and austerity will create new opportunities for new politicians to exploit in years to come. In addition, the turn toward identity-driven nationalist politics in Eastern Europe will make it difficult for Germany and France to sell the sorts of EU and eurozone reforms that might make European institutions stronger, more resilient, and more accountable.” (3) “The wealthiest companies can continue to use their political clout to push for tax rules that allow them to move money across borders to exploit tax advantages. As Rodrik has written, governments will then depend more heavily for revenue on taxing the wages and consumption of individual citizens. That trend will extend the transfer of wealth and widen inequality further.” (4) “Nor is there good reason to believe there will be fewer immigrants in the future.” (5) “Terrorism is unlikely to subside.” (6) “Cyberspace is another arena in which government will become increasingly less

able to provide basic public protection.” (7) “Another factor that’s likely to exacerbate inequality: next-generation automation (...) The increasing automation of the workplace, advances in machine learning, and the broad introduction into the economy of new forms of artificial intelligence will ensure that jobs of the future will require ever higher levels of education and training. As anyone now paying tuition—for themselves or someone else—knows all too well, the price of higher education in the United States is rising faster than for almost any other service.”

Bremmer, Ian (2018): *Us vs them. The failure of globalism*, Portfolio/Penguin, New York.

31. The misleading view of globalization: The new age of global instability (Chris Harman, 2010)

“This whole process was baptised ‘globalisation’ by the 1990s. It was bracketed together with neoliberalism as representing a whole new phase of capitalism –for enthusiasts a phase very different to any previously. They held not only that the world should be organised according to the free flows of capital, without any intervention by governments (...) We lived, it was said, in the age of multinational (or sometimes transnational) capital, of firms moving production at will to wherever it could be done most cheaply. It was (...) a world of ‘weightless’ production, where computer software and the internet were much more important than ‘old fashioned metal-bashing’ industries, and where the absolute mobility of capital had completely detached it from any dependence on states.”

“As Suzanne de Brunhoff noted: ‘Even though huge financial flows of mobile capital are daily circulating round the globe, a global single market of capital does not exist. There is no single world rate of interest and there are no single world prices for produced goods... Financial assets are denominated in different currencies which are not ‘perfect substitutes’ (...) Not only did the popular globalisation accounts overstate the degree of mobility of capital, they also provided a much distorted view of what that mobility involves. Alan M Rugman pointed out that of the big multinationals ‘Very few are ‘global’ firms, with a ‘global’ strategy, defined as the ability to sell the same products and/or services around the world’ (...) The pattern was not one of capital flowing effortlessly over a homogenous worldwide landscape. It was ‘lumpy,’ concentrated in some countries and regions (...) ‘All that is solid’ did ‘melt into air’ as Marx had put it –but not in the way the crude globalisation theory held. For capital’s old companion, the state, entered into the process at every point.”

“The internationalisation of firms’ operations, far from leading to less dependence on state support, increases it in one very important respect. They need protection for their global interests. A whole range of things become more important to them than in the early post-war decades: trade negotiations for access to new markets; exchange rates between currencies; the allocation of contracts by foreign governments; protection against expropriation of foreign assets; the defence of intellectual property rights; enforcement of foreign debt repayments. There is no world state to undertake such tasks. And so the power of any national state to force others to respect the interests of capitals based within it has become more important, not less (...) The successor to the state capitalism of the mid-20th century has not been some non-state capitalism but rather a system in which capitals rely on “their” state as much as ever , but try to spread out beyond it to form links with capitals tied to other states. In the process, the system as a whole has become more chaotic.”

“The interaction between the great powers is not the peaceful concert of nations dreamt of by certain apostles of neoliberalism and free trade. There are contradictory interests, with military force a weapon of last resort for dealing with them. The greatest source of instability has come from the attempts of the US to permanently cement its position at the front of the global pecking order.”

“The growing role of finance had its impact throughout the global economy. Every upturn in the recession-boom cycle after the early 1980s was accompanied by financial speculation, causing massive rises in the US and British stock markets in the mid-1980s and mid-1990s, the huge upsurge of Japanese share and real estate prices in the late 1980s, the dotcom boom of the late 1990s, and the housing booms in the US and much of Europe in the early and mid-2000s. Along with these went successive waves of takeovers and mergers of giant companies.”

“The first big growth of international finance in the 1960s was a result of the way the growth of international trade and investment and US overseas military expenditure associated with the Vietnam War –led to pools of finance (‘Euromoney’) which had escaped the control of national governments. The next big growth came with the recycling of massively expanded Middle East oil revenues through the US banking system –revenues that were a product of the increased dependence of productive capital on Middle East oil. The restructuring of productive capital took place increasingly (...) across national borders, even if mostly it was regional, not global,

in scope (...) But industry could not restructure in this way without having financial connections across borders. It required international financial networks if it was to repatriate profits or establish subsidiaries elsewhere in the world (...) Capitalism internationally went through nearly four decades in which profitability was substantially lower.”

“Globally this meant there was a growing pool of growth of money capital-money in the hands of productive as well as non-productive capitals-searching for outlets that seemed to promise higher levels of profitability. Hence the pressure on firms to deliver short-term rather than long-term profits. So too the succession of speculative bubbles and the repeated ‘Minsky’ shifts from speculation to Ponzi schemes in which financiers used the money entrusted to them by some investors to pay off other investors and line their own pockets (...) The financial system expanded as a consequence, since it played a key part in collecting together the funds for speculation, and could then use the assets whose value had increased because of speculation as collateral for borrowing more funds. There developed a mass of capital wandering round the world looking for any opportunity where it seemed there might be profits to be made.”

“Capitalism became a global system in the 20th century in a way it had not been before. Not only were there global markets and global finance but capitalist industry and capitalist structures of consumption arose in every region of the globe, although unevenly. As that happened a tendency noted in its embryonic form by only the most far sighted thinkers of the 19th century, including Marx and Engels, developed until by the end of the century it was visible to everyone who cared to look. This was the tendency for the system to undermine the very process of interaction with nature (...) The most dramatic expression of this has been the way the accumulation of certain gases in the atmosphere are raising the global temperature and producing climate change. Capitalist industry and its products always had devastating environmental effects.”

“It is the sort of interaction of the economic, the environmental and the political we should expect to see repeated again and again in the 21st century, producing recurrent, very deep social and political crises that frame the choice between global catastrophe and revolutionary change.”

Harman, Chris (2010): *Zombie capitalism. Global crisis and the relevance of Marx*, Haymarket Books, Chicago, Illinois.

32. Is there a secret for economic success?

“In general, the more that development economists have looked at the questions, the less precise or doctrinaire their advice becomes. But certain basic ideas command wide acceptance. Don’t cut yourself off from the rest of the world. Plan ahead for cities, but don’t force them, and don’t give them more power than they warrant. Try to let your economy do what it is best at, and support it where possible without trying to force it down a predetermined path. Don’t obsess about religious belief, but watch for elites using it to further their own temporal ends. Stop overweening governments from ignoring property rights and the rule of law. Learn from the examples of those who managed to keep oil and diamond money from poisoning their economy and their politics. Call the bluff of small interest groups who say they have the welfare of the whole country at heart. For very poor nations, worry less about trade policy and more about customs procedures. Concentrate on rooting out the forms of bribery that will do the most damage, and worry less about corruption that is moderate and predictable. Be aware when your country is getting stuck on the wrong path and be alert for opportunities to shift it.”

Beattie, Alan (2009): *False economy. A surprising economic history of the world*, Riverhead Books, New York.

33. Do regional trade agreements promote globalization (or economic liberalization)?

“RTAs are shaped by and in turn shape globalization. They are increasing in number, membership diversity, scope, and certainly importance and controversy. Whether RTAs facilitate economic liberalization or economic nationalism in the future and whether they promote a wider balance of societal interests than is currently the case remains to be seen. The interplay of economics and politics will continue to be the center of determining these future RTA, trade, and globalization trends.”

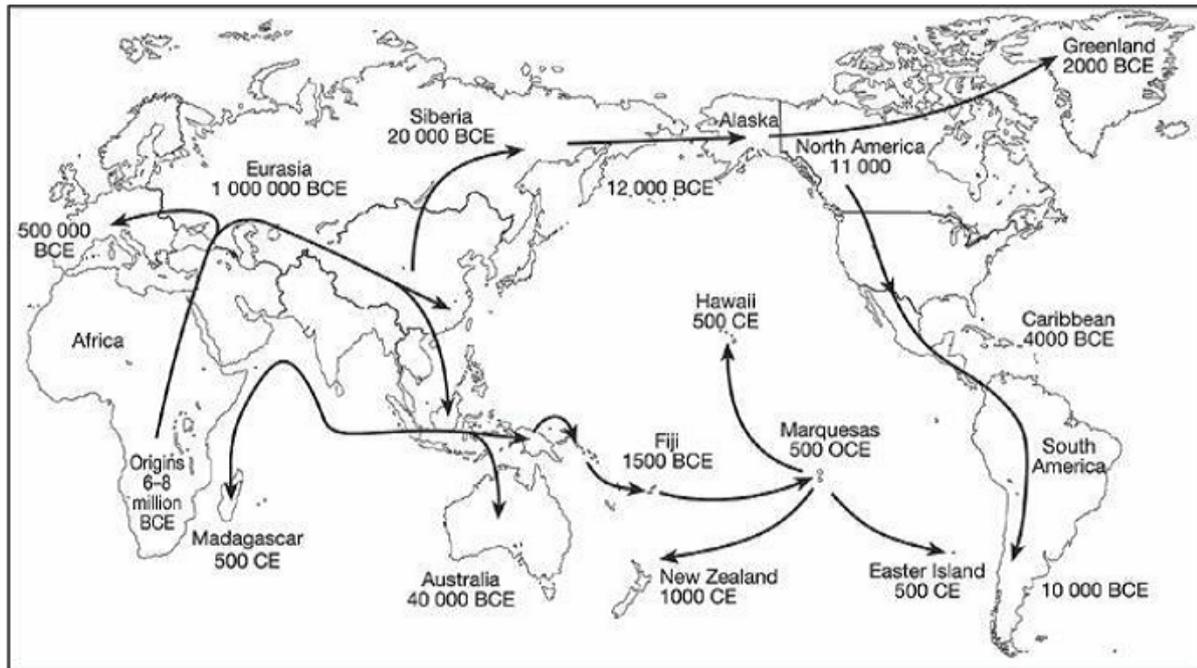
- What is beneficial at some scale (individual, national, regional) need not be so at larger (global) scale. “RTAs created in the name of economic liberalization may be individually rational but are collectively irrational in terms of efficiency.”
- “Economic nationalists, of course, are less interested in what is collectively rational than in other goals (...) For instance, states may seek a degree of economic autonomy at the expense of efficiency, or they may be concerned about their economic performance compared with that of a rival. Economic policymakers’ goals may be to protect employment in a given economic sector that is important to social stability or reelection.”
- “... economic liberals criticize RTAs because they may impede globalization, while globalization critics fear RTAs promote globalization altogether too much, or at least corporate-led consumption driven globalization that they fear harms the environment and fails to alleviate poverty. Globalization critics (...) point out that economic growth isn’t enough for economic development. For instance, a country that moves toward monocrop agriculture for export may be more efficient in its agricultural production but may also have more hunger than it had before export-oriented agriculture. Access to land and urban poverty are more important variables in alleviating hunger than marginal improvements in overall efficiency and are often sacrificed in the rush to increase exports.”
- “While economic globalization is not enough to guarantee economic development, neither is simply turning away from it. No country has successfully developed by shielding itself from the rest of the world. The question for both RTAs and globalization more generally is how to ensure that economic openness leads to development, not just overall economic growth.”

Lynch, David A. (2010): *Trade and globalization. An introduction to regional trade agreements*, Rowman & Littlefield Publishers, Lanham, Maryland

II. Development, convergence and divergence

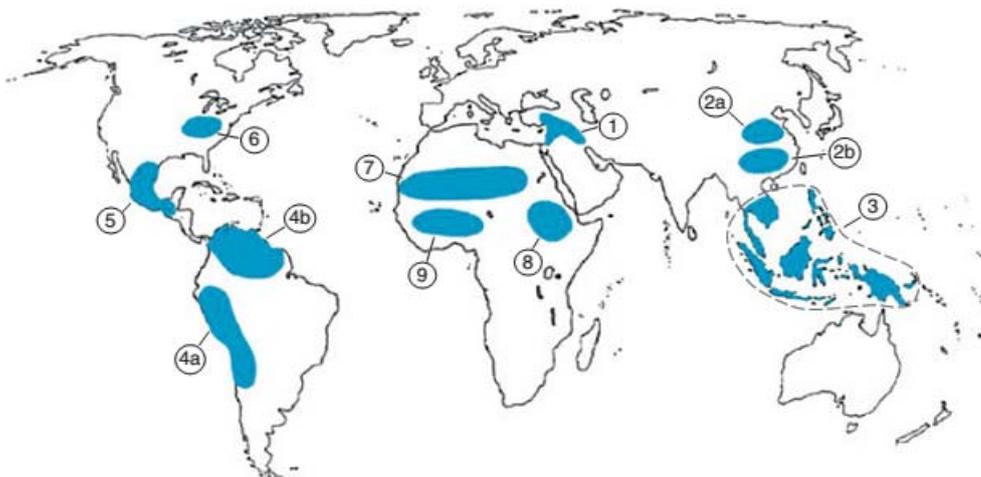
34. Long view of the globalization process (as the intensification of global interdependence)

- **Period 1: territorial conquest of the planet.** The human species expands over the planet. Migration is the driving force for the global conquest of the land. The unique economy was of the hunter-gatherer type.



Early human migrations, Steger (2013, p. 39)

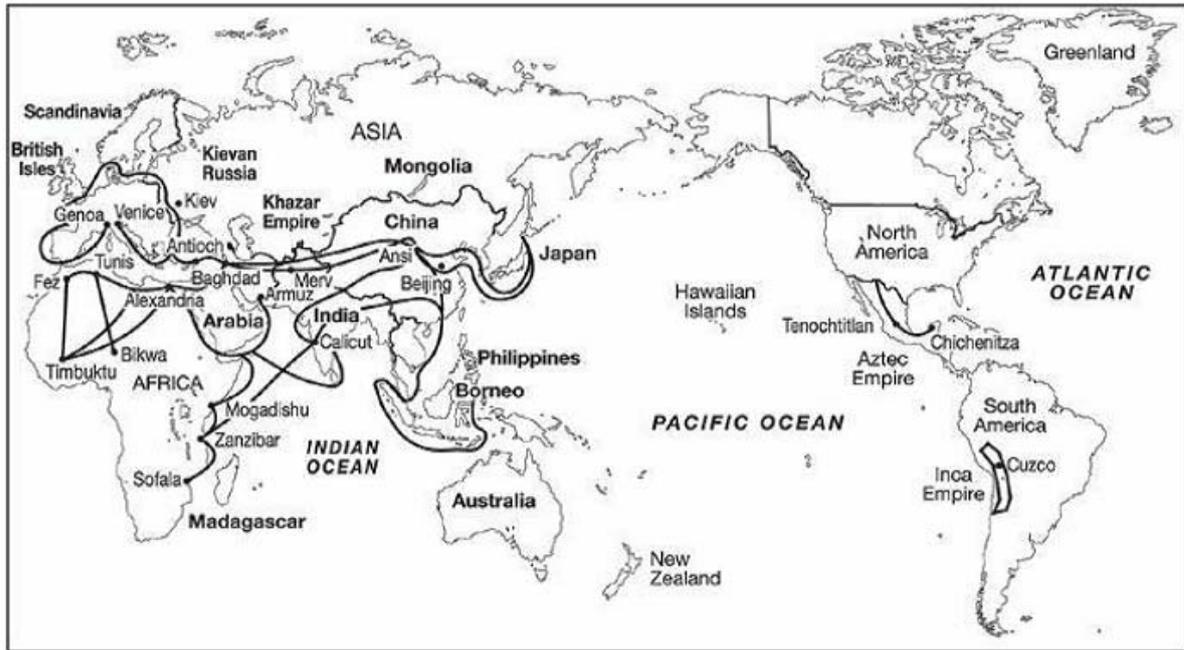
- **Period 2: ancient globalization.** Initiated with the agricultural revolution (which took millennia to unfold). Transformation from food-collecting to food-producing societies. Agrarian civilizations focused on political expansion, not economic development. Slow technological diffusion. Main environmental problem: keep the soil high in nutrients.



Centres of origin of agriculture.
 1 Middle East; 2a northern China; 2b southern China; 3 Southeast Asia; 4a South American highlands; 4b South American lowlands; 5 Central America, 6 arid savannas of northern Africa; 7 eastern North America; 8 highlands of Ethiopia; 9 humid savannas of West Africa (K. Martin; J. Sauerborn (2013): *Agroecology*, Springer, p. 17)

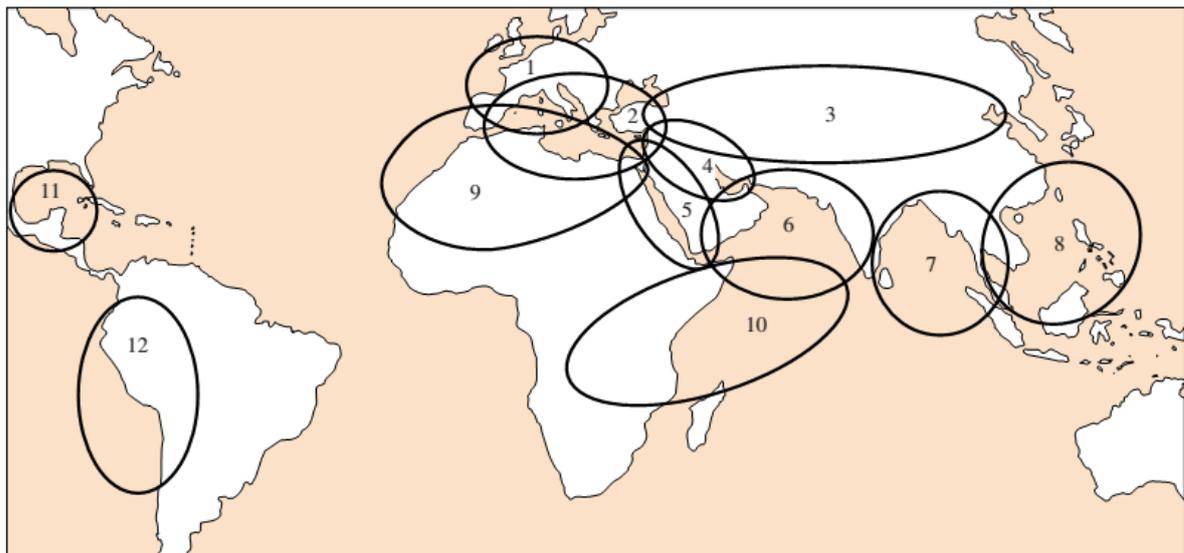
- **Period 3: old globalization.** Starts around 1500, when the Old and New Worlds become connected. It is associated with the conquest of the seas: states reconquer the planet. Food globalization. More global trade networks. Faster technological diffusion. Origin of modern states. Emergence of global hegemony. Emergent capitalism. Global economy recurrently shaken by booms and busts.
- **Period 4: modern globalization.** It is born around 1800 with the Industrial Revolution. Industrialization and representative democracy spread. The expansion of industrialization is measured in centuries rather than millennia. Age of minerals (fossil fuels and mineral resources). Increasing flows of goods and people. Fast technological innovation. Anthropocene: humanity alters the trajectory of the planet. Rise of the West and Great Divergence. Origin of a state-based international political system. Modern states everywhere: political

globalization concluded. Political expansion of the centre against the periphery. Unifying force of science. Explosive population growth.



Major world trade networks, 1000-1450, Steger (2013, p. 44)

- Period 5: hyperglobalization.** Initiated around 1980, it involves the globalization of information: connections revolution (personal computer, internet, mobile phone). Digital expansion. Accelerated technological innovation. Great acceleration: the period after World War II up the present is the period of human history with the most rapid and pervasive changes (economic growth, resource use, waste generation, disturbance of the Earth System). Origin of a fully globalized economic system (based on multinational firms). Labour market: the less globally integrated. Rise of international finance. Production globalized (outsourcing). Platform companies, platform capitalism. Silent revolution: production at zero marginal cost. Rise of the Rest. Monopolies of the centre: technology, finance, resource exploitation, weapons of mass destruction, and media and communication. New capitalism launch in the 1980s (Samir Amin: generalized-monopoly capitalism). Labour weakened: is capital crushing labour?



Regions of the 15th-century world economy, O'Brien and Williams (2016, p. 42)

- Period 6: future globalization?** It could start in a not-too-distant future. Mechanization and automation: the rise of the robots and the end of work? Will artificial intelligence be dangerous? Will humans destabilize the Earth System? Global governance or sovereign national states? Will excessive inequality be tamed? Revolt of the elites or global triumph of democracy? The end of war? Will social pacification be reached? Major social conflicts/tensions (or its sources) eradicated? How sustainable will global economic growth be? Has

globalization an expiration date? Population bomb: overpopulation, population collapse, population under control? Conquest of space or trapped on Earth? ("All civilizations become either spacefaring or extinct," Carl Sagan (1994): *Pale blue dot: A vision of the human future in space*) What is the future of the welfare state? How will energy shortages be solved? Will capitalism survive its sources of instability (finance, resource exhaustion, climate change, pollution, inequalities, depopulation)? Will it reinvent itself?

O'Brien, Robert; Marc Williams (2016): *Global political economy. Evolution and dynamics*, Palgrave, London.

Steger, Manfred (2013): *Globalization. A very short introduction*, Oxford University Press, Oxford, UK.

35. Historical race between Europe and Asia?

Goody (2010) claims that, since the Bronze Age Urban Revolution (that created the culture of cities, 'civilization'), there has been an alternation in the leadership of material and informational development between the western side of the Eurasian continent and the eastern side. History does not seem to support the idea of a permanent advantage: all advantage/dominance/superiority is temporary.

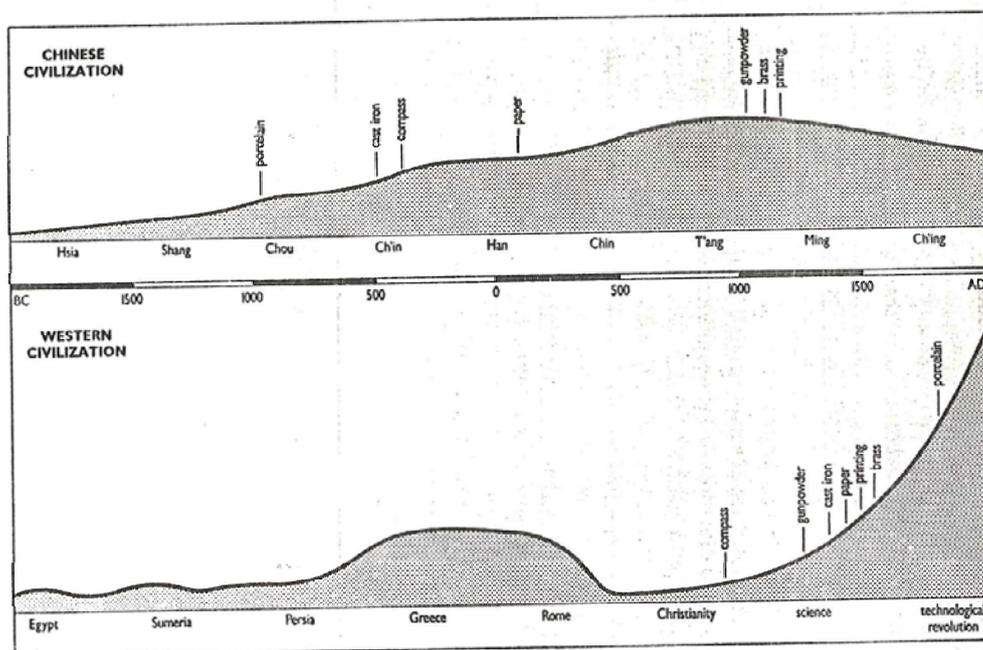
36. The Eurasian miracle

There is a common history of the development of civilization between East and West. Development has not been a uniquely or exclusively European phenomenon. The 'European miracle' (that the Industrial Revolution and the sustained growth in the standard of living occurred in Europe) is actually part of a larger 'Eurasian miracle'. There is no radical discontinuity in world development: the societies and urban cultures of Eurasia experienced a continuous development, to a great extent mediated by commercial, mercantile and manufacturing activity. The invention of writing accelerated cultural innovation towards the establishment of a knowledge society.

Goody, Jack (2010): *The Eurasian miracle*, Polity Press, Cambridge, UK.

37. The Great Divergence

It is an expression that refers to the prosperity gap (more or less apparent after the Industrial Revolution) between 'the West' (western European countries and its offshoots, US, Canada, Australia and New Zealand) and 'the Rest'. The divergence was created by countries in the West entering before the current regime of modern economic growth in which GDP per capita grows continuously to a great extent thanks to continuous



technological advances applied in production processes. One explanation of the gap is that the West followed a capital-intensive path of development, whereas the Rest (specifically, East Asian economies) chose instead a labour-intensive path. Pomeranz (2000) attributes the different choice to mere accident: the fact that the West had access to the New World resources. A parallel interpretation is that the members of the West had the chance to globalize their economies first (first mover advantage).

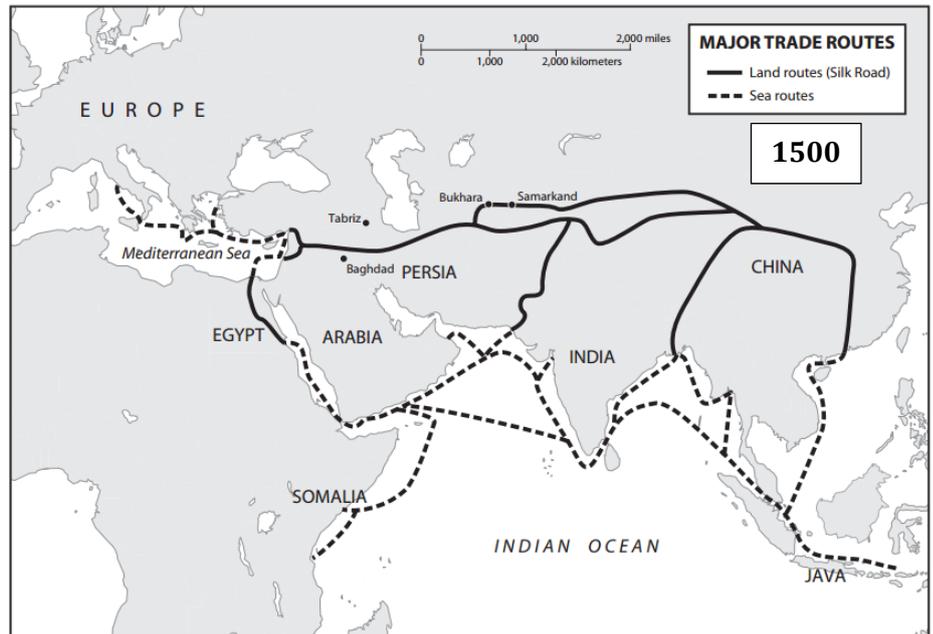
Pomeranz, Kenneth (2000): *The great divergence. China, Europe, and the making of the modern world economy*, Princeton University Press, Princeton, NJ.

38. Explanations for the Great Divergence

General explanations for the Great Divergence (strongly related to the so-called fundamental growth determinants: culture, geography and institutions): (i) access to natural resources (coal); (ii) institutions (those favouring the spread of market activities); (iii) role of the state (promotion of industrialization); (iv) science and technology (cultural and institutional contexts favouring or diffculting their development); (v) the extent of the market for consumer goods (consumer revolution, Industrious Revolution); (vi) de-industrialization of the periphery (mainly during the 19th century).

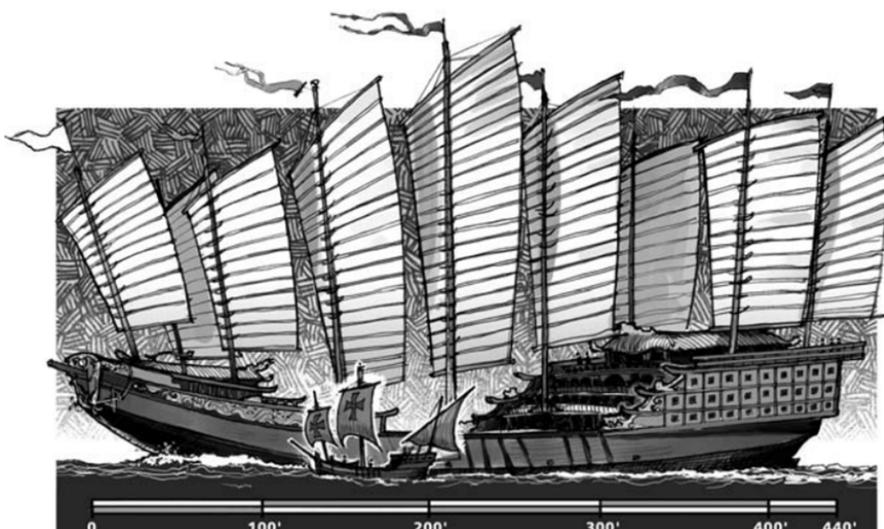
39. Rise of the West

The 'Rise of the West' refers to the economic and political preeminence achieved globally by Western Europe (and British colonies) after (and thanks to) the Industrial Revolution. The 'Great Divergence' is the counterpart of the Rise of the West: while the West entered the regime of modern economic growth (sustained growth in real income), 'the Rest' diverged in relative terms with the West in income levels. Was the 'Rise of the West' (the European transition from underdevelopment to development through the Industrial Revolution that established the European superiority in wealth and power in the nineteenth century) actually a long rise (that started in the European medieval period) or a sudden (and possibly accidental) divergence from the rest of the world?



40. The traditional view of the Rise of the West

Some features of the European society (a uniquely creative, multipolar, internationally open society?) eventually produced the surge in productivity, technological progress and military power. If this view is correct, does it imply that, to become as developed as European/Western societies, the rest of societies must resemble European/Western? Is there an essentially unique way to become developed and prosperous? If it took a long time European societies to become developed, will non-Western societies also need a long time to match the Western levels of material well-being and technological progress?



Columbus's Santa Maria (20 m) vs Admiral Zheng He's (1371-1433, the 'Chinese Columbus') flagship (138.4 m by 56 m or 447 by 183 feet, though it is claimed that rather than 447 it was probably closer to 200-250 feet). Eight expeditions of a rather diplomatic nature were undertaken (1405-1433) to the 'Western Oceans': to impress and build allies, consolidate peace and preserve power at home. The first voyage comprised 312 ships and 27,800 men.

Bennett Peterson, Barbara (1994): "The Ming Voyages of Cheng Ho (Zheng He), 1371-1433", *The Great Circle* 16(1), 43-51.

Church, Sally K. (2005): "Zheng He: An investigation into the plausibility of 450-ft treasure ships", *Monumenta Serica* 53, 1-43.

Finlay, Robert (1991): "The treasure-ships of Zheng He: Chinese maritime imperialism in the age of discovery", *Terrae Incognitae* 23, 1-12.

Goldstone, Jack A. (2009): *Why Europe? The Rise of the West in world history, 1500-1850*, McGraw-Hill, New York.

41. A dissenting view: the California School of global historians

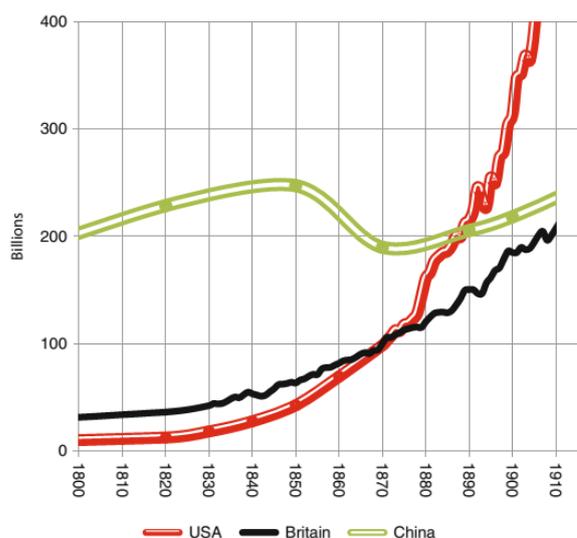
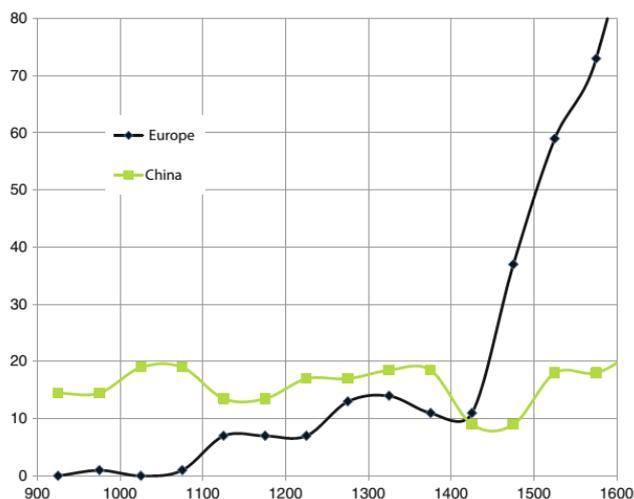
Asian economies enjoyed levels of productivity and material well-being similar to the European levels, probably up to 1750-1800. India and China were manufacturing powers even during the 17th century. The European success/superiority arrived late and quickly. It was the accidental result of a resource windfall (the exploitation of the Americas) combined with the decline of the Asian economies. An implication of this view is that non-Western economies could catch up rapidly. Evidence supporting this conclusion: Japan and South Korea have been able to reach Western levels of prosperity and technology; and, in the last decades, China and India (and other Asian economies) have achieved growth rates far larger than the Western rates.

42. The Needham puzzle (Joseph Needham)

Having China made so many fundamental technological innovations (printing, compass, gun powder, paper), why did modern science not first developed in China?

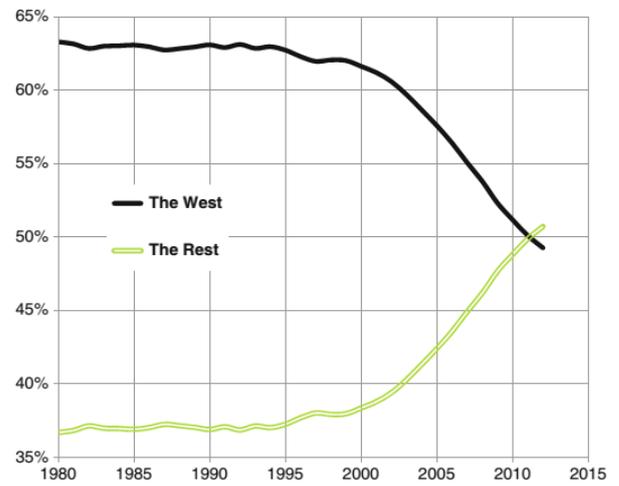
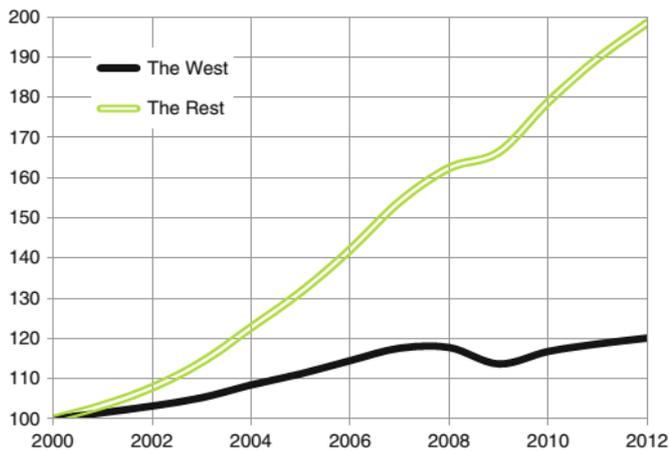
43. Little Divergence

The expression Little Divergence captures an intra-European phenomenon. An older Little Divergence refers to the growing economic divergence (during the 17th and 18th centuries) between the more dynamic and expansionary economies in north-western Europe (Holland, England) and the comparatively more stagnant southern (Mediterranean) economies in Europe (Spain, Italy, France). A newer Little Divergence is associated with the increasing gap in GDP per capita between north-western (Atlantic) Europe and both Mediterranean and East-Central Europe after around 1750. In short, it is an expression that refers to the divergence in economic development within the Western countries during the nineteenth and early twentieth centuries: a richer European north against a poorer European south.

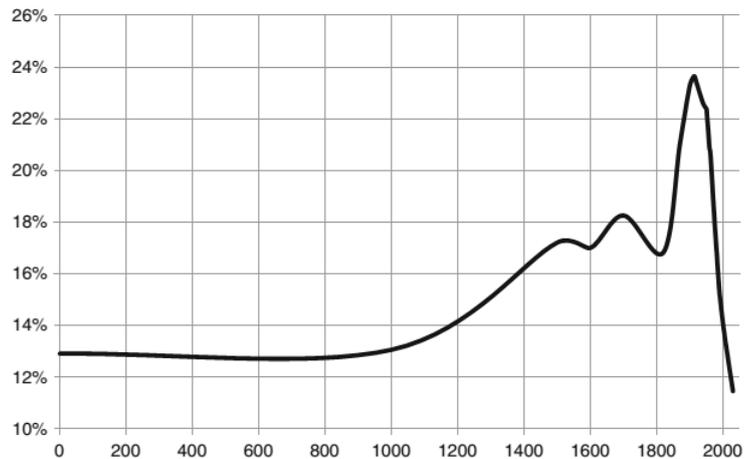


Left: Number of innovations in science and technology, 900–1600, Grinin and Korotayev (2015, p. 46)

Right: GDP dynamics, 1800–1917, Grinin and Korotayev (2015, p. 80)



Left: Relative GDP dynamics between West and Rest, 2000–2012 (2000 = level 100)
 Right: Share of the West and the Rest in global GDP, 1980–2012 · Grinin and Korotayev (2015, p. 91)



Left: Western percent share in the world manufacturing, 1840–2010, Grinin and Korotayev (2015, p. 94)
 Right: Share of the West in the world population, Grinin and Korotayev (2015, p. 94)

44. Explaining the Great and the Little Divergences

An explanation behind both the Great and Little Divergences (Davids, 2013) emphasizes religion as an important factor in technological change, through the impact of religion on: (i) the formation of knowledge and skills; (ii) the circulation of knowledge; and (iii) technical innovation. The Protestant Reformation is seen as an event that promoted the establishment and development of social and political institutions favourable to economic growth (via incentives to accumulate human capital, increase the supply of labour and adopt more responsible and predictable forms of government).

Cappelen, Ådne (2007): “Convergence, divergence and the Kuznets curve”, in Erik S. Reinert; ed. (2004): *Globalization, economic development and inequality. An alternative perspective*, Edward Elgar, Cheltenham, UK, 309-325.

45. A common cause to the Great and the Little Divergences (Jared Rubin, 2016)

“Why shouldn’t the Spanish or Ottomans have been able to turn their territorial and trade advantages into a long-run economic advantage? (...) Why did two states that seemed at least as primed for takeoff as, say, England fall behind while Protestant northwestern Europe surged ahead? (...) Underneath the geopolitical expansion of these empires were inherent economic weaknesses traceable to the institutions that propagated political power. It was no coincidence that neither Spain nor the Ottoman Empire experienced a fundamental institutional change akin to those that occurred in Protestant nations. The mechanisms through which the Spanish and Ottoman propagated rule allowed them to ignore the economic elite, and this in turn had a detrimental effect on their long-run economic fortunes (...) The histories of the Spanish and Ottoman Empires provide a telling counter-

story to the histories of England and the Dutch Republic. In all four histories, the same message holds: *it matters who propagates political rule.*"

"Ironically, the strength of the Spanish monarchs and Ottoman sultans was the long-run undoing of both of their economies. Because these rulers were so strong, they did not have to bring the economic elite to the bargaining table, and they consequently never enacted the types of laws that facilitate long-run economic growth. This was the key similarity between the Spanish and Ottoman Empires that was not present in early modern England or the Dutch Republic: the Spanish monarch and the Ottoman sultan were too legitimate. In other words, there is some optimal middle ground for a ruler's legitimacy: a weak ruler will not have people follow him, and the benefits associated with centralized governance will be lost, while a strong ruler does not have to negotiate with the economic elite in order to propagate rule. Early modern Spain and the Ottoman Empire had the latter problem, while the relatively weak (though not too weak) legitimacy of rulers in England and the Dutch Republic fostered a situation that eventually enabled prosperity."

"In Spain and the Ottoman Empire, a mix of religious authorities, local power brokers, and military elite propagated rule, leaving rulers with little incentive to negotiate with the economic elite. In England and the Dutch Republic, the Reformation provided the death knell to the Church as an agent that could provide religious legitimacy, forcing (in England) the Crown to negotiate with the economic elite or (in the Dutch Republic) propelling the economic elite to a position of political power. The long-run effects of these institutional differences are clear. After the Reformation in England and the Dutch Republic, rulers and parliaments drafted laws and policies conducive to long-run economic success. These included stronger and clearer property rights, new institutions for the provision of public goods, poor relief, and investment in transportation networks. Spanish and Ottoman rulers did not undertake such reforms. Their policies gave their citizens less incentive to invest in productive pursuits, and the bases for sustained economic growth were largely missing."

Rubin, Jared (2016): *Rulers, religion, and riches. Why the West got rich and the Middle East did not*, Cambridge University Press, New York.

46. The puzzle of the Middle East's economic underdevelopment

In the present, the Middle East is considered an economic laggard, a region suffering from a general economic inferiority in comparison with more advanced regions (in terms of life expectancy, energy and resource use, GDP per capita, literacy). Around the year 1000 this was not true: the region was economically advanced. Even around 1750 the inferiority did not appear so evident. The gap between the West and the Middle East was created in the nineteenth century. The twentieth century did not serve to close the gap but to keep it open. In comparison with the West, the Middle East has (at least since 1750) experienced a relative decline: growth has been slower than in the richest countries. Why?

47. Kuran's (2010) explanation of the Middle East's economic underdevelopment

The Middle East fell behind the West because fundamental institutions of a modern economy were adopted late: durable or long-lasting private enterprises, the only ones capable of mobilizing massive amounts of resources for production activities and thereby ensure durable economic transformations. Until too recently firms in the Middle East were too small and short-lived: profit-making enterprises were temporary undertakings and did not outlive their founders. This kind of institution was incapable of mobilizing huge amounts of savings, creating and exploiting new technologies, develop complex organizations, consider long-run planning horizons... Lacking the legal ability to create permanent and bigger private firms (the long divergence in organizational development) explains the lag in living standards and the subordination to western economies (the long divergence in prosperity).

Kuran, Timur (2010): *The Long Divergence. How Islamic law held back the Middle East*, Princeton University Press, Princeton, NJ.

48. The Great Divergence between the West and the Middle East (Jared Rubin, 2016)

"The fundamental difference between Western Europe and the Middle East (...) is that Islamic doctrine is more conducive to legitimizing rule than Christian doctrine is. The reason for this doctrinal difference was the

circumstances under which the religions were born. Christianity was born in the Roman Empire, which had well-functioning legal and political institutions. Moreover, early Christians were in no position to legitimize the Roman emperor. Islam, on the other hand, formed initially alongside the expansion of a political state under Muhammad. The corpus of Islamic law grew further under the empires of the First Four Caliphs and the Umayyads– the largest empires the world had ever seen at the time. A natural consequence of this coevolution (...) was the formation of Islamic doctrine supporting the legitimation of rule by Islam (...) The spread of Islamic political rule helped promote trade by providing greater security for merchants, a common social and religious network, a common currency, a common language, and common financial instruments.”

“... the strength of early Muslim rulers, due in large part to their ability to derive legitimacy from Islam, allowed Muslim-governed states to support trade in a manner unachievable by the more decentralized states of the pre-Islamic Middle East and post-Roman Europe. But this strength ultimately became a weakness. As trade expanded, new laws and policies were required for further expansion (...) Yet, Middle Eastern rulers had little incentive to adopt such laws and policies. Doing so would have undermined the religious elite, who were the primary interpreters of commercial law and were largely responsible for the rulers’ strength in the first place.”

“There was nothing predetermined about this outcome. Indeed, it was hardly unthinkable that Muslim rulers circa 1000 could have reformed Islamic law in a manner that would have benefited the economic elite. This book has provided two historical processes (...) that can account for their failure to do so. The static process consists of the ‘game’ a ruler plays to determine how to best propagate his rule. He considers the costs and benefits of different forms of propagation (...) and chooses some combination of propagating agents that best help him stay in power. These choices have dynamic consequences over the long run, many of which are unforeseeable or occur so far in the future that they are of minimal concern to the ruler in the present. These consequences stem from the fact that propagating agents do not support the ruler for free – they expect some say in laws and policies in return. Their choices can have unintended, path-dependent consequences for future rulers.”

49. Great Convergence?

Is the Great Divergence in standards of living between the West and the Rest that resulted from the Rise of the West being cancelled out by an ongoing Great Convergence (through which the Rest is catching up with the West)? Is the globalization of the world economy the means by which the Great Convergence unfolds? Is then the Great Convergence a necessary continuation of the Great Divergence? Are they the two phases of a Global Modernization process?

50. Mahbubani’s (2013, p. 1) Great Convergence: ‘everything that rises must converge’

Kishore Mahbubani (2013) claims that more change has occurred in the world in the last three years than in the last three centuries. This massive change is creating a new global civilization. The force driving such change is globalization. The problem is that currently the world economy is like a boat without a captain: the institutions of global governance are too weak.

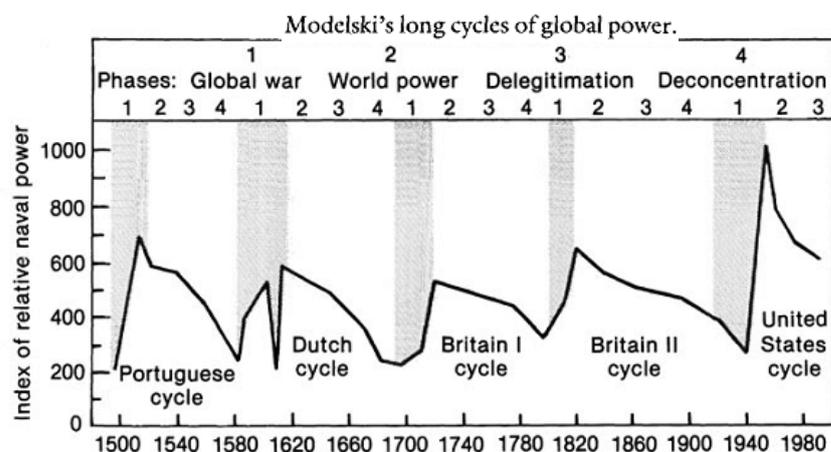
Mahbubani, Kishore (2013): *The great convergence. Asia, the West, and the logic of one world*, PublicAffairs, New York.

51. Gerschenkron’s virtue of backwardness

Gerschenkron’s study of the comparative history of industrialization in Europe led him to question the view that development gaps have to be eliminated by having the backward economies follow the path of the pioneering economies. His argument is that, once an outcome exists (industrialization, development) it is not necessarily the best policy to replicate the original way in which the outcome was achieved. The process involved are different from the one experienced by the now rich economies (speed of industrial growth, new organizational structures, novel industrial techniques and technologies...). He claims that the more backward (the less developed) an economy, the faster its industrialization can/will be, the more it will be based on the capital industry (instead of the consumer goods industry), the larger the scale of plants, the less significant the role of agriculture to help industrial development and the more important the institutions in promoting growth. His analysis emphasizes the advantages of the late-comer.

52. Has Western dominance ended?

After the fall of the Soviet Union it appeared that the Western way (liberal democracy, capitalism and secular nationalism) had no obstacle to become universalized. Kupchan (2012) holds that this is not going to occur, because the Western way is dependent on socio-economic conditions unique to Western countries. He also contends that no other political model or centre is going to displace it. His prediction is that the world will be multipolar (without a clear hegemon) and politically diverse, consisting of major powers with different political conceptions.



53. The (relative) decline of the West

The rise of India and China signals the end of Western dominance, heralded in the recent past by the rise of Japan and the subsequent success of the Four Dragons (Singapore, Hong Kong, Taiwan, and South Korea) and consolidated by the most recent wave of industrializing Asian economies (the Four Tigers: Thailand, Philippines, Indonesia and Malaysia). Globalization is displacing the economic and political focus from the West to the East: Asia's rise is the West's descent. Indicators of this descent are the increasing unemployment and the growing public debt in Europe and, in the US, trade deficits, government debt and consumer debt levels together with bigger risks of an unstable dollar.

54. A global ratchet effect

There are periods of growth of about 300 years, ended by either external or internal shocks, followed by collapse. The civilizations that lead a growth cycle cannot raise the standard of living permanently, but humanity benefits from a ratchet effect: the next growth cycle starts at a higher level (Graeme Snooks, 1993).

55. Parallel historical phenomena: long waves of economic activity and rivalry for economic leadership (Manfred Neumann, 1997)

Growing wealth generates expectations of greater wealth – when the marginal profits of accumulation start to decline, distribution problems become more pressing – when economic policy shifts from wealth creation to wealth distribution the potential for growth creation is undermined and the distribution pressures reinforced.

56. The Buddenbrook syndrome (after Thomas Mann's novel)

The grandfather makes successful the firm founded by this father. The grandfather's son consolidates the business. The grandson fails to maintain success. Inherited wealth changes preferences from capital accumulation to present consumption: the present is perceived as more valuable than the future. Those accustomed to the enjoyment of wealth spend more time and effort in consuming (reducing wealth) than in investing (increasing it).

57. The international Buddenbrook syndrome (Manfred Neumann)

“The economic rise of a country and the achievement of leadership depend on time preference being comparatively low [= savings comparatively high] and the burden of military expenditures being light because of population size (...) Conversely, the decline of once-leading nations can, in all cases, be attributed to a rising rate

of time preference (...) Innovative activity diminishes and the ability to cope with the challenges of foreign competition dwindles.”

58. Versions of the hypothesis of convergence of GDP per capita

- Absolute convergence (absolute beta-convergence). Regardless of their initial conditions, economies converge in the long run. To test this assumption it must be verified (i) that poorer grow faster than richer countries and (ii) that GDP per capita growth is negatively correlated to the initial level of GDP per capita (the poorer a country at the start of the period under consideration, the faster it grows during that period).
- Conditional convergence. Economies converge in the long run regardless of their initial conditions if they must possess similar structural characteristics. Conditional convergence does not imply absolute convergence.
- Club convergence. Economies with similar structural characteristics converge in the long run if they enjoy similar initial conditions. Club convergence implies neither absolute nor conditional convergence.

59. Does globalization yield convergence?

The deterministic view of the globalization process is in line with the presumption of historical convergence. The idea is that technological progress forces social changes, that those changes are inevitable and, therefore, that (regardless of history, cultural particularities, national ideologies and practices) societies will become more alike in their basic organization and convergence also in standards of living. The only difference is the speed at which societies reach the common destination.

60. Institutional life cycle (Avner Greif)

Institutions created to sustain cooperation in the end generate the conditions leading to their own demise. Example: Genoa was a thriving commercial center in the 11th century thanks to the cooperation between the ruling commercial clans; with success, the reward from controlling the city overwhelmed the gains from continued cooperation. With the disappearance of the foreign common military threat (the

61. The finance curse (Nicholas Shaxson, 2018)

“The concept of the finance curse is simple: it’s the idea that once a financial sector grows above an optimal size and beyond its useful roles, it begins to harm the country that hosts it. Finance turns away from its traditional role serving society and creating wealth, and towards often more profitable activities to extract wealth from other parts of the economy. It also becomes politically powerful, shaping laws and rules and even society to suit it. The results include lower economic growth, steeper inequality, inefficient markets, damage to public services, worse corruption, the hollowing-out of alternative economic sectors, and widespread damage to democracy and to society.”

Shaxson, Nicholas (2018): *The finance curse. How global finance is making us all poorer*, The Bodley Head, London.

62. The institutions curse (V. Menaldo, 2016)

“... overreliance on natural resources is simply one symptom of a deeper, underlying disease that afflicts developing countries. This book labels that disorder the institutions curse. Other symptoms include fiscal monopolies that represent hyper-regressive forms of taxation, urban bias that ruins farmers, crony capitalism that erodes consumer surplus, and politicized finance that rations already scarce credit.

Countries cursed by their institutions fail to provide the type of political, legal, and infrastructural ecosystem that fosters broad-based economic development. Most investors outside of extractive industries tend to stay away. Governments therefore lack a revenue base that can be taxed at low cost (...) The government’s inability to credibly commit to repaying its debts, exacerbated by a genuine lack of economic growth, domestic revenues, and foreign currency, heightens political risk.

(...) Weak states cursed by their institutions may erect fiscal monopolies on inelastic goods and turn to financial repression. Or they may create marketing boards that siphon money away from the countryside by paying farmers below market prices for the food they produce and then re-exporting it at a substantial profit. They may

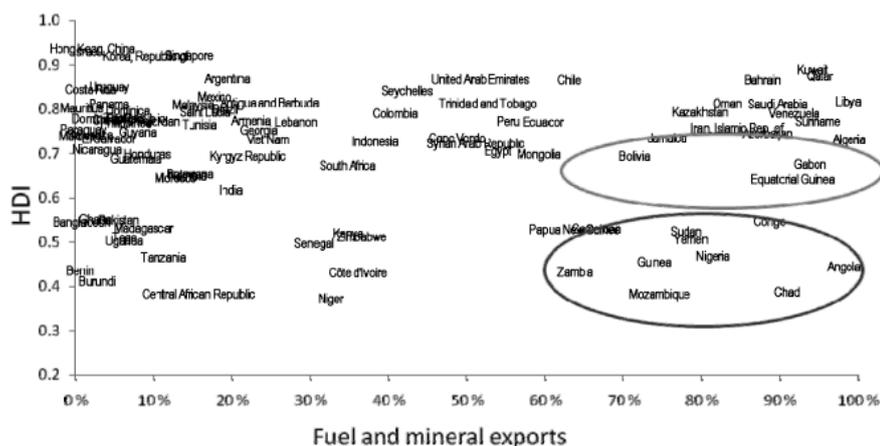
also indulge in industrialization via crony capitalism and inflationary taxation. Finally, they may erect natural resource sectors from scratch since, unlike their counterparts in industries centered on intangible goods and services, such as intellectual property, foreign investors operating in extractive industries do not really fear political risk. They are too shrewd, powerful, and wealthy to be stopped from striking it rich in the developing world's mines and oil basins."

Menaldo, V. (2016): *The institutions curse: Natural resources, politics, and development*, Cambridge University Press.

63. The resource curse thesis (a paradox of poverty from plenty)

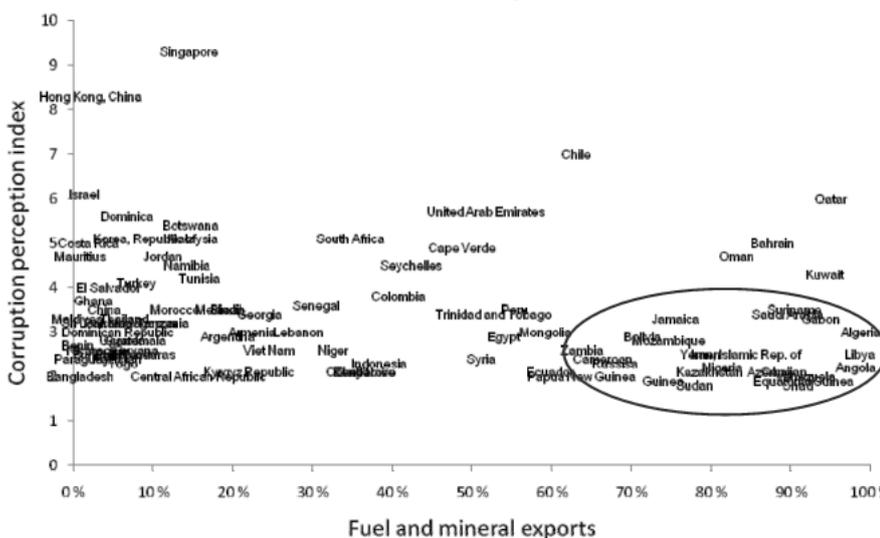
The resource curse thesis holds that economies abundantly endowed with internationally valued resources (oil, gas, diamonds, copper...) tend to be poorer, have more corrupt leaders and be more likely to suffer from war or conflict. Resource-led growth may prove beneficial in the short run (revenue is easily obtained by exporting resources and foreign capital is attracted) but, according to the thesis, the long run effects tend to be negative: economic growth slows down; poverty, inequality and unemployment levels remain high; economic diversification is averted; social welfare programmes cannot be sustained...

"The resource curse view postulates that natural resource exports—and especially oil—constitute an external, unearned, and 'easily capturable' source of rents. This severs the fiscal link between rulers and the ruled and renders the former unaccountable to the latter. Once rulers are freed from taxing their citizens, they are freed from having to solicit their consent or input. Natural resource revenues therefore bolster the power of executives and the bureaucracy and create countless opportunities for rent-seeking and corruption. Paradoxically, although these rents may prolong the tenure of tyrants, they might also catalyze civil wars in a bid to capture this valuable prize." (V. Menaldo, 2016, p. 2)



Shaxson, Nicholas (2007): "Oil, corruption and the resource curse", *International Affairs* 83(6), 1123-1140.

Gøril and Santiso (2011, Fig. 1.3): a group of countries with high mineral and fuel exports have very low scores of the human development index.



Gøril and Santiso (2011, Fig. 1.4): a group of countries with high mineral and fuel exports have very high scores of the corruption perception index (higher index, less perception)

Havro, Gøril; Javier Santiso (2011): "Benefiting the resource rich: How can international development policy help tame the resource curse?," *IDS Working Paper 355*, Institute of Development Studies at the University of Sussex.

64. Maladaptation (maladaptive beliefs and practices)

"All societies are sick, but some are sicker than others (...) Even populations that appear to be well-adapted to their environments maintain some beliefs or practices that unnecessarily imperil their well-being or, in some

instances, their survival. Populations the world over have not been well served by some of their beliefs such as, for example, those concerning witchcraft, the need for revenge, or male supremacy, and many of their traditional practices involving nutrition, health care, and the treatment of children have been harmful as well. Slavery, infanticide, human sacrifice, torture, female genital mutilation, rape, homicide, feuding, suicide, and environmental pollution have sometimes been needlessly harmful to some or all members of a society and under some circumstances they can threaten social survival.”

“Some populations have failed to survive or have lost their culture, language, or social institutions because they were not able to cope with the demands that their environments made on them. This failure to thrive is the most calamitous form of maladaptation, but it is not the only one. A few people in all societies, and many people in others, feel alienated, become depressed, or attempt suicide. Others withdraw from social life or emigrate, and it is not uncommon for people to protest or rebel (...) Beliefs or practices that leave a population seriously discontented or rebellious are, under most circumstances, maladaptive because they threaten the survival of that sociocultural system and endanger the physical and emotional wellbeing of the people in it.”

“Much of what we have learned about human history and human nature suggests a picture of human accomplishment, not discord, failure, or pathology. Throughout the world, people have developed effective techniques of hunting, gathering, herding, and gardening, domesticated plants and animals, built houses, developed trade, established meaningful religions, and learned to govern themselves. They have also created moving forms of music and dance and dazzling works of art.”

“Counterintuitive though it may seem after an exposure to this compelling record of human ingenuity, it must nevertheless be acknowledged that populations have not always gotten things right. Inefficiency, folly, venality, cruelty, and misery were and are also a part of human history. Human suffering is one result (...) Incredible folly followed by incredible heroism is not a rare occurrence in human history.”

“Some (...) believe that the prime mover of evolution has not been competition among species but environmental change that creates opportunities for some species more than others to proliferate (...) These two evolutionary phenomena are sure to continue into the future, when the already great interconnectedness of peoples and their societies will no doubt increase still further (...) Yet, paradoxically, if recent experience is any guide, neither these developments nor the increased power of regional or worldwide forms of governance will put an end to ethnic and religious factionalism, xenophobia, and strife. Instead, one form of irredentism or another can be expected to flourish virtually everywhere on earth. These ethnic and religious revivalisms, these passionate strivings for lost autonomy and misplaced meaning, will likely bring about ever more intense valorization of traditional beliefs, rituals, and customs.”

Egerton, Robert B. (1992): *Sick societies: Challenging the myth of primitive harmony*, The Free Press, New York.

65. Two roads to modernity (John Micklethwait and Adrian Wooldridge, 2009)

“Ever since the Enlightenment there has been a schism in Western thought over the relationship between religion and modernity. Europeans, on the whole, have assumed that modernity would marginalize religion; Americans, in the main, have assumed that the two things can thrive together.

This schism goes back to the modern world’s two founding revolutions. The French and American Revolutions were both the offspring of the Enlightenment, but with very different views of the role that religion should play in reason’s glorious republic. In France the *révolutionnaires* despised religion as a tool of the *ancien régime*. By contrast, America’s Founding Fathers took a more benign view of religion. They divided church from state not least to protect the former from the latter (...)

It now seems that it is the American model that is spreading around the world: religion and modernity are going hand in hand, not just in China but throughout much of Asia, Africa, Arabia and Latin America. It is not just that religion is thriving in many modernizing countries; it is also that religion is succeeding in harnessing the tools of modernity to propagate its message. The very things that were supposed to destroy religion—democracy and markets, technology and reason—are combining to make it stronger.”

Micklethwait, John; Adrian Wooldridge (2009): *God is back. How the global revival of faith is changing the world*, Penguin Press, New York.

66. Mineral wealth may be a curse

“... the dominance of oil and gas in the Russian economy has helped to weaken democracy in that country, and seems likely to keep things that way. And it is no coincidence that the four longest-serving rulers in Africa, all autocrats, are in oil zones. Their governments do little more than keep themselves in power, being frequently embroiled in armed conflict, and certainly deliver very little to their citizens.”

“Minerals do not just help prolong civil wars, they also attract unwelcome attention from outside. One of the misfortunes of the beleaguered Democratic Republic of Congo (...) is to have deposits of coltan, a mineral used in the manufacture of mobile phones. It also has diamonds, copper, and gold. Several countries, including Uganda, were widely reported as having sent troops over the border to plunder the resources during the DRC’s civil war between 1997 and 2003 (...) Another useful, and hence disastrous, aspect of minerals is that governments with them find it easier to borrow (...) Many developing countries have built up spectacular debt burdens from borrowing recklessly from reckless lenders, but it is hard to top the oil producers. By the time Saddam Hussein’s regime fell, in 2003, Iraq had accumulated, and defaulted on, debt somewhere between two and four times the size of the entire economy, estimated to equal around \$6,000 for each Iraqi.”

“The peculiarity of Botswana has attracted a lot of attention from political scientists and economists, who wonder why it is such a success, and why its success is such an anomaly (...) Its government made a whole string of good decisions where other countries made bad ones. Sound political institutions, including the rule of law, if not multiparty democracy, managed to develop alongside the exploitation of diamond wealth (rather than existing before it). Seretse Khama, Botswana’s first president, and his associates made a series of textbook moves. They created a national fund for the diamond wealth, thus avoiding the ethnic divisions that would have followed had tribes been allowed to appropriate the proceeds for themselves. They mined the diamonds slowly, in order to match the capacity of the country to spend the proceeds wisely. (De Beers actually wanted to dig them out faster.) They chose projects for the fund in strict order of what economic return they were likely to produce (...) If every African country with a mineral resource exploited it as well as has Botswana, the continent would be vastly better off.”

“Two problems arise in trying to replicate Botswana’s success. One, most governments simply refuse to bind themselves to the mast. Two, particularly in a continent like Africa with recent memories of domination by colonial powers, it is close to impossible for an outsider to come in and force them to do so. To know what the right policies are does not mean it is straightforward to ensure they are implemented.”

Beattie, Alan (2009): *False economy. A surprising economic history of the world*, Riverhead Books, New York.

67. The role of the state in the rise of the West

“For a period of more than a thousand years after the fall of the Roman Empire, East Asia was probably the most advanced part of the world, with a larger population, more intensive agriculture, larger and better organized cities and stronger states and empires. This changed at some stage in the early modern period, and during the last 200 years, Europe and the USA have dominated the world in a way that has never occurred before (...) The organization and technological innovations in the military field were clearly results of the competition between the European states. The great scientific discoveries from the sixteenth century onwards have been explained in different ways but at least from the time when they had practical applications, the importance of the state must have been great (...) Thus, despite the many deficiencies of the European state of the Old Regime, it seems to have been based more on support from at least a portion of its subjects than most kingdoms and empires in other parts of the world, which in turn forms part of the explanation for later Western dominance.”

Bagge, Sverre Håkon (2019): *State formation in Europe, 843-1789. A divided world*, Routledge, London and New York.

68. Development traps

The existence of development traps is denied by the right: good policies allow any country to escape poverty. The left consider these traps a by-product of global capitalism. Collier (2007) identifies four such traps: the conflict

trap (civil war and coups), the natural resources trap, the trap of being landlocked with bad neighbors, and the trap of bad governance in a small country. No trap is inescapable but globalization has made it more difficult to use the global market to escape from them: to take advantage of globalization, an economy should be sufficiently developed (“strong”) and the problem of the economies trapped is that they are insufficiently developed (“weak”). There is then a vicious circle: a country is underdeveloped by some trap because it cannot join properly the globalization process, and it cannot join the process because of the country is underdeveloped. In 2006, according to Collier (2007), there were 58 trapped countries, with around 980 million people living there. The typical feature of these countries is being small.

Collier, Paul (2007): *The bottom billion. Why the poorest countries are failing and what can be done about it*, Oxford University Press, New York.

Reinert, Erik S. (2011): “Review of *The bottom billion* by Paul Collier”, *Journal of Global History* 6(1), 156-158.

69. Why is not all the world developed?

Easterlin (1981) views the spread of modern economic growth as depending on the diffusion of knowledge of new production techniques, whose acquisition and application of this knowledge has depended on the extent to which the population has acquired the traits and motivations that formal schooling provides. In turn, political conditions and ideological influences seem to have determined in the past the implementation of modern education systems. Easterlin (1988) attributes the insufficient diffusion of technology to the lack of appropriate institutions (social capabilities).

- **Will all the world become developed?** “This, then, is the future to which the epoch of modern economic growth is leading us: a world in which ever-growing abundance is always outpaced by material aspirations, a world of increasing cultural uniformity. (...) The proximate roots of the epoch of modern economic growth lie in the growth of science and diffusion of modern education”.

70. The Easterlin (happiness-income) paradox

The paradox is that empirical studies indicate that happiness (subjective well-being) increases with income at a point in time but, over time, this relationship disappears: the average level of happiness is unrelated to economic development. Easterlin’s (1988) explanation is that happiness is positively related to one’s income but negatively related to the income of the rest: you feel better off if your income rises when, for the rest, income remains constant; and you feel worse off if it is your income that remains constant while that of the rest goes up.

Easterlin, Richard A. (1981): “Why isn’t the whole world developed?”, *Journal of Economic History* 41(1), 1-19.

Easterlin, Richard A. (1988): *Growth triumphant. The twenty-first century in historical perspective*, The University of Michigan Press, Michigan, IL.

Stevenson, Betsey; Justin Wolfers (2008): “Economic growth and subjective well-being: Reassessing the Easterlin paradox”, *Brookings Papers on Economic Activity* 2008, 1-87.

71. The paradox of prosperity (Todd G. Buchholz, 2016)

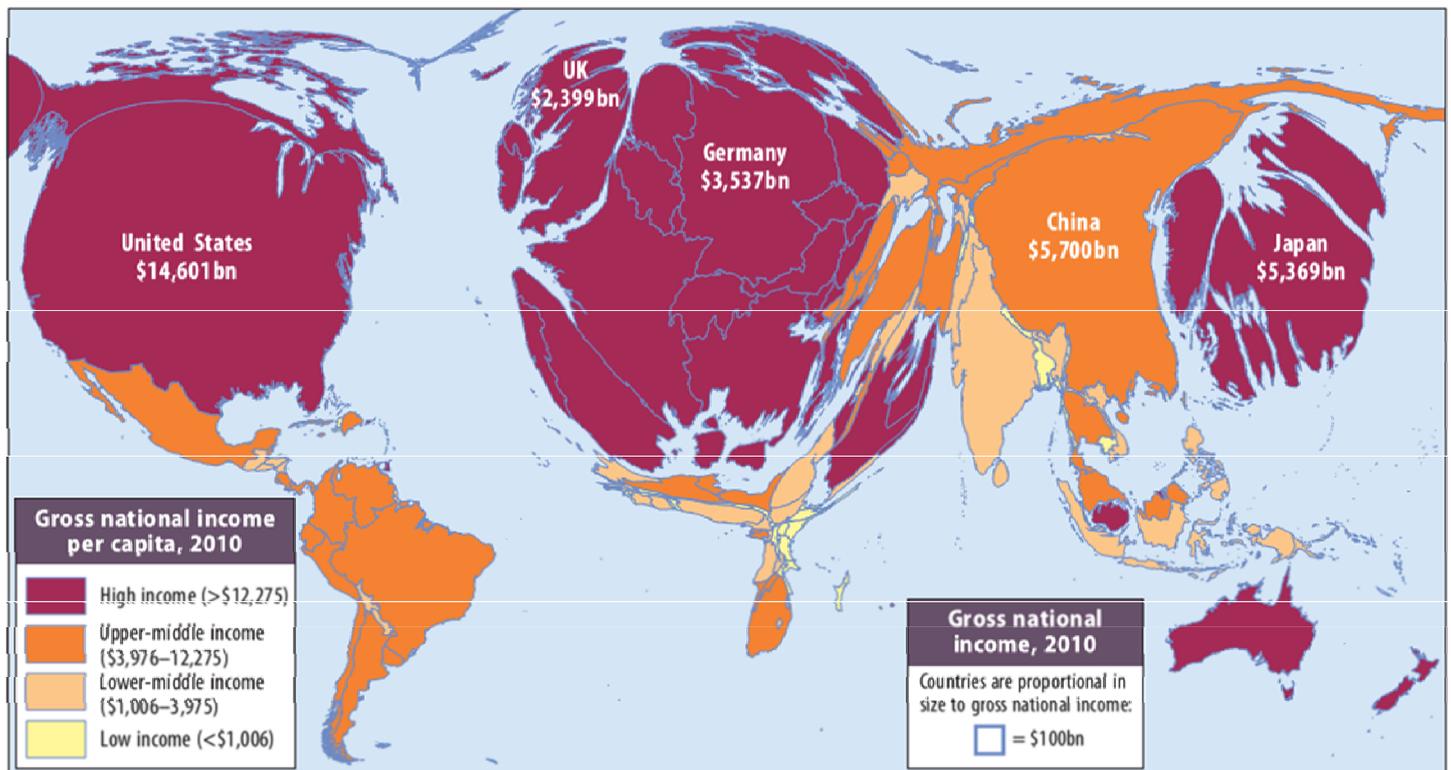
Buchholz suggests the following ‘paradox of prosperity’: “It is a common and dangerous mistake to think that societies are less vulnerable when they are relatively prosperous (...) even relatively prosperous societies have a tendency to come apart.” He identifies five “potent forces that can shatter even a rich nation: (1) falling birthrates, (2) globalized trade, (3) rising debt loads, (4) eroding work ethics, and (5) the challenge of patriotism in a multicultural country.” As regards (1):

“As countries grow rich, their birthrates fall and the average age of the population climbs. In order to keep up a lofty standard of living, citizens need workers to serve them, whether as neurosurgeons in hospitals, waiters in restaurants, or manicurists in nail salons. This requires an influx of new workers, which means opening up the gates to more immigrants. Unless a country has strong cultural and civic institutions, new immigrants can splinter the dominant culture. Thus countries face either (1) declining relative wealth or (2) fraying cultural fabric. Prosperous nations cannot enjoy their prosperity without

becoming multicultural. But if they become multicultural, they struggle to pursue unified, national goals.”

Buchholz derives the following general rule from his research: the fertility rate falls to 2.5 children per women when GDP grows above 2.5 percent for two generations (some 50 years). A third generation of growth and the rate falls below 2.1.

Buchholz, Todd G. (2016): *The price of prosperity. Why rich nations fail and how to renew them*, Harper, New York.



Dicken, Peter (2015): *Global shift: Mapping the changing contours of the world economy*

72. The developmental state

“The twentieth-century developmental state pursued an industrialization-led approach to economic growth. Indeed, economic growth in the nineteenth and twentieth centuries was marked by the shift from predominantly agricultural economies to manufacturing-based economies (...) Thus a class compromise orchestrated and sustained by democratically elected governments became pervasive in advanced capitalist economies in the period after the Second World War. Powerful states could justifiably promote industrial development in the pursuit of a national economic growth that benefited the majority of citizens. Theorization of the state and development has thus far been predicated on a machine production-based, manufacturing-driven economy.”

“However, by the late twentieth century, manufacturing was shrinking and incapable of sustaining a working class sizable and prosperous enough to create a general increase in well-being (...). Deindustrialization is not just a historical tendency in the Global North (...) The Global South has gone down the same path of deindustrialization. China and India have both seen jobs in manufacturing falling (...) Growth has become increasingly ‘bit driven’. That is, value-added activities consist of new ways of arranging bits of information in formulas, software code and images or of delivering intangible, often poorly paid services rather than the physical manipulation of materials to make tangible goods (...) This restructuring of the world economy requires a new kind of state action and embeddedness. In his chapter in this book, Evans makes a theoretical case for the twenty-first-century developmental state to retain the bureaucratic capacity and embeddedness that was the hallmark of the twentieth century but to go beyond the latter by assuming greater responsibilities. His premise is that growth in the twenty-first-century bit-driven knowledge economy depends on the expansion of human capabilities—ideas, education and health.”

“The tripartite alliance of the classic developmental state—between the national state, domestic capital and international capital—is no longer the primary relationship that states have to nurture (...) Social developmentalism requires webs of relations between a wide range of social classes and the state at various levels. While intrastate and state–civil society relations are vital for twenty-first-century developmental states, the global economy also poses serious challenges for states (...) Developmental states often face hard choices between protecting policy autonomy, maintaining democratic accountability and ensuring national responsiveness to local pressures on the one hand and integrating with the global economy and the concomitant loss of state decision making in the economy on the other.”

Williams, Michelle (2014): “Rethinking the developmental state in the twenty-first century”, in Williams, Michelle; eds. (2014): *The end of the developmental state?*, Routledge, New York.

73. How to achieve rapid economic development

“... there are three critical interventions that governments can use to speed up economic development. Where these interventions have been employed most effectively in east Asia –in Japan, South Korea, Taiwan and now China– they have produced the quickest progressions from poverty to wealth that the world has seen. When, by contrast, other east Asian states have set off with the same ambitions and equal or better endowments, but have not followed the same policies, they have achieved fast growth for a period but the progress has proved to be unsustainable.”

“The first intervention –and the most overlooked– is to maximise output from agriculture, which employs the vast majority of people in poor countries. Successful east Asian states have shown that the way to do this is to restructure agriculture as highly labour-intensive household farming –a slightly larger-scale form of gardening. This makes use of all available labour in a poor economy and pushes up yields and output to the highest possible levels, albeit on the basis of tiny gains per person employed. The overall result is an initial productive surplus that primes demand for goods and services.

The second intervention –in many respects, a second ‘stage’– is to direct investment and entrepreneurs towards manufacturing. This is because manufacturing industry makes the most effective use of the limited productive skills of the workforce of a developing economy, as workers begin to migrate out of agriculture. Relatively unskilled labourers create value in factories by working with machines that can be easily purchased on the world market. In addition, in east Asia successful governments pioneered new ways to promote accelerated technological upgrading in manufacturing through subsidies that were conditioned on export performance. This combination of subsidy and what I call ‘export discipline’ took the pace of industrialisation to a level never before seen.

Finally, interventions in the financial sector to focus capital on intensive, small-scale agriculture and on manufacturing development provide the third key to accelerated economic transformation. The state’s role is to keep money targeted at a development strategy that produces the fastest possible technological learning, and hence the promise of high future profits, rather than on short-term returns and individual consumption. This tends to pit the state against many businessmen, and also against consumers, who have shorter strategic horizons.”

“What the Asian crisis clarified was that a consistent set of government policy interventions had indeed made the difference between long-run success and failure in economic development in east Asia. In Japan, Korea, Taiwan and China, governments radically restructured agriculture after the Second World War, focused their modernisation efforts on manufacturing, and made their financial systems slaves to these two objectives. They thereby changed the structures of their economies in a manner that made it all but impossible to return to an earlier stage of development. In the south-east Asian states [Malaysia, Indonesia, Thailand] –despite their long periods of impressive growth– governments did not fundamentally reorganise agriculture, did not create globally competitive manufacturing firms, and did accept bad advice from already rich countries to open up financial sectors at an early stage. The Japanese economist Yoshihara Kunio had warned in the 1980s that south-east Asian states risked becoming ‘technology-less’ developing nations. This is exactly what happened, and they slid backwards when their investment funds dried up. In short, different policy choices created – and will probably further widen – a developmental gulf in the Asian region.”

“In the boom years of the 1980s and 1990s, the failure to generate indigenous manufacturing and technological capacity was hidden by the arrival of high levels of foreign direct investment, much of it concentrated on

processing operations within quite advanced manufacturing sectors. With the onset of the Asian crisis, however, the industrial difference between south-east and north-east Asia became starkly apparent. South-east Asia has almost no popularly recognisable, globally competitive manufacturing companies.”

“In south-east Asia, countries were blessed with high levels of savings in their banking systems just as in north-east Asia. But governments directed the hefty investments this made possible to the wrong ends – to lower-yield, large-scale agriculture, and to companies that were either not focused on manufacturing or only on manufacturing for protected domestic markets. South-east Asian states then made their developmental prospects even worse by following rich country advice to deregulate banking, to open up other financial markets, and to lift capital controls.”

“Premature financial deregulation in south-east Asia led to a proliferation of family-business-controlled banks which did nothing to support exportable manufacturing and which indulged in vast amounts of illegal related-party lending. It was a story of banks being captured by narrow, private sector interests whose aims were almost completely unaligned with those of national economic development. The process was one which has also been observed in Latin America and, more recently, in Russia.”

Studwell, Joe (2013): *How Asia works. Success and failure in the world's most dynamic region*, Grove Press, New York.

74. The world energy dilemma (Louis W. Powers, 2012)

“The world is in an energy dilemma. On the one hand, new technology is alive and well, adding billions of barrels of oil and trillions of cubic feet of natural gas worldwide. On the other hand, world crude supply, for a variety of reasons, has not kept up with increasing world oil demand.”

“Although there now seems to be an adequate supply of oil, the balance could be upset on a minute’s notice by an accident, a single terrorist bomb, or continued uprisings in the Middle East. Our margin of error is small. I encourage all people around the world to take steps to conserve energy, particularly those of us in the US. Energy is precious, and we need to develop it in a safe, cost-effective manner and we need to conserve it at the same time. The energy problem of our time is not just a US problem. It is a world problem.”

Powers, Louis W. (2012): *The world energy dilemma*, PennWell, Tulsa, Oklahoma.

75. South Korea’s success

In the 1950s, Korea was one of the poorest countries in the world. Now ranks among the richest (GDP per capita higher than Spain’s). But Korea did not succeed because it conformed to the free market ideology. Rather Korea’s economic ‘miracle’ was based on: (1) nurturing certain new industries through government support, according to a national development plan, until the industries were ready to face international competition; (2) government control of all the banks, to be able to regulate a basic element of business activity: credit; (3) undertaking big projects by state-owned enterprises (such as POSCO, the steel maker) ; (4) controlling foreign exchange and foreign investment. In sum, “The Korean economic miracle was the result of a clever and pragmatic mixture of market incentives and state direction. The Korean government did not vanquish the market as the communist states did. However, it did not have blind faith in the free market either”.

Chang, Ha-Joon (2008): *Bad samaritans. The myth of free trade and the secret history of capitalism*, Bloomsbury Press, New York

76. Success in development seems to require a convergence of interests between economic and political elites

The economic elite (top class of entrepreneurs, financial technocrats, owners of top firms) contributes to the alliance economic prosperity, which helps the political elite gain enough support among the population. The political elite creates the institutional and legal framework allowing the economic elite to exploit their economic privileges. As long as both elites perform their assigned tasks with sufficient competence, the pact between them will remain robust and last. Success follows from the imbrication between private and public sectors/interests.

77. The alliance/convergence between political and economic elites favours the political status quo.

- Economic elites may not be interested in political change if they are already the main beneficiaries of economic policy or policy reforms.
- The economic elite may be satisfied with the achievements of the existing political elite (safe and stable political and social environment).
- The form the political system takes (autocracy, democracy) is not an end in itself but a means to obtain certain goals (internal unity and stability, external power and influence). If they are achieved with a specific political system, why change it?

78. Negative consequences of economic development.

- Some regions, provinces, municipalities, individuals... profit more than others from the development and disparities/divergences arise (and perhaps consolidate).
- Negative externalities (environmental deterioration, water shortages, air pollution, soil erosion, desertification).
- Layoffs forced by competition, that increase unemployment, poverty and petty crimes.
- Social services previously provided by public institutions may pass to the hands of private institutions (loss or deterioration of the social safety net).

Urio, Paolo (2010): *Reconciling state, market and society in China. The long march toward prosperity*,

79. Development through emulation

Is 'emulation' rather than 'comparative advantage specialization' and 'free trade' the strategy leading to successful development? At least, it appears that the West became rich through emulation: when the West started to rise, the more developed economies were Asian (China, India). Spain in the 16th century as an example of what not to do: the immense amounts of gold and silver taken from the Americas were not invested in productive systems but instead de-industrialized the economy. "Successful states protected manufacturing industry, unsuccessful Spain protected agriculture to the extent that it killed manufacturing".

Reinert, Erik S. (2007): *How rich countries got rich... and why poor countries stay poor*, Constable, London.

80. The paradox of development (Morris, 2010)

"Rising social development generates the very forces that undermine further social development." An unintended consequence of success is the emergence of new problems, whose solutions lead to additional (probably, more serious) problems. Social development stagnates or declines when the challenge of temporary success is not met: every society races against itself under an unstoppable Red Queen effect.

81. Two views on development

- View 1: W. W. Rostow (1960). Economies pass through similar stages of development that lead to a common final state.
- View 2: Alexander Gershenkron (1962). The path of development of an economy depends on the development gap with respect to the developed economies.

Gershenkron observed that scale economies were greater for later industrializers and that demanded new institutions to raise more capital. Additional, more recent factors that modify the challenges and opportunities for late developers are the changes in transportation and communication technologies and the new patterns of global trade. Hirschman (1968) identified the differences between late industrializers in Europe (based on heavy industry and capital goods) and early stages of industrialization in Latin America (light industry and consumer goods).

82. Shirky principle (Clay Shirky)

"Institutions will try to preserve the problem to which they are the solution." Institutions tend to develop a self-preservation instinct.

83. The Lee hypothesis (Lee Kuan Yew, 1923-2015; president of Singapore, 1959-1990)

The Lee hypothesis holds that nondemocratic systems are better at bringing about economic development.

84. Joining the rank of developed countries appears to be extremely difficult.

Up to 2012, only 11 developing countries have risen to the rank of developed countries: Hong Kong (1997), Israel (1997), Singapore (1997), South Korea (1997), Taiwan (1997), Cyprus (2001), Slovenia (2007), Malta (2008), Czech Republic (2009), Slovakia (2009), and Estonia (2011).

85. The catch-up illusion

Kim and Kim (2014) argue that the high growth rates of latecomers in the process of economic development depend on the developed countries. This implies that developing countries can at most aspire to keek pace with advanced countries, not to overtake them. The leaders (countries that industrialized first) will probably remain leaders forever and the followers (the latecomers) will also remain so.

86. The bottom billion

“The real challenge of development is that there is a group of countries at the bottom that are falling behind, and often falling apart. The countries at the bottom coexist with the twenty-first century, but their reality is the fourteenth century: civil war, plague, ignorance. They are concentrated in Africa and Central Asia, with a scattering elsewhere”.

87. The Malthusian view (Thomas Malthus)

Assuming that population tends to grow if unchecked and that there is a limit to the increase in agricultural productivity, it is not possible for an economy to enjoy population growth and increasing per capita wealth

88. The modern Malthusian view

Rather than by the availability of food, all economies are ultimately constrained by the carrying capacity of planet Earth.

89. Malthusian instability (Layzer, 1988)

Systems that can reproduce themselves (living beings, economies) and operate in favourable conditions tend to surpass the carrying capacity of the environment. This creates the need and incentive for the system to adapt and mutate into something else.

90. The Boserupian view (Ester Boserup)

Population growth causes improvements in agricultural productivity, agricultural technology, land use and land tenure: an increasing population leads to the intensification (more labour invested) in the use of existing resources (land). Boserup holds that population growth does not depend on food supply.

91. The Brenner view (Reuven Brenner, 1983)

Many features of modern societies (emergence of agriculture, literacy, market institutions, the government, legal system) can be viewed as adaptations to an increase in population. A population increase reduces per capita wealth and changes wealth distribution. This induces those at the lower scale of wealth distribution to take more risks (bet on novel, revolutionary, innovative ideas; engage in illegal acts; become more creative; gamble more). The more envious individuals are more prone to gamble more as a way to try to improve their relative position. Those succeeding in the bet for novel ideas create a positive externality on the rest: innovations eventually spread.

Brenner, Reuven (1983): *History. The human gamble*, The University of Chicago Press, Chicago.

92. The Olson hypothesis (Mancur Olson, 1984)

The Olson hypothesis holds that political stability, in the long run, is likely to be economically dysfunctional, as it prone to hamper or retard economic performance through the rent-seeking activities of consolidated interest groups. The argument is as follows: (i) in stable societies, the number of collusions and organizations for collective action tend to grow and accumulate; (ii) most of these organizations are distributional coalitions: rent- and self-seeking interest groups; (iii) the activity of these distributional coalitions cause a decline in economic growth by slowing down change and innovation, since these coalitions do not in general welcome the adoption of new technologies nor significant reallocations of resources that may be needed to address economic changes and shocks. Conversely, faster growth could be promoted through shocks to the socio-political order that dismantle powerful interest groups

Olson, Mancur (1984): *The rise and decline of nations. Economic growth, stagflation, and social rigidities.*

Goldsmith, Arthur A. (1987): "Does political stability hinder economic development? Mancur Olson's theory and the Third World", *Comparative Politics* 19(4), 471-480.

Quiggin, John (1992): "Testing the implications of the Olson Hypothesis", *Economica* 59(235), 261-277.

93. More on development

- On the development process – early starters took more time to develop (they could afford taking more time); should late-comers achieve the same result in necessarily less time? This makes it more difficult to develop. Late-comers face a new constraint: the 'acceleration of time' (effort must be concentrated – too gradual strategies are now unsuccessful).
- The development path is not entirely replicable – the most favourable and advantageous positions already taken by the early starters – The early industrialized countries are specialized in higher value-added products while the late-starting industrialized countries are specialized in lower value-added products. This limits the growth and development potential.
- It seems that not all growth strategies are development-equivalent.
- Does continued growth imply the need to become bigger (more markets integrated)? Can growth only occur through market integration? Is globalization the result of having to maintain growth, which would otherwise stop?
- The myth of development. The greater part of humankind continues to exist with low incomes, in poverty, technologically backward and governed by authoritarian regimes or, at best, in low-powered democracies. Recipe for development: modernize exports and limit fertility. Poverty stems from the opposite: exports insufficiently processed, demographic explosion.
- Two processes appear to generate a power vacuum: emergence of a new and powerful non-state world aristocracy and decline of the old aristocracy of nation-states. Governments cannot on their own solve global problems and transnational enterprises are not interested in taking that responsibility.
- A contemporary explanation for Spain's economic backwardness in the 17th century: "Those who can, will not; those who will, cannot." (González de Cellorigo)
- Is political development inseparable from economic development? Nation-state necessary for development? Western experience: the creation of a middle class together with the integration of the national market lead to the emergence of the modern nation-state. The other way round (having first the modern state and then try to generate a middle class and articulate a domestic market) does not seem to have worked (Latin America).
- "The crude reality is that today nobody knows how to reach El Dorado. The rich are getting richer and the poor poorer, in all countries." **Oswaldo de Rivero, *The myth of development.***

94. **The extra factor.** Hidalgo (2015) adds to the conventional factors with which economics textbooks describe an economy (capital, labour) and to those in natural science textbooks (energy, matter, information) another factor that links physical quantities with social processes: economic complexity. Economic complexity refers

to the knowhow and knowledge accumulated at the aggregate level and which is expressed in the diversity and sophistication of economic activities. The chart above on the right illustrates the positive correlation between economic complexity and GDP per capita (standard of living).

Hidalgo, César (2015): *Why information grows. The evolution of order, from atoms to economies.*

95. People is the ultimate resource (Simon, 1996)

- **More people, good.** “Adding more people to any community causes problems, but people are also the means to solve these problems. The main fuel to speed the world’s progress is our stock of knowledge, and the brake is our lack of imagination. The ultimate resource is people —skilled, spirited, hopeful people— who will exert their wills and imaginations for their own benefit as well as in a spirit of faith and social concern. Inevitably they will benefit not only themselves but the poor and the rest of us as well.” Having more people creates more problems but people are the means to solve them.
- **Natural resources.** “...our supplies of natural resources are not finite in any economic sense. Nor does past experience give reason to expect natural resources to become more scarce. Rather, if history is any guide, natural resources will progressively become less costly, hence less scarce, and will constitute a smaller proportion of our expenses in future years.” The same conclusion is said to apply to energy: more people will speed the development of cheap energy supplies.
- **Doomsters.** “The doomsters reply that because there are more of us, we are eroding the basis of existence, and rendering more likely a ‘crash’ due to population ‘overshoot’; that is, they say that our present or greater numbers are not sustainable. But the signs of incipient catastrophe are absent. Length of life and health are increasing, supplies of food and other natural resources are becoming ever more abundant, and pollutants in our environment are decreasing.”
- **The world’s problem.** “The world’s problem is not too many people, but lack of political and economic freedom. Powerful evidence comes from pairs of countries that had the same culture and history and much the same standard of living when they split apart after World War II —East and West Germany, North and South Korea, Taiwan and China.”
- **Simon’s view: there are no limits.** “In the short run, all resources are limited. An example of such a finite resource is the amount of attention that you will devote to what I write. The longer run, however, is a different story. The standard of living has risen along with the size of the world’s population since the beginning of recorded time. There is no convincing economic reason why these trends toward a better life should not continue indefinitely.”
- **The economic mechanism behind the bright future: the dynamics that has worked in the past projected in the future *ad infinitum* (what has happened is not a fortuitous chain of circumstances).** “Greater consumption due to an increase in population and growth of income heightens scarcity and induces price run-ups. A higher price represents an opportunity that leads inventors and business people to seek new ways to satisfy the shortages. Some fail, at cost to themselves. A few succeed, and the final result is that we end up better off than if the original shortage problems had never arisen. (...) The most important benefit of population size and growth is the increase it brings to the stock of useful knowledge. (...) Progress is limited largely by the availability of trained workers. In the long run the basic forces influencing the state of humanity and its progress are (a) the number of people who are alive to consume, but also to produce goods and knowledge; and (b) the level of wealth. Those are the great variables which control the advance of civilization.”
- **What is new.** What differentiates our age from previous ages is the fall in mortality and the rise of life expectation. What is common is the desire for improvement, the continuous search for betterment. To achieve this, complacency must be avoided: improvement needs effort.

Simon, Julian Lincoln (1996): *The ultimate resource 2, Princeton University Press, Princeton, NJ.*

96. A conjecture

There is no general, lasting confluence of interests between the general population, the political elite and the economic elite.

III. Economico-ideological agendas for globalization

“Never believe anything until it has been officially denied.” — Anonymous

97. The Washington Consensus (John Williamson, 1990)

The Washington Consensus is a set of economic policy recommendations regarding development strategies promoted by the IMF, the World Bank and the US Treasury (all Washington-based institutions). Originally, it was defined by three broad premises: market economy, openness and macroeconomic discipline. The ten original suggested reforms were:

- Fiscal discipline. Reduce large public deficits, which were presumed to lead to balance of payments crises and high inflation.
- Re-ordering public expenditure priorities, towards pro-growth and pro-poor expenditures.
- Tax reform: combine a broad tax base with moderate marginal tax rates.
- Liberalization of interest rates.
- A competitive exchange rate: adoption of an intermediate exchange rate regime (against the two corner doctrine that a country must either fix the exchange rate or let it float freely).
- Trade liberalization.
- Liberalization of inward foreign direct investment.
- Privatization, but paying special attention to how privatization is conducted.
- Deregulation, focusing on easing barriers to market entry and exit.
- Legal security for property rights: ensure access to property rights at acceptable cost.

Serra, Narcís; Joseph E. Stiglitz; eds. (2008): *The Washington Consensus reconsidered. Towards a new global governance*, Oxford University Press, Oxford, UK.

98. The Washington Consensus (WC)

The WC represented an economic agenda for globalization (economic liberalization and global market integration) based on adopting the following measures (and others in the same spirit): free trade; capital market liberalization; flexible exchange rates; market-determined interest rates; market deregulation; privatization (transfer of assets from the public to the private sector); balanced government budget; tax reforms stimulating investment and production; secure property rights; protection of intellectual property rights. The underlying logic of the WC is to reorganize the public sector (at all levels: local, regional, national, global) to facilitate the activity of global private institutions and give preeminence to market institutions in the creation and distribution of wealth. The WC captured orthodox economic thinking: free markets should regulate all economic activity and states should just attract foreign investors and preserve a good credit reputation through fiscal discipline; liberalization, deregulation and privatization of the economy; and commitment to make employment as ‘flexible’ as necessary.

- **Successful integration in the global economy.** The most successful examples of non-western economies reaching western levels of development and prosperity (Japan, South Korea, Taiwan) have not followed the prescriptions of the Washington Consensus. China and India have neither adopted these recommendations. All these countries achieved sustained growth by imposing protective barriers and letting the public sector sponsor and steer development.

99. The augmented Washington Consensus

The augmented Washington Consensus adds to the original set of measures: legal/political reform; regulatory institutions; anti-corruption fight; labour market flexibility; WTO agreements; financial codes and standards; ‘prudent’ capital-account opening; non-intermediate exchange rate regimes; social safety nets; poverty reduction.

Held, David et al. (2005): *Debating globalization*, Polity Press, Cambridge, UK.

100. The Post-Washington Consensus (Joseph Stiglitz, 1998)

Joseph Stiglitz claimed that ‘making markets work’ required more than deregulation policies and low inflation: a robust financial system, to whose creation the government contributes greatly, is necessary for markets to deliver efficient outcomes (as was automatically presumed in the Washington consensus). In Ha-Joon Chang’s opinion, the crucial feature of the Post-Washington Consensus is replacing getting-the-prices-right policies with getting-the-institutions-right policies.

101. The Beijing Consensus (Joshua Cooper Ramo, 2004)

The Beijing Consensus (the China model or the Chinese Economic Model) expresses a political economy view opposed to the (‘market-friendly’) Washington Consensus. The Beijing Consensus describes the features of the economic development model (of political and economic policies) that China is presumed to have followed in the last decades to develop its economy. The Beijing Consensus suggests new rules for a developing country to achieve fast, stable and sustainable economic growth.

- Ramo’s original core prescriptions were: (i) a willingness to innovate; (ii) equitable growth and sustainable development; and (iii) a strong belief in a nation’s self-determination.
- The China model is often viewed as a resizing of the ‘Singapore model’ (the long-term one-party developmental state), a developmental model combining state capitalism (specifically, foreign investments with government-linked corporations) with one party-rule (the People’s Action Party).

Li, Jun; Liming Wang (2014): *China’s economic dynamics: A Beijing Consensus in the making?*, Routledge, London and New York.

102. Neoliberalism

It is an ideology claiming that essentially all the economic and social problems can be solved by some free market process. And even if the market solution is not absolutely satisfactory, there is the presumption that any solution articulated by public authorities will fare worse than the market solution. According to Perry Anderson, neoliberalism is “the most successful ideology in world history” and is currently ruling the world. In advanced economies, neoliberal principles appear to represent a domain of political convergence between the moderate left (no longer hostile to markets) and the moderate right (no longer uneasy by market excesses).

103. Neoliberalism as a social experiment

The implementation of the neoliberal doctrine creates neoliberalism as a process, resulting from the application of such policies as: privatization of public companies and services; deregulation of private economic activity; reform of welfare programmes and taxation systems that disprotect the poorer, vulnerable or disfavoured groups; the extension of markets mechanisms to areas where they are not appropriate... These policies are enforced by most developed countries and by the main global economic institutions: International Monetary Fund, World Bank and World Trade Organization.

104. Neoliberalism or governing through markets

Neo-liberalism is the doctrine that economic policy is reduced to a basic strategy of ‘leaving it to the market’ and eliminating any public intervention in markets. The last two or three decades has witnessed a shift in economic policy towards neoliberalism. The shifts in economic policy along the neoliberal lines include:

- discarding fiscal policy in favour of monetary policy;
- policy goals no longer concentrating on employment and growth but on inflation and price stability;
- ascribing the causes of unemployment to the operation of the labour market and, in particular, its “inflexibility”;
- unemployment can only be solved through labour market ‘reforms’ and remove their ‘rigidities,’ associated with trade union power, long-term employment contracts, and minimum wage regulations;
- the solution to the unemployment problem does not stem from demand-side policies nor regional and industrial policies designed to tackle structural unemployment;

- the liberalization and deregulation of markets (particularly, financial markets) and the removal of capital controls that regulate the flow of capital between countries.

Arestis, Philip; Malcolm Sawyer (2004): *Neo-liberal economic policy*, p. 1.

105. Historical materialism

It is a general theory of economic systems, applicable to all of human history, holding that the characteristics of the productive forces (means of production and labour power: technologies and people) of an economy causally determine the remaining dimensions (economic, political, cultural...) of a society.

106. The development thesis of historical materialism

The thesis holds that the forces of production tend to develop with time, so overall productive power tends to eventually increase. Historical materialism provides an understanding of economic development: it is a theory of historical directionality. To be sustainable, an economy must promote the development of its productive forces.

Howard, Michael C.; John E. King (2008): *The rise of neoliberalism in advanced capitalist economies. A materialist analysis*, Palgrave Macmillan, Houndmills, Basingstoke, UK.

107. Historical materialism

Neoliberalism sees free international flows of capital and goods as the best way to reduce poverty and unemployment. Free markets are viewed as self-regulating social institutions that can deliver the best results in terms of satisfaction of economic needs. Any malfunctioning (poverty, unemployment, economic crises) is due to interferences in the market system that constrain their behaviour (public intervention or old-fashioned social practices). The neoliberal recommendation is to remove those constraints and make social and economic structures more 'market friendly'.

108. Criticism to neoliberalism

(1) In poor countries, trade liberalization has been followed by more inequality and poverty, less growth and more frequent economic crises. (2) Rich countries embraced protectionism and state intervention to become rich, the opposite to what its prescribed to the poor countries.

Shaikh, Anwar; ed. (2007): *Globalization and the myths of free trade. History, theory, and empirical evidence*, Routledge, London and New York.

109. Ideological support for the current global economic structures and rules

Two doctrines provide ideological support for the current global economic structures and rules: free markets (governments should not establish obstacles to domestic private economic activity) and free trade (governments should not establish obstacles to international private economic activity involving the circulation of goods). The doctrines endorse the presumption that there is a self-adjusting free trade equilibrium which also happens to maximize social welfare. Specifically, international trade is supposed to be manageable through exchange-rate adjustments, that occur spontaneously or are administered by countries individually and independently. Heterodox economists contend that these doctrines misinform global economic policy and contribute to perpetuate global imbalances that threaten global economic stability.

- Can 'markets' replace, at the international level and in a sufficiently satisfactory way, global governance and institutions for collective action?
- Can national democracy be extended at the global level and create a global democracy?
- Does the world need a global Marshall Plan to help developing countries to develop and reduce international inequality?

110. Is Western civilization trapped...

... in the grip of two inhibiting ideologies, positivism and market fundamentalism (Oreskes and Conway, 2014)? Is the ultimate paradox of neoliberalism that this ideology is meant to ensure individual freedom above all but eventually requires large-scale government intervention?

111. Dominant paradigms (world views, tacit set of beliefs, default interpretations) in the West

- 'Markets' are good: economies based on a system of markets produce efficient outcomes and are endowed with a self-correcting ability.
- Democracy is good: political systems based on a system of representative democracy produce efficient political outcomes and are endowed with a self-correcting ability.
- Capitalist growth is good: societies organized on the basis of a capitalist system that exploits fossil fuels and natural resources reach unlimited growth.
- Globalization is good: a global economy favouring free trade and global integration delivers a growing welfare.

Randers, Jorgen (2012): 2052: A global forecast for the next forty years, Chelsea Green Publishing, White River Junction, VT.

112. Are beliefs subject to 'progress'? Do beliefs 'improve'?

Why does religion (and superstitions) appear immune to the spread of material values and the exposition to scientific information? That this phenomenon points to an inherently insoluble social tension, with the potential of breaking the stability of a hypothetical global society? Are the Western values and ideas (rationalism, self-criticism, disinterested search for truth, separation of church and state, rule of law, equality before the law, freedom of conscience and expression, human rights, liberal democracy) morally superior to other values?

[In *Drunk with blood: God's killings in the Bible*, 2010, Steve Wells counts the number of persons killed by God in the Bible. Using numbers provided in the Bible, the number is 2,476,636 (Satan, 10). His estimated total is that God killed 24,634,205 persons (Satan only 60).]

113. Four ideas that will not change the world (Steinberg, 2015, pp. 215-219)

- **Misperception 1: technological breakthroughs and scientific advances happen by themselves.** Discoveries are not self-propelled: they occur in a social context. Political decisions are a fundamental force in scientific and technological discoveries and innovations.
- **Misperception 2: a society growing richer automatically improves its environmental conditions.** The environmental Kuznets curve (EKC, the conjecture that economic growth initially harms the environment and afterwards improves it) does not hold for all pollutants. Urban waste treatment seems to be consistent with the EKC, but carbon dioxide emissions or biodiversity loss do not. Even when EKC holds, it may be just a spurious correlation: some factor simultaneously contributes to economic growth and environmental quality.
- **Misperception 3: a good strategy to solve environmental problems is to let markets operate freely (without environmental regulations).** Markets will not save the planet. Environmental quality and sustainability are both public goods and unregulated markets are inadequate institutions to provide public goods (private agents underinvest in such goods).
- **Misperception 4: individual decisions and local, isolated initiatives are sufficient to solve global problems.** Working in isolation (like recycling alone) is not powerful enough to address the bigger issues. It is only through active engagement in politics that major improvements in environmental quality will be achieved. This misperception is an instance of the fallacy of composition: the presumption that what is true or works at some scale, is also true or works at a larger scale. Big environmental problems require an adequate match: to think big and change rules. Installing solar panels at home is a move in the right direction but environmental legislation has the scope for inducing real change.

Steinberg, Paul F. (2015): Who rules the Earth? How social rules shape our planet and our lives, Oxford University Press, Oxford.

114. The shock doctrine

How do societies respond to extreme shocks, like wars, natural disasters, economic crises, epidemics, terrorism? Naomi Klein contends that, in the last decades, corporate interests have exploited episodes of crisis to the advantage of a small elite. This has been achieved by promoting and supporting policies beneficial to the elite (privatization, deregulation, social spending cuts...) and by restraining civil liberties and rights. Klein claims that climate change is another opportunity to apply the shock doctrine: instead of seeing the implementation of measures to address the cause of the problem, we should expect the climate change crisis to be exploited to transfer more benefits and privileges to the top 1%. For instance, financial investors will use this opportunity to gamble on possible futures; insurance companies will devise and sell new protection schemes to the potential victims of the crisis; commons privatized; new markets will arise (markets for carbon credits) to exploit lucratively a potentially disastrous situation... No opportunity to profiting from disaster will be missed.

Klein, Naomi (2014): *This changes everything: Capitalism vs. the climate*, Simon & Schuster, New York.

Klein, Naomi (2007): *The shock doctrine: The rise of disaster capitalism*, Metropolitan Books, New York.

115. The power of big corporations

How much power can big corporations obtain during the current digital revolution? How disruptive can the big four be? [By market capitalization, the five largest companies in 2006 were Exxon Mobil (\$540 b, in 2017 dollars), General Electric (463), Microsoft (355), Citigroup (331) and Bank of America (290). In April 2017: Apple (794), Alphabet (= Google, 593), Microsoft (506), Amazon (429), Facebook (414). In contradistinction to industrial companies, the big companies of the digital era concretate the economic benefits in a few hands: General Motors generated a value of \$0.23 million per employee; Facebook, \$20.5 million; see Scott Galloway, 2017, *The four: The hidden DNA of Amazon, Apple, Facebook, and Google*.]

<https://www.nytimes.com/2017/04/22/opinion/sunday/is-it-time-to-break-up-google.html>

- Amazon. A company growing at an annual rate of 20%. Jeff Bezos, currently the third wealthiest person in the world, is likely to become soon the number one.
- Apple. It has become the most profitable company in history by achieving the impossible: selling at a very high price a low-cost product. Apple's cash on hand is at a par with Denmark's GDP.
- Facebook. In terms of adoption and usage, the 1.2 billion people interacting daily with Facebook make Facebook the most successful creation in history.
- Google. Google is the most powerful source of knowledge and also gains from the impossible: it is a product that becomes more valuable, not less, with use.

116. The Washington rules: credo and trinity behind US global leadership

"The first component specifies norms according to which the international order ought to work and charges the United States with responsibility for enforcing those norms. Call this the American credo. In the simplest terms, the credo summons the United States—and the United States alone—to lead, save, liberate, and ultimately transform the world."

"It is not only up to Americans (...) to choose the purposes for which they would bring their influence to bear, but to choose the means as well. Here we confront the second component of the postwar tradition of American statecraft. With regard to means, that tradition has emphasized activism over example, hard power over soft, and coercion (often styled 'negotiating from a position of strength') over suasion. Above all, the exercise of global leadership as prescribed by the credo obliges the United States to maintain military capabilities staggeringly in excess of those required for self-defense."

"An affinity for military might emerged as central to the American identity. By the midpoint of the twentieth century, 'the Pentagon' had ceased to be merely a gigantic five-sided building. Like 'Wall Street' at the end of the nineteenth century, it had become Leviathan, its actions veiled in secrecy, its reach extending around the world. Yet while the concentration of power in Wall Street had once evoked deep fear and suspicion, Americans by and large saw the concentration of power in the Pentagon as benign."

“... an examination of the past sixty years of U.S. military policy and practice does reveal important elements of continuity. Call them the sacred trinity: an abiding conviction that the minimum essentials of international peace and order require the United States to maintain a *global military presence*, to configure its forces for *global power projection*, and to counter existing or anticipated threats by relying on a policy of *global interventionism*. Together, credo and trinity—the one defining purpose, the other practice—constitute the essence of the way that Washington has attempted to govern and police the American Century. The relationship between the two is symbiotic. The trinity lends plausibility to the credo’s vast claims. For its part, the credo justifies the trinity’s vast requirements and exertions.”

Bacevich, Andrew J. (2010): *Washington rules. America's path to permanent war*, Metropolitan Books, New York.

117. ‘Until lions learn to talk, history will always be written by the hunters’: Argentina vs USA

“One short century ago, the United States and Argentina were rivals, starting off in similar places. Both were riding the first wave of globalization at the turn of the twentieth century. Both were young, dynamic nations with fertile farmlands and confident exporters (...) Before the Great Depression of the 1930s, Argentina was among the ten richest economies in the world (...) A hundred years later (...) one had gone on to become one of the most successful economies in history. The other was a broken husk, a place where inept, corrupt governments had, time and again, stolen the savings from their own people (...) History invites us to think we are explaining and analyzing when in fact we are retrospectively rationalizing. Things that happened were always going to happen, and the proof that they were always going to happen is that they did happen. Since we know that Argentina was going to fail, we can always pluck some fundamental elements out of the vast thicket of geographical, social, environmental, and political influences that make up its history to show that the failure was inevitable (...) Imagine that the United States had followed the arc that Argentina did, falling from the First World to the Third. How many factors from earlier in its history, fundamental and superficial, would now triumphantly be produced as evidence that it always would?”

“If Argentina looked like it was following the American route, it was doing so by rote, not by understanding—importing modern technology, but not the spirit of innovation and change. Argentina borrowed money from the British, but America learned from their experience as well. Economies rarely get rich on agriculture alone. Britain had shown the world the next stage: industrialization.”

“The same benefits that boosted American farming also helped it industrialize (...) America learned quickly (...) American business owners wanted to invest their own money in industrializing their country (...) The elites of Argentina rejected the mentality (and actions) that industrialization required. Safely milking the golden teat of their farming, they saw no special reason to risk their status and livelihoods in the fickle and dangerous world of industrial manufacturing. Conspicuous consumption was a far more attractive proposition than tying up money for a long time in an uncertain project that might in any case harm rather than help their farming interests (...) Argentina’s development during the Golden Age was rapid but precarious.”

“Between 1880 and 1914, the American political system was reacting to change, absorbing new ideas and addressing the demands of the discontented, even if only in limited fashion. But Argentine politics remained steadfastly dominated by a small, self-perpetuating elite.”

Beattie, Alan (2009): *False economy. A surprising economic history of the world*, Riverhead Books, New York.

118. The doctrine of liberal internationalism and the support of dictatorships

“At the heart of postwar US policy-making is the doctrine of liberal internationalism. Pioneered by Woodrow Wilson, and embellished by Franklin D. Roosevelt and Harry Truman, this doctrine is generally understood as the justification of military and other interventions by the US if they help produce a liberal world order: a global system consisting of liberal-democratic nation-states, connected by more or less free markets and ruled by international law. In this world-view, the goal of achieving a liberal world system trumps the commitment to state sovereignty. The US sees itself as the natural vanguard of such a global order, as well as the chief bearer of any right to suppress state sovereignty in the pursuit of liberal goals.”

“In a global market dominated by the US, supporting national governments in place that were open to US investment was more important than becoming a colonial overlord. Profits could flow back to Wall Street without the debilitating costs of occupation. To achieve this world order, however, the US would need to prize open the colonial empires. One manifestation of this new strategic perspective was the Wilson administration’s discovery of the language of ‘national self-determination.’ This has assumed a central place in the mythology of liberal internationalism.”

“As a leading American expert on African politics, William J. Foltz, wrote in 1966, it would take more than a few generations to teach the majority of black Africans ‘the skills necessary to participate meaningfully and effectively in politics.’ Therefore, if a further period of tutelage at the hands of white colonial masters was not possible, the ‘modernization theory’ of US state mandarins held that these people would require a period of authoritarian rule under enlightened military regimes. The US thus responded to independence in the Congo by engineering the imposition of the kleptocratic Mobutu regime to prevent radicalism. The same policy supported a succession of dictators in South Vietnam to avert Viet Minh rule, and drove an extraordinarily bloody war to defend an allied dictatorship in South Korea.”

“Among the mass of material released by WikiLeaks since 2010 is a series of documents that provide jarring insights into US foreign policy in Latin America. From Honduras to Venezuela, Haiti to Ecuador, the United States appears to have an inbuilt predilection for dictators—and a distaste for democratic government—in its own ‘backyard.’”

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire, Verso, London and New York.*

119. Old and new empires

“Pre-modern empires tended to be about the acquisition of fertile or resource-rich territory for landed oligarchies, the enslavement of populations for exploitation, and the conquest of trade routes. The Roman Empire annexed land for its rich landowners. The Dutch Empire used piracy to take control of trade routes. And the Spanish Empire’s colonization of Southern America, put crudely, turned the continent into vast gold- and silver-mining enterprise, and its population into slave labor.

The modern American empire is a different beast. Its network of military bases from Greenland to Australia is not part of a system of territorial occupation or annexation, but rather serves to localize American military power in convenient ways, so that it can maintain a system of states whose features suit its interests. In general, the United States wants access to trade routes, and can back up its claims with impressive naval power, but does not need to control them directly (...) What the United States wants is to expand the domain of markets. In any national state, business classes derive an overwhelming advantage from their strategic control of markets. This is also true on a global level, so that US corporations stand to benefit most from the progressive opening of markets and trade.”

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire, Verso, London and New York.*

120. There is no market without government support

“We have learned from the bank bailouts that, when business cries out for help, it is the state that answers. The United States, in particular, had to take over the central global role in shoring up the private banking industry, saving capitalism from itself in 2008. This seems contrary to the ‘free market’ doctrine according to which individuals and enterprises must bear the consequences of their bad investment decisions, or else those bad decisions will be repeated. This is a ‘thin Darwinism’ that does not necessarily describe how markets really work, but the belief that ‘free market’ orthodoxy had been undermined so scandalized American politicians that it produced a congressional revolt that almost prevented the bailouts from taking place. But what we discover from the WikiLeaks documents is that there is no such thing as ‘free markets’ without strong states—that nowhere does the ‘invisible hand’ work without the mailed fist of government.”

“... research after the boom years of the 1990s showed that, of the Fortune 100 best companies, at least twenty would not exist at all were it not for state intervention. Corporations are notoriously bad at managing their international operations, and rely on government agents to open doors for them. An example would be Apple,

whose immensely profitable iPhones and iPads rely on technology developed in the public sector and passed on to private capital. The company's access to East Asian labor markets, which keep the costs of production low, depends crucially on the role of the US government in negotiating the opening of those markets to American investors."

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire*, Verso, London and New York.

121. 'The dirty secrets of 'free trade' imperialism'

"To understand the WikiLeaks revelations, and all that lies behind the violence and brutality outlined in previous chapters, it is necessary to understand the political-economic basis of this 'free trade' empire. The American empire is of a new type, in that its mission (...) is the global spread and institutionalization of capitalism."

"The process that we now call 'globalization' is often spoken of as if it were a natural, almost climactic process: a flourishing of 'the market' that moves ahead in leaps and bounds as long as it is not impeded by state-imposed rigidities or artificial monopolies (...). It requires political leadership and initiative to bring markets into existence, make them socially and economically sustainable, and develop rules and institutions that maintain them. It requires time and planning to incorporate populations into markets. The United States has been able to use its political dominance since World War II to develop, in an often haphazard or self-defeating way, a globally integrated economy in which its businesses are dominant and have privileged access to key markets and resources."

"Schematically, in the postwar era we can see that the American empire has ruled through two international regimes: the Bretton Woods system, and what Peter Gowan calls the 'Dollar-Wall Street regime.' Bretton Woods fixed international currencies to the gold standard in order to prevent destabilizing price fluctuations and enable an international economy to develop. The International Monetary Fund was the key institution set up to manage this global system and adjust currency prices based on a cooperative arrangement. Of course, the United States dominated, but it ruled in what might be called a collegiate fashion, taking the bulk of responsibility for the world system while expecting allied states also to participate in the global administration of markets, currencies, contracts, and property (...). It gave national states a degree of freedom in broadly planning the pattern of economic development.

This was not yet an era of global 'free trade,' but that—as the editors of *Fortune*, *Time*, and *Life* magazines pointed out in 1942—was ruled out by the 'uprising' of the 'international proletariat.' In order to satisfy this political 'uprising,' it would be necessary to have some controls on capital for a while. 'Third World' countries were encouraged to develop their national economies using import-substitution strategies, so that stable business classes could take root. Meanwhile, trade with Britain and Europe would be the 'strategic pivot' on which 'the area of freedom would spread,' eventually creating the opportunity for 'universal free trade.'

In fact, there was no guarantee that 'free trade' would ever be universalized. Certainly, the postwar system boomed. Between 1945 and 1970, world GDP grew by an average of 4.8 percent a year—although this figure concealed the enormous 'catching up' of defeated World War II powers. And with growth came an expansion of global trade, the total volume of exports rising 290 percent between 1948 and 1968. And yet, by the late 1960s, the US economy was weakening, and in relative decline compared to Japan and West Germany."

"Under the Nixon administration (...) US dominance entered a new phase. What Nixon did first was to abandon the gold standard, ending fixed exchange rates. The dollar was still the major international currency, the one in which most trade was conducted, but now its value could swing wildly, depending on what the US Treasury decided. The next move compounded the impact of the first. The Nixon administration downgraded the role of central banks in the organization of international finance, empowered private banks to lend, and sought a new regulatory structure that would liberate financial investors. The 'cold' flows of money investment in production were quickly overtaken by 'hot' flows of cash moving across borders, reacting sharply to the slightest international stimulus. None of this amounted to a master plan for world domination, and indeed the changes were effected initially against considerable resistance within the state, and even from the banks.

But the effect was to empower finance, which also helped to solve growing domestic problems. American businesses, by the late 1970s, were convinced that wage-driven inflation and union militancy were the major

problems holding back a revival of profitability (...) Whereas the 'gold standard' and fixed exchange rates had created some stability in the postwar system, the new criterion of stability was counter-inflation. This was to take precedence over traditional postwar objectives such as full employment or managing consumer demand through incomes policies."

"With the freeing and expansion of international financial markets, the importance of the dollar was magnified, and with it the impact of any changes in the dollar's value. This was a tremendous source of political strength, enhancing the global role of the US Treasury. And it landed other countries with a restriction that the United States did not face: they had to worry about their balance of payments and ensure they had enough international currency to cover the goods purchased from overseas, while the United States could always just print more of its own currency. Wall Street and its less regulated sidekick, the City of London, dominated the new international financial system, and a series of international agreements—most notably the financial services agreement arising from the Uruguay Round of the GATT negotiations, lasting from 1986 to 1994—consolidated a new global regulatory structure that favored financial 'innovation' (the freedom of financiers to develop ever more intricate instruments for maximizing royalties, however risky). The IMF, meanwhile, came to play a key role in using debt to open the markets of the global South and force the 'structural adjustment' of their economies so that they would become more tightly integrated into the Dollar–Wall Street regime. Finally, a flurry of new international treaties, regional trading blocs, and multilateral organizations developed: the euro was born, the North American Free Trade Agreement (NAFTA) was signed, and the World Trade Organization (WTO) was launched."

"This sequence of outstanding successes was linked to another change in the mode of American domination. In the postwar period, US attempts to manage the world system had necessitated reliance on a string of right-wing dictatorships that were relied on to modernize their national economies, creating an indigenous business class while averting the influence of communism (...) In the post–Cold War world, the reigning world-view was that liberal capitalist democracy was the ultimate terminus of history, the endgame to which all states tended. And the more America's 'backyard' was integrated into the world system, the more it opened its markets, allowed public goods to be privatized and run by US firms, and the more it signed up to global and regional trade treaties, the less need there was for direct violent interventions (...) But this was only a tendency. As we have seen, the United States cannot entirely dispense with the old, crude techniques of coups, puppet regimes, and wars. The world system, even were it not structured by inequities that propel conflict, can never attain perfect and perpetual coherence and thus ascend to the Kantian paradise of eternal peace."

"One of the long-term benefits of achieving the subsumption of ever larger areas of the world under the law of the market is that, once institutionalized, it does its work almost automatically. In fact, the market can often succeed where military efforts might fail. Take Vietnam (...) The more Vietnam borrowed from the IMF, the more it needed to borrow, and its rate of indebtedness soared. The more it adopted "free market" policies, the more dependent it was on markets and the less able it was to apply controls. The United States had visited an apocalypse on Vietnam to avert the danger of "communism," and failed. But where it failed, debt, finance, and the institutions of global capitalism succeeded."

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire*, Verso, London and New York.

122. Male bias in development analysis

"History records the lives and views of the dominant; the everyday struggles of women are almost totally bypassed. Subaltern historians too, while seeking to provide the views of the subordinate classes and groups, do not generally record women's versions as distinctive from the homogenized class discourse (...) Almost 15 years ago, Diane Elson, a feminist economist, wrote about male bias in the development process. Much water has flowed under the bridge, but nothing much has changed on the ground."

"A theoretical shift is required to a paradigm that rejects binary classifications of all sorts: between the modern and the traditional, men and women, production and reproduction, even state and society, but rather seeks out the linkages and interactions between them. It needs to accept the reality of individual agency, of basic human self-respect. One could perhaps call it a paradigm of 'personhood'."

"One cannot deny the existence of competition, conflicting interests and even discrimination. There are the landed and landless, educated and illiterate, winners and losers. Yet if one focuses on these distinctions alone, one may fail to find solutions to the development problem. Giving land to the landless, for instance, in the case of

Dumka, has meant that the non-*adivasi*, not-so-poor groups of people, often the Hindu traders, have benefited disproportionately from land distribution.”

“Understanding relationships should therefore be the focus rather than binary and materialist distinctions alone. A major implication of this paradigm shift is that it moves beyond the role-ascribed identities of men and women to see them both as persons, with different roles, interests and identities, but with scope for overlaps, sharing and cooperation as well. It helps one think beyond the stereotypical images of the lazy, drunken, *adivasi* man and the hard-working, illiterate and sexually free *adivasi* woman, to see them as people, struggling to survive and making the best of their lives.”

“A major part of the problem with state policy is the absence of such understanding, of a thinking that treats *adivasis*, and *adivasi* women in particular, as homogenous, and indeed subordinate or backward. One of the reasons that development fails is because the state or even NGOs have their own ideologies and constructs of *adivasi* identity, which often run parallel to people’s own constructions of themselves and their needs. In many ways, it denies them both agency and voice.”

“If the ultimate objective is gender equality, the gaining of an equal position in society, then the solution may be found in the creation of an enabling environment for women, one in which they can establish and assert their identities as equal persons, rather than objects of charity.”

“Development itself is a highly political process. It is as much a struggle for negotiating identities, power relations and ideological dominance between genders and other social groups as about improvements in material conditions.”

Rao, Nitya (2018): ‘Good women do not inherit land’: Politics of land and gender in India, Routledge, London and New York.

“I would give myself an A+.” —Donald Trump, April 2018

123. Core principles of Trumponomics

- Put America first always. Globalism is rejected: no other nations’ interests above America’s or the Americans’ interests. “World government and multinational governing bodies are dangerous and misguided solutions.”
- Restore American patriotism. America is a special place, great and good. In Ronald Reagan’s words: “Divine providence put us here as a beacon of freedom for the rest of the world.”
- Reject government paternalism: “Empower Americans to make decisions for themselves.” Letting people choose and the forces of competition freely operate produces better results than regulations and government intervention.
- Rebuild America’s inner cities. “This means eradicating crime, violence, drug abuse, corruption, and joblessness.” “One of Trump’s big urban initiatives is the designation of 50 enterprise zones—mostly poor areas in inner cities—that will be targeted for lower capital gains taxes, regulatory relief, and the clearing of other barriers to development.”
- Protect borders: “Secure and protect our borders from drug runners, terrorists, illegal immigrants, and criminals.” “A nation without borders is not a nation.”
- Promote and support American business. “Liberals love jobs, but they hate job creators. As Trump likes to say: you can’t have one without the other.”
- “Reject identity politics. The prevailing liberal mindset is that Americans are inherently divided by race, sexual orientation, ethnicity, and class and that there is a zero-sum game being played among all those divisions. No. We are one nation under God, indivisible. Everyone can be better off, and the gain of one person does not necessarily equal the infringement of another.”
- “Reject declinism and celebrate that America’s best days lie ahead. This means rejecting the limits to growth, secular stagnation, and the environmental doomsdayism (climate change) that animate the left today. Trumponomics is predicated on a faith in the future and a confidence that America can solve any problem through innovation, invention, technology, and a healthy dose of just plain American can-doism.”

- “America’s most valuable role in the global economy is to lead by example. Our most important gift to the world is to export the virtues of democratic capitalism and free enterprise. When we get it right, the rest of the world follows.”
- “The final and we would argue the most important principle of Trumponomics and restoring American prosperity is this: Growth is everything. Faster economic growth is a necessity if America is to fix its socioeconomic problems.”

Moore, Stephen; Arthur B. Laffer (2018): *Trumponomics. Inside the America first plan to revive our economy*, All Points Books, New York.

124. Policy measures of Trumponomics (Moore and Laffer, 2018)

- “Cut unnecessary regulations”
- “Improve American competitiveness by slashing tax rates and burdens”
- “Replace welfare with work”
- “Use America’s abundant natural resources”
- “Modernize America’s infrastructure”
- “Encourage twenty-first-century healthcare and education based on choice and competition”
- “Promote free and fair trade deals”
- “Reduce government spending”
- “Implement a pro-America immigration policy”



“We are frequently asked: Does the Trump trade doctrine risk a trade war? Our answer is always the same: hopefully not, but it could happen, to everyone’s detriment, if other nations don’t stand down and play by the rules they agreed to. Trump’s response (in a tweet, of course) to his critics is that “we’ve already been in a trade war for decades and we’re losing.” Other nations are clearly shirking on the trade laws, but it’s hard to see how “we’re losing” given that today our economy is the envy of the world.”

125. The two competing narratives of political economy (Capaldi and Lloyd, 2011)

- The liberty narrative. It originated with John Locke but became associated with Adam Smith. This narrative: (a) promotes personal autonomy and both economic and political liberty; (b) has a positive view of markets, technology and private property; and (c) encourages the pursuit of happiness (progress is improvement).
- The equality narrative. It originated with Jean-Jacques Rousseau but became associated with Karl Marx. This narrative: (a) promotes the social good, restrictions of individual autonomy and both economic and political equality; (b) emphasizes the problems caused by markets, technology and private property; and (c) encourages the securing of happiness (progress is perfection).

126. Two economics (Joe Studwell, 2013)

“The message that east Asia –and indeed an historical understanding of development around the world– sends to economists is that there is no one type of economics. At a minimum, there are two. There is the economics of development, which is akin to an education process. This is where the people –and preferably all the people– who comprise an economy acquire the skills needed to compete with their peers around the world. The economics of development requires nurture, protection and competition. Then there is the economics of efficiency, applicable to a later stage of development. This requires less state intervention, more deregulation, freer markets, and a closer focus on near-term profits. The issue is not whether there are two kinds of economics that exist at different stages of development. The question is where these two stages meet. This is the difficult and interesting subject to which economists could more productively apply themselves.

Unfortunately, the intellectual tyranny of neo-classical 'efficiency' economics –the natural subject matter of rich countries– means that it is all but impossible to have an honest discussion about economic development. Poor states can only be successful by lying. They have to subscribe publicly to the 'free market' economics touted by the rich while pursuing the kind of interventionist policies that are actually necessary to become rich in the first place."

"What seems most wrong in all this is that wealthy nations, and the economic institutions that they created like the World Bank and the International Monetary Fund, provided lousy developmental advice to poor states that had no basis in historical fact. Once again: there is no significant economy that has developed successfully through policies of free trade and deregulation from the get-go. What has always been required is proactive interventions – the most effective of them in agriculture and manufacturing – that foster early accumulation of capital and technological learning (...) Our unwillingness to look this historical fact in the face leaves us with a world in which scores of countries remain immiserated."

127. Will sociology become the future 'queen of social sciences'?

"Multi-agent systems have been used by complexity researchers to simulate a wide range of natural systems, including sand piles, industrial processes, and neuronal connections in the human brain; in the late 1990s, this methodology was increasingly used to simulate social systems. This new methodology has led complexity theorists to become increasingly concerned with emergence– the processes whereby the global behavior of a system results from the actions and interactions of agents (...)

"Like 'emergence,' the term 'complexity' has also been used somewhat loosely in the last decade. In the most general sense, complex phenomena are those that reside between simplicity and randomness, at 'the edge of chaos' (...) In complex systems so conceived, relatively simple higher-level order 'emerges' from relatively complex lower-level processes. Canonical examples of emergence include traffic jams, the colonies of social insects, and bird flocks. For example, the V shape of the bird flock does not result from one bird being selected as the leader, and the other birds lining up behind the leader. Instead, each bird's behavior is based on its position relative to nearby birds. The Vshape is not planned or centrally determined; it emerges out of simple pair-interaction rules. The bird flock demonstrates one of the most striking features of emergent phenomena: Higher-level regularities are often the result of simple rules and local interactions at the lower level. In the social sciences, a comparable example of an emergent phenomenon is language shift (...) Common to both of these examples is that emerging at the global system level are patterns, structures, or properties that are difficult to explain in terms of the system's components and their interactions."

"Social emergence is the central phenomenon of the social sciences. The science of social emergence is the basic science underlying all of the social sciences, because social emergence is foundational to all of them. Political science, economics, education, history, and sociology study phenomena that socially emerge from complex systems of individuals in interaction (...) Sociology should become the basic science of social emergence (...) This new sociology would be (...) concerning itself with the foundational processes of social emergence (...) But this is not the sociology we see today; few sociologists study social emergence. In the second half of the twentieth century, economics has made the best case for being the foundational social science, by making social emergence central to its theory and practice. (...) Because (...) economics has developed the most successful model of social emergence, this has naturally led to 'economic imperialism,' with neoclassical economists beginning to analyze noneconomic phenomena traditionally associated with sociology (...) And in fact microeconomics has been the only game in town for those interested in studying social emergence."

Sawyer, Robert Keith (2005): *Social emergence. Societies as complex systems*, Cambridge University Press, Cambridge, UK.

128. The dogma of profit (Sean Cubitt, 2017)

"...the political elite has failed to respond to either global poverty or global environmental destruction, and for a single reason: the obscene dogma of profit, no longer a human vice but the sole motivation of inhuman forces now dominating what passes for global politics."

129. Social sciences and social order

J. D. Bernal: “the backwardness and emptiness of the social sciences are due to the overriding reason that in all class societies they are inevitably corrupt”. The reason for the comparative underdevelopment of the social sciences is that they are circumscribed by and often subservient to the established order of power. Social sciences seem in practice more concerned with preserving the existing social order than facilitating (necessary or desirable) changes in the social order. In normal circumstances, the social sciences do not lead: they follow (stable social environment creates a conservative social science). When the social order is disrupted, social sciences have the best opportunity to advance and make relevant achievements.

Mainstream social science has developed a static and ahistorical (sometimes anti-historical) character and adopted reductionism, abstract empiricism, and anti-naturalism (divorce from the natural environment in which societies exists). “Little or nothing in human society makes sense except in the light of history”.

Foster, John Bellamy; Brett Clark; Richard York (2010): *The ecological rift. Capitalism's war on the earth*, Monthly Review Press, New York.

130. The flexibility imperative

The failure to ‘make globalization work’ in an economy is, according to orthodox economic thinking, solved by increasing ‘labour flexibility’: improve (through economic policy measures) the capacity of domestic labour markets to ‘accommodate structural changes smoothly and rapidly’. The mobility of global capital reduces the bargaining power of workers: firms just choose countries where workers accept the flexibility imperative (labour market deregulated). Labour regulation protecting workers is said to be a constraint preventing markets to be ‘free’ and the globalization process to succeed and deliver its presumed benefits (it seems that, to make markets free, workers must be enslaved).

Amoore, Louise (2002): *Globalisation contested. An international political economy of work*, Manchester University Press, Manchester and New York.

131. Types of economic theories

Reinert (2007) identifies two main types of economic theories. One (the conventional one) relies on metaphors from physics (invisible hands like gravity, equilibrium states) and builds the theories (and elaborates economic policy recommendations) down from those metaphors. This type of theory has eventually become disconnected with time (history) and space (geography). The other type invokes biological metaphors and starts the construction of theories (are experience-based) from the ground up. Policy recommendations often precede theoretical elaborations and rely on the identification of empirically relevant factors, like increasing returns, technological change, synergies and side effects. These theories accept diversity and heterogeneity as essential elements in the understanding and control of reality.

Each type of theory leads to a different view of globalization and development. The conventional type supports income convergence in the world economy. The ‘Washington consensus’ expresses its policy recommendations. The heterodox type holds that globalization reinforces differences: countries unable to emulate the richer ones will experience retrogression and primitivization (they fail to develop and enjoy progress). Hence, unless ready to emulate, it would be premature to participate in the globalizatin process. Regarding development, the first type tends to view it a capital accumulation; the second, rather as the result of emulation and knowledge assimilation.

Reinert, Erik S. (2007): *How rich countries got rich... and why poor countries stay poor*, Constable, London.

132. Dr Bob's Third Law (in honour of Robert Hargrove Montgomery by John F. Weeks)

“You don’t need an economist to understand the basic workings of the economy.” (Weeks, 2014, p. xi) Presumably, the first law is “People can rule themselves without kings and queens” and the second one is “People do not need a priest to read the Bible.”

John F. Weeks (2014): *Economics of the 1%. How mainstream economics serves the rich, obscures reality and distorts policy*, Anthem Press, London and New York

IV. Inequality and globalization

133. Global inequality

“One of the most neuralgic issues in the debate about globalization in recent years has been whether or not it has been unfair. The ‘pro’ camp argues that the decades since 1980 have brought about the biggest reduction in inequality the world has ever experienced. The ‘anti’ camp argues that globalization has helped a few prosper but left behind the majority, leading to the greatest degree of inequality in history. Both hold some truth, depending on how you look at inequality. In particular, there is a distinction between inequality within countries and inequality between countries. Starting with the latter, and looking at average income per capita nation by nation, countries such as the United States and United Kingdom have pulled much further ahead of the poorest countries such as Zimbabwe and Niger. At the same time, there has been a huge rise in average income per capita in China and India such that they have narrowed the gap with the richest countries. This latter development means global inequality has decreased substantially, but inequality within nations has not.”

134. Why inequality increases

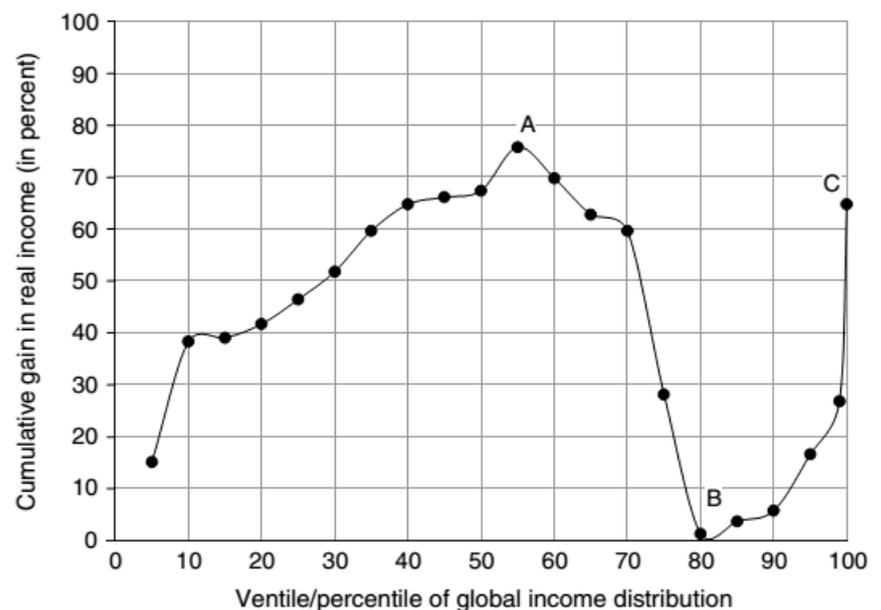
“...there are two main possible explanations for the development of greater inequality compared with the previous economic epoch. One is globalization, in effect bringing a large new source of cheap labor into the domestic economy; either through cheap imports or the offshoring of production, domestic workers have to compete with workers elsewhere who work for much lower wages (although they are also less productive). This could explain downward pressure on blue-collar wages or the low pay in basic services such as call centers (...) The other potential explanation is the adoption of new technologies requiring skills that were initially in short supply. Companies that use computers and other new technologies need people with greater cognitive abilities—computers can do the easy, repetitive work, so the humans need to do the more challenging and creative work. This is great news in the sense that a lot of dull jobs have gone and work for many has become more interesting, but it has substantially reduced the demand for workers with only basic qualifications, and swaths of formerly well-paid shop floor jobs have vanished (...) On balance, however, the technical change explanation emerges as the most important driver of increasing income inequality.”

“... structural changes in the economy driven by new technologies are the fundamental driver of greater inequality, in much the same way that the wave of innovation of early capitalism in the nineteenth century led to great inequality until the workforce as a whole developed the new skills that were needed. Technology has interacted with globalization to exacerbate the trend toward greater inequality, contributing to income inequality within countries through the move of low and medium skill jobs overseas, and creating a rich global elite. The failure of some of the poorest countries to participate at all in these economic trends has made greater inequality a global phenomenon.”

Coyle, Diane (2011): *The economics of enough. How to run the economy as if the future matters*, Princeton University Press, Princeton, New Jersey.

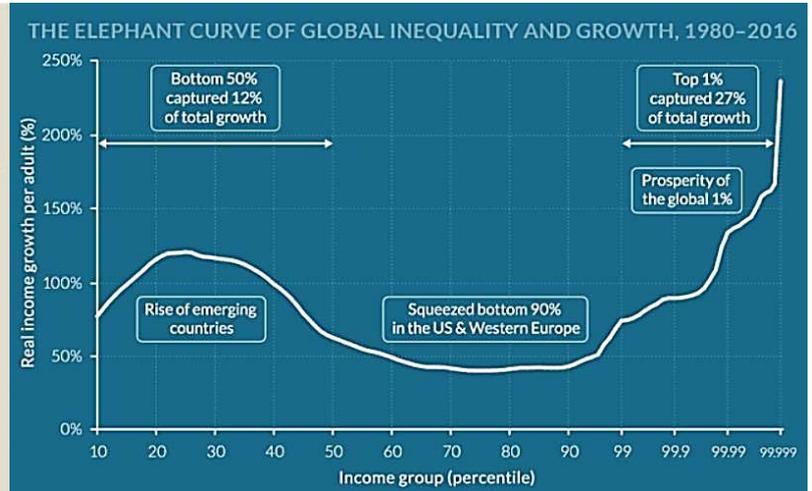
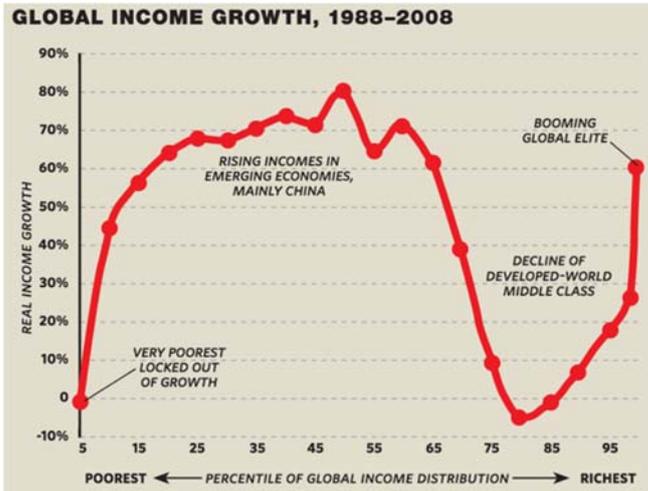
135. The gains from globalization are not evenly distributed: relative gains

The elephant curve on the right shows the percentual gain in real per capita income between 1988 and 2008 (the high globalization period). The horizontal axis ranks people in the world from the poorest (extreme left) to the richest (extreme right). The maximum gain (point A) is near the median (people slightly above the 50th percentile of the global income distribution) and for the richest (the top 1%, point C). The



minimum gain (point B) corresponds to the global 80th percentile (most of it in the lower middle class of the rich countries).

- **Beneficiaries of globalization (1988-2008).** (1) People between the 40th and the 60th percentile (1/5 of the world population). Most members in this group belong to Asian economies (China, India, Thailand, Vietnam, and Indonesia): the emerging global middle class. Hence, the Asian poor and middle classes define the great winners of globalization. (2) The global very rich (the global plutocrats).
- **The least benefited from globalization (1988-2008).** (1) The global poor (located in the countries that are not rich). (2) The global lower middle classes (most of whom live in the rich countries). Thus, the great

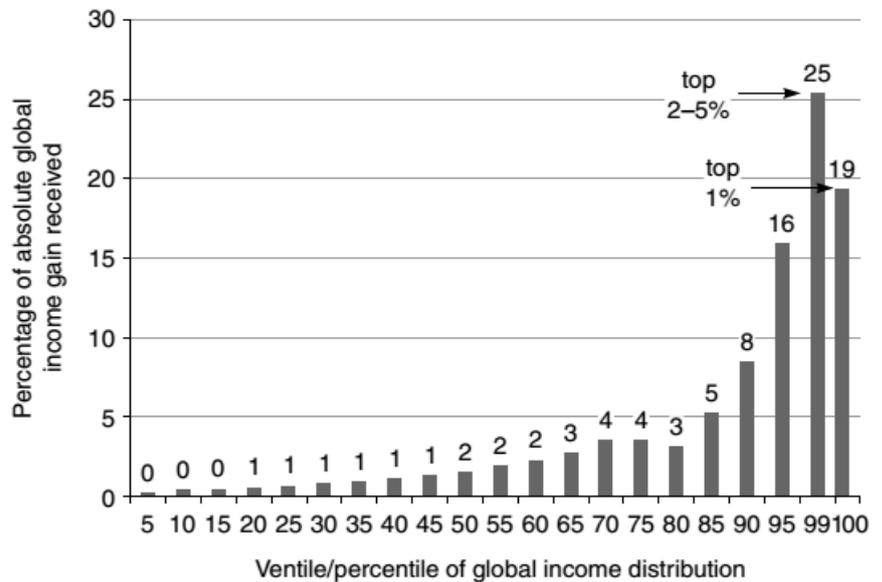


losers of globalization are the lower middle classes and the poorer segments of the rich world.

<http://prospect.org/article/worlds-inequality> wid.world/wp-content/uploads/2018/01/ElephantCurve.pdf

136. The gains from globalization are not evenly distributed: absolute gains

The chart on the right shows how the total increment in income between 1988 and 2008 has been distributed by global income level. It indicates that around the 44% of all the gains has been received by the richest 5% of the world population (the top 1% receiving 19% of the income rise). The other beneficiaries of globalization (the emerging global middle class) pocketed only between 2 and 4%.



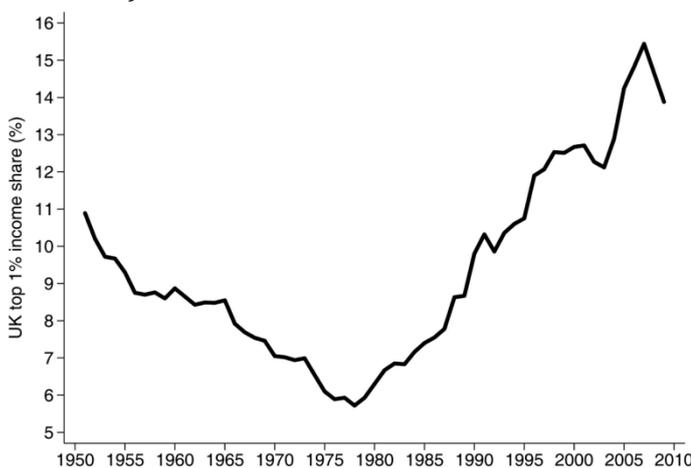
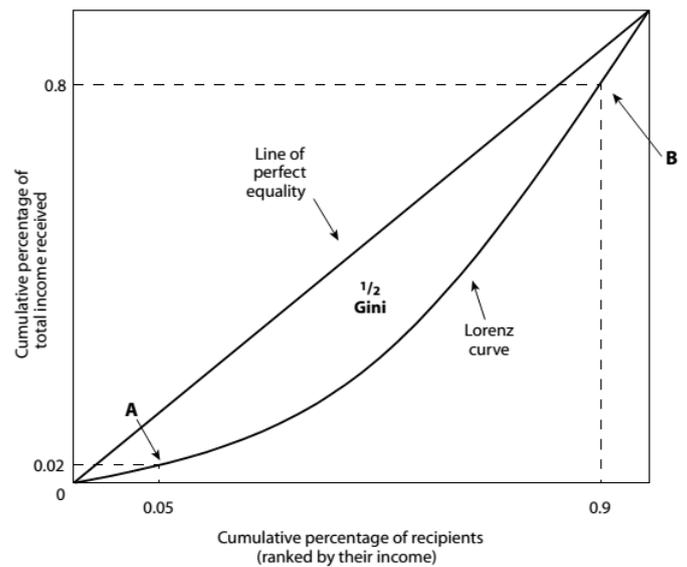
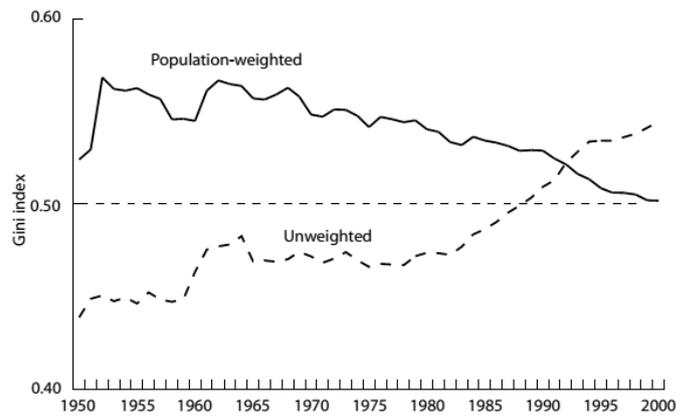
- **Top 1%.** According to Oxfam (16 January 2017), the eight richest men in the world together have the same amount of wealth (\$426 billion = 0.16% of the world's wealth) as the poorest 50% of the world population.
- **\$426 billion.** Spending one dollar per second (\$86,400 per day), it would take more than 13,500 years to exhaust \$426 billion.

https://www.oxfamamerica.org/static/media/files/170105_bn-economy-for-99-percent-160117_embargo-en.pdf

137. Inequality concepts

- **Concept 1 of inequality: unweighted international inequality.** Concept 1 associates with each country a representative individual, who is assigned the country's GDP per capita. Concept 1 actually compares countries, with all of them given the same weight.

- **Concept 2 of inequality: population-weighted international inequality.** As Concept 1, it is assumed that every person in a country receives the same income (the country's GDP per capita), but now the number of representative individuals attributed to each country depends on the country's size. Concept 2 ignores inequality within countries.
- **Concept 3 of inequality: individual international inequality.** In Concept 3 inequality measures are determined directly on individuals, all individuals in the world, with each individual counting the same.
- **Divergent measures of inequality.** The chart above shows two interpretations of the same reality: according to Concept 1, international inequality has increased (upward trend) in the last decades; whereas Concept 2 suggests a fall (downward trend). The difference: the behaviour of China and India (reduction in inequality essentially limited to a few big countries).
- **Gini coefficient (Corrado Gini).** It is a measure of inequality (and income distribution) going from 0 (maximum equality) to 1 (maximum inequality: a single individual receives all the income). The Gini index is the coefficient in percentages. Graphically, it is (twice) the area between the line of perfect equality (the main diagonal) and the Lorenz curve (which charts the proportion of total income received by the cumulative proportion of recipients ranked by their per capita income from poorer to richer; in the graph on the right, point A means that the poorer 5% of individuals receive the 2% of total income).



Milanović, Branko (2007): *Worlds apart: Measuring international and global inequality*, Princeton University Press, Princeton, NJ.

The rise of the super-rich in the UK (McQuaig, Linda; Neil Brooks (2013): *The trouble with billionaires: How the super-rich hijacked the world (and how we can take it back)*)

138. Inequality myths

- **Myth 1:** Inequality is a necessary counterpart of economic dynamism and competitiveness. According to this myth, rising inequality is an inevitable consequence of rapid economic growth (or a necessary condition for competitiveness). Policies that lower inequality, it is claimed, reduce the incentives to work hard and innovate.
- **Myth 2:** The best way to help the poor is to help the rich ("Equity needs growth").
- **Myth 3:** Inequality is actually not a problem as long as extreme poverty is avoided and incomes are all rising ("the rising tide lifts all boats").

- **Myth 4:** As pay is related to ability, rising inequality is just the result of increasing differences in people's ability (I am paid more because I am worth it).

Sudhir Thomas Vadaketh; Donald Low (2014): *Challenging the Singapore Consensus.*

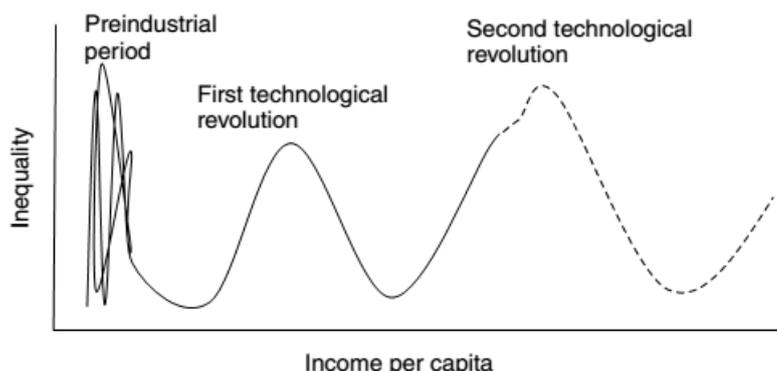
139. The Kuznets curve (or hypothesis)

The Kuznets curve is the conjecture (by Simon Kuznets) relating the level of economic inequality with the level of real income. Graphically, it takes the form an inverted U: for low income levels, inequality is low; as income grows, inequality increases; and, from some sufficiently high income level on, inequality decreases. However, the recent experience of the advanced economies shows that inequality need not decrease with development.

140. The Kuznets wave (or cycle)

The Kuznets wave is the conjecture (Branko Milanović) that there are waves of alternating increases and decreases in inequality in time (as income increases).

- Before the Industrial Revolution inequality undulated around a fixed average income level (in a Malthusian cycle the source of the fluctuation in inequality is demographic: an income rise lower inequality and triggers a population increase among the poor; with a decreasing marginal productivity of labour, a larger population leads to a fall in productivity and income, which increases inequality and moderates population growth).
- The Industrial Revolution made possible a sustained growth of income and also an increase in inequality. First, because higher incomes create the potential for more inequality. Second, because structural changes in the economy (urbanization, rising importance of the industrial sector) drove up inequality. Inequality eventually decreased when the supply of more educated workers increased and economic policies responded to pressures to correct the unevenness of the distribution of income (the welfare state). Military conflicts and political revolutions (themselves often consequences of excessive inequality) also contributed to the reduction in inequality. The 'Great Leveling' refers to the reduction in inequality in the richer countries between 1945 and 1980.
- A new technological revolution affected the rich countries in the 1980s (digital revolution) by widening income disparities. The new technologies rewarded the more skilled workers, pushed up the return to capital and made the less skilled worker suffer the strong competition from China and India. The service sector increased in importance, with many of the new jobs not requiring much qualification and being badly paid. Moreover, pro-rich economic policies tended to be universally adopted.



Milanović, Branko (2016): *Global inequality: A new approach for the age of globalization, Harvard University Press, Cambridge, MA.*

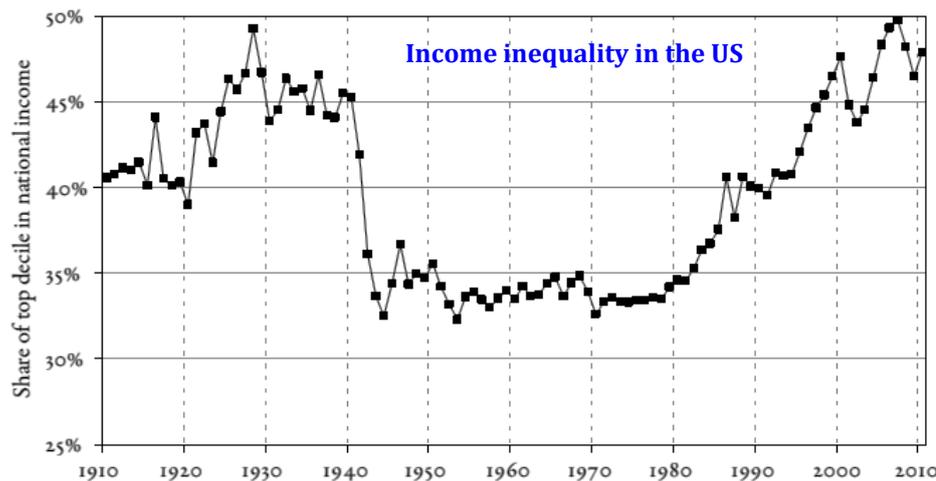
141. How to reduce inequality

Extreme inequality can be solved through the tax system. The mechanisms involved in the first reduction were increased taxation, social transfers, hyperinflation, nationalization of property and wars. Globalization makes more difficult to raise taxation on capital income: it is harder to tax a mobile capital. The rich are also resistant to the application of redistributive measures (neoliberalism and trickle-down economics). And one of the apparent characteristics of globalization is that the winner takes all.

142. Piketty's $r > g$ theory of inequality: the fundamental force of divergence

The symbol r stands for an average rate of return on holdings of wealth over long periods (average return of stocks, corporate bonds, savings accounts, government bonds, real estate, other financial assets...). The symbol g is the GDP growth rate and can be interpreted as the average speed at which incomes in a economy grow. Piketty's theory (the fundamental inequality of capitalism) is that inequality increases when r grows faster than

g . With $r > g$, wealth grows more than income; and as wealth is distributed more unequally than income, a faster growth of wealth with respect to the growth of income contributes to an increase in inequality: the rewards to the owners of wealth are larger than the income that, on average, generates the economy.



$$Y = W + P$$

aggregate income = salaries + profits

$$r = \frac{P}{K}$$

rate of return = profits / capital

$$K' = K + I$$

capital tomorrow = capital today + investment

$$I = s \cdot Y$$

investment = savings rate · income

$$Y' = (1 + g) \cdot Y$$

income tomorrow = (1 + income growth rate) · income today

Let $\alpha = \frac{P}{Y}$, $\beta = \frac{K}{Y}$ and $Y = \frac{Y}{L} \cdot L$, where L is population and $\frac{Y}{L}$ is average productivity. Therefore, $g \approx \lambda + n$: income growth is approximately equal to productivity growth plus population growth. As $\frac{P}{Y} \cdot \frac{Y}{K}$, it follows that $r = \alpha/\beta$ or, equivalently,

$$\alpha = r \cdot \beta$$

which Piketty calls “the first fundamental law of capitalism”. Moreover,

$$\frac{K'}{Y'} = \frac{K + I}{Y'} = \frac{K}{Y'} + \frac{I}{Y'} = \frac{K}{(1 + g) \cdot Y} + \frac{s \cdot Y}{(1 + g) \cdot Y} = \frac{1}{1 + g} \cdot \frac{K}{Y} + \frac{s}{1 + g}$$

At a stationary state, $\frac{K'}{Y'} = \frac{K}{Y} = \beta$. Hence, solving for β , it is obtained Piketty’s “second fundamental law of capitalism” or dynamic law of accumulation:

$$\beta = \frac{s}{g} \approx \frac{s}{\lambda + n}$$

A falling share $\frac{W}{Y}$ of wages in income can be interpreted as a rise in inequality: capital gets an increasing larger portion of income. From $Y = W + P$, $1 = \frac{W}{Y} + \frac{P}{Y} = \frac{W}{Y} + \alpha$. As a result,

$$\frac{W}{Y} = 1 - \alpha = 1 - r \cdot \beta = 1 - \frac{s \cdot r}{g} \approx 1 - \frac{s \cdot r}{\lambda + n}$$

The above equation indicates that the wage share $\frac{W}{Y}$ decreases (inequality goes up) when:

- (i) the savings rate s rises;
- (ii) the rate of return r rises;
- (iii) the rate of growth λ of labour productivity falls;
- (iv) the rate of growth n of population falls; or
- (v) the rate of growth g of the economy declines (this is a combination of (iii) and (iv)).

143. Forces of convergence and divergence of market economies

With a constant s , the dynamics of inequality is explained by the evolution of the private rate of return r on capital and the rate of growth g of income. Having $r > g$ implies that wealth accumulated in the past grows faster than income (and wages). That capital tends to expand itself more rapidly than the economy is the principal force of divergence (inequality). The diffusion of knowledge and skills is a powerful force of convergence (and social stability). Globalization seems to have favoured so far the forces of divergence: the narrowing of income

inequality between countries has been relatively small (look at the Earth at night, or page 7: light = prosperity; darkness = poverty).

144. Piketty's claims

- The growth (or contraction) of an economy's wealth-to-annual-income ratio ($\beta = K/Y$) is the quotient s/g between the net savings (the accumulation rate) and the economy's growth rate.
- Wealth is eventually concentrated in the hands of a small group: the larger β , the more unequal the distribution of wealth.
- An unequal distribution of income is the consequence of an unequal distribution of wealth: the privileged small group will steer political decisions on their behalf, to prevent the rate of profit from falling.
- The privileges of the small group will be preserved through inheritance.
- When wealth is inherited, the small privileged group will possess great influence (politically, economically, socioculturally) that will most likely be exercised to the detriment of the majority.

"The process by which wealth is accumulated and distributed contains powerful forces pushing toward divergence, or at any rate toward an extremely high level of inequality (...) It is possible to imagine public institutions and policies that would counter the effects of this implacable logic: for instance, a progressive global tax on capital. But establishing such institutions and policies would require a considerable degree of international coordination." (Piketty, 2014, p. 27)

Piketty, Thomas (2014): *Capital in the twenty-first century*, Belknap Press, Cambridge, MA.

Dickens, Edwin (2015): "Piketty's Capital in the Twenty-First Century: A review essay", *Review of Political Economy* 27(2), 230-239.

López-Bernardo, Javier; Félix López-Martínez; Engelbert Stockhammer (2016): "A Post-Keynesian Response to Piketty's 'Fundamental Contradiction of Capitalism'", *Review of Political Economy* 28(2), 190-204.

145. A new country: Richistan

"(In the US) The rich weren't just getting richer; they were becoming financial foreigners, creating their own country within a country, their own society within a society, and their economy within an economy. They were creating Richistan." There are four classes in Richistan.

- **Lower Richistan.** Some 7 million households with net worth \$1-10 m. "Most of them are welleducated, work-a-day professionals: corporate executives, doctors, lawyers, bankers, designers, analysts and money managers. More than half their wealth is derived from income, with another third coming from investment returns. In an increasingly global, hightech, finance-oriented economy, Lower Richistanis have benefited from the growing demand for highly educated workers and rising pay at the top."
- **Middle Richistan.** It includes more than 2 million households, with net worth between \$10 m and \$100 m. "Most Middle Richistanis make their money from salaries, small businesses or investment returns. As you move from Lower to Upper Richistan, however, the number of entrepreneurs and business owners starts to increase. Middle Richistan has twice as many entrepreneurs as Lower Richistan, showing that the surest path to big wealth is starting your own company and selling it."
- **Upper Richistan.** It includes thousands of households, with net worth at least \$100 m. "Most made their money by starting their own companies and selling them, although CEOs and money managers (especially hedge funders) are rapidly joining the ranks. The lives of Upper Richistanis have become incredibly complicated. To run them, they're creating 'family offices'—large companies dedicated entirely to serving a family's day-to-day needs, from investments and legal work to travel plans and hiring house staff (...) When you live in Upper Richistan, your entire philosophy of money changes. You realize that you can't possibly spend all of your fortune, or even part of it, in your lifetime and that your money will probably grow over the years even if you spend lavishly. So Upper Richistanis plan their finances for the next hundred years."

- **Billionaireville.** With 13 inhabitants in 1985, it had more than 400 in 2006. “The personal lives of billionaires are more like companies. Their homes are like hotels—sprawling campuses with their own logos, purchasing budgets and legions of staff. Ask a billionaire for his or her bank statement and you’ll get a five-level flowchart of interlocking subsidiaries, holding companies, investment funds and foundations.”

Frank, Robert L. (2007): *Richistan. A journey through the American wealth boom and the lives of the new rich*, Crown Publishers, New York.

146. Inequality trends (in the US)

“While US inequality is part of a global trend, the condition is more acute due to the nature of hyperindividualistic capitalism and public policy in this country.”

- “One of the most important trends (...) is the persistent stagnation of wages since the 1980s. After a period of relative shared prosperity, between 1947 and 1977, when real wages doubled for every stratum of US society, we entered a phase of flat or falling paychecks for a majority of US wage earners. Since 1975, there have been extraordinary gains in productivity. But over half of US wage earners have not shared in the fruits of their labors. In 1970, the bottom half of wage earners, roughly 117 million adults, made an average of \$16,000 a year in current dollars. By 2014, earnings for the bottom half of households had remained virtually unchanged, bumping up slightly to \$16,200. Over the same period, the incomes of the top 1 percent tripled, from average annual wages of \$400,000 to \$1.3 million.
- The result is persistent poverty at the bottom, a work treadmill for low-wage workers, and a squeeze on middle-class workers. For more than four decades, poverty rates have remained unchanged. Over 13.5 percent of the population, an estimated 43 million people, live below the poverty line.”
- “Another form of income inequality is the increasing gap between the compensation of CEOs and top corporate executives compared to average- or lowest-paid workers in firms. In the mid-1960s, the ratio between CEO pay and average worker pay was about 20:1. In recent years, the ratio has swollen to more than 300:1. Skyrocketing CEO pay is one of the drivers of increased income concentration.”
- “Another alarming trend has been the updraft of both income and wealth to the very wealthiest households. Between 1980 and 2013, the richest 1 percent saw their average real income increase by 142 percent, with their share of national income doubling from 10 percent to 20 percent. But most economic gains during this period have flowed to the top 0.1 percent – the top one-tenth of 1 percent – whose real income increased by 236 percent. Their share of national income almost tripled, from 3.4 percent to 9.5 percent. Since the economic meltdown of 2008, an estimated \$91 of every \$100 in increased earnings have gone to the top 1 percent (...) Wealth has increasingly concentrated at the top. The wealthiest 1 percent of households now hold roughly 42 percent of private wealth, up from 33 percent in 1983. At the very pinnacle of US wealth is the Forbes 400 (...) with a combined net worth of \$2.3 trillion. Together, this group has more wealth than the bottom 62 percent of the US population combined. The 20 wealthiest billionaires (...) have more wealth than the entire bottom half of the US population.”
- “One reason the wealthy have so much more than the bottom half of US households is that almost 20 percent of US households have zero or negative net worth.”
- “Reflecting the historic inequalities between white, black, and Latino households, the racial wealth divide has grown over the last several decades. In 2013, the median wealth of white households was an alarming 13 times greater than the median wealth of black households —up from 8 times greater in 2010. White households had 10 times more wealth than Latino households. The richest 100 billionaires have more wealth than the entire African American population (...) 42 million people. The wealthiest 186 billionaires have as much wealth as the entire Hispanic population: more than 55 million people.”
- “Inequality in America is reversible (...) The policy agenda described in this book —such as eliminating student debt, expanding good jobs through green infrastructure, establishing a universal basic income, and expanding homeownership and wealth-building opportunities— are examples of big interventions that will reverse inequality (...) Reversing inequality is not only possible. It is the only path forward.”

Collins, Chuck (2018): *Is inequality in America irreversible?*, Polity Press, Malden, MA.

147. Two views on the impact of globalization on world income (Erik S. Reinert, 2004, p. 1)

- Orthodox view (Paul Samuelson). Unrestricted international trade leads to factor-price equalization: the prices paid to the production factors (capital, labour) will tend to converge around similar values around the world. In particular, wages in poor countries should converge to wages in rich countries.
- Heterodox ('the other canon') view (Gunnar Myrdal). International trade reinforces existing income differences between richer and poorer economies. In this view, the gains from trade are not symmetrically distributed. For example, economies accumulating more human capital are in better position to attract more physical capital, which will become more productive in those economies and will increase the accumulation of human capital there.

Reinert, Erik S.; ed. (2004): *Globalization, economic development and inequality. An alternative perspective*, Edward Elgar, Cheltenham, UK.

148. Is inequality the norm?

"This book began with a simple observation: virtually all human societies are marked by inequality, at a level that surpasses what could be expected from normal differences in individuals' capabilities alone."

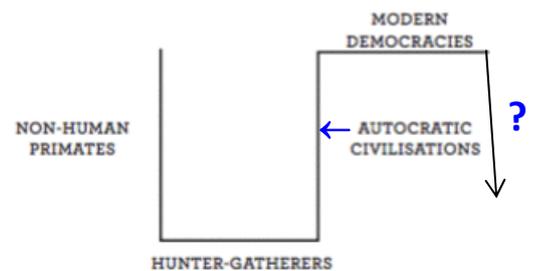
"Small deviations from total equality will increase with time. If property and assets can be inherited, inequality will also intensify from generation to generation (...) Success in competition is not always determined by the traits or behavioral patterns that we would prefer to associate with success."

"The reason why policies of redistribution in the Nordic countries during the twentieth century were successful is that a broad spectrum of instruments were used—education, labor market policy, social insurance, taxes, and transfers. The discussion around the work of Thomas Piketty and his colleagues has been dominated by the issue of capital taxation, which is too narrow a perspective. Certain of the above instruments have become more difficult to use as a result of globalization, whereas national governments retain full authority over education and labor market policy."

Molander, Per (2016): *The anatomy of inequality*, Melville House, Brooklyn and London.

149. U-shaped/saucepan curve of hierarchical/egalitarian societies

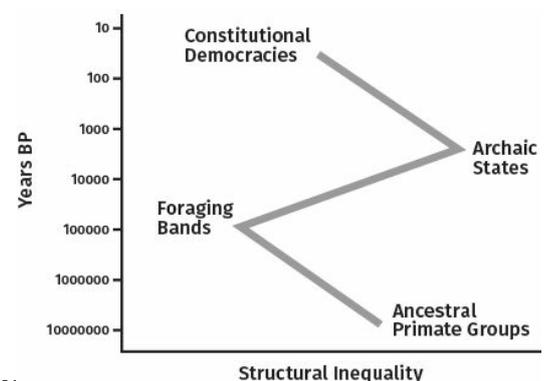
The U-shaped curve captures "the puzzling fact that most non-human primate species live in extremely hierarchical groups (a vertical line), whereas early human beings lived in remarkably egalitarian mini-societies (a horizontal line) — and civilised human beings, for the most part, have reverted to extreme hierarchies (another vertical line, and thus a U-shaped curve) (...) The puzzle was not just a U-shaped curve. It was more like the cross-section of a saucepan, and the (horizontal) saucepan handle was what had happened over the past two-and-a-half centuries in the West and was happening all around the planet right now: the re-emergence of egalitarian values in politics and the spread of democratic systems in modern mass societies."



Dyer, Gwynne (2018): *Growing pains. The future of democracy (and work)*, Scribe, Melbourne and London.

150. Zigzags in the evolution of human equality

"Our Great Ape ancestors lived in hierarchical societies. We believe this because our closest relatives, chimpanzees, bonobos, and gorillas, all live in societies with very strong dominance hierarchies (...) Early humans broke the pattern, evolving a reversed dominance hierarchy whose goal was to suppress potential alpha males. This worked for tens of thousands of years—until the adoption of agriculture and the rise of the first centralized polities allowed the alpha male to resurface with unfettered power in archaic states that were the most despotic societies in which people



have ever had the misfortune to live (...) The second turn, away from despotic archaic states, is much more ancient than might be supposed—the Axial Age, rather than the Age of Enlightenment (...) The military revolution of 1000 BCE that began deep in the Eurasian steppe triggered momentous developments in the belt of agrarian societies stretching from the eastern Mediterranean to China. The new ideologies—Axial religions—introduced a number of cultural innovations that buttressed our capacity for cooperation in large groups. These innovations included social norms and institutions that constrained rulers to act in less selfish and despotic ways.”

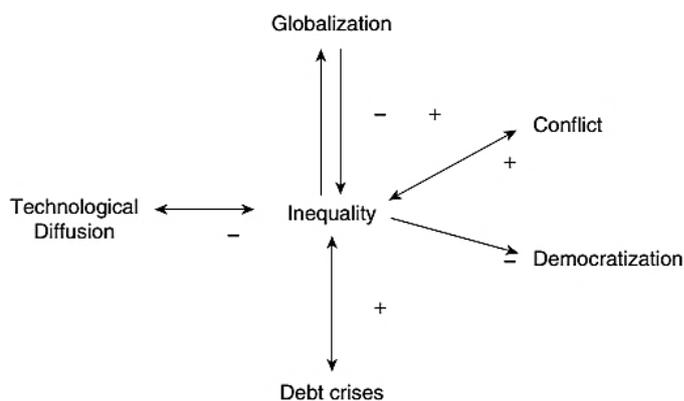
Turchin, Peter (2016): *Ultrasociety: How 10,000 years of war made humans the greatest cooperators on Earth*, Beresta Books, Chaplin, Connecticut.

151. The Iron Law of Oligarchy (Robert Michels, 1911)

“All forms of organization, regardless of how democratic or autocratic they may be at the start, will eventually and inevitably develop into oligarchies.”

152. North-South Gap (North-South Divide)

The North-South Divide refers to the fact that most rich and developed countries lie above the equator and most of the least developed and poor countries lie below. So far there is no solid evidence of a substantial move towards global convergence (apart from already affluent economies). The world still appears divided between a minority of rich countries (the Pacific North) and a majority of poor or semi-poor countries (the conflictual South). The sketch on the right (taken from Thompson and Reuveny, 2010, p. 3) summarizes the basic processes that contribute to preserve the North-South divide (‘-’ means negative relationship, ‘+’ positive relationship).



- **Is globalization consolidating the North-South divide (the rich-poor dichotomy, the centre-periphery division) created by the Great Divergence?** Since the development of the rich countries depends on an increasing use of resources, is it not in the interest of the richer countries to keep the poorer countries poor and weak, so that it will be easier to take from them the resources the rich countries need?

153. Poor economics

“To progress, we have to abandon the habit of reducing the poor to cartoon characters and take the time to really understand their lives, in all their complexity and richness (...) The average poverty line in the fifty countries where most of the poor live is 16 Indian rupees per person per day. People who live on less than that are considered to be poor by the government of their own countries. At the current exchange rate, 16 rupees corresponds to 36 U.S. cents. But because prices are lower in most developing countries, if the poor actually bought the things they do at U.S. prices, they would need to spend more—99 cents. So to imagine the lives of the poor, you have to imagine having to live in Miami or Modesto with 99 cents per day for almost all your everyday needs (excluding housing). It is not easy—in India, for example, the equivalent amount would buy you fifteen smallish bananas, or about 3 pounds of low-quality rice. Can one live on that? And yet, around the world, in 2005, 865 million people (13 percent of the world’s population) did.”

“What is striking is that even people who are that poor are just like the rest of us in almost every way (...) Living on 99 cents a day means you have limited access to information—newspapers, television, and books all cost money—and so you often just don’t know certain facts that the rest of the world takes as given, like, for example, that vaccines can stop your child from getting measles. It means living in a world whose institutions are not built for someone like you. Most of the poor do not have a salary (...) It means going to vote when your entire experience of the political system is a lot of promises, not delivered; and not having anywhere safe to keep your money, because what the bank manager can make from your little savings won’t cover his cost of handling it. And so on.”

“It is not easy to escape from poverty, but a sense of possibility and a little bit of well-targeted help (a piece of information, a little nudge) can sometimes have surprisingly large effects. On the other hand, misplaced expectations, the lack of faith where it is needed, and seemingly minor hurdles can be devastating. A push on the right lever can make a huge difference, but it is often difficult to know where that lever is. Above all, it is clear that no single lever will solve every problem.”

Banerjee, Abhijit V.; Esther Duflo (2011): *Poor economics. A radical rethinking of the way to fight global poverty*, PublicAffairs, New York.

154. Are there poverty traps? Abhijit and Duflo’s S-shape curve

“Instead of discussing how best to fight diarrhea or dengue, many of the most vocal experts tend to be fixated on the ‘big questions’: What is the ultimate cause of poverty? How much faith should we place in free markets? Is democracy good for the poor? Does foreign aid have a role to play? And so on.

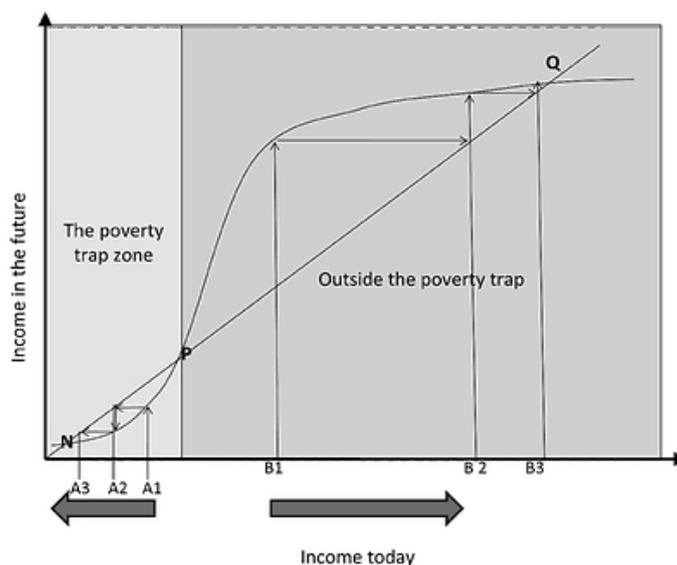
Jeffrey Sachs (...) has an answer to all these questions: Poor countries are poor because they are hot, infertile, malaria infested, often landlocked; this makes it hard for them to be productive without an initial large investment to help them deal with these endemic problems. But they cannot pay for the investments precisely because they are poor—they are in what economists call a ‘poverty trap.’ Until something is done about these problems, neither free markets nor democracy will do very much for them. This is why foreign aid is key: It can kick-start a virtuous cycle by helping poor countries invest in these critical areas and make them more productive. The resulting higher incomes will generate further investments; the beneficial spiral will continue.”

“But then there are others (...) who believe that all of Sachs’s answers are wrong. William Easterly (...) has become one of the most influential anti-aid public figures (...) [Easterly and Dambisa Moyo] argue that aid does more bad than good: It prevents people from searching for their own solutions, while corrupting and undermining local institutions and creating a self-perpetuating lobby of aid agencies. The best bet for poor countries is to rely on one simple idea: When markets are free and the incentives are right, people can find ways to solve their problems. They do not need handouts, from foreigners or from their own governments. In this sense, the aid pessimists are actually quite optimistic about the way the world works. According to Easterly, there are no such things as poverty traps.”

“This book will not tell you whether aid is good or bad, but it will say whether particular instances of aid did some good or not (...) the endless debates about the rights and wrongs of aid often obscure what really matters: not so much where the money comes from, but where it goes. This is a matter of choosing the right kind of project to fund—should it be food for the indigent, pensions for the elderly, or clinics for the ailing?—and then figuring out how best to run it.”

“... this discussion helps us see a general principle. There will be a poverty trap whenever the scope for growing income or wealth at a very fast rate is limited for those who have too little to invest, but expands dramatically for those who can invest a bit more. On the other hand, if the potential for fast growth is high among the poor, and then tapers off as one gets richer, there is no poverty trap.”

“For those who believe in poverty traps, the world looks like [the figure on the right]. Your income today influences what your income will be in the future (the future could be tomorrow, next month, or even the next generation): What you have today determines how much you eat, how much you have to spend on medicine or on the education of your children, whether or not you can buy fertilizer or improved seeds for your farm, and all this determines what you will have tomorrow. The shape of the curve is key: It is very flat at the beginning, and then rises rapidly, before flattening out again. We will call it (...) the *S-shape curve*. The S—shape of this curve is the source of the poverty trap.”



Banerjee, Abhijit V.; Esther Duflo (2011): *Poor economics. A radical rethinking of the way to fight global poverty*, PublicAffairs, New York.

155. Moral imperative to help the poor?

“The philosopher Peter Singer has written about the moral imperative to save the lives of those we don’t know. He observes that most people would willingly sacrifice a \$1,000 suit to rescue a child seen drowning in a pond and argues that there should be no difference between that drowning child and the 9 million children who, every year, die before their fifth birthday. Many people would also agree with Amartya Sen, the economist-philosopher and Nobel Prize Laureate, that poverty leads to an intolerable waste of talent. As he puts it, poverty is not just a lack of money; it is not having the capability to realize one’s full potential as a human being.”

“The main disagreement shows up when we turn to the question, ‘Do we know of effective ways to help the poor?’ (...) The point is simple: Talking about the problems of the world without talking about some accessible solutions is the way to paralysis rather than progress. This is why it is really helpful to think in terms of concrete problems which can have specific answers, rather than foreign assistance in general: ‘aid’ rather than ‘Aid.’”

156. Five lessons to improve the lives of the poor

“... although we have no magic bullets to eradicate poverty, no one-shot cure-all, we *do* know a number of things about how to improve the lives of the poor. In particular, five key lessons emerge.

First, the poor often lack critical pieces of information and believe things that are not true. They are unsure about the benefits of immunizing children; they think there is little value in what is learned during the first few years of education; they don’t know how much fertilizer they need to use; they don’t know which is the easiest way to get infected with HIV; they don’t know what their politicians do when in office. When their firmly held beliefs turn out to be incorrect, they end up making the wrong decision.”

“Second, the poor bear responsibility for too many aspects of their lives. The richer you are, the more the ‘right’ decisions are made for you. The poor have no piped water, and therefore do not benefit from the chlorine that the city government puts into the water supply. If they want clean drinking water, they have to purify it themselves.”

“Third, there are good reasons that some markets are missing for the poor, or that the poor face unfavorable prices in them. The poor get a negative interest rate from their savings accounts (if they are lucky enough to have an account) and pay exorbitant rates on their loans (if they can get one).”

“Fourth, poor countries are not doomed to failure because they are poor, or because they have had an unfortunate history. It is true that things often do not work in these countries: Programs intended to help the poor end up in the wrong hands, teachers teach desultorily or not at all, roads weakened by theft of materials collapse under the weight of overburdened trucks, and so forth. But many of these failures have less to do with some grand conspiracy of the elites to maintain their hold on the economy and more to do with some avoidable flaw in the detailed design of policies, and the ubiquitous three Is: ignorance, ideology, and inertia.”

“Finally, expectations about what people are able or unable to do all too often end up turning into self-fulfilling prophecies.”

Banerjee, Abhijit V.; Esther Duflo (2011): *Poor economics. A radical rethinking of the way to fight global poverty*, PublicAffairs, New York.

157. The new poverty trap of current globalization

This trap is the result of lacking adequate physical infrastructures, capital stock, educational achievement, appropriate institutions, governance skills and ability to control the domestic macroeconomic fundamentals in the presence of free flows of international capital. It also contributes to the trap the enforcement of an institutional international order that favours the rich: transformation of global competition into positional competition (more importance of the trade in services and decommodified goods) and legal architecture that reinforces the leaders in the positional competition (protection to intellectual property rights and to the free mobility of capital).

158. Further observations on inequality

- “Money flows across frontiers, but laws do not. The rich live globally, the rest of us have borders.”
- There is an “inevitable tension between borderless money and bordered states.”

- “In advanced countries increasing inequality is the result of three interacting factors: the strengthening of capital versus labour, increasing individualism and the withdrawal of the redistributive role of the state by decreasing taxes on high incomes, and reductions in the provision of public services through non-market systems, such as education , health, social security and pensions (...) In short, rising inequality has been caused mostly by huge gains made by the banking sector and the lowering of tax rates on higher incomes.”
- “The fundamental flaw of neoliberals is to have just a single and universal recipe for all problems and circumstances. This is too narrow a focus on curtailing the role of the state in the economy and the impediments to the flow of goods, capital and money across borders.”

Morrone, Mario (2018): *What is the truth about the Great Recession and increasing inequality? Dialogues on disputed issues and conflicting theories, Springer, Cham, Switzerland*

159. Something is not working... or is it working too well? (A. Coskun Samli, 2014)

“I am not surprised as much as I am shocked at how we have not learned much about the market economy for which we would go to war, for which we would run for office, for which we would spend billions of dollars so that we could gain political power. But we really don't know much about really what it is and how it works. If Adam Smith were alive, he would be screaming about the fact that there is nothing today that resembles what he advocated (...) These two gentlemen—Marx and Smith—would not have in their wildest dreams believed just what is happening in the United States and in fact in the world today.

In a broad sense, the market economy is there to provide products and services for the consumers so that they can improve their quality of life and take care of their problems as consumers. But what is happening in the United States and in the world, particularly in Europe, is something shockingly different. The masses are putting out their toil so that just a few lucky and privileged people will get richer. In 2010, 97 percent of total American GDP went to 1 percent of the American population. This is even worse than when all Russians worked for the Czars. This certainly is not what Adam Smith and Carl Marx thought or advocated.”

“The society is being run by financiers who truly are not givers or job creators but are ruthless takers who are motivated with their unchecked and uncontrolled greed (...) During the past three decades we moved (...) to [the principle] ‘let them get as much money as possible any way they can and let them keep it’ philosophy. Thus, many CEOs are making millions of dollars in salaries while the minimum wage is only about eight dollars (...) We, as a society, seem to be controlled by greedy CEOs. The military-industrial complex has made recent wars of choice a vehicle to make money for certain groups at the expense of the society.”

“But having said all this, the market system is the only mechanism that would create jobs, would distribute wealth, would generate economic growth, and stabilize the economy by benefiting the whole society, not only the privileged few. But that mechanism simply is not working.”

Samli, A. Coskun (2014): *Dynamic markets and conventional ignorance. The great American dilemma, Palgrave Macmillan, New York.*

160. Unequal distribution of trade gains: impact of trade liberalization on the labour market

There appears to be a general, theoretical consensus that trade liberalization creates gains at the macroeconomic level at the expense of generating losses at the microeconomic level. Specifically, trade liberalization makes low-skilled workers worse off: trade liberalization tends to destroy jobs requiring low or no particular skill and also tends to reduce the wages of these occupations (and, thus, increase income inequality). The unequal distribution of trade gains provides a reason for the adoption of public policies that compensate the groups harmed by trade without losing the trade gains. There are two main policy instruments to redistribute the gains.

- Use wage subsidies for low-skilled workers to offset or attenuate the wage decrease. This policy tool is rarely used.
- Use unemployment benefits to compensate the income that the unemployed no longer obtain from a job they no longer have. The theoretical claim is that this measure raises the average wage in the economy, which reduces the aggregate demand for labour and, as a result, aggregate production; that is, trade gains are partially lost. The funding of unemployment benefits is also a relevant issue. Are they financed by means

of: (i) a wage tax paid by workers; (ii) a payroll tax paid by firms; (iii) a profit tax paid by the exporting firms?

Marco de Pinto (2013): *International trade and unemployment. On the redistribution of trade gains when firms matter*, Physica-Verlag, Heidelberg, Germany.

Giancarlo Gandolfo (2014): *International Trade Theory and Policy*, Springer, Heidelberg, Germany, ch. 16-17.

161. Drivers of the globalization of labour markets

- 'The great doubling' of the global labour force, due to the entry of China, India and Russia in the global economy (nearly 1.5 billion additional workers between 1980 and 2000).
- The expansion of higher education in developing countries (increased by 383% between 1970 and 2000).
- The transfer of modern technology to developing countries.

162. Offshore outsourcing

A key driver of economic globalization is the rapid expansion of offshore outsourcing, itself facilitated by the increasing ability of companies to fragment production processes across national borders. As a result, the world has initiated a transition toward a single global economy.

163. The Great Transformation

Expression that refers to the creation, since around 1980, of a global labour market and the associated redefinition of the social order. The process is analogous to the rise of national market economies in the nineteenth and early twentieth centuries.

164. Winners and losers from the Great Transformation

- **Winners:** businesses that employ workers from developing countries and the workers in developing countries (mainly, China and India) employed by the modern (more productive) sectors.
- **Losers:** workers in other developing countries (manufacturing jobs in Latin America, Africa, and Asia have been transferred to China or India; some of these countries have benefited from an additional international demand for natural resources, but extraction industries employ relatively few workers and create basically low-skilled jobs). In both developing and developed countries, the creation of a global labour market is putting (mostly, low-skilled) workers in a more precarious position: offshore outsourcing give more privileges and negotiating power to businesses.

Paus, Eva; ed. (2007): *Global capitalism unbound. Winners and losers from offshore outsourcing*, Palgrave Macmillan, New York.

165. Inequality myths

- **Myth 1:** Inequality is a necessary counterpart of economic dynamism and competitiveness. According to this myth, rising inequality is an inevitable consequence of rapid economic growth (or a necessary condition for competitiveness). Policies that lower inequality, it is claimed, reduce the incentives to work hard and innovate.
- **Myth 2:** The best way to help the poor is to help the rich ("Equity needs growth").
- **Myth 3:** Inequality is actually not a problem as long as extreme poverty is avoided and incomes are all rising ("the rising tide lifts all boats").
- **Myth 4:** As pay is related to ability, rising inequality is just the result of increasing differences in people's ability (I am paid more because I am worth it).

Sudhir Thomas Vadaketh; Donald Low (2014): *Challenging the Singapore Consensus*.

166. The Earth at night

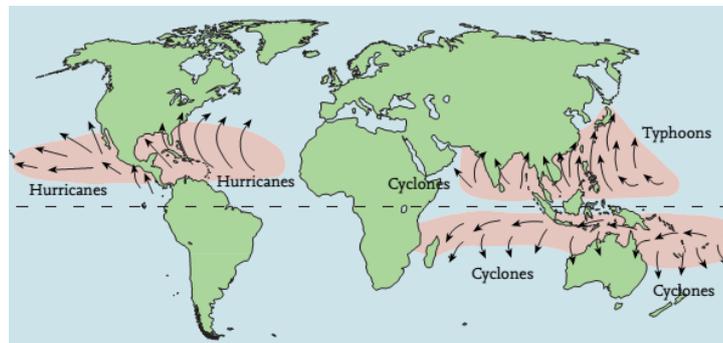
Take any composite image showing simultaneously all the continents at night. Light appears to be a good estimate of wealth and prosperity: the illuminated areas tend to be the richest areas. Illustration: just compare North and South Korea.



https://upload.wikimedia.org/wikipedia/commons/b/ba/The_earth_at_night.jpg

**“The surest way to do more to help the [world’s] poor is to continue to open markets.”
Mike Moore, former Director General of the WTO**

the global loop of ocean circulation (the great ocean conveyor belt); oceans 'increasingly stressed'; more ocean victims of climate change (coral reefs); more, and more intense, tropical cyclones (hurricanes, cyclones, typhoons); threats to biodiversity (flora, fauna) and farming.



Henson, Robert (2011): *The rough guide to climate change. The symptoms, the science, the solutions*, Rough Guides, London.

171. Climate change and farming (Robert Henson, 2011)

“Winners and losers in farming. A battle royal is setting up for the coming decades across the world’s farmlands, where the benefits of extra CO₂ and longer growing seasons will fight it out with intensified drought, spikes of extreme heat and other negatives. It looks as if the balance will have shifted toward the negative by the time mid-latitude land temperatures exceed pre-industrial values by around 3°C (5.4°F), which corresponds roughly to a global rise of around 2°C (3.6°F). One reason is that the fertilization effect of CO₂ for crops like wheat and rice tends to decrease once CO₂ is boosted beyond a certain point. Another is that most of the world’s food crops are grown in the tropics (...) One major study commissioned by the United Nations for 2002’s World Summit on Sustainable Development compared the relative winners and losers in agriculture for a mid-range scenario of global emissions increase by the 2080s. Among the findings:

- Losses in the tropics. Between 42 and 73 countries, many of them in Africa and Asia, could experience declines of at least 5% in their potential to grow cereal crops. Between one and three billion people would be living in countries that could lose 10–20% of their cereal crop potential.
- Gains in the north. In contrast, most of the world’s developed countries would experience an increase in cereal productivity of 3–10%.
- Agricultural GDP. In terms of agricultural gross domestic product, the biggest winners are likely to be North America (a 3–13% increase) and the former Soviet Union (up by 23%). By contrast, Africa could lose 2–9% of its agricultural GDP.”

172. Hydro-climatic change and world stability (Sandford and O’Riordan, 2017)

“Changes in the composition of the Earth’s atmosphere are causing water to move more energetically through the global hydrological cycle, making the world’s water crises even more urgent to address. Until we lost the relative stability of the planetary water cycle, we had no idea how much we relied on that stability. Water is at the very centre of human existence (...) What we are discovering is the extent to which the fundamental function of our political structures and global economy are predicated on relative hydrologic predictability, especially as it relates to precipitation patterns that define water security. As a result of the loss of relative hydrologic stability, it is not just food production, energy use and biodiversity-based Earth system function that are disrupted. Political and economic stability is also at risk in a number of regions in the world (...) Hydro-climatic change has the potential to literally and fundamentally redraw the map of the world (...) The concern among climate scientists is that in the absence of Arctic sea ice, and with oceans warming, we appear to be approaching the point where we have warmed the planet enough that the Earth itself and its cold oceans have begun to literally sweat out greenhouse gases (...) The problem is that there are a lot of hydrocarbons in the ground in the Arctic, and most are kept trapped there by an imperfect cap of frozen ground and permafrost (...) What we appear to be facing in the Arctic is a carbon-release time bomb.”

Sandford, Robert William; Jon O’Riordan (2017): *The hard work of hope: Climate change in the age of Trump*, RMB, Canada.

173. Western civilization = cancer for the Earth.

“Our civilization thus operates in the same way as a cancerous cell that goes on destroying the organism off which it lives.” (p. 3)

de Rivero, Oswaldo (2010): *The myth of development. Non-viable economies and the crisis of civilization*, Zed Books, London and New York.

174. Has humanity been changing the climate since the onset of agriculture? (Even before civilization started the war with nature?)

An anomalous rise in the methane trend coincided with the beginning of irrigation for rice in Southeast Asia. Natural processes fail to explain why new ice sheets have not reappeared in northeast Canada when the cycles of Earth's orbit predict that they should have. Thus, had humans not begun agriculture, there would now be a gigantic, continental ice sheet covering regions of Canada (W. F. Ruddiman, 2010, *Plows, plagues and petroleum: How humans took control of climate*).

175. Is capitalism eventually self-destructive?

The industrial capitalist society has created a chasm between society and nature, when the former cannot subsist independently of the latter. By destroying nature, the capitalist society destroys itself. The expansionary trends of a global capitalist economy places burdens on the planet and endangers its regenerative capacity.

176. Anthropocene

Term coined by atmospheric chemist Paul Crutzen that refers to the geological epoch in which humanity is capable of causing short-term changes in the planet. Fronts on which the planet is being assaulted by human activities: climate, ocean acidification, stratospheric ozone depletion, the nitrogen and the phosphorus cycles, global freshwater use, land use, biodiversity loss, chemical pollution. The term captures the idea that biogeochemical cycles, the atmosphere, the ocean, and the earth system as a whole are no longer immune to the human economy. It is preceded by the Holocene (the period started 10k-12k years ago).

177. The global ecological rift

It is the break in the relationship between the world economy and the planet arising from a continuously expanding world economy. There are insurmountable physical boundaries to economic expansion beyond which the planet's ecological viability is compromised. Are there thresholds (tipping points) for those fronts from which no return is possible? Has any of those thresholds been already crossed?

178. Social vs natural scientists

Social scientists do not appear to have risen to the challenge: even if the global problem is acknowledged, no real attack has been proposed or deemed necessary. "Sustainable (green) capitalism" is claimed to provide the solution. The real objective seems to be preserving capitalism rather than preserving the planet. "Saving" the planet is a new opportunity to make profits. A new capitalism can coexist with the planet. It is natural scientists who appear to be more concerned about the burdens industrial capitalism imposes on the planet.

179. Climate change: economic or political problem?

"I differ with those who identify capitalism as the principal fault line on the landscape of climate change. It seems to me that this landscape is riven by two interconnected but equally important rifts, each of which follows a trajectory of its own: capitalism and empire (the latter being understood as an aspiration to dominance on the part of some of the most important structures of the world's most powerful states). In short, even if capitalism were to be magically transformed tomorrow, the imperatives of political and military dominance would remain a significant obstacle to progress on mitigatory action."

"The fact is that we live in a world that has been profoundly shaped by empire and its disparities. Differentials of power between and within nations are probably greater today than they have ever been. These differentials are, in turn, closely related to carbon emissions. The distribution of power in the world therefore lies at the core of the climate crisis."

180. Climate change: who is to bear the adjustment costs?

“The cynicism of the politics of the armed lifeboat is matched, on the other side, by the strategy that the elites of some large developing countries, like India, seem to be tacitly inclining towards: a politics of attrition. The assumption underlying this is that the populations of poor nations, because they are accustomed to hardship, possess the capacity to absorb, even if at great cost, certain shocks and stresses that might cripple rich nations (...) In poor countries, even the middle classes are accustomed to coping with shortages and discomforts of all sorts; in the West, wealth, and habits based upon efficient infrastructures, may have narrowed the threshold of bearable pain to a point where climatic impacts could quickly lead to systemic stress.”

“The geologist David Archer reckons that to reach a genuinely fair solution to the problem of emissions would ‘require cuts in the developed world of about 80 percent. For the United States, Canada and Australia, the cuts would be closer to 90 percent.’”

181. Politics of climate change

“One of the most important factors in the global politics of climate change is the role the Anglosphere plays in today’s world (...) The fact that laissez-faire ideas are still dominant within the Anglosphere is therefore itself central to the climate crisis. In that global warming poses a powerful challenge to the idea that the free pursuit of individual interests always leads to the general good, it also challenges a set of beliefs that underlies a deeply rooted cultural identity, one that has enjoyed unparalleled success over the last two centuries. Much of the resistance to climate science comes exactly from this, which is probably why the rates of climate change denial tend to be unusually high throughout the Anglosphere. Yet it is also true that the Anglosphere, the United States in particular, has produced the overwhelming bulk of climate science, as well as some of the earliest warnings of global warming.”

182. 2015 texts on climate change

“2015 did produce two very important publications on climate change: the first, Pope Francis’s encyclical letter *Laudato Si’*, was published in May; while the second, the Paris Agreement on climate change, appeared in December (...) In *Laudato Si’*, the words *poverty* and *justice* keep close company with each other. Here poverty is not envisaged as a state that can be managed or ameliorated in isolation from other factors; nor are ecological issues seen as problems that can be solved without taking social inequities into account (...) This in turn leads to the blunt assertion that ‘a true “ecological debt” exists, particularly between the global north and south’. Here again the contrast with the Paris Agreement is stark. When poverty finds mention in the Agreement, it is always as a state in itself, to be alleviated through financial and other mechanisms. The word never occurs in connection with *justice*.”

“In the text of the Paris Agreement, by contrast, there is not the slightest acknowledgement that something has gone wrong with our dominant paradigms; it contains no clause or article that could be interpreted as a critique of the practices that are known to have created the situation that the Agreement seeks to address. The current paradigm of perpetual growth is enshrined at the core of the text.”

Ghosh, Amitav (2016): *The great derangement. Climate change and the unthinkable*, Allen Lane.

183. Big threats to 21st century world economy.

Threat of scarcity and threat of abundance: ecological catastrophe (how it affects the future of life on Earth) and automation (how it affects the future of work in economies).

184. Magnification

Globalization multiplies the human impact on the planet. Many consequences of this impact will remain even if globalization stops or reverts. At present, drinkable water sources are being depleted, soils eroded, glaciers melting, sea ice diminishing, fish stocks disappearing, extreme storm events increasing in frequency, human population growing...

185. Are we too many?

Currently at some 7.3 billion, population grows by about 80 million per year. Around one billion suffer from hunger. The population explosion in the world after World War II was facilitated by the diffusion of medical care to underdeveloped countries (thanks to institutions like the World Health Organization and UNICEF). The demographic dividend (more young than old people allowing the economy a financial surplus) will eventually fade away and the situation reverse when the boomers retire (will there be enough people to play for the pensions? How will an aging population be supported?).

186. Increasing CO₂ concentration in the atmosphere

The burning of fossil fuels and cutting down of forest have emitted, since the start of the industrial revolution, more than 0.5 trillion tons of CO₂. This has created the highest concentration of CO₂ in the last 800,000 years. In 2013, global concentration of atmospheric carbon dioxide reached 400 parts per million, a threshold unsurpassed in the last 3 million years.

187. Ocean acidification

Since the seas and the atmosphere exchange gases, part of the atmospheric CO₂ ends up in the oceans, thereby contributing to its acidification. Ocean acidification has been called *global warming's equally evil twin* (Jane Lubchenco), as it changes the chemistry of seawater.

188. Limits to growth (Meadows et al., 2005)

- **Increasing cost of sustaining growth.** An expanding population combined with an increasing accumulation of physical capital requires more resources to be diverted to cope with global ecological constraints (depletable natural resources and limited absorption capacity of emissions). This will eventually restrain the capacity of expanding production and the sustainability of economic growth.
- **Scenarios.** The inability to continuously sustain an expansion of production will cause a population contraction. (1) The end of growth takes the form of a collapse (rapid decline in output, population, health and an increase in conflict, inequality, ecological devastation following a growth overshoot). (2) It may take the form of a smooth adaptation to the Earth's support capacity (through some corrective action).
- **The big question.** Has humanity already overshoot the Earth's carrying capacity (surpassed the global ecological constraints?).
- **Evidence of soft landing or apparent success in attaining sustainable growth?** During the last decades: new technologies to lower pollution have been developed, consumers have adapted habits, international agreements have been signed, new institutions have emerged, higher income levels have reduced population growth, more widespread awareness of environmental problems... humanity already overshoot the Earth's carrying capacity.
- **The global challenge.** A sustainable world economy demands that the poorer countries reach higher consumption levels. This transition will have to be accompanied with technological, social and political changes consistent with long run goals. Those changes will need decades, but meanwhile the ecological footprints of humanity become bigger.
- **Three outlooks.** (1) Optimism: with adequate information, people will choose the right solution (global solutions to avert overshoot or, at least, collapse). (2) Cynicism: people will not stop responding to just short term goals and will not sacrifice current welfare levels to benefit future generations (reality will be ignored). (3) Middle road: lessons will be learned the hard way (a sustainable path will be reached, and collapse averted, only after having suffered global crises resulting from inaction or insufficient responses, but at the price of exhausting resources, losing attractive options, suffering more inequality and tolerating more conflict).

Meadows, Donella; Jorgen Randers; Dennis Meadows (2005): *Limits to growth. The 30-year update*, Earthscan, London.

189. Coase theorem (Ronald Coase)

“Let exclusive property titles to the environment be defined, and let them be transferable. Let there be no transaction costs. Let individuals maximize their utilities, and let them be non-altruistic. Then a bargaining solution among different users of the environment will result in a Pareto-optimal allocation of the environment. The resulting allocation is independent of the initial distribution of property titles.”

Siebert, H. (2008): *Economics of the environment*, Springer, Berlin.

Wiesmeth, Hans (2012): *Environmental economics Theory and policy in equilibrium*, Springer, Berlin.

“The negotiations are currently still in a deadlock because short-term national interests are blocking a prompt and effective global climate protection agreement...”

German Advisory Council on Global Change (WBGU) (2009): *Solving the climate dilemma. The budget approach*, Berlin.

“...the reasons for Americans’ failure to recognize the great significance of climate change is that we are wedded to an economic model and practices that privilege competition over cooperation, selfish pursuits over promoting the common good, and greed over generosity. Ingrained in American society and practices are emphases on “big,” “fast,” “efficient,” “competitive,” and “profitable.” We Americans have not especially privileged “sustainable” in our communities, society, and economy.”

Judith Blau (2017): *The Paris Agreement. Climate change, solidarity, and human rights*, Palgrave Macmillan, Cham, Switzerland.

“... Pericles wisely observed that ‘where there is no vision, the people shall perish.’ Today, a lack of vision with respect to climate change adaption and mitigation will lead to populations and nations that indeed perish from flooding, drought, health crises and environmental destruction. The signs are clear and undeniable in all parts of the world where weather phenomena triggered by climate change are becoming increasingly evident and dangerous. Climate projections for the year 2100 are daunting...”

Ross Michael Pink (2018): *The climate change crisis. Solutions and adaption for a planet in peril*, Palgrave Macmillan, Cham, Switzerland.

190. History is an opportunity to learn from past mistakes

The greatest risk to humanity in coming decades is the continuous damage to the environment to a degree incompatible with the current standard of living, or even incompatible with the existence of humanity. All pre-industrial societies were vulnerable to collapse: a local intense decrease in human population and/or in political, economic, or social complexity.

- Easter Island is a spectacular historical example of collapse. When humans settled, the environment was rich; eventually, forest were completely cleared and most bird species become extinct. Other examples: Mangaia, Mangareva, Rapa, low Marquesan islands, parts of New Caledonia, parts of Fiji. In some islands in the Pacific the result was complete abandonment. Some Native American societies (like the Anasazi) in the U.S. Southwest before 1492 constitute another example of collapse.
- Despite the fact that societies apparently tend to approach the margin of what the environment can support, in the past collapse was not the necessary outcome: many societies have existed continuously for thousands of years without any signs of collapse (Japan, Java, Tonga, Tikopia, Tahiti, Rarotonga). Are modern (technological advanced societies) immune to collapse?
- Why, when environmental disaster seems apparent, measures are not always taken to avert disaster? How to differentiate environmental factors (deforestation, salinization, soil nutrient exhaustion, drop of water tables, drought) behind collapse from cultural/social factors?

191. Jared Diamond’s (2000) explanation of collapse

“... people living in fragile environments, adopting solutions that were brilliantly successful and understandable in the short run, but that failed or else created fatal problems in the long run when confronted with external environmental changes or human-caused environmental changes that people without written histories or

archaeologists could not have anticipated.”“Past societies faced frequent ecological crises of small amplitude over small areas. Modern global society faces less frequent but bigger crises over larger areas.”

192. Are non-ambiguous the lessons of the past?

The response to the environmental crises in Western Europe between the 14th and 18th centuries was innovation and intensification. This response was flexible, broad, decentralized and protracted. Based on this experience, is alarmist the claim that, under the current pattern of global resource exploitation, the future of humanity is at risk? Butzer (2012) contends that one should not ignore the resilience and the capacity of readaptation of societies. Social stress creates the conditions and incentives to try new ideas and solutions, above all in societies favouring bottom-up options, in contrast to the authoritarian strategies characteristic of pre-industrial societies.

193. Intensification

According to Tainter (2006), the big question at present is whether intensification can continue indefinitely. The view of orthodox economists is that new technologies and new resources to address all kinds of problems will always be found: the future is always promising. The alternative view is that the present global civilization is like any other previous civilization, in the sense that no civilization can survive the destruction of its natural base. Economies depend on ecosystems. What is the future of an economy shrinking forests, eroding soils, depleting aquifers, collapsing fisheries, raising temperature, melting ice sheets...? Collapse in the past was typically preceded by the spread of hunger (hunger at the global scale has not yet disappeared).

194. Technology and complexity

Modern societies rely on a continued improvement of technology. This makes economies increasing complex and all its components more interdependent. As a result, economies are more vulnerable to shocks. The infrastructures required to maintain the stability and complexity of modern economies (electrical power, water and food supply, communication, transportation, health care, defense, finance) are increasingly intertwined, so that troubles in one component more easily may spread to other components.

195. The Malthusian law: humanity cannot defeat nature

Thomas Robert Malthus (1766–1834) put forward the thesis that population growth is (at least eventually) faster than agricultural growth (food production) and that, in fact, population tends to increase beyond the numbers that can be fed. This thesis questioned the sustainability of an increasing population. As a result of the different potential capacity of population and food supplies to expand, a continued population growth will be negatively checked by food shortages, poverty, deprivation and diseases. Hence, if population is not positively checked (measures that reduce fertility), its growth will come to an end through famine (insufficient food supply). Malthus did not see in technological progress an escape from this law: increases in population are always dangerous and stimulated by increasing prosperity, so technological improvements merely increase the size of population checked down by famine. A modern, environmental version of the Malthusian law is that population growth is, by necessity, limited by the natural environment.

196. The Malthusian view

By extension, a Malthusian view can be defined according to which population (population growth, specifically) is the source of all problems. A continued population growth will worsen existing problems and generate new ones. According to Robert May (1993), “the continuing growth of human populations (...) is the engine that drives everything.”

197. Kenneth Boulding's theorems on population

- **The Dismal Theorem.** If the only ultimate check on the growth of population is misery, then the population will grow until it is miserable enough to stop its growth.

- **The Utterly Dismal Theorem.** Technical improvements can only relieve misery temporarily: since, by The Dismal Theorem, misery will ultimately check population, the final result of any technical improvement is increase the amount of people that will live in misery and, accordingly, the total amount of human misery.
- **The Moderately Cheerful Form Dismal Theorem.** If misery and starvation is not the only way to keep a prosperous population in check, population does not have to grow until it is miserable and starves, so it can be stably prosperous.

198. Bartlett's Laws of Sustainability

- "Population growth and/or growth in the rates of consumption of resources cannot be sustained".
- "The larger the population of a society and/or the larger its rates of consumption of resources, the more difficult it will be to transform the society to a condition of sustainability". These two laws imply that the concept of sustainable growth is an oxymoron.

Bartlett, Albert A. (1998): "Malthus marginalized: The massive movement to marginalize the man's message", The Social Contract, 239-252

Boulding, Kenneth (1971): "Foreword to T. R. Malthus, Population, The First Essay", in Collected Papers, Vol. II, Colorado Associated University Press, Boulder, pp. 137-142.

Bartlett, A.A., (1994), "Reflections on sustainability, population growth, and the Environment", Population & Environment 16(1), pp. 5-35.

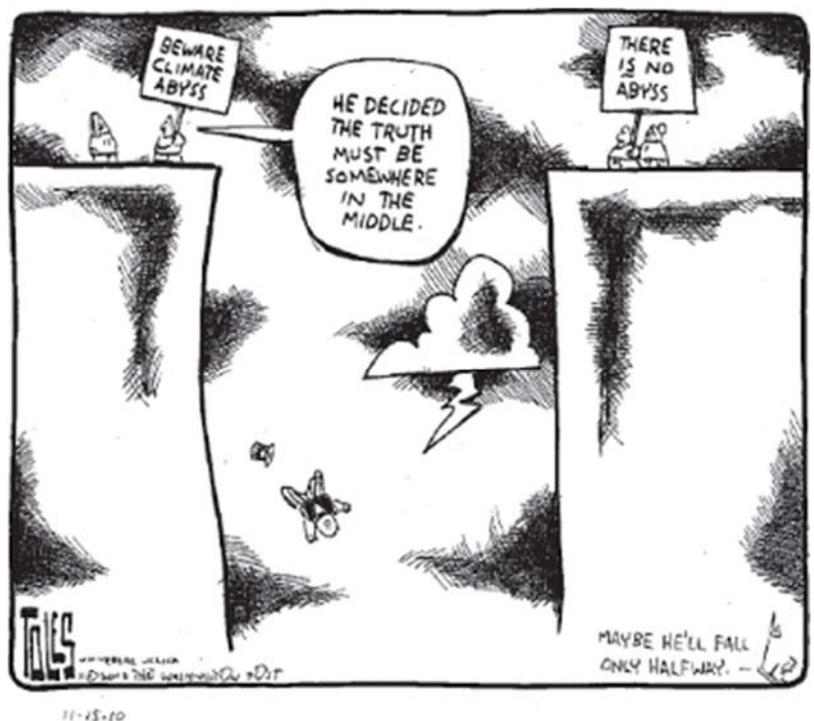
199. Global environmental threats: ozone depletion

The stratospheric ozone layer (acting like a sunscreen) absorbs the portion of the ultraviolet light (UV-B radiation) that is harmful to most life on Earth (UV-B radiation cause damage to eyes, skin, genetic material, the immune system...). Excessive UV-B exposure is likely to compound its effects on the ecosystem with other global environmental threats: global warming, ocean acidification and pollution. The 2008 Antarctic ozone hole was one of the largest and most long-lived. The biggest ozone hole over the Arctic occurred in 2011.

Abbasi, S. A.; Tasneem Abbasi (2017): Ozone hole. Past, present, future, Springer, New York.

200. The virtue is not always on the middle ground

On certain debates that rely on matters of fact and objective information (like climate change) supporting the view that there are two equal sides implicitly justifies bad-faith skepticism (skepticism that does not intend to improve understanding of reality and that simply claims that it is legitimate to doubt about everything). Regarding the issue of whether climate change is human-caused, the weight of the sides (publishing scientists) is something like 97% against 3%.

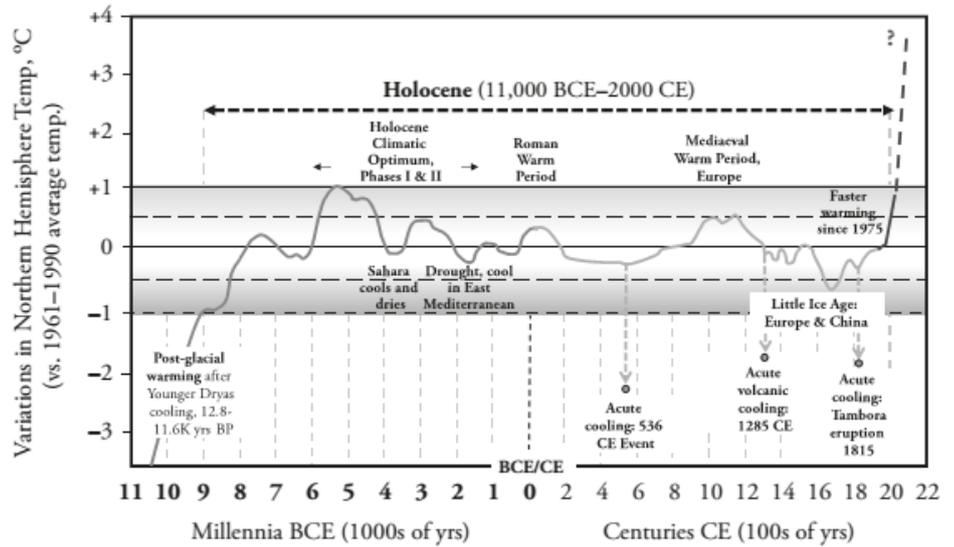


201. The hockey stick curve

The hockey stick curve is a graph depicting temperature trends in the last millennium. It shows the unprecedented nature of modern global warming. The scientific community has reached a general consensus that climate change is real (it is actually occurring), caused by the activity of human beings and already a problem.

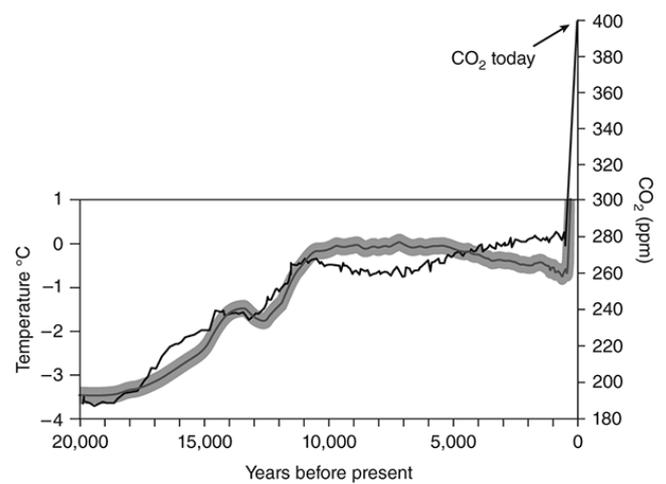
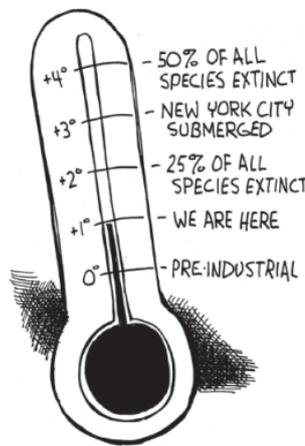
202. CO₂ emissions

Human activity generates more than 30 billion tons of CO₂ pollution per year. Averaging the weight of a human being at 70 kg, these 30 gigatons are equivalent to the weight of 428,5 billion people. So the annual weight of CO₂ emissions is some 60 times the total number of people on the Earth.



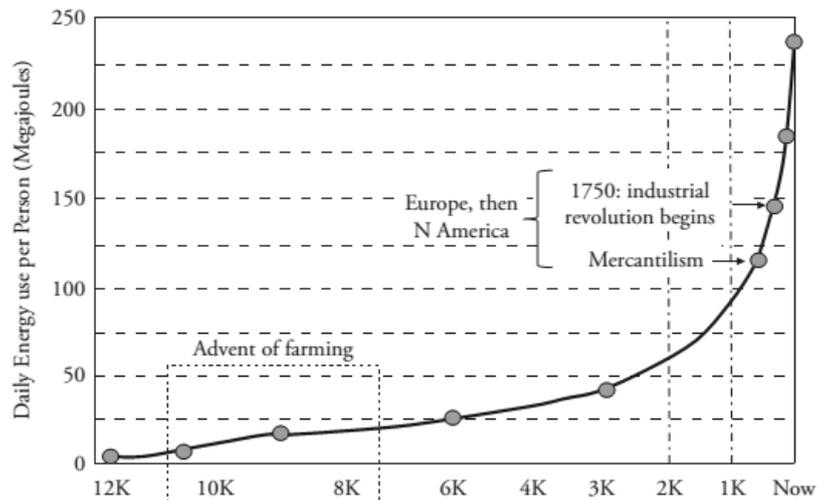
203. Ecological footprint

The ecological footprint is an estimate of the amount of resources, production, consumption and waste used by an individual. Its units are planet units: the number of planet Earths needed if every individual lived the way the individual lives. This footprint is growing. Total human demands exceeded Earth's biocapacity around 1980. Currently the demand requires the equivalent biocapacity of 1.5 Earths to feed, provide materials, regenerate, self-replenish and absorb wastes.



204. Energy use

At the onset of the agricultural revolution (some 10,000 years ago) farmers used 20 megajoules of energy (physical labor) daily. The average North American now operates daily on at least 1,000 megajoules. The current global average is around 250 megajoules.



205. Has humanity been climately fortunate?

During the Holocene, the last 12,000 years, the global climate has been relatively constant. Average global surface temperature: 15°C. Regional decadal- average temperatures rarely have exceeded 2°C. In Europe, temperatures between the peak Medieval Warm and the Little Ice Age nadir differed by some 1.5°C. So the trajectory of the world economy since the agricultural revolution has been blessed by a (extraordinary?) stable global climate. How much could this lucky conditions last? Now, humanity faces changes in the global climate greater and faster than anything in recorded human history. The world may be heading towards an average global warming of up to 4°C during the 21st century.

206. Message on Climate Change to World Leaders

“Human-induced climate change is an issue beyond politics. It transcends parties, nations, and even generations. For the first time in human history, the very health of the planet, and therefore the bases for future economic development, the end of poverty, and human wellbeing, are in the balance. If we were facing an imminent threat from beyond Earth, there is no doubt that humanity would immediately unite in common cause. The fact that the threat comes from within —indeed from ourselves— and that it develops over an extended period of time does not alter the urgency of cooperation and decisive action.” Signed by over 4,000 scientists worldwide, July-August 2014.

Mann, Michael E.; Tom Holes (2016): *The madhouse effect. How climate change denial is threatening our planet*, Columbia University Press, New York

Maslin, Mark (2014): *Climate change. A very short introduction*, Oxford University Press, Oxford, UK.

McMichael, Anthony J.; Alistair Woodward; Cameron Muir (2017): *Climate change and the health of nations. Famines, fevers, and the fate of populations*, Oxford University Press, New York.

National Academy of Sciences; The Royal Society (non-dated): *Climate change: Evidence and causes*.

Westergård, Rune (2018): *One planet is enough. Tackling climate change and environmental threats through technology*, Cham, Switzerland.

207. Gaia theory

It is the view that planet Earth is a self-regulating system consisting of the totality of living organisms, surface rocks, ocean and atmosphere theory. All these elements interact as an evolving system. The theory ascribes a goal to the system: the surface conditions on Earth are self-regulated to be favourable to preserve existing life. Earth system science developed from Gaia theory by retaining the view of Earth as a dynamic entity whose material and living parts are coupled and that self-regulates its climate and chemistry, but by rejecting the claim that self-regulation has the goal of habitability.

Lovelock, James (2000): *Gaia: A new look at life on Earth*, Oxford University Press, Oxford, UK.

Lovelock, James (2009): *The vanishing face of Gaia: A final warning*, Basic Books, New York.

Dawson, Jonathan; Ross Jackson; Helena Norberg-Hodge (2010): *Gaian economics. Living well within planetary limits*, Permanent Publications, Hampshire, UK.

208. The PAT formula: $I = PAT$

The environmental impact I of a society equals the product of population P (demographic causes/factors), affluence A (capital accumulation) and technology T (A and T summarize the socioeconomic cause). The component A can be expressed as $\frac{K}{L} \cdot \frac{Y}{K}$, where K represents the capital stock, L population and Y aggregate production (GDP). The ratio $\frac{K}{L}$ is a measure of the intensification of the economy (how much capital per person is available to produce) and the ratio $\frac{Y}{K}$ is the average productivity of the capital stock (how much production each unit of capital generates). The component T can be decomposed as $\frac{E}{Y} \cdot \frac{impact}{E}$, where E stands for “energy” (so E/Y is the amount of energy per unit of product) and $\frac{impact}{E}$ measures the environmental impact per unit of energy used in production.

209. Global energy dilemma

A stable economic development depends on enough energy resources being available. The dilemma is that the energy contest between renewables and non-renewables (fossil fuels) is weighted in favour of the infrastructures, strategies and interests of the oil majors. The transition probably requires new players but the existing players have an almost complete power to block entrance. The transition is relatively straightforward, as the new technologies exist and the annual cost of implementing it is moderate (less than 2% of GDP). The

obstacles preventing the transition are political: particular interests dominate at the national level, and national interests at the global level (Gwynne Dyer, 2008, *Climate wars*).

210. The catastrophic convergence (Christian Parenti, 2016)

“Climate change arrives in a world primed for crisis. And the political responses to climate change increasingly take the form of ethnic, religious, or class violence in the form of banditry, rebellion, warfare, state repression and general militarisation. This is because the current and impending dislocations of climate change intersect with the already existing crises of poverty and inequality left by thirty years of neoliberalism, and the violence and tattered social fabric left by Cold War-era military conflicts. I call this collision of political, economic and environmental disasters the ‘catastrophic convergence.’”

“Societies, like people, deal with new challenges in ways that are conditioned by the traumas of their past. Thus damaged societies, like damaged people, often respond to new crises in ways that are irrational, short-sighted and self-destructive. In the case of climate change, the past traumas that set the stage for bad adaptation – a destructive social response– are Cold War-era militarism and the economic pathologies of neoliberal capitalism. Over the last forty years, both these forces have distorted the state’s relationship to society – removing and undermining the state’s collectivist, regulatory and redistributive functions– while overdeveloping its repressive and military capacities. And this, I contend, seriously challenges society’s ability to avoid violent dislocations as climate change kicks in.”

“Societies suffering from continued neoliberal austerity measures, and a new round of counter-insurgency now delivered under the framework of the war on terror, cannot be expected to address the implications of climate change. Real mitigation likewise requires moving away from an unbridled free market economic orthodoxy that is only hindering our attempts to cope with climate change.”

Parenti, Christian (2015): “The catastrophic convergence: Militarism, neoliberalism and climate change,” chapter 1 in Buxton, Nick; Ben Hayes; eds. (2016): *The secure and the the dispossessed. How the military and corporations are shaping a climate-changed world*, Pluto Press, London.

211. Planetary boundaries

“The ecological ceiling comprises the nine planetary boundaries proposed by an international group of Earth-system scientists led by Johan Rockström and Will Steffen. These nine critical processes are:

- *Climate change.* When greenhouse gases such as carbon dioxide, methane and nitrous oxide are released into the air, they enter the atmosphere and amplify Earth’s natural greenhouse effect, trapping more heat within the atmosphere. This results in global warming, whose effects include rising temperatures, more frequent extremes of weather, and sea level rise.
- *Ocean acidification.* Around one quarter of the carbon dioxide emitted by human activity is eventually dissolved in the oceans, where it forms carbonic acid and decreases the pH of the surface water. This acidity reduces the availability of carbonate ions that are an essential building block used by many marine species for shell and skeleton formation. This missing ingredient makes it hard for organisms such as corals, shellfish and plankton to grow and survive, thus endangering the ocean ecosystem and its food chain.
- *Chemical pollution.* When toxic compounds, such as synthetic organic pollutants and heavy metals, are released into the biosphere they can persist for a very long time, with effects that may be irreversible. And when they accumulate in the tissue of living creatures, including birds and mammals, they reduce fertility and cause genetic damage, endangering ecosystems on land and in the oceans.
- *Nitrogen and phosphorus loading.* Reactive nitrogen and phosphorus are widely used in agricultural fertilisers but only a small proportion of what is applied is actually taken up by crops. Most of the excess runs off into rivers, lakes and oceans, where it causes algae blooms that turn the water green. These blooms can be toxic and they kill off other aquatic life by starving it of oxygen.

- **Freshwater withdrawals.** Water is essential for life and is widely used by agriculture, industry and households. Excessive withdrawals of water, however, can impair or even dry up lakes, rivers and aquifers, damaging ecosystems and altering the hydrological cycle and climate.
- **Land conversion.** Converting land for human use – such as turning forests and wetlands into cities, farmland and highways – depletes Earth's carbon sinks, destroys rich wildlife habitats, and undermines the land's role in continually cycling water, nitrogen and phosphorus.
- **Biodiversity loss.** A decline in the number and variety of living species damages the integrity of ecosystems and accelerates species extinction. In doing so it increases the risk of abrupt and irreversible changes to ecosystems, reducing their resilience and undermining their capacity to provide food, fuel and fibre, and to sustain life.
- **Air pollution.** Micro-particles, or aerosols, emitted into the air – such as smoke, dust and pollutant gases – can damage living organisms. Furthermore, they interact with water vapour in the air and so affect cloud formation. When emitted in large volumes these aerosols can significantly alter regional rainfall patterns, including shifting the timing and location of monsoon rains in tropical regions.
- **Ozone layer depletion.** Earth's stratospheric ozone layer filters out ultraviolet radiation from the sun. Some human-made chemical substances, such as chlorofluorocarbons (CFCs) will, if released, enter the stratosphere and deplete the ozone layer, exposing Earth and its inhabitants to the sun's harmful UV rays."

Raworth, Kate (2017): *Doughnut economics. Seven ways to think like a 21st-century economist*, Random House Business Books.

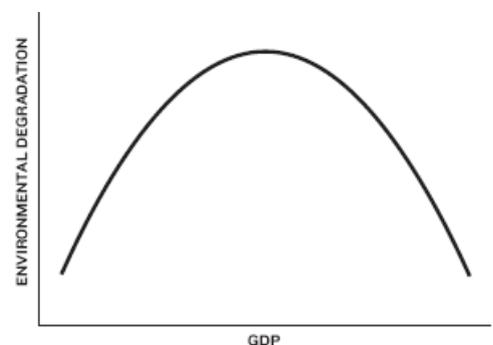
212. The Environmental Kuznets Curve

"The argument is that as poor countries begin to develop, they grow fast, pollute wantonly, and worry about the impacts later, after they've gotten rich. Such a view has become conventional wisdom for nations such as China and India. By this reasoning, one gets the counterintuitive result that the solution to environmental problems is to grow faster.

The Environmental Kuznets Curve was originally measured for individual pollutants such as sulfur dioxide and nitrogen oxide, which have been regulated in wealthy nations. The evidence was statistical and economy-wide, and the actual mechanisms that drive the finding were not tested. One assumption was that richer economies shift to less polluting services. Another was that as citizens get wealthier, they pressure the government to crack down on polluters and clean up the air, water, and toxic wastes of industry.

As it turns out, the Environmental Kuznets Curve findings haven't held up well, especially beyond the original cases of specific pollutants, and those results have also been questioned on technical grounds. The hypothesis is completely wrong for greenhouse gas emissions, which do not decline at any level of income. (Rich countries have been the biggest emitters.) Ecological footprint also grows with income, and even in wealthy countries, many ecosystems, such as fisheries, water systems, and soil systems, continue to decline. The Environmental Kuznets Curve, a more nuanced form of market-based eco-optimism, turns out to be an unreliable guide to sustainability."

Schor, Juliet B. (2011): *True wealth. How and why millions of Americans are creating a time-rich, ecologically light, small-scale, high-satisfaction economy*, Penguin Books, New York.



213. Greta Thunberg

“... in our daily life, every single one of us can commit to reducing our impact on the health of the planet by limiting waste and pollution as much as possible. But unfortunately, this is not enough. We need more than the good intentions of individual people. Faced with an issue as complex as this, you have to change the rules and make new laws to protect



the environment. Who else can do this if not the men and women sitting in the parliament? That's why

Greta went there that morning. On that day – Monday the 20th of August 2018 – Greta launched her school strike.”



“The world's leaders were behaving childishly. They ignored environmental problems because they were afraid of how complex they were. So the children, who were worried about their own futures, decided to protest to convince the politicians. And the school strike that Greta Thunberg had started, all by herself, outside the Swedish Parliament in August 2018 was only the first step. In just a few months, the number of cities where people, many of them schoolchildren, were protesting had reached 270. More than 20,000 students in every corner of the world had stopped going to school, following the example of the *skolstrejk för klimatet* (...) *Time*, the prestigious and iconic American weekly magazine, named Greta one of the most influential teens of 2018 (...) Thanks to her incredible achievements, Greta was nominated for the 2019 Nobel Peace Prize.”

Camerini, Valentina (2019): *Greta's story. The schoolgirl who went on strike to save the planet*, Simon & Schuster, London.

214. The imperial mode of living

“By [imperial mode of living] we aim to understand both the persistence and, at the same time, crisis-deepening patterns of production and consumption that are based on an– in principle– unlimited appropriation of the resources and labour capacity of both the global North and the global South and of a disproportionate claim to global sinks (like forests and oceans in the case of CO₂).”

“We argue that the increase of productivity and material prosperity in the capitalist centres depends on a world resource system and international division of labour that favours the global North and is rendered invisible through the imperial mode of living, so that the domination and power relations it implies are normalized. Since the beginning of industrial capitalism, the imperial mode of living gained certain stability and hegemony at the cost of environmental destruction and the exploitation of labour. Societal relations as well as societal nature relations were stabilized (...) due to its environmentally and socially unsustainable character.

(...) Due to the imperial mode of living and its global spread, societies seem to be approaching the limits to capitalist nature. This does not necessarily mean that the imperial mode of living is leading into a great crash. The limits are not absolute (...) The authoritarian stabilization of the imperial mode of living is not the only strategy to cope with the multiple crises and to shift the limits to capitalist nature in an exclusive manner. Another one (...) is the selective ecological modernization of the imperial mode of living which may result in what can be called a *green capitalism.*”

Brand, Ulrich; Markus Wissen (2018): *The limits to capitalist nature. Theorizing and overcoming the imperial mode of living*, Rowman & Littlefield, London.

215. Total extractivism: 'techno-capitalist transformation engulfing the planet'

“The earth and its inhabitants are on a trajectory of cascading socio-ecological crisis driven by techno-capitalist development (...) Total extractivism denotes how the techno-capitalist world system harbors a rapacious appetite for all life—total consumption of human and non-human resources—that destructively reconfigures the earth.”

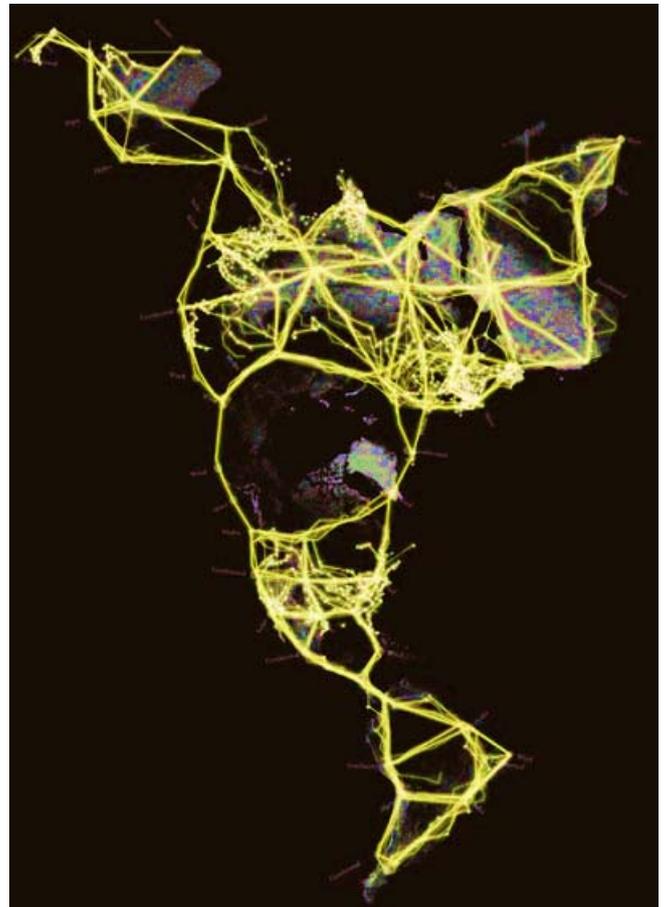
“Total extractivism (...) is the imperative driving the global capitalist economy, centered on the deployment of violent technologies aiming at integrating and reconfiguring the earth and absorbing its inhabitants, meanwhile normalizing its logics, apparatuses and subjectivities, as it violently colonizes and pacifies various natures (...) The technocapitalist system indeed has the tension of *totalizing*. It harbors a rapacious appetite for all life, desiring the total consumption and reconfiguring of the earth centered on bureaucracy, industrial/cybernetic production and market relations that maintains a *hyper-destructive growth imperative* that produces a grotesque earthly product. *Capitalism—past, present and future—attempts to devour all vitality*: plants, animals, humans, hydrocarbons, minerals and just about anything ‘seen’, valued or revalued by the state and its appendages. *Capitalism, in other words, colonizes the earth as it appropriates, expropriates and extinguishes the entirety of the earth’s resources.*”

“This World System—this techno-capitalist industrial system—is in fact a monster.”

“The highest priority of the Worldeater, or the imperative of technocapitalist industrial progress, is thus acquiring, transforming and controlling natural resources, frequently deemed a ‘strategic’, ‘critical’ or a ‘national security’ interest.”

“The Worldeater—techno-capitalist progress—exists and subsists on war, violence and trauma (...) If there is one thing the long techno-capitalist trajectory (...) teaches us, it is that we should not underestimate the cunning, shapeshifting and ever-evolving ability to devise new violent technologies that not only repress human agency, but also possess it. Social engineering is a technical term for possessing human agency. The Worldeater is a conversation of possession, addiction, dependency and blindness that are accomplished through civil-military interventions (...) and solidified by politics.”

“The imperative of total extractivism, moreover, reveals the false claims of ‘greening’ as the renewable energy-extraction nexus suggests. The green economy emerges as a worldeating device and a violent technology of extraction. Few fabrications are more successful at present than the pretensions of this green economy.”



Global energy networks

Dunlap, Alexander; Jostein Jakobsen (2020): *The violent technologies of extraction. Political ecology, critical agrarian studies and the capitalist worldeater*, Palgrave Macmillan, Cham, Switzerland.

**“Treat the earth well. It was not given to you by your parents.
It was loaned to you by your children.”**

—Native American proverb (quoted in Slavin, 2017, ch. 6)

216. The psychological climate paradox

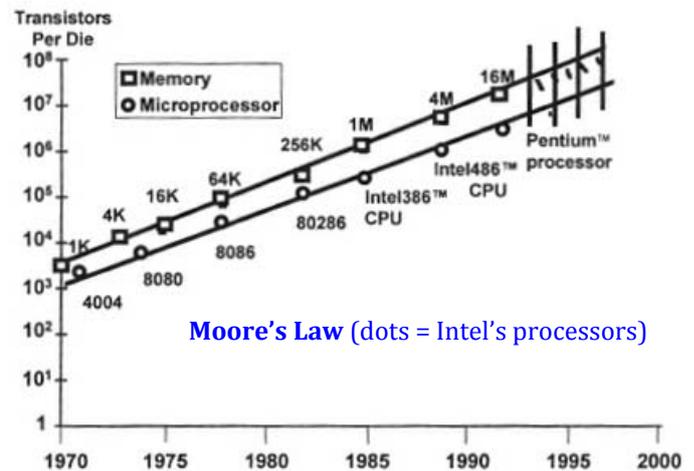
“We know that climate science facts are getting more solidly documented and disturbing year by year. We also know that most people either don’t believe in or do not act upon those facts. It forces the simple question: *Why?*”

Stoknes, Per Espen (2015): *What we think about when we try not to think about global warming: Toward a new psychology of climate action*, Chelsea Green Publishing, White River Junction, VT.

VI. Technology and globalization

217. Moore's law (Gordon Moore, 1965)

"Moore's Law, the biennial doubling of computer chip performance that had accelerated the pace of innovation and become the metronome of the modern world (...) guaranteed that change would be so central to modern life that there would be precious little time left for nostalgia. When you are being chased by demons, your only chance of survival is to keep racing forward as fast as you can; looking back can only scare you. Worse, as Moore's Law had been warning for a half century now, it wasn't even enough just to go fast. Rather, you had to go faster and faster, progressing at a pace humanity had never before known, just to keep up (...) And through Intel's products and commitment to Moore's Law, they [Gordon Moore and Andy Grove] had made possible the consumer electronics revolution that now defined the lives of three billion people, with millions more joining every day. Humanity was now richer, healthier, smarter, and more interconnected than ever before because of what they achieved." (Malone, 2014)



"Moore's Law is the product of human imagination. The phrase Moore's Law is known around the world as a technical observation, one that describes the development of digital electronics and computing (...) In April 1965 (...) Moore described how the chemical printing of microchips was open ended. If investment was made, technology would advance, and such investment would reward microchip makers handsomely. It was a win-win situation. By shrinking transistors, and putting more of them into individual microchips, everything became better: as chips became both better and less expensive, use would spread. Moore presciently envisaged the world we know today, 'such wonders as home computers, automatic controls for automobiles, and personal portable communications equipment.' (...) Since 1959 (...) the number of transistors on a chip had doubled each year, so that microchips now incorporated more than 50 transistors each. Moore predicted this dynamic would continue for the coming decade. By investing in chemical printing technology, doubling transistor counts each year, and shrinking cost (...) manufacturers would in 1975 be making microchips containing not 50 but 65,000 transistors. This was the first formulation of Moore's Law, displaying its essence." (Thackray et al., 2015)

"By 1975 Moore was CEO of Intel, and microchips did contain 65,000 transistors (...) Moore predicted that in the decade ahead, with mechanisms to develop the technology becoming more expensive, the 'annual doubling law' would slow to a doubling every eighteen months. By 1985 microchips with 16 million transistors would represent the cheapest form of electronics. And so it went. Today, the transistor on a microchip has become the most manufactured object in all of history. Transistors now produced in a single year most likely exceed the proverbial grains of sand upon all the seashores of the world. The price of computing has fallen well over a millionfold, while the cost of electronics components has shrunk more than a billionfold." (Thackray et al., 2015)

"Microchip complexity has increased at a metronomic pace for the past six decades, as Moore's Law is everywhere observed. That 'law' is a social product, inspired by imagination, made possible through experience, and enforced through the cooperative and competitive efforts of the global semiconductor industry. The development of chemical printing and the design of complex microchips have required the investment of many billions of dollars and the coordinated effort of hundreds of thousands of people, through the organizing interventions of consortia, conferences, and 'technology road maps.' In the history of technology, the silicon transistor within the microchip ranks alongside the steam railroad, the automobile, and the airplane in its revolutionary impact." (Thackray et al., 2015)

"Moore's Law is unique: the deliberate human creation of an unusually regular pace of unusually rapid change. We take this for granted and enjoy it. But it will not last. 'All good exponentials come to an end,' observes Moore. He has long glimpsed the eventual emergence of fundamental barriers. On the technical side, it is impossible to print chemically a feature that is smaller than an atom (in 2015 some features of transistors on microchips are just tens of atoms thick). More significantly, Moore foresees disruption in the economic side of Moore's Law. The growing expense of ever more exacting manufacturing technology, in factories costing several billion dollars

apiece, will erode economic incentives, slowing to a crawl the future career of the microchip.” (Thackray et al., 2015)

Malone, Michael S. (2014): *The Intel trinity. How Robert Noyce, Gordon Moore, and Andy Grove built the world's most important company*, Harper Business, New York.

Thackray, Arnold; David C. Brock; Rachel Jones (2015): *Moore's law. The life of Gordon Moore, Silicon's Valley quiet revolutionary*, Basic Books, New York.

218. Moore's law (Gordon Moore, 1965)

Expression that captures a technical observation regarding the development of digital electronics and computing. In 1965 Gordon E. Moore predicted that the number of circuit elements on a one square centimetre chip would double every 1.5 years: he prophesized that new methods would make microchips smaller, more reliable, less power hungry and cheaper. His prediction seems to have hold for more than fifty years: in effect, by shrinking transistors and putting more into a microchip, chips have become better, faster, less expensive and their use has spread. A general formulation of the law is that “the level of chip complexity that can be manufactured for minimal cost is an exponential function that doubles in a period of time”. Economically speaking, the law states that technological evolution increases the number of components (hence, provides greater functionality) for the same cost. The exponential improvement of technology has not been limited to microchips, but also to the capacity of computer memories, the speed of data transmission and the number of pixels in digital photography. The question is for how long Moore's observation is going to hold: he himself said that “All good exponentials come to an end”.

Thackray, Arnold; David C. Brock; Rachel Jones (2015): *Moore's Law. The life of Gordon Moore, Silicon Valley's quiet revolutionary*, Basic Books, New York.

Huff, Howard (ed) (2009): *Into the nano era. Moore's Law beyond planar silicon CMOS*, Springer, Berlin.

219. Moore's law of everything (Samuel Arbesman, 2013)

“... there are regularities in these changes in technological knowledge. It's not random and it's not erratic. There is a pattern, and it affects many of the facts that surround us, even ones that don't necessarily seem to deal with technology. The first example of this? Moore's Law.”

“These technological doublings in the realm of science are actually the rule rather than the exception. For example, there is a Moore's Law of proteomics, the field that deals with large-scale data and analysis related to proteins and their interactions within the cell. Here too there is a yearly doubling in technological capability when it comes to understanding the interactions of proteins (...) So while exponential growth is not a self-fulfilling proposition, there is feedback, which leads to a sort of technological imperative: As there is more technological or scientific knowledge on which to grow, new technologies increase the speed at which they grow.

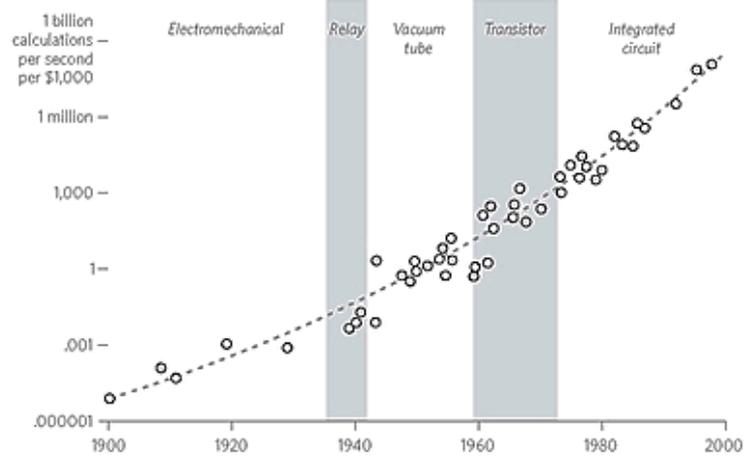
“These doublings have been occurring in many areas of technology well before Moore formulated his law. As noted earlier, this regularity just in the realm of computing power has held true as far back as the late nineteenth and early twentieth centuries, before Gordon Moore was even born. So while Moore gave a name to something that had been happening, the phenomenon he named didn't actually create it. Why else might everything be adhering to these exponential curves and growing so rapidly? A likely answer is related to the idea of cumulative knowledge. Anything new—an idea, discovery, or technological breakthrough—must be built upon what is known already. This is generally how the world works. Scientific ideas build upon one another to allow for new scientific knowledge and technologies and are the basis for new breakthroughs. When it comes to technological and scientific growth, we can bootstrap what we have learned before toward the creation of new facts. We must gain a certain amount of knowledge in order to learn something new (...) We should imagine that the magnitude of technological growth is proportional to the amount of knowledge that has come before it. The more preexisting methods, ideas, or anything else that is essential for making a certain technology just a little bit better, the more potential for that technology to grow.”

Arbesman, Samuel (2013): *The half-life of facts. Why everything we know has an expiration date*, Current, New York.

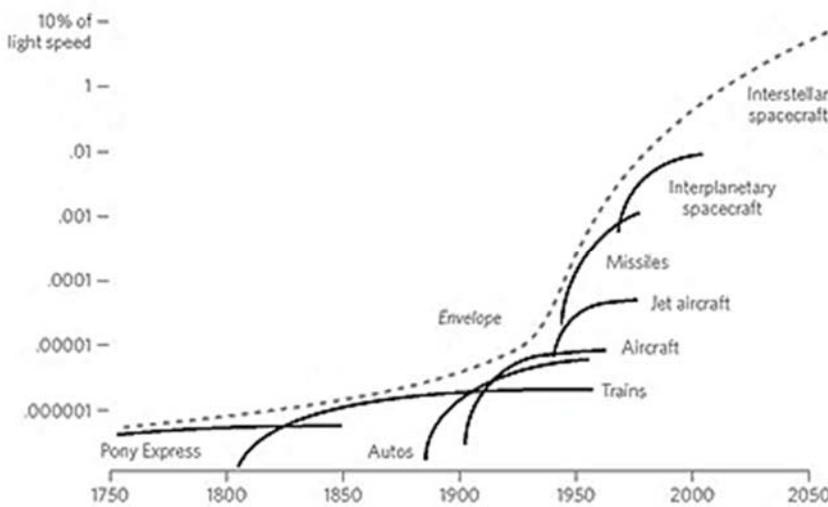
220. The paths of technology

“...we do have three types of evidence strongly suggesting that the paths of technologies are inevitable:

1. In all times we find that most inventions and discoveries have been made independently by more than one person.
2. In ancient times we find independent timelines of technology on different continents converging upon a set order.
3. In modern times we find sequences of improvement that are difficult to stop, derail, or alter.”



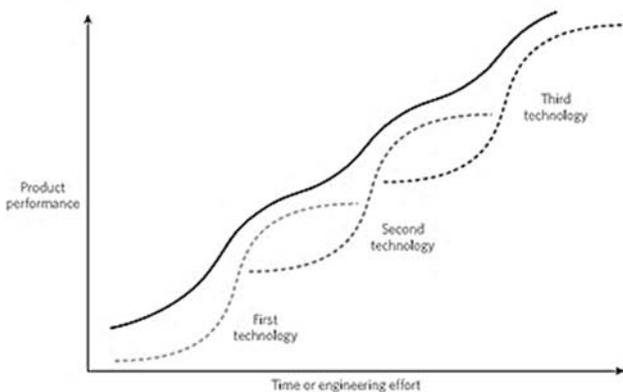
“Kurzweil’s Law. Ray Kurzweil translated earlier calculating methods into a uniform metric of computation to yield a steady foreshadowing of Moore’s Law”



“Speed Trend Curve. The U.S. Air Force’s plot of historical speed records up to the 1950s and their expectations of the fastest speeds in the near future.”

“The kind of inevitability I am speaking of here in the digital realm is the result of momentum. The momentum of an ongoing technological shift. The strong tides that shaped digital technologies for the past 30 years will continue to expand and harden in the next 30 years. These apply to not just North America, but to the entire world (...) Change is inevitable (...) At the center of every significant

change in our lives today is a technology of some sort. Technology is humanity’s accelerant. Because of technology everything we make is always in the process of becoming. Every kind of thing is becoming something else, while it churns from ‘might’ to ‘is.’ All is flux. Nothing is finished. Nothing is done. This never-ending change is the pivotal axis of the modern world.” Kelly (2016)



“Compound S Curves. On this idealized chart, technological performance is measured on the vertical axis and time or engineering effort captured on the horizontal. A series of sub-S curves create an emergent larger-scale invariant slope.”

TECHNOLOGY	METRIC	MONTHS
Fiber-optic throughput	Wavelengths per fiber	9
Optical network	Dollars per bit	9
Wireless	Bits per second	10
Communication	Bits per dollar	12
Magnetic area storage	Gigabits per square inch	12
Digital cameras	Pixels per dollar	12
Microprocessor	Dollars per cycle	13
Supercomputer power	FLOPS	14
RAM	Mebibytes per dollar	16
Transistor	Dollars per transistor	18
PCU power consumption	Watts per square centimeter	18
Pixels	Per array	19
Hard-drive storage	Gigabytes per dollar	20
Chip	MIPS	21
DNA sequencing	Dollars per base pair	22
Trunk-line data speed	Bits per second	22
Microprocessor	Transistors per chip	24
Chip processor	Megahertz per dollar	27
Bandwidth	Kilobits per second per dollar	30
Microprocessor	Hertz	36

“Doubling Times. Performance ratios of various technologies measured as the number of months required to double their performance.”

Kelly, Kevin (2016): *The inevitable: Understanding the 12 technological forces that will shape our future*, Viking, New York.

Kelly, Kevin (2010): *What technology wants*, Viking, New York.

221. Law of accelerating returns (Ray Kurzweil)

The rate of evolution inherently accelerates, shows continual acceleration (every stage in evolution uses the capabilities and results from the previous stage and, for each stage, going from one stage to the next takes a shorter time).

222. Six epochs of evolution (Ray Kurzweil)

These epochs express the continued evolution of information: physics and chemistry (information captured by patterns of matter and energy); biology and DNA (self-replicating mechanisms created: life); brains (mechanisms to acquire and process information biologically); technology (human creations); merger of human technology with human intelligence; and “the universe wakes up” (“the ‘dumb’ matter and mechanisms of the universe will be transformed into exquisitely sublime forms of intelligence, which will constitute the sixth epoch in the evolution of patterns of information. This is the ultimate destiny of the Singularity and of the universe”, Kurzweil, 2005, ch.1).

223. The Singularity (Ray Kurzweil)

It is the era defined by intelligence becoming nonbiological and countless of times higher than the current level of human intelligence as a result of rapid technological change. The impact of this change will transform human life: biological limitations will be transcended out, creativity will be amplified, humans and machines will become integrated, we could occupy different bodies and all human problems will be solved (aging, illness, pollution, hunger, poverty... even death). Nanotechnology will make it possible to produce anything inexpensively. The Singularity culminates the merger of biology with technology: it is the time when machine intelligence merges with, and surpasses, human intelligence.

224. Technological singularity

“The coming of a Technological Singularity is one of the most exciting and controversial predictions to emerge in recent decades. As posited by influential writers and thinkers such as Ray Kurzweil, Vernor Vinge, and Peter Diamandis, this will be a point in time when revolutionary advances in science and technology happen too rapidly for the human mind to comprehend. After the Singularity, these pundits predict, robots or other machines will have greater general intelligence than humans. These post-human intelligences would be able to 3D print any form of ordinary matter at low cost. They could cure diseases and perhaps even abolish aging. On the other hand, there are also darker possibilities – they could decide to wipe out human beings altogether, or just keep a few of us in a zoo for their amusement (...) Some key questions (...) are:

- Artificial General Intelligence (AGI) fairly rapidly achieves massively superhuman intelligence, or does it remain somewhere in the vicinity of the human level?
- Will some sort of global AGI Nanny emerge, providing control or regulation of intelligence on the planet, or does governance remain in the hands of (some form of) humans?
- To what extent will a Global Brain with its own coherent, emergent intelligence arise and become a dominant actor on the planet, as opposed to the main nexus of choice and causation being individual humans or human-scale AGIs?
- To what extent will “mindplexes” or group minds emerge, perhaps on a smaller scale than a Global Brain?
- Will future humans have an experience of scarcity or abundance? That is: will future humans react to the abundance of free “basic needs,” as understood today, with a fixation on competing to acquire more advanced goods and services that remain scarce even as a Singularity approaches, and maybe even thereafter?
- What will people do all day, if they no longer have a need to work in order to acquire scarce resources?

- How will the exchange of desired scarce resources, if any exist, occur in the future? With some future form of money? Or via some different sort of system?
- Will privacy exist in the future?"
- Will humans be annihilated by advanced machines?
- Will there be large-scale military conflicts between those advocating accelerating technological change, and those opposing it?

Goertzel, Ben; Ted Goertzel (2015): "Introduction," in Goertzel, Ben; Ted Goertzel; eds. (2015): *The end of the beginning: Life, society and economy on the brink of the Singularity.*

225. Some facts on technology (Trevor Kletz, 1996)

"Every error is a human error because: Someone has to decide what to do. Someone has to decide how to do it. Someone has to do it."

- "We cannot have the benefits of modern technology without some disadvantages in terms of pollution and safety."
- "New technologies are usually less hazardous than old ones."
- "The cost of reducing pollution and increasing safety has to be paid for in the end by the public."
- "People, not technology, create hazards and pollution." "To blame pollution on technology is the ultimate dodge of a society unwilling to take the blame for its own errors and stupidity. It is not computers and automation that cause unemployment but the way we use them."

Kletz, Trevor (1996): *Dispelling chemical industry myths*, 3rd edition, CRC Press, Boca Raton, FL.

226. "MYTH M5. The best way of conveying information to people is to tell them." (Trevor Kletz, 1996)

"If we have to convey messages that people want to receive ('where to get free beer,' for example), almost all methods of communication are effective. However, if there is some resistance to the message, as there often is when we are making recommendations to increase safety, for example, then we should choose the most effective method of communication: discussion (...) Discussions take longer than a lecture, but more is remembered and people are more committed to the conclusions because they have not been told what to do but have worked it out for themselves (...) The best size for a discussion group is 12-20. If fewer than 12 are present, the group may not be 'critical' (in the atomic energy sense) and discussion may not take off. If more than 20 are present, the quieter members may not be able to contribute."

227. "MYTH M10. We need to know what is new." (Trevor Kletz, 1996)

"We do need to know what is new, but that should not negate our concern with what is old. In my own area of expertise, namely, loss prevention and process safety, the majority of accidents have well-known causes (...) Spend less time reading magazines that tell what is new and more time reading books that tell what is old. Today, 'old' implies outdated; in the past, it implied something of enduring value; it had to be good to have lasted so long."

228. Views on the future of artificial intelligence

Turner (2019, p. 16) defines artificial intelligence as "the ability of a non-natural entity to make choices by an evaluative process."

- "The optimists emphasise the benefits of AI and downplay any dangers (...) Fundamentally, optimists think humanity can and will overcome any challenges AI poses."
- "The pessimists include Nick Bostrom, whose 'paperclip machine' thought experiment imagines an AI system asked to make paperclips which decides to seize and consume all resources in existence, in its blind adherence to that goal (...) Likewise, Elon Musk has said we risk 'summoning a demon' and called AI "our biggest existential threat'."
- "The pragmatists acknowledge the benefits predicted by the optimists as well as the potential disasters forecast by the pessimists. Pragmatists argue for caution and control."

Turner, Jacob (2019): *Robot rules. Regulating artificial intelligence*, Palgrave Macmillan, Cham, Switzerland.

229. Technological complexity breeds vulnerability

“... we simply have no idea of the huge number of ways that these incredibly complex technologies can go wrong (...) Our technologies—from websites and trading systems to urban infrastructure, scientific models, and even the supply chains and logistics that power large businesses—have become hopelessly interconnected and overcomplicated (...) Computer hardware and software is much more complex than anything that came before it, with millions of lines of computer code in a single program and microchips that are engineered down to a microscopic scale. As computing has become embedded in everything from our automobiles and our telephones to our financial markets, technological complexity has eclipsed our ability to comprehend it.”

“Our technological realm has accelerated the metabolism of the Earth (...) We are of two minds about all this complexity. On the one hand, we built these incredibly complicated systems, and that’s something to be proud of. They might not work as expected all the time, but they are phenomenally intricate edifices. On the other hand, almost everything we do in the technological realm seems to lead us away from elegance and understandability, and toward impenetrable complexity and unexpectedness (...) there are certain trends and forces that overcomplicate our technologies and make them incomprehensible, no matter what we do. These forces mean that we will have more and more days like July 8, 2015, when the systems we think of as reliable come crashing down in inexplicable glitches.”

Arbesman, Samuel (2016): *Overcomplicated. Technology at the limits of comprehension*, Current, New York.

230. The engineers as the heroes of history

“... if there is any one progressive, consistent movement in human history, it is neither political, nor religious, nor aesthetic. Until recent centuries it was not even scientific. It is the growth of technology, under the guidance of the engineers.”

“Technology has progressed continuously from the time of the Agricultural Revolution 10,000 years ago, slowly and hesitantly at first, then with increasing sureness and speed. The sixteenth century marked the beginning of modern engineering because, from that time on, professional societies were formed, treatises on engineering subjects were printed in quantity, engineering schools sprang up, specialization within the profession began, and engineers began to take advantage of the brilliant scientific discoveries of the time. The Industrial Revolution, which started two centuries ago and is still going on, was a surge in the growth of technology. Barring nuclear war, the end of this fruition of engineering is nowhere in sight (...) Today, in technologically advanced lands, men live very similar lives in spite of geographical, religious, and political differences (...) These resemblances are the result of a common technology, and this technology is what many generations of engineers have built up, with the greatest skill and diligence of which human beings are capable, and handed down to us.”

de Camp, L. Sprague (1993): *The ancient engineers*, Barnes & Noble Books.

231. Technological progress as a social struggle

The evolution of technology (which technologies become triumphant) cannot be explained on exclusively technical considerations. Technology can always follow alternative paths and it is social forces that select the path to follow: technologies are involved in a process of elimination of technological designs whose outcome is socially determined (by the struggle between social groups pursuing their interests).

232. On the use of technologies

Once a technological design wins out and is adopted as the standard, the technology maybe used for purposes different from the one motivating the technology. Initially, education and public programming dominated radio broadcasting; similarly, television was originally conceived for surveillance and education. When businesses gained control over the two technologies they transformed them into entertainment media.

Feenberg, Andrew; Norm Friesen (eds) (2012): *(Re)Inventing the Internet. Critical case studies*, Sense Publishers, Rotterdam.

233. The technological bluff (Ellul, 1989)

- **Opposition between people and machines.** People adapt badly to modern techniques: people do not adapt to machines nor machines to people. There is a permanent maladaptation between the social and the technical world. Societies evolve slowly; techniques and machines evolve quickly. Societies rely on the past (habits, traditions, rules, conventions); technologies look at the future.
- **The great technical innovation.** The eventual integration of the social into the technical world, from which a new humanity will emerge.
- **Technolatry.** Ellul views Simon's overoptimistic claims as pseudoscientific absurdities: Simon just projects tendencies (without justifying on which grounds the projection is legitimate) and simply presumes that every discovery/invention will have beneficial effects (masquerading inconvenient phenomena for his theses, like the simultaneity of rural depopulation and urban overpopulation). What is good in a computer virus?
- **Rise of the technocrats.** "The technocrats have a strange blindness to the complex reality of the world and to the lessons of common sense (e.g., that no system can grow indefinitely in a closed and finite universe, a truth that they treat sarcastically). Their great knowledge and narrow specialization prevent them from understanding questions outside their field. Yet they write authoritatively about tomorrow's world (...) They are thus plunged into electronics and computers without a thought that perhaps in the future being able to till a bit of ground or light a wood fire or do proper grooming might be more useful than being able to tap on a keyboard. Such is their casual ignorance of most of what constitutes our world (...) They immediately retort that what opponents want is a return to the Middle Ages. As they see it, there has to be growth. They will not accept any other hypothesis. They find their justification in the fact that increasingly everything depends on the application of techniques. Not only is technique good, not only is it indispensable, but also (...) it alone can also achieve all that human beings have been seeking throughout the centuries: liberty, democracy, justice, happiness (by a high standard of living), reduction of work, etc. "
- **Technology is ambivalent.** Technique and technology are not neutral: they may have good and bad effects. For technological optimists, technology is globally good. Technology's ambivalence is captured by for theses:
 - (1) all technical progress has its price (creation involves destruction, frequently people's lives: no progress is free from shadows);
 - (2) at each stage it raises more and greater problems than it solves (law that problems grow with the growth of techniques);
 - (3) its harmful effects are inseparable from its beneficial effects (cars generate congestion; more and cheaper food available, obesity): favourable effects tend to be apparent in the short-term (and be concrete and clearly identifiable), whereas the negative effects tend to become evident in the long run (and are perhaps diffuse and abstract);
 - (4) apart from the desired and the foreseen, it has a great number of unforeseen effects (surgical interventions replace one infirmity by another; cultivation impoverishes the soil; unexpected harmful effects of DDT; accidents of new technologies).
- **Technology is essentially unpredictable.** Technical change is not teleological: it has no goal. There is no predetermined destination for technical change: it is erratic. Therefore, it is unpredictable (and that makes social evolution also unpredictable).
- **The paradox of Harvey Brooks.** The costs and risk of a new technology are usually assumed by a small fraction of the population, while its advantages tend to be widespread.

234. How deterministic is the history of technology?

Heilbroner (1967) contends that technological development must proceed in a relatively fixed sequence: some developments must necessarily precede others. For instance, societies must pass through the hand-mill before making a transition to the steam-mill, which is necessary to moving to hydroelectric plants; or mastering electricity is necessary before mastering nuclear power.

Heilbroner, Robert L. (1967): "Do machines make history?", *Technology & Culture* 8, 335-345.

235. Evidence for the deterministic view

(1) Examples of simultaneous inventions and discoveries. (2) Absence of technological leaps. Most technological advances seem to be incremental and evolutionary. (3) Predictability of technology. There are two constraints to technological capacity in a given time: the accumulated stock of available knowledge (which only expands gradually) and the level of technical expertise (the material competence). Both determine the ability of industries to produce the equipment corresponding to higher technological levels. That ability also depends on the size of the capital stock. Hence, within certain limits, at least the short- to medium-run evolution of technology appears predictable.

236. Does technology create social orders?

That is, does technology impose social and political traits on societies that adopts the technology? There are at least two elements of influence: the composition of labour force and the hierarchical organization of work.

237. Some questions on technology

What fuels technology? Itself? Is the recent explosive technological development a bubble? Is technology necessarily expansionary? Are there limits for technological expansion? Is technology potentially a *perpetuum mobile*? What are the essential resources for technological growth? Are these resources exhaustible? Can technology's strain of nature reach a limit point? Will technology be the new nature? Could a new nature be technologically built? Are the laws of nature subject to technological manipulation? Can laws of nature be technologically created or modified?

238. Economic revolution by confluence of technologies.

A confluence of technologies will lead to the next production revolution: digital technologies (3D printing, internet of things, advanced robotics), new materials (bio- or nano-based) and new processes (datadriven production, artificial intelligence, synthetic biology).

OECD (2017): *The next production revolution: Implications for governments and business*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264271036-en>

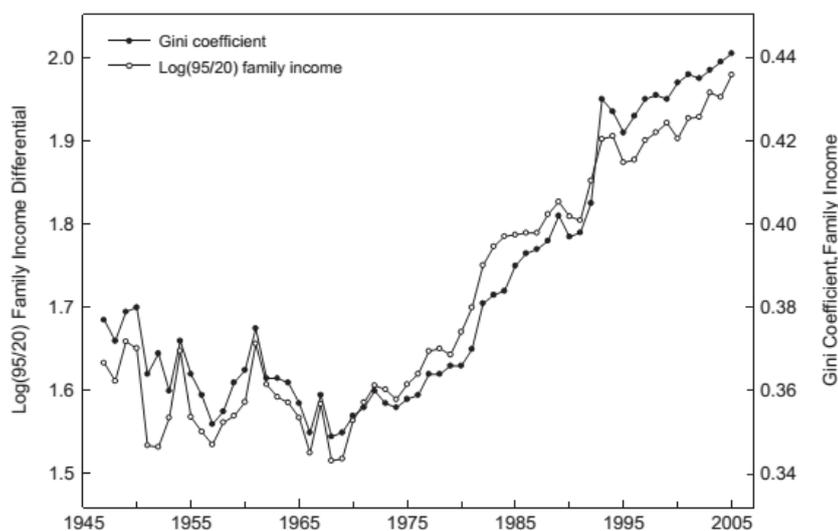
239. Standard view of human capital and development.

At least illustrated by the American experience in the 20th century, given certain institutional preconditions:

↑investment in education → ↑level of technology and productivity → ↑economic growth → ↑standard of living

240. Connection between technological change and inequality through educational progress

Nothing guarantees a fair distribution of the results of economic growth: its benefits may be inequally distributed, so the higher standard of living need not be generally enjoyed. Technological advances tend to increase the demand for more educated (high-skilled) workers, whose earnings would increase in comparison with the earning of the less educated (low-skilled) workers. Economic inequality would then rise if the proportion of the more educated with respect to less educated remains approximately constant (or if the changes in the supply of workers in each category do not offset the changes in the demand for those workers). Hence, technological progress would widen the income gap between more educated and less educated workers (skill-

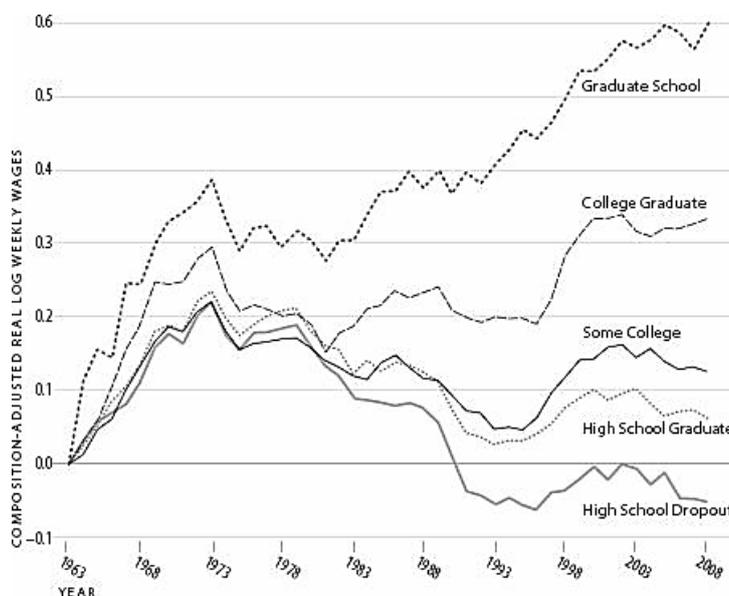


biased technological progress). Supply side considerations may alter this conclusion: a large increase in the supply of more educated workers could neutralize the increase in earnings of this group relative to the earnings of the less educated group.

241. Race between technology and education

Apparently, in the US, a rising supply of educated workers (supply of high skills) outstripped the additional demand generated by technological progress: during the first three-quarters of the 20th century higher incomes coincided with a decline in inequality (education raced ahead of technology). In the last two decades, technology raced ahead of education and inequality went up (educational slowdown).

Goldin, Claudia Dale; Lawrence F. Katz (2008):
The race between education and technology,
The Belknap Press of Harvard University
Press, Cambridge, MA.



242. Skill-biased technical change

Digital technologies (big data, high-speed communications) have increased the demand for abstract and data-driven reasoning, and this has risen the value of the workers with the right engineering, creative or design skills. The result is a fall in the demand for less skilled workers and a surge in the demand for the more skilled. The chart on the right shows evidence of the winner-take-all phenomenon: skill-biased technical change favours people with more human capital (mainly obtained through formal education).

243. Cardwell's law

No country has been at the forefront of technological progress for more than two or three generations. The diversity and multiplicity of players in Europe since the fall of the Roman empire appears to have defined a favourable environment for the replacement of leading or hegemonic countries. The outcome of renewed leadership has been a continuous growth of technology for at least a couple of centuries.

Kindleberger, Charles P. (1996): *World economic primacy, 1500-1990*, Oxford University Press, New York.

244. General approaches to the relationship between technology and society.

- Internalist approach: technology develops in isolation from society.
- Technological determinism: certain inventions or innovations cause major changes in society (social development is related to the development of techniques).
- Dialectical approach: technological and social changes interact mutually.

245. African societies as example of the lack of adoption of superior technologies (resistance to foreign ideas)

Tools from Eurasian preindustrial technology (cart, plow, potter's wheel) were not adopted, despite contact with Eurasia. (2Advanced industrial technology was imported but not successfully integrated with existing locally-based economic structures. African economies remain based on human energy and linear-reciprocal motion (non-human energy sources and technologies based on rotary motion did not spread). Despite exposition to presumably more advanced technologies, material and cultural reasons led to a general rejection of the technologies. The technological gap with Eurasia reinforced rejection: the introduction of

more advanced production technologies in precolonial Africa failed to generate transformations in the rest of the economy (failed to create an economy where those technologies could thrive and develop). The benefits of the new technologies were appropriated by ruling elites, which reinforced their privileged position. Precolonial Africa illustrates the possibility that technology spurs economic growth but not development (innovations can be transferred without the technological capacity embodied in those innovation being simultaneously transferred). Even after 1960, African growth has been characterized by the divergence of African incomes from incomes in other developing regions.

246. Moravec's paradox (paradox of robotic progress)

"The discovery by artificial intelligence and robotics researchers that, contrary to traditional assumptions, high-level reasoning requires very little computation, but low-level sensorimotor skills require enormous computational resources." (Wikipedia). "It is comparatively easy to make computers exhibit adult-level performance on intelligence tests or playing checkers, and difficult or impossible to give them the skills of a one-year-old when it comes to perception and mobility." (Hans Moravec)

247. Digitization and overcomplication

One of the most important recent phenomena is that almost everything is being digitized: documents, books, news, statistical information, music, photos, video, maps, social networks, requests for information, responses to those requests, data from sensors, personal information, purchases, services... A by-product of technological progress is that technologies become overcomplicated and more incomprehensible. The current technological level has accelerated the metabolism of the planet, complicating the flow of materials and information.

248. The technological project

Capaldi and Lloyd (2011, pp. xiii-xv) hold that the rise of the technological project in the West (the control and transformation of nature for human benefit) has been the most important development in the last 400 years. They attribute to the technological project: (i) the changes in the mind set, beliefs and institutions in the West; (ii) the expansion of the West to dominate the Rest; (iii) the Industrial Revolution; and (iv) the internationalization of Western institutions ('globalization'). The free market economy is seen as the most effective institution to develop the technological project.

Capaldi, Nicholas; Gordon Lloyd (2011): *The Two Narratives of Political Economy*, Scrivener, Salem, MA and Wiley, Hoboken, NJ.

249. Technological impossibilities

"I divide the things that are 'impossible' into three categories.

The first are what I call *Class I impossibilities*. These are technologies that are impossible today but that do not violate the known laws of physics. So they might be possible in this century, or perhaps the next, in modified form. They include teleportation, antimatter engines, certain forms of telepathy, psychokinesis, and invisibility.

The second category is what I term *Class II impossibilities*. These are technologies that sit at the very edge of our understanding of the physical world. If they are possible at all, they might be realized on a scale of millennia to millions of years in the future. They include time machines, the possibility of hyperspace travel, and travel through wormholes.

The final category is what I call *Class III impossibilities*. These are technologies that violate the known laws of physics. Surprisingly, there are very few such impossible technologies. If they do turn out to be possible, they would represent a fundamental shift in our understanding of physics."

Kaku, Michio (2008): *Physics of the impossible. A scientific exploration into the world of phasers, force fields, teleportation, and time travel*, Doubleday, New York.

250. Technological civilizations (Nikolai Kardashev)

“Russian astrophysicist Nikolai Kardashev has conjectured that the stages in the development of extraterrestrial civilizations in the universe could also be ranked by energy consumption. Using the laws of physics, he grouped the possible civilizations into three types:

1. Type I civilizations: those that harvest planetary power, utilizing all the sunlight that strikes their planet. They can, perhaps, harness the power of volcanoes, manipulate the weather, control earthquakes, and build cities on the ocean. All planetary power is within their control.

2. Type II civilizations: those that can utilize the entire power of their sun, making them 10 billion times more powerful than a Type I civilization. The Federation of Planets in *Star Trek* is a Type II civilization. A Type II civilization, in a sense, is immortal; nothing known to science, such as ice ages, meteor impacts, or even supernovae, can destroy it. (In case their mother star is about to explode, these beings can move to another star system, or perhaps even move their home planet.)

3. Type III civilizations: those that can utilize the power of an entire galaxy. They are 10 billion times more powerful than a Type II civilization. The Borg in *Star Trek*, the Empire in *Star Wars*, and the galactic civilization in Asimov’s *Foundation* series correspond to a Type III civilization. They have colonized billions of star systems and can exploit the power of the black hole at the center of their galaxy. They freely roam the space lanes of the galaxy.

Kardashev estimated that any civilization growing at a modest rate of a few percent per year in energy consumption will progress rapidly from one type to the next, within a matter of a few thousand years to tens of thousands of years (...) Our own civilization qualifies a Type 0 civilization (i.e., we use dead plants, oil and coal, to fuel our machines). We utilize only a tiny fraction of the sun’s energy that falls on our planet. But already we can see the beginnings of a Type I civilization emerging on the Earth. The Internet is the beginning of a Type I telephone system connecting the entire planet. The beginning of a Type I economy can be seen in the rise of the European Union (...)

The transition between one civilization and the next is far from guaranteed. The most dangerous transition, for example, may be between a Type 0 and a Type I civilization. A Type 0 civilization is still wracked with the sectarianism, fundamentalism, and racism that typified its rise, and it is not clear whether or not these tribal and religious passions will overwhelm the transition. (Perhaps one reason that we don’t see Type I civilizations in the galaxy is because they never made the transition, i.e., they self-destructed).”

“The main danger ants face is not that humans want to invade them or wipe them out. Instead it is simply that we will pave them over because they are in the way. Remember that the distance between a Type III civilization and our own Type 0 civilization is far more vast than the distance between us and the ants, in terms of energy usage.”

Kaku, Michio (2008): *Physics of the impossible. A scientific exploration into the world of phasers, force fields, teleportation, and time travel*, Doubleday, New York.

251. Top 11 trends of 2018 in artificial intelligence (Peter Gentsch, 2018)

“Besides the development towards super intelligence, there are at present a multitude of developments in the field of AI (...) The key trends that have the greatest impact on business are”

- “AI first. Analogue to the ‘mobile first’ mantra, particularly with companies such as Facebook, Microsoft and Google ‘AI first’ prevails: No development without investigating and utilising the AI potentials.”
- “AI will not really become intelligent, yet nevertheless increasingly important for business.”
- “Specific AI systems. The dream of general AI systems independent of functions and sectors has to be dreamed for another whilst (...) In contrast, an increasing number of domain-specific AI systems are being successfully developed and established: Systems for certain functions such as lead prediction in sales, service bots in service or forecasts of validity.”
- “AI inside—embedded AI. AI is being integrated in more and more devices, processes and products.”
- “Democratisation of AI. Despite the immense potential of AI, only a few companies use technologies and methods of AI. This is frequently associated with the lack of access to skills and technologies.”

- “Methodical trend deep learning. Back to the roots—just more massively. Many examples (e.g. the victory over the Korean world champion in Go, sales prediction) impressively show the potential of deep learning (...) Neuronal networks that have been in discussion since the 1950s represent the basis. Thanks to the new IT infrastructures with good performance, these neuronal networks can now be switched in massive parallel.”
- “More autonomy—fewer requirements. Unsupervised and reinforcement learning on the move. Today, a good 80% of all AI applications are based on so-called supervised learning. Training data is required for learning—who are the good guys, who are the bad guys? The algorithm learns discriminating and differentiating patterns.”
- “Conversational Commerce as a driver. Similar to the Internet of Everything, the increasingly important Conversational Commerce will be fuelled by the dramatically increasing number of connected smart devices as well as the necessity and imagination of AI. Conversational Commerce facilitates the optimisation of customer interaction by way of intelligent automation.”
- “AI will save us from the information overkill. There are enough facts and figures about how rapidly the amount of information is increasing dramatically (...) But this is exactly where AI will help by intelligently filtering, analysing, categorising and channelling. NLP (natural language processing) will become more efficient so that speech and text can be increasingly processed automatically.”
- “Besides the business impact of AI, the economic and social change caused by AI is increasingly becoming the topic of conversation. After the megatrends Internet, mobile and the IoT, big data and AI will be seen as the next major trend. The digital revolution is also being called the third industrial revolution.”
- “Blockchain meets AI.”

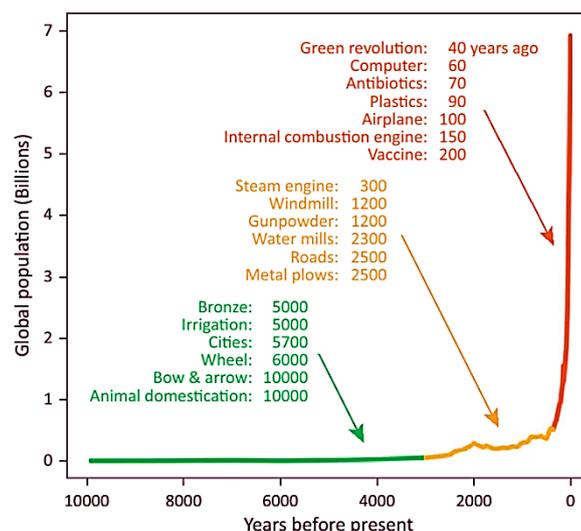
Gentsch, Peter (2019): AI in marketing, sales and service: How marketers without a data science degree can use AI, Big Data and bots, Palgrave Macmillan, Cham, Switzerland.

252. Two social dynamic forces and the sustainable future

“Two interacting forces influence all populations: the Malthusian dynamic of exponential growth until resource limits are reached, and the Darwinian dynamic of innovation and adaptation to circumvent these limits through biological and/or cultural evolution. The Malthusian dynamic pushes a population to increase until it reaches its environmental limits. The Darwinian dynamic pushes against these limits by incorporating new traits and technologies that enhance survival and reproduction. There are restrictions to this Malthusian-Darwinian Dynamic (MDD) (...): it is logically, physically, and biologically impossible for exponential growth to continue indefinitely within a finite world.”

“A central feature of human ecology has been the positive feedback between growth and innovation. As populations grew and aggregated into larger and more complex social groups, more information was acquired and processed. This led to new technologies that further pushed back ecological limits, allowing for continued population growth. The result has been an ascending spiral of exponential processes feeding back on each other: population growth and aggregation begot technological innovation, which in turn allowed for more resource extraction and a greater ability to overcome ecological constraints, begetting still more population growth and socioeconomic development.”

“The ruins of Mohenjo Daro, Mesopotamia, Egypt, Greece, Rome, the Maya, Hohokam, Angkor Wat, and Easter Island are enduring evidence that many earlier societies were unable to innovate their way out of local limits and therefore collapsed despite attaining dense populations and advanced cultures (...) Until now, both Malthusians and Cornucopians have been correct: some populations have crashed and cultures have vanished, but our species has endured because these events have been localized. However, behavioral changes and technological innovations over the last century now intricately interconnect us in a single global society. As a result, local perturbations currently have the ability to reverberate across all of humanity.”



“Within the context of our now highly globalized society, the essential question is how much potential exists for the Darwinian side of the MDD to allow for continued adaptation and innovation to push back against global scale constraints (...) The bad news is that the MDD has left humans ill prepared to make the necessary ecological and behavioral changes required to avoid civilization collapse (...) The good news is that the MDD may also provide valuable insights into potential solutions from both natural (in particular evolutionary biology and ecology) and social (in particular economics and sociology) science perspectives.”

“We must recognize that a sustainable future will ultimately require: (i) negative population growth for a number of generations, followed by zero growth; (ii) a steady-state economy based on sustainable use of renewable energy and material resources; and (iii) new social norms that favor the welfare of the entire global population over that of specific individuals and groups. It is also essential that we recognize that humanity has not yet evolved the genetic or cultural adaptations needed to accomplish these tasks.”

Jeffrey C. Nekola et al. (2013): “The Malthusian-Darwinian dynamic and the trajectory of civilization,” Trends in Ecology and Evolution 1643.

Three Technological Revolutions			
	Agricultural	Industrial	Cybernetic
Origin	Near East, 11,000 years ago	Britain, 1750	United States, 1944
Catalytic Technology	Grain cultivation (wheat)	Steam engine	Computer
Benefits	More food per unit of land; grain storable and tradable	Inexpensive, dependable source of power	Fast, cheap decision making for problems soluble by algorithms
Uses	Feeding people, safeguarding food supply, trading goods (functions like money)	Mechanized pumps, machine powered vehicles, power machinery in factories	Mathematical calculations, processing records, word processing, database management, telephone exchanges, etc.
Effects	Population increase, early cities, roads, shipping, accounting, metal-working, wheeled vehicles, writing, scholarship, science	Factory towns, urbanization, railroads, automobiles, rising living standards, airplanes, surging demand for natural resources—metal ores, coal, petroleum	Faster, cheaper information handling; better management of communications; tighter inventory controls; better distribution of goods; higher standard of living
Workers Displaced	Hunters, gatherers	Farmers, weavers, craftsmen, home workers	Clerks, typists, telephone operators, typesetters, small grocers, middle managers
New Jobs	Early: Farmers, construction workers, carters, brewers, specialized crafts. Later: scribes, scholars	Miners, factory workers, ironworkers, steamship builders, railroaders, steel workers	Computer operators, programmers, repairers, systems analysts, Webmasters, electronic game designers

253. Why cars do not fly, yet?

A thesis and an antithesis by David Graeber (2015, p. 120) and a synthesis by J. S. Mill.

- “There appears to have been a profound shift, beginning in the 1970s, from investment in technologies associated with the possibility of alternative futures to investment technologies that furthered labor discipline and social control.”
- “Yet even those areas of science and technology that did receive massive funding have not seen the breakthroughs originally antedated.”
- John Stuart Mill: “All the labor-saving machinery that has hitherto been invented has not lessened the toil of a single human being.”

Graeber, David (2015): *The utopia of rules. On technology, stupidity, and the secret joys of bureaucracy*, Melville House, Brooklyn, NY.

254. Tim Hardford’s lessons of the history of technology

- “One: don’t be dazzled by the fancy stuff.”
- “Two: humble inventions can change the world if they’re cheap enough.”
- “Three: always ask, ‘To use this invention well, what else needs to change?’ ”

Hardford, Tim (2018): “What else needs to change?”, Opinion piece, WTO 2018 Trade Report.

255. Lines that the rise of the internet has blurred (John P. Carlin, 2018)

- The line between peace and war (cyberwarfare). “War, over recent decades, has increasingly become the province of lawyers, especially as so many modern adversaries—from al-Qaeda to ISIL—are not clearly defined nation-states. Lawyers review proposed drone and air strikes, sit in the room as covert raids are approved, and provide detailed instructions to officers and soldiers in the field about when they can shoot and when they should hold fire.” “...the internet has delivered nations—and non-nation groups—the ability to engage in actions that appear to step well past the line of peace but fall short of actual war.”
- The line between public and private. “... national defense has been the sole province of the government itself (...) Yet, online, most of the responsibility for protection falls to private companies.”
- The line between nation-state and individual. “Today, weapons of mass destruction can be deployed online by individuals even accidentally—the first ‘internet virus,’ the Morris Worm, was unleashed by a graduate student who didn’t understand the destruction his program would cause. Terror groups, hacktivist groups such as Anonymous, and ‘patriotic hackers’ can today unleash tools and disruptions online that a few decades ago would have been the sole capability of the world’s most powerful nations.”
- The line between physical and virtual. “Cyberspace today includes a complicated set of parts: physical hardware (the computers and infrastructure that run networks), software (the code that runs on computers), and information (the data created and saved inside that software and hardware). Each part impacts the others and would cease to be useful without the full constellation. With today’s technology—and even more so in the future—it’s difficult to tell clearly where the physical world ends and the virtual begins. Money today exists almost entirely virtually, with cash a rarity—and the rise of cryptocurrencies like Bitcoin presage an era when there is no physical money at all.”
- The line between domestic and international. “The internet has allowed instant access to far corners of the globe, allowed people sitting at their desks in one country to chat via video with people a continent away, and given anyone with internet access the ability to reach as many readers or viewers as the New York Times or CNN. This trend has provided all-new challenges to governments and nation-states (...) The person on the other end of a cyberattack could be a teenager down the street, a terrorist overseas, or a military officer in uniform at a desk in an adversary’s capital—and you often don’t know which it is until you’ve solved the case.”
- The line between what is worth and what is not worth protecting. “Our government used to have a very clear understanding of what secrets it was trying to keep (...) it has primarily focused on military secrets, the work of the intelligence agencies, and diplomatic efforts around the globe. Yet we’ve seen in the last decade the weaponization of information in places we never considered a ‘national secret’: the internal communications of a political party, the seemingly boring old personnel records of government employees, the health insurance details of millions of Americans, and, even, the Amazon shopping list of a movie executive.”

“The internet, a tool that was once created to help the US government survive a war, has now become a central point of global tension and a lurking threat to our daily lives.”

Carlin, John P.; Garrett M. Graff (2018): Dawn of the code war. America’s battle against Russia, China, and the rising global cyber threat, PublicAffairs, New York.

256. A grim picture of artificial intelligence (Kai-Fu Lee, 2018)

“When we scan the economic horizon, we see that artificial intelligence promises to produce wealth on a scale never before seen in human history—something that should be a cause for celebration. But if left to its own devices, AI will also produce a global distribution of wealth that is not just more unequal but hopelessly so. AI-poor countries will find themselves unable to get a grip on the ladder of economic development, relegated to permanent subservient status. AI-rich countries will amass great wealth but also witness the widespread monopolization of the economy and a labor market divided into economic castes.

Make no mistake: this is not just the normal churn of capitalism’s creative destruction, a process that has previously helped lead to a new equilibrium of more jobs, higher wages, and a better quality of life for all. The free market is supposed to be self-correcting, but these self-correcting mechanisms break down in an economy driven by artificial intelligence. Low-cost labor provides no edge over machines, and data-driven monopolies are forever self-reinforcing.

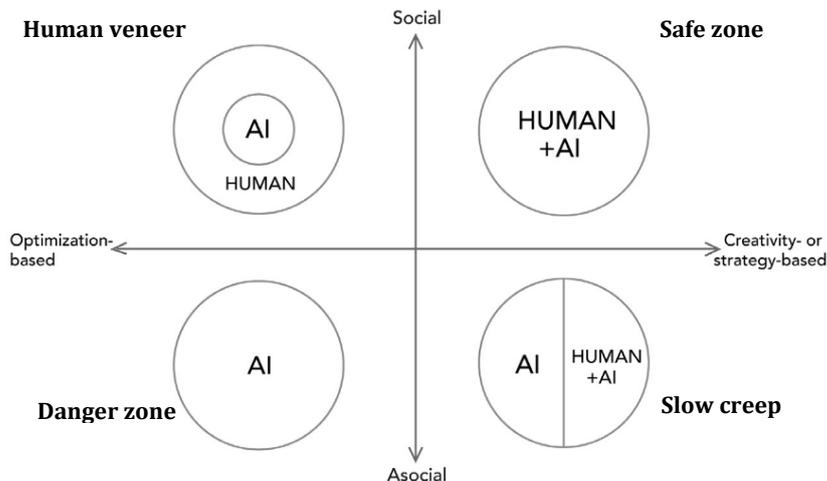
These forces are combining to create a unique historical phenomenon, one that will shake the foundations of our labor markets, economies, and societies. Even if the most dire predictions of job losses don't fully materialize, the social impact of wrenching inequality could be just as traumatic (...) AI risks creating a twenty-first-century caste system, one that divides the population into the AI elite and what historian Yuval N. Harari has crudely called the "useless class," people who can never generate enough economic value to support themselves. Even worse, recent history has shown us just how fragile our political institutions and social fabric can be in the face of intractable inequality."

257. Solutions for AI-induced job losses (Kai-Fu Lee, 2018)

- Retrain workers (skill dimension of the labour market). "Those advocating the retraining of workers tend to believe that AI will slowly shift what skills are in demand, but if workers can adapt their abilities and training, then there will be no decrease in the need for labor."
- Reduce work hours (time dimension of the labour market). "Those advocates of reducing work hours believe that AI will reduce the demand for human labor and feel that this impact could be absorbed by moving to a three- or four-day work week, spreading the jobs that do remain over more workers."
- Redistribute income (compensation dimension of the labour market). "The redistribution camp tends to be the most dire in their predictions of AI-induced job losses. Many of them predict that as AI advances, it will so thoroughly displace or dislodge workers that no amount of training or tweaking hours will be sufficient. Instead, we will have to adopt more radical redistribution schemes to support unemployed workers and spread the wealth created by AI." In the universal basic income proposal the government pays everyone in a country a fixed income stipend. In the guaranteed minimum income proposal only those below a certain income level receive a stipend. "Funding for these programs would come from steep taxes on the winners of the AI revolution: major technology companies; legacy corporations that adapted to leverage AI; and the millionaires, billionaires, and perhaps even trillionaires who cashed in on these companies' success."

258. Human-AI coexistence in the labour market (Kai-Fu Lee, 2018)

"While AI handles the routine optimization tasks, human beings will bring the personal, creative, and compassionate touch. This will involve the redefinition of existing occupations or the creation of entirely new professions in which people team up with machines to deliver services that are both highly efficient and eminently human (...) We expect to see the upper-left quadrant ("Human Veneer") offer the greatest opportunity for human-AI symbiosis: AI will do the analytical thinking, while humans will wrap that analysis in warmth and compassion. In that same chart, the two quadrants on the right-hand side of the graph ("Slow Creep" and "Safe Zone") also provide opportunities for AI tools to enhance creativity or decision-making, though over time, the two left-side AI-centric circles will grow toward the right as AI improves. A clear example of human-AI symbiosis for the upper-left-hand quadrant can be found in the field of medicine."



Lee, Kai-Fu (2018): *AI superpowers. China, Silicon Valley, and the new world order*, Houghton Mifflin Harcourt, Boston.

Lee, Kai-Fu (2018): *AI superpowers. China, Silicon Valley, and the new world order*, Houghton Mifflin Harcourt, Boston.

259. Techno-optimism/transhumanism vs techno-pessimism/primitivism

"As the internet became a mainstream form of communication for millions of people there was a surge of techno-optimism. The early nineties were ablaze with utopian ideas about humanity's imminent leap forward, spurred by connectivity and access to information (...) Many of the net's early advocates believed that, by enabling people to communicate more freely with each other, it would help to end misunderstanding and hatred (...) For every starry-eyed vision of future utopias there was an equally vivid dystopian nightmare (...) Worried by the

proliferation of pornography—including child pornography—and the growing amount of criminal activity taking place online, governments around the world began to pass legislation designed to monitor, control, and censor cyberspace.”

“This divide, between the techno-optimists and the techno-pessimists, is one that stretches back to the birth of the internet, and one that is widening as technology becomes omnipresent, faster, and more powerful. There are, today, two movements that are extreme versions of these opposing views about technology. The transhumanists embrace technology; the anarcho-primitivists reject it. Both groups have existed in some form since the early days of the internet, and both have been steadily growing in popularity (...). Both exist across the dark net (...) But which side is right? Does connectivity bring us together, or supplant real-world relationships? Does access to information makes us more open-minded or committed to our own dogmas? Is there something about the internet, or perhaps technology itself, that shapes and constrains our choices, prodding us to behave in certain ways? And what do their prophetic visions of our technological future—one bright, one bleak—say about the dark net and how we use the internet today?”

“In 2008, the World Transhumanist Association was renamed Humanity+, and remains the largest formal organization of transhumanists, publishing a glossy, quarterly magazine and organizing a number of conferences and academic events (...) Most transhumanist technology focuses on life extension, and technological upgrades to the brain and body.”

[John Zerzan] “is probably the world’s most famous anarcho-primitivist, and the author of several books on why technology—from the internet all the way back to subsistence farming—is at the root of many, if not all, of today’s social problems. He wants to jettison: Facebook, computers, telephones, electricity, steam-powered engines—the lot. Anarcho-primitivism is a branch of anarchist philosophy, which believes in stateless, nonhierarchical, and voluntary forms of human organization, based on simple, precivilization collective living. The most infamous neo-Luddite of modern times was the American Ted Kaczynski, better known as the Unabomber.”

“Instead of looking forward to imagine the future, Zerzan looked back to the past, studying the early Luddite movements, and trade-union groups like the Tolpuddle Martyrs (...) “The introduction of industrial mechanization in the nineteenth century wasn’t just an economic move. It was also a disciplinary move! It was a way to make sure that autonomous people could be controlled by capitalists.”

“Technology is often described as ‘neutral.’ But it could be more accurately described as power and freedom. For the transhumanists, technology provides the ability to stride across the universe, to live forever. For the anarcho-primitivists, it is a tool used to oppress and control others, to become less than human. The dark net is a world of power and freedom: of expression, of creativity, of information, of ideas. Power and freedom endow our creative and our destructive faculties. The dark net magnifies both, making it easier to explore every desire, to act on every dark impulse, to indulge every neurosis (...) Ultimately, the dark net is nothing more than a mirror of society.”

Bartlett, Jamie (2015): *The dark net. Inside the digital underworld*, Melville House, Brooklyn & London.

260. Techno-optimism

“I feel that one of the main reasons people are blind to the dire situation you describe is because of a deep-seated faith in technology. I call this faith ‘techno-optimism’, which can be broadly defined as the belief that science and technology will be able to solve the major social and environmental problems of our times without fundamentally rethinking the structure or goals of our growth-based economies or the nature of Western-style, affluent lifestyles.

What is so seductive about this ‘techno-fix’ approach is that it is politically, economically, and socially palatable. It provides governments, businesses, and individuals with a means of responding to environmental problems (or being seen to respond to environmental problems) without actually confronting the underlying systemic and cultural issues that are driving the crises. Don’t worry, is the message, technology will save us from ourselves.”

Read, Rupert; Samuel Alexander (2019): *This civilisation is finished. Conversations on the end of Empire—and what lies beyond*, Simplicity Institute, Melbourne.

261. Matt Ridley (2010) on the modern global economy

“To explain the modern global economy, then, you have to explain where this perpetual innovation machine came from. What kick-started the increasing returns? They were not planned, directed or ordered: they emerged, evolved, bottom-up, from specialisation and exchange. The accelerated exchange of ideas and people made possible by technology fuelled the accelerating growth of wealth that has characterised the past century.”

“Innovation is like a bush fire that burns brightly for a short time, then dies down before flaring up somewhere else. At 50,000 years ago, the hottest hot-spot was west Asia (ovens, bows-and-arrows), at 10,000 the Fertile Crescent (farming, pottery), at 5,000 Mesopotamia (metal, cities), at 2,000 India (textiles, zero), at 1,000 China (porcelain, printing), at 500 Italy (double-entry book-keeping, Leonardo), at 400 the Low Countries (the Amsterdam Exchange Bank), at 300 France (Canal du Midi), at 200 England (steam), at 100 Germany (fertiliser); at 75 America (mass production), at 50 California (credit card), at 25 Japan (Walkman). No country remains for long the leader in knowledge creation (...) Why must the torch be passed elsewhere at all? (...) The answer lies in two phenomena: institutions and population. In the past, when societies gorged on innovation, they soon allowed their babies to grow too numerous (...) or they allowed their bureaucrats to write too many rules, their chiefs to wage too many wars, or their priests to build too many monasteries (...) or they sank into finance and became parasitic rentiers.”

Ridley, Matt (2010): *The rational optimist. How prosperity evolves*, HarperCollins, New York.

“By far, the greatest danger of Artificial Intelligence is that people conclude too early that they understand it.”

“When you’re building something smarter than you, you have to get it right on the first try.”

—ELIEZER YUDKOWSKY

“AI is likely to be the best or worst thing to happen to humanity.”

—STEPHEN HAWKING

262. The Intelligent Machine Age

“For the first time in human history, we are making machines that will think and evolve without human control. The era of our intellectual superiority is ending. As a species, we need to plan for this paradigm shift. Whether intelligent machines will learn from the darkest parts of our human nature, or the noblest, remains to be seen.”

“The Information Age, sometimes also called the Digital Age, has been incredibly fruitful technologically and beneficial to humankind in many ways. It is also now ending. We are rapidly transitioning to a new age. Whether this new era will one day be called the Experience Age, the Conceptual Age, the Superhuman Age, or something else, this next wave of technological development—from nanotechnology and biotechnology to space exploration and robot avatars—will be brought about not by human inventors alone, but by humans working with a generation of machines exponentially more advanced than anything we have seen before.”

“We are living at the end of the last cycle of technological development led entirely by humans. Artificial intelligence is defining and determining the next era of technology and, thereby, our future.”

“We are merging with our machines, delegating more decision-making to them without acknowledging how much our own cognitive abilities are becoming enmeshed with theirs.”

“... despite a well-intentioned fledgling ‘algorithmic accountability movement,’ we are alarmingly unready for the reality of powerful AI that reaches conclusions and decisions independent from human intervention. Unless we deliberately intervene, AI will not develop an algorithm that values human concerns.”

“Philosopher Nick Bostrom adds that, with respect to developing AI, ‘humans are like small children playing with a bomb.’”

Coleman, Flynn (2019): *A human algorithm. How artificial intelligence is redefining who we are*, Counterpoint, Berkeley, California.

263. AI definitions

“Artificial, machine, digital, synthetic, or virtual ‘intelligence’—AI, broadly speaking—refers to robotics, software, and computers that have the capacity for ‘intelligent behavior.’”

“Generally, it is understood that the ‘reactive’ machines being developed to mimic human behavior that are in use now are known as ‘narrow’ and ‘weak’ forms of AI. By contrast, ‘general’ AIs are those that are able to learn and think for themselves and thus, at least in theory, become intelligent. Artificial general intelligence, ‘strong AI,’ or AGI refers to a machine that has an authentic capacity to ‘think,’ will have at least ‘limited memory,’ and will be capable of performing most human tasks. Artificial superintelligence or ‘ASI’ is a speculative technology that would be self-aware, and some have suggested there should be a fourth category of AI, ‘conscious AI.’”

Coleman, Flynn (2019): A human algorithm. How artificial intelligence is redefining who we are, Counterpoint, Berkeley, California.

264. AI consequences

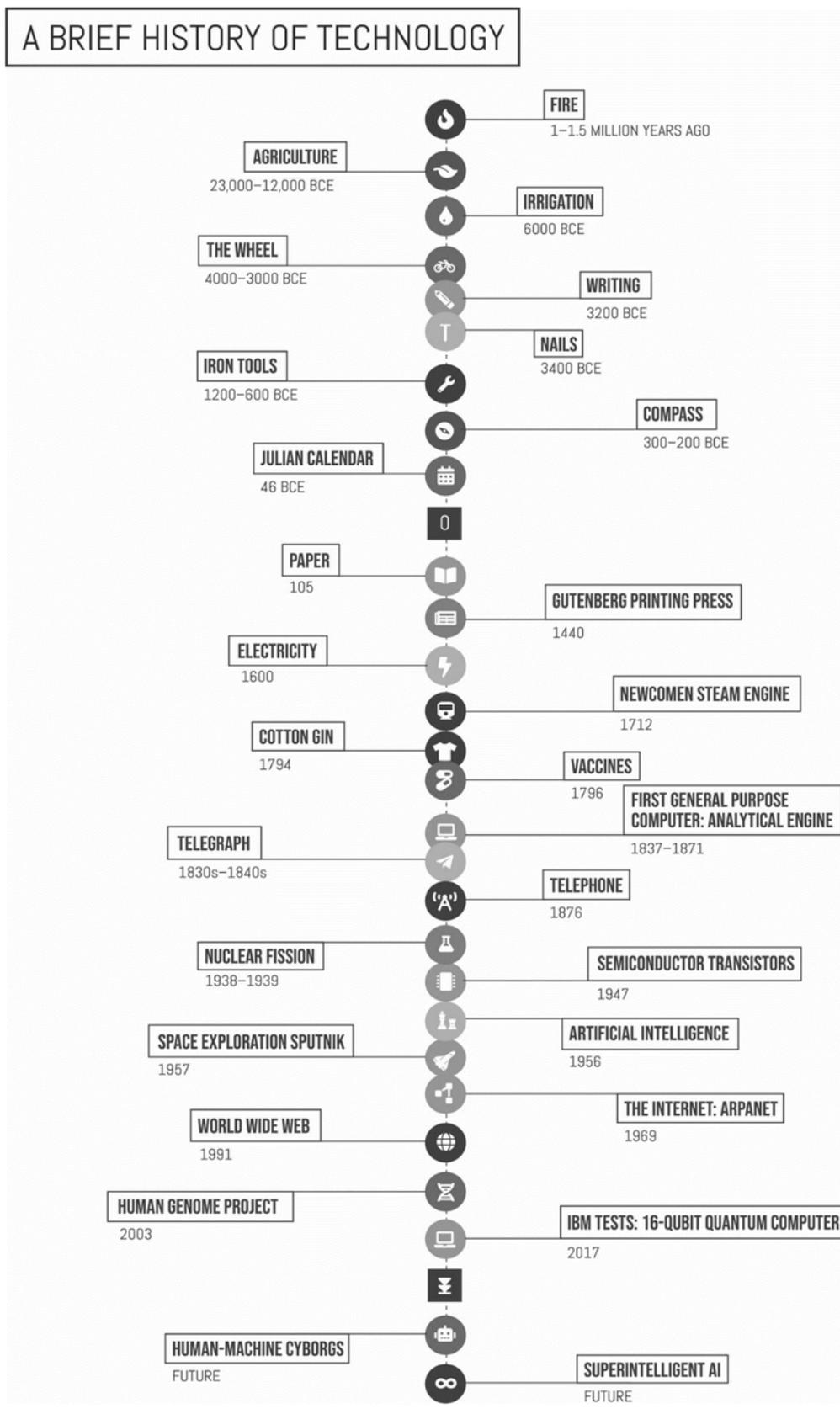
“Automated technology with the capacity to kill humans, such as drones, is already here and in widespread use. The development of fully autonomous killer robots is on the horizon, and cyberwarfare, which includes attacks on information systems, once a fantastical movie plot, is now a growing threat to security.

Another major area where we are already beginning to feel the effects of synthetic intelligence is in the workplace. AI robots are already hard at work across the world. We know that a large percentage of labor will likely be taken over by robots in the coming years.”

“Are we too narrowly focused on the machines’ technology, while overlooking the underlying humanity that needs to be built into them? (...) Amara’s Law, coined by futurist and engineer Roy Amara, describes humans’ proclivity to overestimate the impact of technology in the short term but underestimate its impact in the long term.”

“Are we too narrowly focused on the machines’ technology, while overlooking the underlying humanity that needs to be built into them? (...) Amara’s Law, coined by futurist and engineer Roy Amara, describes humans’ proclivity to overestimate the impact of technology in the short term but underestimate its impact in the long term.”

Coleman, Flynn (2019): A human algorithm. How artificial intelligence is redefining who we are, Counterpoint, Berkeley, California.



265. Trends causing labour abundance (Ryan Avent, 2016)

- Automation. “New technologies are replacing certain workers, from clerks to welders, and will replace more in the future, from drivers to paralegals. Machines are becoming defter and software is becoming cleverer, and these improvements are increasing the set of human tasks that can be cheaply automated.”
- Globalization. “It would have been nearly impossible for rich Western firms to manage the sprawling global supply chains that wrapped around the world over the last twenty years without powerful information technology (...) Global employment grew by over one billion jobs over the last generation, with most of the growth occurring in emerging economies. Workers there are, on the whole, less skilled than those in the rich world, and their incorporation into the global economy has been felt more keenly by workers in middle-skill manufacturing or back-office jobs than by white-collar professionals. That need not last; the developing world is home to millions of engineers, doctors, financial professionals and others who are just as capable of serving clients as their peers in America and Europe.”
- Rising productivity of some highly skilled workers. “...technology provides a massive boost to the productivity of some highly skilled workers, allowing them to do work which it might previously have taken many more people to accomplish. Technology enables small teams of money managers to run vast funds; it is increasingly allowing highly skilled instructors to build courses that can be taken and re-taken by millions of students, potentially replacing hundreds or even thousands of lecturers. New technology is allowing fewer doctors and nurses to observe and treat manymore patients, fewer lawyers to pour through vastly more trial-related evidence, and fewer researchers to sift through massive amounts of data and test more hypotheses more quickly.”

266. Adjustments to labour abundance

“The economy, and society, will try to adjust. That adjustment will mean stagnating wages for many workers, rising inequality, and a tenuous and fading connection to the world of work for many others. Workers are unlikely to take these woes lying down. Something has to give. Either society will find ways to shore up work or develop substitutes for it, or workers will use the political system to undermine the forces disrupting their world.”

“What is missing from the conversation is a clear explanation of how rapid technological change is compatible with both rising employment globally and disappointing growth in wages and productivity. And while it may be correct (...) that a world of technological prosperity and plenty awaits us in the distant future, it is wrong (...) to characterize the digital revolution as something entirely different from anything that has come before (...) The digital revolution is very much like the industrial revolution. And the experience of the industrial revolution tells us that society must go through a period of wrenching political change before it can agree on a broadly acceptable social system for sharing the fruits of this new technological world.”

“It is unfortunate, but those groups that benefit most from the changing economy tend not to willingly share their riches; social change occurs when losing groups find ways to wield social and political power, to demand a better share. The question we ought to be worried about now is not simply what policies need to be adopted to make life better in this technological future, but how to manage the fierce social battle, only just beginning, that will determine who gets what and by what mechanism.”

“A makers-and-takers conception of the world is one that neglects the social foundation on which wealth is built. We aren’t merely divided into makers and takers. We are participants in societies, operating according to a broad social consensus. When that consensus breaks down, the wealth goes away. Society either agrees a way to share its riches that most members find acceptable, or the system fractures and the social wealth available to everyone shrinks.”

“Wealth has always been social (...) Wealth creation in rich economies is nurtured by a complex system of legal institutions (such as property rights and the courts that uphold them), economic networks (such as fast and efficient transportation and access to scientific communities and capital markets) and culture (such as conceptions of the ‘good life’, respect for the law, and the status accorded to those who work hard and become rich). No individual can take credit for this system; it was built and is maintained by society. The digital revolution is increasing the importance of social wealth.”

“... these two kinds of conflict –between individuals and society, and between society’s insiders and outsiders– create the fundamental tension presented by the digital revolution. To take full advantage of its promise, countries must become better at sharing social wealth. Yet the better countries become at sharing social wealth among members, the greater the pressure to shrink the circle of social membership.”

Avent, Ryan (2016): *The wealth of humans: Work, power and status in the twenty-first century*, St. Martin’s Press.

The essence of innovation, p. 105

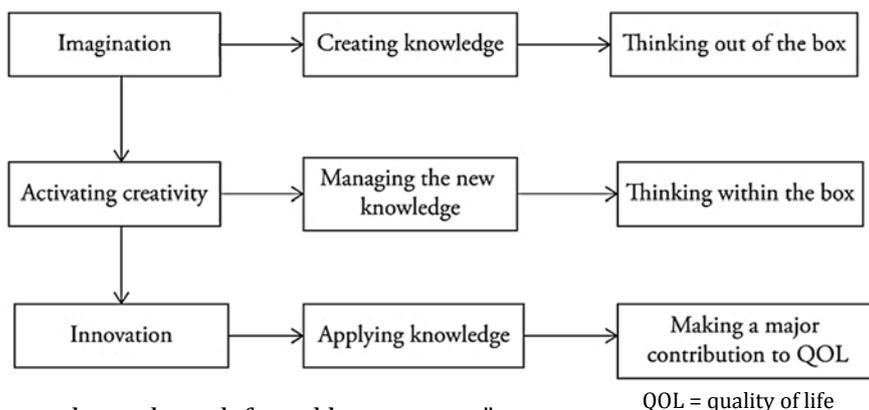
267. Innovation is the answer (A. Coskun Samli, 2014)

“Innovation is simply not emphasized. Since the private sector is experiencing record levels of profit, the stock market is breaking records, but the sluggish economy is crawling because there is not enough motivation for the private sector to put major resources into innovation. And the opposition is blocking the government from engaging in such necessary activities. Thus, one of my pet ideas, that is, generating a culture of innovation is not dormant, it is almost nonexistent. Once again, a most progressive and dynamic society such as ours is blocked by ignorance and unnecessary conservatism.”

“The market system cannot be utilized fully without major innovational activity. Ignorance and greed are blocking such an activity.

Rectifying this situation can only be achieved by creating a drive to innovate (...) It is extremely critical that firms, hopefully all firms, have certain futuristic ambitions that would, at least partially, deal with innovation. An economic system that is not ambitious enough to innovate is not likely to make progress. Thus, innovation is the answer to major economic doldrums. The vehicle of the market system is simply waiting for positive movement, which will come only when ignorance and greed are defeated by progress.”

The Necessary Conditions	Implications
Curiosity cultivation	Serious challenges for curiosity to explore
Knowledge base development	There are enough educated people to innovate
Identifying the desired future	Having mature and ambitious future plans
Keeping a constant state of progress	Understanding the dynamic nature and progress of markets
Making radicalism a common concept	Cultivating radical thinking and applications
Generating the necessary talent	Talent can be cultivated by education and motivation
Creating a futuristic orientation	Not being satisfied with present conditions and always looking for improvement
Balancing basic versus applied research	Not only researching for current problems but also for future explorations
Putting special emphasis on radical innovations	Understanding the major innovational progress generated by radicalism



The workings of an innovative culture, p. 98

268. A technological paradox

“In a laissez faire capitalist economy, the choice boils down to two perspectives: 1) if one introduces policies to safeguard the standard of living of workers by establishing that the minimum wage cannot fall below a certain threshold (moderate left policy), the system produces ‘technological unemployment.’ 2) if it is established that the government must not interfere in negotiations between capitalists and workers, letting the market decide wage levels (moderate right policy), the system produces ‘technological impoverishment.’ All this happens when an impressive technological development may *potentially* improve the life condition of everybody. Thus, contemporary society seems to be inherently characterized by a ‘technological paradox.’”

Campa, Riccardo (2018): *Still think robots can’t do your job. Essays on automation and technological unemployment*, D Editore, Rome.

269. Fixation on efficiency and future of work

“In the industrial age (...) growing efficiencies increased prosperity, reduced poverty, and stabilized democracy. Enhanced productivity contributed to the rise of the American middle class. But in the digital age, this logic is

flawed. Our sometimes unquestioning pursuit of efficiency has led us to underrate the importance of quality, of both work and life. It has led us to judge farmers not by the nutritive value or taste of their produce but by its price; doctors not by the lives they save and better but on the number of patients they treat; teachers not by the students they enlighten and inspire but by the test scores those students generate. It has led us to overvalue certain sorts of work and undervalue other sorts, driving many of us *...(to pursue jobs that hold little meaning for ourselves and only questionable value for society. Our fixation on efficiency has led us to generate more goods and services that we may desire but don't need and not enough goods and services that we both desire and desperately need. Another troubling trend is that as workers we no longer profit proportionally from our efforts: since 1973 our productivity has grown almost six times faster than has our wages."

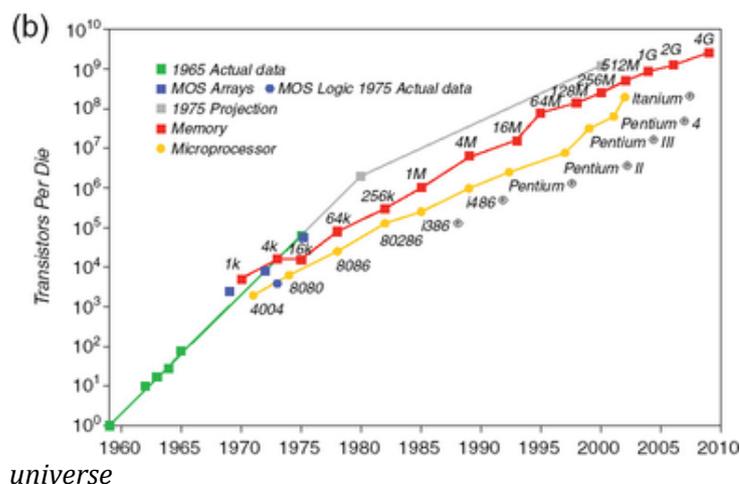
"America was built on an economic platform by which citizens earn their income—and their sense of worth—through employment. That strategy has served us well. But in an age when so many able-bodied adults lack full-time, stable employment, it is not enough. Our challenge is not finding more ways to fit people into 'meaningful' jobs. Our challenge is helping people find and sustain work that offers them an opportunity to make a contribution, to make them feel worthwhile, and to make meaning for themselves. Growing efficiencies was a fixation of the industrial age. It's a fixation we can no longer afford. We must quell the GDP fetish (...) The future of work depends less on our digital creations than on our collective imagination (...)the very technology disrupting so many forms of work today could be used to enable a new model by which compensation is based at least in part on an individual's 'social contribution.'"

Shell, Ellen Ruppel (2018): *The job. The future of work in the modern era*, Currency, New York.

270. Pernicious effects of offshoring (Stephen Slavin, 2017)

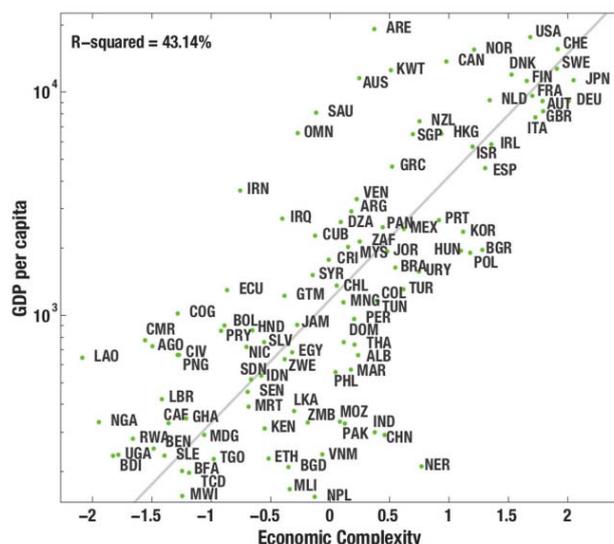
Apparent effects of globalization on the US economy it at least two ways: American industrial power has fallen (the US is no longer the world's leading manufacturing power it was for a century: it is China since 2010) and a sizeable amount of domestic operations have shifted abroad (offshoring).

- "Offshoring manufacturing jobs (...) Capital and technology have been shifting from the older and richer industrial nations to the newly industrializing nations where highly skilled, educated, and motivated workers are willing to work for a dollar an hour. Multinational corporations, driven by fierce competition, must operate in low-wage nations or be forced out of business.
- Offshoring and wages: How has the offshoring of millions of manufacturing jobs affected the hourly wage rates paid on the remaining jobs? Those who lost their jobs competed for other jobs, tending to bid down wage rates. Since 1973, the (inflation adjusted) hourly wage rate paid to nonmanagerial workers—80 percent of our labor force—has remained about the same. Employers often succeed in holding down wage rates by threatening to move their businesses to low-wage countries."



universe

"Moore's law still working after nearly fifty years"
Hey, Tony; Gyuri Pápay (2015): *The computing*



271. Technology: strive for control

“Let me begin by stating the obvious: We live in an era of technological enthusiasm. It’s not too vast a generalization to say that Americans, along with much of the world, are deeply, passionately in love with the technologies they use in their personal lives. We’re also beguiled by the promises of scientists and engineers who say that, thanks to them, we’ll soon be able to do just about anything we want to do. ‘At our current rate of technological growth,’ said Elon Musk, CEO of Tesla Motors and SpaceX, ‘humanity is on a path to be godlike in its capabilities.’ (...) Such comments also testify to a more recent wrinkle in utopian visions: that new technologies will be able to remedy the problems created by previous technologies. We see the same faith at work in the conviction of those who believe we’ll come up with some way of reversing the catastrophe of global warming by ‘geoengineering’ the climate of the entire planet.”

“Four basic, overlapping characteristics or sets of characteristics can be cited as fundamental elements of the nature of technology. They are (1) Technology is by nature expansive. (2) Technology is by nature rational, direct, and aggressive. (3) Technology by its nature combines or converges with other technologies. (4) Technology by its nature strives for control (...) The four characteristics (...) point to the central question of whether technology at some point becomes autonomous— that is, does technology at an advanced stage of development become impossible for human beings to control?”

“If there is a single lesson (...) that I could drum into the mind of every technician on the planet, it would be the certainty of uncertainty. For despite their willingness to acknowledge uncertainty on the micro level and to use it to improve performance, technophiles consistently evince a depressingly broad degree of myopia in regard to uncertainty on the macro level. In other words, scientists and engineers will focus intently on the inconsistencies that appear within their specific projects and work diligently to get rid of them. At the same time they’ll be perfectly willing to overlook the unpredictable results of their projects’ interactions with other, supposedly unrelated technologies in the world at large. In doing so they ignore two (...) principles:

1. There are no unrelated technologies.

2. The more powerful a given technology, the more widely its effects will radiate outward, the more difficult it will be to predict those effects, and the more damaging those effects can potentially be (...) The effects of powerful technologies radiate outward, producing in the process consequences that are both unintended and unexpected, often at velocities that exceed our ability to stop or contain them.”

“Technology doesn’t fix technology, technology *demands* technology. Given that we seem unable to make even minor sacrifices of consumption and convenience, we probably have no choice but to stay, in some fashion, the technological course (...) The societies we’ve constructed are so utterly dependent on our machines that any attempt to abruptly disconnect would be spectacularly, fatally disruptive. Unless and until we find a way to reposition ourselves in relation to nature, we’re pretty much stuck.”

“It’s a truism that power corrupts, and at its most fundamental level technology is about power. It follows that arrogance and overconfidence may be natural by-products of technological power.”

“[Norbert Wiener] said that the only true security comes from ‘humility and restrained ambitions’ (...) Technology is a two-edged sword, he said, ‘and sooner or later it will cut you deep’.”

“I see no harm in mentioning two general suggestions that would, if widely and comprehensively pursued, move us in a positive direction. The first of these is restraint. Cut back, on everything (...) My second suggestion is (...) pay some attention to redressing the imbalance, in the culture in general and in education in particular, between means and ends.”

Hill, Doug (2016): *Not so fast. Thinking twice about technology*, University of Georgia Press, Athens, Georgia.

272. Some ‘laws,’ rules and principles

Arthur C. Clarke's laws of prediction

- First law. “When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.”
- Second law. “The only way of discovering the limits of the possible is to venture a little way past them into the impossible.”
- Third law. “Any sufficiently advanced technology is indistinguishable from magic.”

Variation on Clarke's third by Mark Stanley (Freefall)

- "Any technology, regardless of how advanced, will seem like magic to those who do not understand it."

Melvin Kranzberg's six laws of technology (the sixth omitted)

- First law. "Technology is neither good nor bad; nor is it neutral."
- Second law. "Invention is the mother of necessity."
- Third law. "Technology comes in packages, big and small."
- Fourth law. "Although technology might be a prime element in many public issues, nontechnical factors take precedence in technology-policy decisions."
- Fifth law. "All history is relevant, but the history of technology is the most relevant."

Hofstadter's law

- "It always takes longer than you expect, even when you take into account Hofstadter's Law."

The freedom-security dilemma

- "The product of Freedom and Security is a constant."

Technology remakes both the physical and the mental worlds

- "Ethics change with technology."

Amara's law (Roy Charles Amara, 1925-2007)

- "We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run."

Goodhart's law (Charles Goodhart)

- "When a measure becomes a target, it ceases to be a good measure." (When you close the door, expect people to open a window.)

Hutber's law (Patrick Hutber)

- "Improvement means deterioration." (Anything presented as an improvement hides a deterioration.)

Orgel's second rule (Leslie Orgel)

- "Evolution is cleverer than you are."

Pareto rule (Vilfredo Pareto)

- "80% of the output/consequences tends to be accounted by 20% of the inputs/causes."

Peter principle (Laurence J. Peter)

- "In a hierarchy, every employee tends to rise to his level of incompetence."

Shirky principle (Clay Shirky)

- "Institutions will try to preserve the problem to which they are the solution."

Sturgeon's law (Robert Sturgeon)

- "Ninety percent of everything is crud."

The invisible law of market stupidity

- "The market is more stupid than everybody thinks."

Cipolla's basic laws of human stupidity (Carlo Maria Cipolla)

- First law. "Always and inevitably everyone underestimates the number of stupid individuals in circulation."
- Second law. "The probability that a certain person be stupid is independent of any other characteristic of that person."
- Third law. "A stupid person is a person who causes losses to another person or to a group of persons while himself deriving no gain and even possibly incurring losses."

- Fourth law. “Non-stupid people always underestimate the damaging power of stupid individuals. In particular non-stupid people constantly forget that at all times and places and under any circumstances to deal and/or associate with stupid people infallibly turns out to be a costly mistake.”
- Fifth law. “A stupid person is the most dangerous type of person.”

Hanlon's razor (Robert J. Hanlon)

- “Never attribute to malice that which is adequately explained by stupidity.”

The expert law of expertise

- “For every expert, there is an equal and opposite expert.”

Serge Lang's laws of sociodynamics (Lang, Serge (1998): *Challenges*, Springer, New York, p. 797)

- First law. “(a) The power structure does what they want, when they want; then they try to find reasons to justify it. (b) If this does not work, they do what they want, when they want, and then they stonewall.”
- Second law. “An establishment will close ranks behind a member until a point is reached when closing ranks is about to bring down the entire establishment; then the establishment will jettison that member with the least action it deems necessary to preserve the establishment.”
- Third law. “It's like the video games: one can't shoot fast enough.”

Murphy's laws (Koch, Richard (2013): *The 80-20 Principle and 92 Other Power Laws of Nature*)

- “Left to themselves, things go from bad to worse.”
- “If anything can go wrong, it will.”
- “If several things can go wrong, the one that will cause the most damage will go wrong first.”
- “If anything just cannot go wrong, it will anyway.”
- “The probability of anything happening is proportional to the damage it will cause.”

The Dilbert principle (Scott Adams)

- “Leadership is nature's way of removing morons from the productive flow.”

Sunday February 05, 1995



<http://dilbert.com/strip/1995-02-05>

The Dunning-Kruger effect (David Dunning and Justin Kruger)

- “People tend to regard themselves as more competent or capable than they actually are.”

The social entropy principle

- “If something seems to go well, it is because someone is bearing the cost of the good performance (without enjoying much of the benefit).”

The Red Queen effect

- “Constant effort is required to just maintain success.” (The natural condition of the social world is entropy growth, not equilibrium.)

273. The devilish dilemma of Big Data (Klous and Wielaard, 2016, p. 40)

“Many Big Data plans face a major dilemma. Companies need more and more data in order to create (social) value to provide the services we require. The more we are willing to share that data, the more they are capable of meeting our needs and thereby creating social value. But many people are strongly against sharing more data. They associate Big Data with Big Brother scenarios, and are worried that companies only want to make as much money as possible from our personal data and that governments don’t care about our privacy.”

Klous, Sander; Nart Wielaard (2016): *We are Big Data. The future of the information society*, Atlantis Press.

“People are just curious. What follows in the wake of their discoveries is something for the next generation to worry about.” Werner von Braun

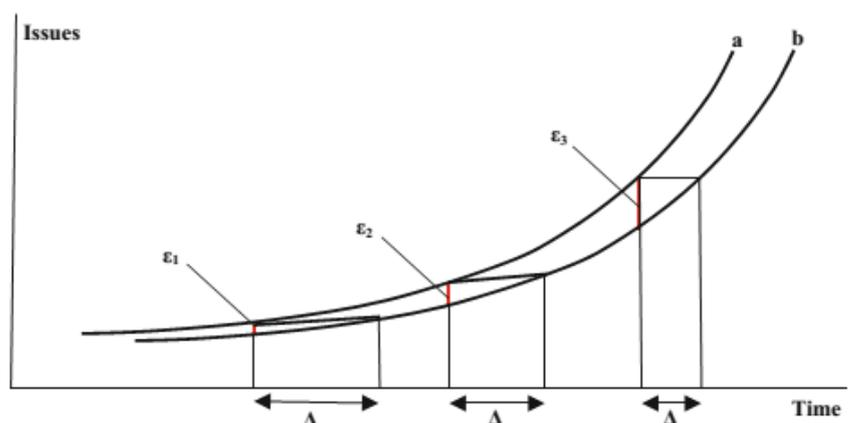
274. Jevons paradox (William Stanley Jevons, 1865)

“It is wholly a confusion of ideas to suppose that the economical use of fuel is equivalent to a diminished consumption. The very contrary is the truth.”

- All efforts to maintain the resource and energy base of an economy are eventually futile. Specifically, technological improvements that improve the efficiency of resources or sources of energy lead to an increase (not a decrease) in the consumption of the resources or the energy sources (coal, oil, electricity...). Since technological improvements make the use of resources cheaper, more of the resources will be used.
- If a new technology reduces the amount of a certain resource (and the environmental impact) per unit of production, the new technology may have an expansionary effect on the general economic activity that could increase the amount actually used of the resource and its environmental impact. The paradox is that a technology created to save resources and the environment may ultimately offset the initial energy/environmental savings and contribute to worsen the original problems: resource depletion and environmental deterioration. The underlying explanation is that technologies are not developed and adopted to achieve social goals, like saving resources or the environment, but to make (private) profits.

275. Issues created by technology

Curve **a** represents, as a function of time, the issues (social, political, cultural, economic problems) created by new technologies. Curve **b** shows the issues that are resolved. The vertical distance between the two curves at any point in time measures the number of issues pending of resolution. The figure indicates that this number is increasing: new technologies are introduced at a faster rate than society solves the issues.



Slow or inadequate response to technological change may destabilize or collapse society, overburdened by issues pending of resolution.

Mayer, Maximilian (ed) (2018): *Rethinking the Silk Road. China’s Belt and Road Initiative and emerging Eurasian relations*, Palgrave, Macmillan, Singapore.

VII. Geopolitics and globalization: The rise of China

276. Global forces

There are at least four forces/events that, in the last decades, have been shaping the future. They are listed next in terms of the time involved in their development.

- **The fall of the Soviet Union.** This left the US without a global challenger to its hegemony.
- **Globalization.** In part facilitated by (1), global networks of almost everything have been created or expanded: goods, money, people, information, communication.
- **The rise of China.** China's rise shows that development is a coevolutionary process between state and markets in which each interacts and adapts to the other. Neither growth nor good governance comes first. Markets may/should start operating with weak institutions but, in exchange, adaptability, flexibility, improvisation and experimentation have to be accepted, promoted and rewarded.
- **A global demographic shift.** Over the last five decades most countries have experienced a baby boom followed by a baby bust. The result is that, for the first time, the average age of population has been rising. There is no past experience of a society consisting of an aging population.

Yotopoulos, Pan A.; Donato Romano; eds. (2007): *The asymmetries of globalization*, Routledge, London and New York (especially chapter 10: "What have we learned about globalization?").

277. Why China failed before the Deng Xiaoping era (Joe Studwell, 2013)

"... for a long time China was constrained because the Communist Party of China (CPC) was captive to the two great socialist fallacies that undid socialist modernisation programmes in other communist states. The first of these was that agriculture could only be efficient at scale, leading to the collectivisation of farming in the mid 1950s (...) However, agriculture is not like manufacturing, where scale is essential to low unit costs and to the technological learning process that enables firms to produce more sophisticated products. In agriculture, the product never changes – rice is rice and corn is corn."

"The second great communist fallacy (...) was that manufacturing could be developed without trade –through a policy of self-sufficiency, or autarky. In essence, this boils down to a country's people staying home and trying to figure out technological problems on their own (...) The legacy of autarky in China was, by the 1980s, all kinds of passable but hopelessly inefficient industrial processes (...). Through autarky, China failed to develop a single industrial product with which it could compete internationally."

"In the era of Deng Xiaoping, China broke out from the two great socialist fallacies. First, household farming was restored. Then (...) China opened up to trade and, gradually, to foreign investment, allowing it both to absorb international technology and to begin to benchmark its own products in world markets (...) China – unlike south-east Asian states– has been paranoid about the advice it has been offered, and has prospered by virtue of its paranoia. Since 1978, China has posted an impressive developmental record, and has become the second east Asian state after Japan both to fascinate and unnerve western Europe and north America. The country has delivered a near 10 per cent average growth rate for three decades."

"In qualitative terms, China has not matched Taiwan in agricultural performance. It has not matched Korea for the speed and depth of its industrial upgrading. And it has not matched Japan in reinventing the nature of many industrial processes. But because China is so big and so populous – and, more darkly, because it is not an ally of the West – since 1978 it has managed to shake the world (...) Thus far, China's financial system management has worked well in giving government the discretion to run effective developmental policy. However, as north-east Asia's experience has shown, manipulation and repression of a financial system to developmental ends offers only a limited window of opportunity before financial and corporate entrepreneurs, and ordinary citizens, find ways to evade the controls."

"Overall, China's government has lined up most of the ducks necessary to enable rapid economic development. However, there is little to suggest that China offers qualitative improvements to policies which have been used before (...) Contemporary chatter about the rise of a 'Beijing consensus' on development policy is a perversion of historical facts. The true break-out example in successful Asian development was Meiji Japan, and China is simply a follower in that tradition. China's development is exceptional not because of the tried and tested land reform, infant industry and financial repression policies that made it possible, but because of its scale."

278. On China's continued rise (Joe Studwell, 2013)

"Is China's continued rise inevitable and without limits? Not at all. Many people believe that the scale of the country and its domestic market guarantee success. But the size of China also makes it a difficult place for central government to run effective industrial policy and to curtail waste. China has yet to create truly world-beating firms, and history suggests that a state's size is no great advantage in this respect. Many of the world's most successful firms were created in rather small countries in Europe. Most big states –Brazil, India, Indonesia, Russia– are relative economic failures (even if the United States is not). This is because it is the quality of governance and policy-making that determine a country's prospects. China will be no exception."

"China is already exiting the most favourable demographic period for economic development, when workers are abundant and retirees few (...) Apart from the demographic shift, the other easy prediction to make about China is that its very slow pace of institutional development will create ever more friction in society and, eventually, produce a significant economic cost (...) As well as a country of technological capacity, China needs to become a country of institutional systems. It is only a combination of the two that can take the country to the front rank of nations (...) Thus far, institutional deficiency has not been a significant drag on China's economic growth. But it will catch up with it eventually (...) On its present trajectory, China is set to be a middle-income per capita, but profoundly institutionally retarded state."

Studwell, Joe (2013): *How Asia works. Success and failure in the world's most dynamic region*, Grove Press, New York.

279. A paradox of dominance?

If the global contest for dominance is a zero-sum game, then the resources used by the rising powers are no longer available to the lead states to maintain or expand their dominance. In fact, the economic system created by the dominant powers is used by the challengers to rise: when the profit opportunities become scarce in the lead economies, it becomes an attractive option to invest abroad and that helps less developed economies to develop and close the gap with the richer economies. As it is cheaper to produce in poorer economies, these economies could develop easier and faster by selling their production in the leading economies. Hence, the initial leadership of some economies is accompanied by convergence of the rest of economies.

"The paradox of power for the USA is therefore that the very economic system that has propelled it on to the world stage also contains within it the potential seeds of its own destruction." Glenn (2016, p. 2)

280. Rise and fall of great powers

The rise and fall of great powers appears to be a stylized fact of international relations. It is a process in which the status quo represented by the dominance of some power is challenged by the emergence of a new power. Is it now the turn for the US to fall and for China to rise? Will the system become bipolar? Basic explanations for the fall are: (i) internal instability; (ii) external over-extension. The basic explanation for the rise is emulation: the states lagging behind the leading powers learn from them how to catch up. In the process of developing and accumulating power, the lead states that first go through this process may attempt several strategies of which some may prove unsuccessful. The less developed or weaker states do not have to replicate failures, since they may just adopt the successful strategies. The laggards do not need to go through all the stages that the leaders initially followed and that allows the laggards to catch up faster and at smaller cost than the vanguard states.

John Glenn (2016): *China's challenge to US supremacy. Economic superpower versus rising star*

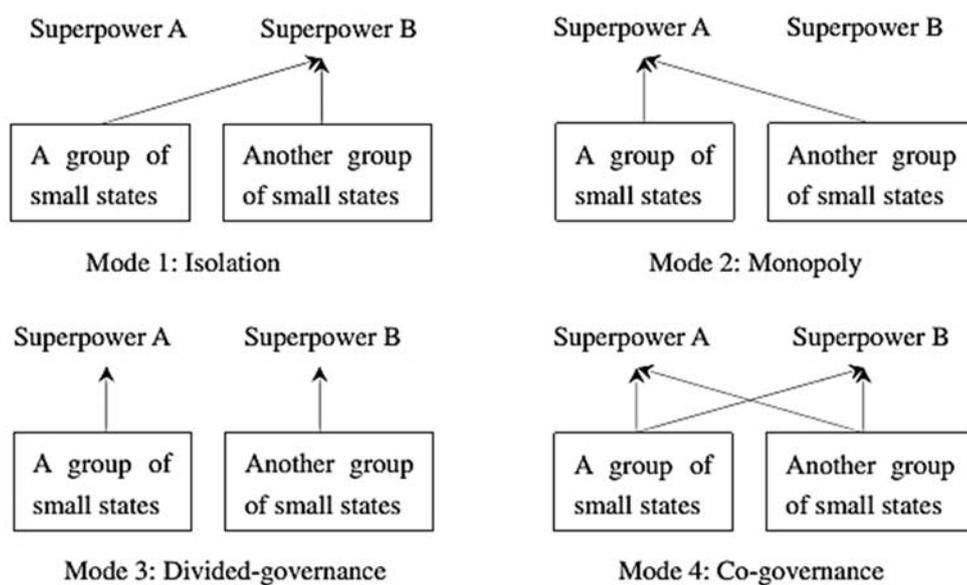
281. The Thucydides trap

"What made war inevitable was the growth of Athenian power and the fear which this caused in Sparta." (*History of the Peloponnesian War*, Thucydides)

(Graham Allison, 2017). "It was the rise of Athens and the fear that this instilled in Sparta that made war inevitable." When a rising power threatens to displace a ruling power, armed conflict becomes the most likely outcome. Now China and the United States appear to be have fallen into the trap.

282. Sino-US interaction: Thucydides trap, Churchill trap or co-ruling?

“The ‘Thucydides trap’ is in a large part an induction of historical experiences on great power politics. In the contemporary era, however, there is small risk of all-out war between a rising power and a hegemonic power. By contrast, the ‘Churchill trap’, whereby the superpowers fall into a long-term confrontation reminiscent of that between the US and the Soviet Union during the Cold War, presents a genuine risk and one that should be taken far more seriously (...) there is a



third type of great power relationship between the two poles, which I call ‘co-ruling’, whereby rather than being geographically demarcated according to their respective ‘spheres of influence’, the two superpowers jointly lead all or most of the small and medium-sized countries in the system.”

Yang Yuan (2018): “Escape both the ‘Thucydides Trap’ and the ‘Churchill Trap’: Finding a third type of great power relations under the bipolar system”, *Chinese Journal of International Politics*, 1-43.

283. Renminbi internationalization

A goal of the Chinese government is the internationalization of the renminbi. Reliance on the dollar exposes the Chinese government to possibly erratic fluctuations of the US policy and to the risk of capital losses associated with the accumulation of dollars (or dollar-denominated assets) as foreign reserves.

- Renminbi internationalization, which started around 2010, is part of a larger goal of Chinese internal economic rebalancing: from investment and exports to domestic consumption and from manufacturing to services, financial services included.
- Renminbi internationalization attempts to make the renminbi a leading international reserve currency and to transform Shanghai into a first-class global financial centre.
- The US dollar is an example of a currency achieving rapidly the status of a first-class international and reserve currency: in 1914 it was not used internationally and by 1924 it became the dominant international currency. Eichengreen (2013) regards the position of the renminbi in 2009 as similar to the dollar’s in 1913.
- Global economic convergence will contribute to make the US dollar a less satisfactory international reserve currency: under convergence, the US economy will represent a smaller share of the world economy and that will reduce the US economy’s capacity to provide enough safe and liquid assets to meet the world’s growing demands.

Eichengreen, Barry (2013): “Renminbi internationalization: Tempest in a teapot?”, *Asian Development Review* 30(1), 148-164.

284. China’s rise to tech superpower: new world’s technological leader?

“China’s Silicon Valley has evolved over the past two decades to be a potentially dominant worldwide tech leader in the near future. From copiers to originators, Chinese tech titans are showing the way forward with leading-edge advances that rival the West.”

“WeChat is just one of many Chinese innovations that is revolutionizing the future with advances that are still rare in the West. China’s e-commerce startup Pinduoduo makes online shopping on your mobile for bargains truly social and fun. China’s 15-second video streaming app TikTok amuses tweens and can make online

performers into rich celebrities—it's what comes after YouTube and Instagram. The world's most valuable artificial intelligence startup SenseTime uses facial recognition on city streets for public security checks. China's electric carmaker NIO stands a chance in its home market of beating Tesla."

"China is creating a tech universe that is a counterweight to the long dominance of the United States. In many sectors—mobile payments, e-commerce, electric vehicles, and livestreaming—the Chinese are far ahead."

"China has a history of copying Western technology ideas. No more. China beat the United States in landing the first spacecraft on the moon's far side. A Chinese scientist claims his research led to the world's first gene-edited babies. The entire bus fleet in Shanghai and China's southern tech hub Shenzhen is electric."

"China is on a tech upgrade that will challenge the West for leadership of the global economy for the coming decades just as America dominated the industrial and information revolution in the past century. A shake-out will occur if Silicon Valley doesn't recognize and respond to these leading signs of a massive power shift. While the United States is king of the tech hill, other Silicon Valleys have sprung up in Tel Aviv, London, Bangalore, and elsewhere—but most powerfully in China."

"China's tech titans Baidu, Alibaba, and Tencent (the BAT) own search, e-commerce, and social networking in China and are forging ahead into innovating frontier technologies that will reshape financial, retail, transportation, and mobile communication sectors globally."

"In the ebb and flow of history, economic powers shift from one country to the next. I believe we are now at this juncture with the United States and China. Game-changing technologies are being invented in China at a rapid clip, and they're going global. The future of tomorrow is being driven by new economy breakthroughs, largely in high tech, which is transforming our world. China has the advantage to lead because of its large online markets and a young, tech-savvy population eager to experiment with new devices."

"Yes, there are many gaps and social ills, but China is making progress fast. I never could have imagined even just 10 years ago how advanced it would become, how giant Baidu, Alibaba, and Tencent would grow across broad sweeps of the economy. Now a new group of technologically advanced Chinese companies led by serial entrepreneurs are coming up, with their own breakthroughs."

Fannin, Rebecca A. (2019): *Tech titans of China. How China's tech sector is challenging the world by innovating faster, working harder, and going global*, Nicholas Brealey, Boston.

285. The rise of China

At present, China's economic and political ascent is one of the most significant events. After four decades of continued growth, China's share in world GDP is around 17%. Is this event signalling a displacement towards Asia of the center of gravity of the world economy? How will China behave as a major power? What changes in the global economy will China favour?

- **The Belt and Road Initiative.** This initiative (proposed in 2013 by President Xi Jinping) constitutes the most ambitious foreign policy project by China. Its ultimate goal is to integrate, by means of large-scale infrastructure projects and related investments, all the Eurasian countries, connecting Central Asia, South Asia, South East Asia, Middle East, East Africa and Europe. The initiative appears to signal China's attempt to become a Eurasian great power (the greatest?). The initiative has two components: the Silk Road Economic Belt and the 21st Century Maritime Silk Road. Both aim at increasing the economic integration of the countries connecting East Asia with Western Europe.

286. A paradox of global leadership?

"The emergency state that Franklin Roosevelt created to fight and win that war lived on past the defeat of Germany and Japan and became a defining feature of the postwar peace. America entered the era of the permanent emergency state, an era that has outlasted the cold war by a generation and that distorts American political and economic life to this day."

"Since the 1940s the traditional tenets of American democracy—limited military intervention abroad, checks and balances at home, executive accountability to Congress and the electorate—have ceded place to (...) the steady expansion of an unaccountable, presidentially directed national security establishment (...) This self-perpetuating security establishment, created in the name of protecting American liberties from Fascist and

Communist threats, has cultivated its own ideology of official secrecy to shroud its actions from appropriate scrutiny and democratic debate. It has won public acceptance of its expanding powers through selective intelligence disclosures calculated to manipulate our consent by stoking our fears.”

“The emergency state as we know it today—with its presidential encroachments on congressional and judicial powers, its institutionalization of government secrecy, and its politically lubricated links between military spending, export balances, and domestic employment—got its real start around 1940 (...) Roosevelt’s emergency state wasn’t dismantled in 1945, after Japan’s surrender ended World War II. It wasn’t dismantled in 1953, when the big-government Democrats lost the White House to the (traditionally) small-government Republicans. It wasn’t dismantled in the 1970s after Vietnam, Watergate, and a weakening dollar should have warned us that the postwar security state model was unsustainable. It wasn’t dismantled in 1991 when the cold war ended.”

“Americans, having lived through the successive crises of the Great Depression, World War II, and the cold war, have become so used to living in a permanent state of emergency that the normal workings of American democracy have faded to a distant memory.”

“... for seven decades we have been yielding our most basic liberties to a secretive, unaccountable emergency state—a vast but increasingly misdirected complex of national security institutions, reflexes, and beliefs that so define our present world that we forget that there was ever a different America.”

“In pursuit of a guaranteed security that not even the richest and most militarily powerful country in human history can realistically hope to attain, we have been allowing our national institutions to be transformed for the purposes of endless war and empire, gravely endangering the future of our democracy.”

“Many of the most serious problems facing America’s economy today result from a series of choices postwar administrations have made about international economic policy based primarily on America’s foreign policy goals and ambitions and not necessarily on the domestic prosperity and needs of America’s people (...) America has been borrowing to consume in increasing doses for four decades. Were it not for the deference our creditors long paid to America’s geopolitical power, the size of our consumer market, and the dollar’s role as an international reserve currency, we would have been forced to adjust to changing international economic realities long ago.”

Unger, David C. (2012): *The emergency state. America’s pursuit of absolute security at all costs*, Penguin Press, New York.

287. A paradox of absolute security?

“Insisting on absolute security has brought only absolute insecurity, as minor and manageable annoyances are redefined as potentially mortal threats that must be preventively eliminated. Generations of simplistic political sloganeering have confounded Americans’ ability to make the most crucial distinctions among the potential threats confronting our country.”

“We blind ourselves to the lessons of the irregular wars that have bloodied us in Vietnam, Iraq, and Afghanistan, imagining that they are somehow exceptions and that our military failures on these typical modern battlefields should not challenge our notions of unchallengeable American military power.”

“America has wasted hundreds of billions of dollars over the past twenty years on redundant nuclear weapons, ineffective missile defenses, and costly fleets of aerial combat fighters, as if our main security threat still came from a rival high-tech global superpower. Instead, we should have been urgently reassessing the dangers and opportunities created by the radically different international realities of globalized trade and travel, porous international borders, and Middle East conflicts that long ago ceased to be proxy battles between Washington and Moscow. Al Qaeda has no intercontinental ballistic missiles, jet fighters, military alliances of satellite nations, or KGB-like international espionage networks. It has no fixed address against which traditional deterrence or retaliation can be targeted.”

Unger, David C. (2012): *The emergency state. America’s pursuit of absolute security at all costs*, Penguin Press, New York.

288. Global war on terrorism

“... the Global War on Terrorism —like every major conflict since the turn of the twentieth century— is a war for resources. Access and control of the Middle East have long been a coveted prize. Terrorism has nothing to do with it. Closely related to this theme is the fact that the religion of Islam is not an inherently violent religion. Islamic extremists constitute a miniscule percentage of the total Muslim population, and they interpret Islam’s sacred writings in a way that justifies violence. Such behavior is not a strictly Muslim phenomenon, nor is it a strictly modern one (...) However, this is not the message that the average consumer of the news receives. The media not only promotes nearly every act of violence as terrorism; it also automatically assumes that the perpetrator was an Islamic extremist (neither of which is always true). (...) I call this the media-terrorism industrial complex. The media distorts the facts and makes the threat of Islamic extremism appear to be much more serious than it actually is (...) Foreign-born terrorists have killed only one American per year since 9/11 —certainly nowhere near the top of the list of the most deadly threats to humanity. Still the threat of terrorism (and particularly Islamic terrorism) continues to be greatly exaggerated by both the media and the politicians who use fearmongering as a political tool.”

“Despite the amount of violence taking place in Muslim countries, it is extremely difficult to demonstrate a positive correlation between the religion of Islam and violence. Those who attempt to correlate the two base their argument on the fact that a significant amount of violence today involves Islamic extremists. But (...) much of this violence takes place in the context of civil war and has been initiated by Western armies on behalf of corporate interests and the quest for oil. Many of the so-called Islamic terrorists in Iraq, Afghanistan, Libya, Syria, Yemen, and other countries are simply trying to defend their country against a foreign invader/occupier. If Americans acted the same way under similar circumstances, they would be considered freedom fighters and celebrated as heroes.”

“Any act of violence can now be labeled terrorism if one so wishes. And of course every state and nonstate actor on the planet labels its enemies as ‘terrorists’ but claims that its own violence is legitimate and necessary— and therefore justified. In truth much of the violence that’s now being touted as terrorism is not terrorism at all. It’s just politically beneficial for someone to label it as such. This is particularly true of Islamic extremism (...) What defines terrorism is not the type of violence employed but the strategic objective behind the violence.”

“Terrorism is the use of violence to coerce political concessions. One could add that it can be committed by anyone (both states and nonstate actors), as well as perpetrated against any actor with the ability to grant political concessions.”

“Consider Nelson Mandela, Menachem Begin, Yasser Arafat, and Sean McBride. Each one was previously denounced as a terrorist. But now they’re all celebrated as Nobel Peace Prize winners.”

Maszka, John (2018): *Washington’s dark secret. The real truth about terrorism and Islamic extremism*, Potomac Books, Lincoln, Nebraska.

289. Basic conceptions of global order (Andrew Hurrell, James Mayall)

- Minimalist. Global order relies on power and, occasionally, on convergence of interests.
- Pluralist. Global order is sustained by negotiated rules and common understandings that ultimately regulate the use of violence to resolve conflicts. In a narrower interpretation of the pluralist conception, the global order just involves a society of sovereign states, which accept principles of territorial integrity and non-interference.
- Solidarist (or cosmopolitan). Global order involves both states and non-state actors and requires a consensus (among them) on basic principles regarding global governance and on procedures to implement the principles. In a narrower interpretation of the solidarist conception, global order is predicated rather on a society of peoples than a society of states, whose activity may be subordinated to comply with humanitarian demands by the international community.

Foot, Rosemary; Andrew Walter (2011): *China, the United States, and global order*, Cambridge University Press, New York.

290. Basic issues in the current global order (Rosemary Foot and Andrew Walter, 2011)

- Use of force. The UN Charter provides norms to constrain the use of force. Article 2(4) makes an appeal to UN members to ‘refrain in their international relations from the threat or use of force against the territorial

integrity or political independence of any state,' though Article 51 acknowledges a state's 'inherent right of individual or collective self- defence if an armed attack occurs against a Member of the United Nations.' The Charter also attributes the Security Council the function of maintaining international peace and security.

"While there have been many instances, especially during the Cold War, when US military actions gained the support of its major allies, America has been less successful in generating support in the post-Cold War era for its arguments in favour of a role for the preventive use of force."

- **Macroeconomic policy surveillance.** The International Monetary Fund has assumed the general surveillance function of the global economy, to in particular promote the stability of the international monetary system.

"Neither China nor the United States has been unambiguously committed to the international surveillance framework, but paradoxically it has become increasingly central to their bilateral relationship over the past decade. In marked contrast to China, the United States has been by some distance the most important norm and rule maker in this area of global ordering. But its position towards the surveillance framework has always been ambivalent, seeing its norms and rules as constraining the macroeconomic policies of other countries rather than itself."

- **Non-proliferation of nuclear weapons.** "The NNPN [Nuclear Non-Proliferation Norm] framework has been an emblematic part of global order in the period since 1945, and the challenge to its current status raises the spectre that we are on the verge of an era where several new states, and possibly non-state groupings, acquire such weaponry (...) The non-proliferation norm is under challenge, but for the time being it appears to have sufficient legitimacy and to be sufficiently embedded to retain some level of constraint over these two states and many other members of global society."
- **Climate change** (global norm of climate protection). "...the course of this global norm and its movement from creation to elaboration has been fraught with difficulty. While it is the case that we have a global norm on climate protection, it is far too optimistic to claim that it has been consolidated or has enough stability and legitimacy to ensure eventual success."
- **Financial regulation.** "The dilemmas posed by the emergence of cross-border capital flows and global financial firms since the 1960s are emblematic of the difficulties posed in a hybrid global order that had been predicated on national financial regulation and supervision. Financial globalization has been associated with periodic crises of growing frequency and with important cross-border dimensions, prompting efforts to coordinate regulatory approaches. The major developed countries dominated these efforts (...) By some measures, China's attitudes towards the core norms and associated rules and principles of the Basel framework have been remarkably convergent, whereas the United States has sometimes found it difficult to achieve full behavioural consistency even in areas where its influence on the global framework has been close to decisive (...) The 2008-09 crisis was a major blow to the credibility and legitimacy of the Basel framework and to the US approach to financial regulation (...) Paradoxically, China emerged as a defender of the Basel framework and insisted that it is on track for implementation in spite of its own desperate efforts to maintain growth through an unprecedented expansion of bank lending."

Foot, Rosemary; Andrew Walter (2011): *China, the United States, and global order*, Cambridge University Press, New York.

291. The American liberal order

Amitav Acharya (followed by Joseph S. Nye) claims that the liberal order: (i) "should be seen as an international order, but not the world order, of the post-World War II period"; (ii) "was largely limited to a group of like-minded states centered on the Atlantic littoral" and "did not include many large countries such as China, India, and the Soviet bloc states"; (iii) "was not so benign for many outside of it, especially in the developing world"; and (iv) that its hegemony is past.

"Until now, it was generally assumed that the main challenge to that order would come from external factors, especially from the rising powers led by China. Now, the liberal order is imploding as well. Trump's victory, and Brexit, suggest that the challenge to the liberal international order is from within (...) A key argument of this edition is that the decline of the AWO [American World Order] cannot be reversed by Trump, no matter what course he takes as US President (...) If Trump faithfully carries out his 'America-first' policies to their logical conclusion (which is by no means certain), and weakens the US alliances and global institutions that have been foundational to the liberal order, it could well accelerate the end of that order. The nature of his policy platform

is such that its success could come only at the expense of the liberal order (...) The decline of the American World Order is rooted in multiple long-term structural factors that simply cannot be reversed either through American isolationism or American internationalism.”

“... despite the Trump interlude (...) the era of liberal hegemony is past. The emerging world is not defined by the hegemony of any single nation or idea. This does not necessarily mean the United States is in decline. This is still arguable. But it is no longer in a position to create the rules and dominate the institutions of global governance and world order in the manner it has done for much of the post-World War II period. And any elements of the old liberal order that survive would have to accommodate new actors and approaches which do not play to America's commands and preferences. They would have to compete or enmesh with other ideas in a world of growing complexity and interconnectedness: a multiplex world (...) While the liberal order is imploding in the West, China and India are likely to pursue globalization, albeit in a way different from the earlier Western-led globalization. China in particular is taking on a more assertive role in reshaping globalization and global governance.”

“While there are signs of growing conflict and violence in the world, these are not necessarily due to the decline of the American World Order (...) A multiplex world will not be free from conflicts and disorder. But absolute peace is illusory. The goal should be to achieve relative stability, preventing major power wars and genocide and managing regional conflicts to minimize human suffering. (...) A multiplex world presents both challenges and opportunities for global and regional cooperation. This would require the Western nations to shed their free-riding on the US and accept shared leadership with the rising and regional powers. It would require greater partnership between global and regional bodies, public, private and civil-society groups. This is a G-Plus World and requires a reformed system of global governance that accords genuine recognition to the voices and aspirations of the Rest. America and its Western allies must give up exclusive privileges in return for their trust and cooperation in order to make the system work.”

Acharya, Amitav (2018): *The end of American world order, second edition, Polity, Cambridge, UK.*

292. The threat of nuclear annihilation

“The global population doesn’t realize just how little time exists for our leaders to make a decision about whether or not to use nuclear weapons even today (...) This creates a psychiatric issue: the real problem—the real pathology—in nuclear war planning is nuclear psychosis. In truth, the world is being run by many people who are either sociopaths—brilliant, charming, erudite, with no moral conscience—or others I would label as schizophrenics who suffer from a split between reality and perception of reality. These men have wired the world up like a ticking time bomb ready to explode at any minute. We are faced, therefore, with a fundamentally medical issue. Cyberwarfare has made the situation worse.” (Introduction)

Caldicott, Helen; ed. (2017): *Sleepwalking to Armageddon. The thread of nuclear annihilation, The New Press, New York.*

293. STUPID

“Nearly 13.8 billion years after our Big Bang, about five hundred years after inventing the printing press, we humans decided to build a contraption called the Spectacular Thermonuclear Unpredictable Population Incineration Device, abbreviated STUPID. It’s arguably the most costly device ever built on this beautiful spinning ball in space that we inhabit, but the cost hasn’t prevented many people from saying that building and maintaining it was a good idea. This may seem odd, given that essentially nobody on our ball wants STUPID to ever get used (...) My own guess is that the most likely way we’ll get a nuclear war going is by accident.”

Tegmark, Max (2017): “Nuclear weapons and artificial intelligence,” chapter 6 in Caldicott, Helen; ed. (2017): *Sleepwalking to Armageddon: The thread of nuclear annihilation, The New Press, New York.*

294. Battle over cyberspace

“Just as historians consider 1947 as the year that two clear sides in the Cold War emerged, we will look back at the year that stretches roughly from June 2012 to June 2013 as Year Zero in the battle over cyberspace (...) During the Cold War, only a few countries had the economic and technological capacity to build nuclear bombs. Even today, only nine countries possess them (...) But almost any country as well as skilled hacking groups can launch a digital assault (...) There may be strong incentives to attack first in a crisis: cyber weapons are “one and

done,” used once and then they are gone. Once your adversaries see what you can do, they will patch their defenses, or could attack you, making your cyber weapon obsolete before you ever use it. This pressure not to sit on a weapon heightens strategic instability (...) The global and interconnected nature of the Internet also means that cyberattacks have the potential to produce unpredicted and inadvertent problems far beyond damage to the intended target (...) The most difficult problem is that you may not actually know who is attacking you or what the assailant is planning (...) With the shift away from purely military targets, the battle over cyberspace is remaking the division between the public and the private, between what we expect the government to do and what remains the responsibility of companies, public organizations, and individuals.”

“This failure to achieve basic security is in part due to a focus on highly destructive but low-probability outcomes. Politicians and policymakers worry about a ‘cyber Pearl Harbor’ rather than allocating funds to a little-known government agency to upgrade archaic systems. As security analyst Adam Elkus put it, ‘Fantasizing about super-hackers and visions of cyber-doom are more fun than the boring but necessary drudgery, for example, of modernizing a decrepit and decaying federal information technology base’ (...) “The new technologies coming to market are amazing (...) but at the end of the day, it still comes down to social awareness and education’.”

“The hacked world order is defined by the empowerment of individuals and groups as well as by new expressions of geopolitics. New vulnerabilities arise, but the great powers have the technology, talent, and capital to create novel forms of influence and coercion. The conflict over cyberspace is the strategic imperative of the future, and everyone is struggling to understand what is at stake, who the critical actors are, and how cyber power works. The United States cannot afford to stumble forward blindly; the window of opportunity is closing as others define and pursue their interests in cyberspace. While the United States will continue to strive for an open, secure, and global cyberspace, it must also prepare for the more likely future of a fractured Internet.”

Segal, Adam (2016): *The hacked world order. How nations fight, trade, maneuver, and manipulate in the digital age*, PublicAffairs, New York.

295. The global impact of the American Revolution

“... a local protest over taxes in a remote corner of North America would end on the streets of Dublin, the mountains of Peru, the beaches of Australia, and the jungles of India. In the increasingly interconnected world of the eighteenth century, an American spark would ignite an unexpected flame that would consume the globe, leaving in its wake a new world and an altered balance of power. The birth of a new nation in the west would sow the seeds of collapse for millennia-old civilizations in India, Australia, Africa, China, and the Middle East, and help speed the rise of the great powers of the nineteenth and twentieth centuries: America, Russia, and Great Britain. The American Revolution was a war within, between, and over empires, and when the smoke cleared, new empires would emerge and old empires would be forced to fundamentally change or face a steep decline.”

“Advocates of revolution in America and in Europe had hoped that the uprising in the colonies would create a global movement, a revolution without borders. But if revolutionary fervor did indeed become international, the true consequences of the revolution without borders, its remaking of institutions and reshaping of lives across the world, were not what anyone expected. A revolution in favor of liberty in one corner of the map initiated a reactionary revolution in the wider world, inflicting new suffering and new restraints on people for whom freedom and independence were not available. In the empires of France, Spain, and Britain, the hard lessons learned from the American Revolution were rigorously applied, inaugurating an authoritarian counter-revolution that stabilized and expanded Britain’s empire while fatally weakening France and Spain (...) While the British Empire was internally stabilized, the American War destabilized Britain’s primary rivals in Europe, Asia, and the Americas.”

Lockwood, Matthew (2019): *To begin the world over again. How the American Revolution devastated the globe*, Yale University Press, New Haven and London.

296. Troubles of an economic superpower: threat to global stability? (Stephen Slavin, 2017)

Slaving (2017) contends that the following are the top eight fundamental problems of the US economy.

- “Our inefficient transportation system: because we go almost everywhere by car, Americans spend twice as much on transportation as the citizens of most other rich nations.
- Our failing schools: just half of our eighteen-year-olds can function at an eighth-grade level.

- Our sick healthcare system: healthcare costs nearly twice as much per capita in the United States than it does in most other economically advanced nations.
- The military-industrial complex: we account for nearly 40 percent of the world's military spending.
- The criminal justice establishment: we have, by far, the highest incarceration rate among economically advanced nations.
- Our bloated financial sector: this sector is diverting increasing amounts of savings from productive investments into speculative activities.
- Our huge and growing make-work sector: more than fifteen million Americans hold jobs that do not produce any useful goods or services.
- Our shrinking manufacturing base: much of what had once been “Made in the USA” is now made in Japan, China, South Korea, Mexico, and other nations.”

These are accompanied by six additional problems.

- “There is a great shortage of decent jobs.
- The average hourly wage rate (adjusted for inflation) for nonsupervisory workers has not increased since 1973.
- Our income distribution is becoming increasingly unequal.
- Our growing permanent underclass perpetuates itself from one generation to the next.
- Our huge federal budget deficits are unsustainable.
- Because we are running large trade deficits, we must borrow more than \$1 billion a day from foreigners.”

“Sixty years ago the United States was almost self-sufficient: we produced what we consumed and ran a trade surplus with the rest of the world. Today our nation consumes more than it produces, spends more than it earns, and needs to borrow large amounts of money from foreigners to finance its huge trade deficits. (...) Our two most recent former Federal Reserve chairmen, Alan Greenspan and Ben Bernanke, have both observed that our current economic course is unsustainable. Perhaps they were thinking of Stein's Law, which was invoked by Herbert Stein, who had served as President Nixon's chief economic advisor: ‘If something cannot go on forever, it will stop.’”

“To sum up our basic economic problem in just a few words: we are not making efficient use of our labor force. Many of our best and our brightest—especially those with excellent academic credentials—are underemployed. Many of our semi-skilled and unskilled workers are underemployed or unemployed. And finally, at least a quarter of our labor force is engaged in basically unproductive work—that is work that produces no useful goods or services.”

Slavin, Stephen L. (2017): *The great American economy. How inefficiency broke it and what we can do to fix it*, Prometheus Books, Amherst, New York.

297. The transition from British to American hegemony

“Hegemony is the ability to set the rules of international involvement, and to create order among states by enforcing those rules. Most replacements of hegemonic powers in the international order occur by violence—nearly all, in fact. Dominant states hold their position by force for as long as possible, and are eventually defeated by challengers in the form of a fresh rising power or a collection of lesser powers working together. The exception to that pattern— and there is only one—is the transition that occurred from the midnineteenth century to the early twentieth as dominance in the international order shifted from Great Britain to the United States (...) The transition from Britain to America was peaceful because at that crucial time, America became an empire and Britain became a democracy. As a result, both states came to view themselves as akin to each other and different from others.”

“Britain made a fundamental choice that its interests were so closely aligned with America’s that it could encourage an activist American foreign policy— that, in effect, American power could be harnessed to British interests. Their power relative to each other became less important than their cumulative power relative to other states (...) A more democratic Britain and a more internationally engaged America felt similar to each other and different from other states (...) Yet once America became the hegemon, it was no longer willing to accept the rules of order that Great Britain had established (...) Once in power, America changed the rules, and should

expect that other rising powers will do the same in the time of their hegemony (...) The cooperation between Britain and the United States taught America how to be a hegemon (...) For future hegemonic transitions to be peaceful, the hegemon being displaced would need to have a strong belief that the rising power shared both its interests and its values. Such similarity might allow the rising power's effort to be considered additive to the hegemon's rather than a challenge."

Schake, Kori (2017): *Safe passage: The transition from British to American hegemony*, Harvard University Press, Cambridge, Massachusetts.

298. G-Zero

"G-Zero—\JEE-ZEER-oh\- n *A world order in which no single country or durable alliance of countries can meet the challenges of global leadership.*"

"For the first time in seven decades, we live in a world without global leadership (...) In a world where so many challenges transcend borders—from the stability of the global economy and climate change to cyberattacks, terrorism, and the security of food and water—the need for international cooperation has never been greater. Cooperation demands leadership. Leaders have the leverage to coordinate multinational responses to transnational problems. They have the wealth and power to persuade governments to take actions they wouldn't otherwise pursue. They pick up the checks that others can't afford and provide services no one else will pay for. On issue after issue, they set the international agenda. These are responsibilities that America is increasingly unwilling, and incapable, of assuming. At the same time, the rising powers aren't yet ready to take up the slack (...) Nor are we likely to see leadership from global institutions (...) If not the West, the rest, or the institutions where they come together, who will lead? The answer is no one—neither the once-dominant G7 nor the unworkable G20. We have entered the G-Zero."

"This book details a world in tumultuous transition, one that is especially vulnerable to crises that appear suddenly and from unexpected directions. Nature still hates a vacuum, and the G-Zero won't last forever. But over the next decade and perhaps longer, a world without leaders will undermine our ability to keep the peace, to expand opportunity, to reverse the impact of climate change, and to feed growing populations. The effects will be felt in every region of the world—and even in cyberspace."

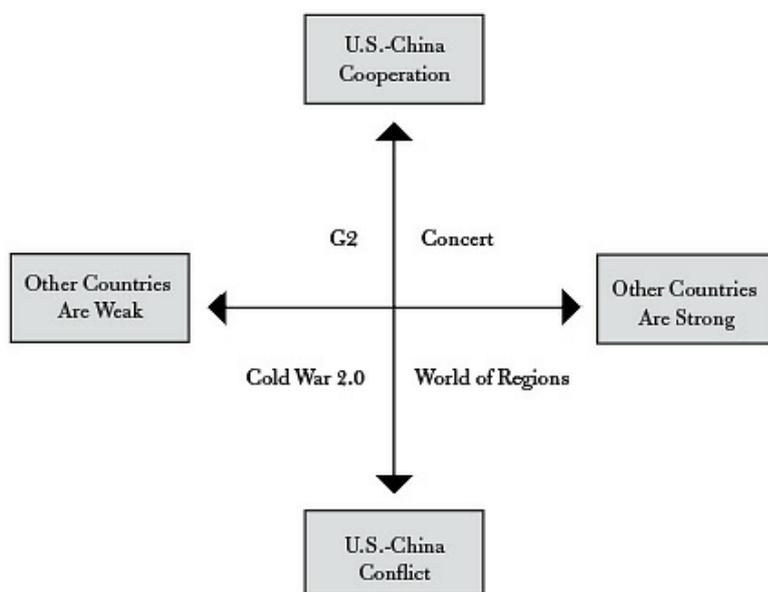
Bremmer, Ian (2012): *Every nation for itself. Winners and losers in a G-zero world*, Portfolio/Penguin, New York.

299. Winners and losers in G-Zero (Ian Bremmer, 2012)

"Who wins and who loses in this exceptionally fluid international environment? A winner is made more prosperous and secure by a world without leadership, and has more options and greater influence than it had before. Winners have choices. A loser is one made less prosperous, secure, and influential because it has fewer political and commercial avenues to explore."

- **Winners.** 'Pivot states' (Brazil, Turkey, Africa a pivot continent, Indonesia, Vietnam, Singapore, Mongolia, Canada); 'rogues with powerful friends' (North Korea, Iran, Myanmar); some companies and multinationals (adapters, protectors and cheaters); and investors picking the winners.

- **Losers.** 'Referees' ("the institutions built to serve those who once dominated the international system but that can't be reformed quickly enough to remain effective", like NATO and "NGOs that monitor emerging states' compliance with Western standards"); 'exposed states' ("those most deeply dependent on U.S. strength and Washington's willingness to use it to protect its allies": Japan, Taiwan, Israel); 'shadow states' ("those that would love to have the freedom of pivot states



but remain frozen in the shadow of a single power”: Mexico, Ukraine); ‘rogues without friends’ (Cuba, Lybia); and ‘dinosaurs’ (companies “that cannot or will not adapt to a new environment”).

300. Ian Bremmer’s (2012) four geopolitical scenarios

- **Concert.** “Imagine a world in which Washington and Beijing alone cannot dominate, where it’s unavoidably obvious that international problems can be solved only with the engagement of other powerful countries. This is a world like the one we already live in—with one crucial difference. In this scenario, a sense of emergency ensures that established and emerging powers work together, compromise, and share the risks and burdens of leadership. It’s a G20 that *actually works*. This scenario implies a kind of ‘concert of nations,’ an international structure similar to the so-called Concert of Europe (...) designed to restore order and keep the peace in Europe following the upheaval of the French Revolution and the carnage of the Napoleonic Wars.”
- **Cold War 2.0.** “If China and the United States are headed for more direct forms of conflict, and if they have far more economic, political, and military power than any other country or bloc of countries in the post-G-Zero order, then we are more likely to see a scenario we might call Cold War 2.0. This is not a war likely to be waged with fighter jets launched from aircraft carriers. The new weapons of war will probably be economic: market access, investment rules, and currency values. We could also see a series of cyberattacks and counterstrikes.”

301. Global power elites and the transnational capitalist class (Peter Phillips, 2018)

“[In 1956, C. Wright] Mills described the power elite as those ‘who decide whatever is decided’ of major consequence. Sixty-two years later, power elites have globalized and built institutions that facilitate the preservation and protection of capital investments everywhere in the world.”

“The Global Power Elite function as a nongovernmental network of similarly educated wealthy people with common interests of managing, facilitating, and protecting concentrated global wealth and insuring the continued growth of capital. Global Power Elites influence and use international institutions controlled by governmental authorities—namely, the World Bank, International Monetary Fund (IMF), NATO, World Trade Organization (WTO), G7, G20, and many others. These world governmental institutions receive instructions and recommendations for policy determinations from networks of nongovernmental Global Power Elite organizations and associations.”

“We name some 389 individuals in this book as the core of the policy planning nongovernmental networks that manage, facilitate, and protect the continued concentration of global capital. The Global Power Elites are the activist core of the Transnational Capitalist Class—1 percent of the world’s wealthy people—who serve the uniting function of providing ideological justifications for their shared interests and establishing the parameters of needed actions for implementation by transnational governmental organizations.”

“This concentration of protected wealth leads to a crisis of humanity, whereby poverty, war, starvation, mass alienation, media propaganda, and environmental devastation are reaching a species-level threat. We realize that humankind is in danger of possible extinction and recognize that the Global Power Elites are probably the only ones capable of correcting this condition without major civil unrest, war, and chaos. This book is an effort to bring awareness of the importance of systemic change and redistribution of wealth, to readers as well as to the Global Power Elites themselves, in the hope that they can begin the process of saving humanity.”

Phillips, Peter (2018): *Giants: The global power elite*, Seven Stories Press, New York.

302. General tendencies in international migration (Castles et al. 2014, pp. 16-18)

“International migration is part of a transnational shift that is reshaping societies and politics around the globe. The old dichotomy between migrant-sending and migrant-receiving countries is being eroded –if this dichotomy was ever valid at all. Most countries experience both emigration and immigration (although one or the other often predominates).”

- Globalization of migration. More countries participate in international migration. Immigration countries receive migrants from varied source countries.

- 'So-called hegemonic wars (i.e. those involving most, if not all, of the great powers) are almost all accidental and the result of unintended escalation.' Hegemonic wars is not the means by which dominant powers or challengers to dominant powers try to attain hegemony. They instead attach weaker states and declining great powers expecting the conflict to remain localized and limited. It is when other states come to the aid of the attacked parties that the conflict could escalate into a hegemonic war.
- 'Unintended escalation and miscalculation of the balance of power have deeper causes than incomplete information.' War is not the consequence of lack of information. Even in the presence of full information, there are strong motives to go to war, like standing, anger and honour. Honour seeking leaders, or leaders lacking standing, are less sensitive to risks (and to warnings of risks): their evaluation of a situation is not limited by rational (non-emotional) considerations.
- 'Weak and declining powers not infrequently initiate wars against great powers.' 'They act primarily for reasons of revenge. They are particularly sensitive to their honor and standing as they have once been great powers. They are readily angered by predatory attacks on them, especially those that result in loss of territory and standing, and seek revenge. They almost inevitably lose these wars.'

Lebow, Richard Ned (2010): *Why nations fight. Past and future motives for war*, Cambridge University Press, UK.

VIII. Capitalism and globalization

305. The three recent epochs of capitalism

(1) The Belle Epoch (1880-1914): the first era of global financial capitalism; (2) the Golden Age (1945-1975) of capitalism; (3) the Neoliberal Era (1980-2017): the second era of global financial capitalism. The Belle Epoch, the product of the cumulative development of capitalism, collapsed: two world wars with a Great Depression in between. By comparing the Belle Epoch with the Neoliberal Era, Thomas Piketty (2014) anticipates the persistence of a low-growth regime and a traumatic end to the Neoliberal Era (global wars and economic crises), unless there is a global political peaceful reorganization that stops the forces that, through the progressive accumulation of capital in fewer hands, is exacerbating class conflict. As in the Golden Age, an interventionist welfare state (at a global scale) is the needed counterbalancing force, to temper the forces of global financialization, even at the price of sacrificing economic growth.

Piketty, Thomas (2014): *Capital in the twenty-first century*, Belknap Press, Cambridge, MA.

306. Short history of modern capitalism

“Liberal capitalism in the nineteenth century was confronted by a revolutionary labour movement that needed to be politically tamed by a complex combination of repression and co-optation, including democratic power sharing and social reform. In the early twentieth century, capitalism was commandeered to serve national interests in international wars (...) After the First World War, restoration of a liberal-capitalist economy failed to produce a viable social order and had to give way in large parts of the industrial world to either Communism or Fascism, while in the core countries of what was to become ‘the West’ liberal capitalism was gradually succeeded, in the aftermath of the Great Depression, by Keynesian, state-administered capitalism. Out of this grew the democratic welfare-state capitalism of the three post-war decades, with hindsight the only period in which economic growth and social and political stability, achieved through democracy, coexisted under capitalism (...) In the 1970s, however, what had with hindsight been called the ‘post-war settlement’ of social-democratic capitalism began to disintegrate, gradually and imperceptibly at first but increasingly punctuated by successive, ever more severe crises of both the capitalist economy and the social and political institutions embedding, that is, supporting as well as containing it. This was the period of both intensifying crisis and deep transformation when ‘late capitalism’, as impressively described by Werner Sombart in the 1920s, gave way to neoliberalism.”

Streeck, Wolfgang (2016): *How will capitalism end? Essays on a failing system*, Verso, New York.

307. Escape routes from capitalist crises

“Technological displacement is the mechanism by which innovations in equipment and organization save labor, thereby enabling fewer employed persons to produce more at lower cost. Marx and Engels argued that capitalists strive to increase profit in competition with each other; those who fail to do so are driven out of the market. But as labor-saving machinery replaces workers, unemployment grows and consumer demand falls. Technology promises abundance, but the potential product cannot be sold because too few persons have enough income to buy it. Extrapolating this underlying structural tendency, Marx and Engels predicted the downfall of capitalism and its replacement by socialism. Why has this not happened in the 160 years since the theory was formulated?”

“Marx and Engels focused on the displacement of working-class labor; they did not foresee the rise of the massive middle class of white-collar employees, of administrative and clerical workers and educated professionals (...) Until the 1980s or 1990s, mechanization chiefly displaced manual labor. In the most recent wave of technology, we now have the displacement of administrative labor, the downsizing of the middle class. Information technology is the technology of communications, and it has launched the second great era of contraction of work, the displacement of communicative labor, which is what middle-class employees do. Mechanization is now joined by robotization and electronicization (...) As the working class shrunk through mechanization, capitalism was saved by the rise of the middle class. Now computerization, the Internet, and the wave of new micro-electronic devices are beginning to squeeze out the middle class. Can capitalism survive this second wave of technological displacement?”

“In the past, capitalism has escaped from technological displacement crises by five main escape routes. I will argue that all five of these now are becoming blocked—dead ends.”

- **Escape 1: “New technology creates new jobs and entire new job sectors.”** “Computerization of the middle class is not being compensated by the creation of new jobs at an equal rate. New jobs are created, but they do not match the number of jobs eliminated, nor do they replace lost income (...) In an advanced economy such as the United States, jobs in the service sector have grown to about 75% of the labor force, a result of the decline in industrial and agricultural/extractive occupations (...) But the service sector is becoming squeezed by the IT economy.”
- **Escape 2: “Geographical spread of markets.”** “We tend to think of market spread as globalization, but globalization is only a quantitative difference in degree, not a qualitative difference in kind. Even within the confines of state borders, markets have grown by spreading to regions where a product was initially unknown (...) The liberal version of this mechanism, on the global or interstate scale, is modernization theory or development theory; each part of the world successively ascends the stages, until presumably all will be fully developed, tertiary-sector service economies (...) The Neo-Marxist version of this process is World-System theory (...) This is a less benign version of the geographical spread of capitalist markets; world market domination is buttressed by military power and political influence; the hegemonic center exploits the labor or raw materials of the periphery, with the aid of a transmission belt of semiperipheral regions. World-system theory complicates the pattern by a succession of hegemonies marked by major wars, and keyed to long Kondratieff waves of relative expansion and stagnation in world markets. But these cycles of serial hegemonies—Spain, Holland, Britain, the United States, conjecturally China—logically come to an end when the periphery is exhausted, and every region of the globe is fully brought into the capitalist market. There are no more safety-valves, no more regions for exploitation; capitalist profit dries up.”
- **Escape 3: “Meta-markets in finance.”** “If working-class and then middle-class labor are technologically displaced, can the slack be taken up by everyone becoming a capitalist? (...) Recent financial manipulations are examples of a deeper structural tendency in capitalism: the pyramiding of meta-markets upon each other in financial markets (...) the historical tendency for any given financial market to give rise to a higher-order market in lower-order financial instruments (...) The more pyramided financial meta-markets are, the more volatile and crisis-prone they are, with booms and busts far out of proportion to what is happening in the low-level material economy (...) But is it conceivable that in the future when everything is automated that entire populations will spend their lives as financial investors, a reserve army of gamblers in lifelong casinos? (...) Financial markets are intrinsically inegalitarian, concentrating wealth in the small number of big players at the top of the pyramid.”
- **Escape 4: “Government employment and investment.”** “Unrestricted free-market capitalism, left to itself, has no way of heading off such crisis (...) The pro-welfare state forces in principle may have a solution to unemployment, but they run up against the budgetary problems of the state. A state which funds an expensive welfare state opens itself up to the pressure of financial markets, risking destruction of the purchasing power of its currency.”
- **Escape 5: “Educational credential inflation.”** “Credential inflation is the rise in educational requirements for jobs as a rising proportion of the population attains more advanced degrees. The value of a given educational certificate or diploma declines as more people have one, thereby motivating them to stay in school longer (...) The more persons who hold advanced degrees, the more competition among them for jobs, and the higher the educational requirements that can be demanded by employers. This leads to renewed seeking of more education, more competition, and more credential inflation. Within this overall inflationary process, the most highly educated segment of the population has received an increasingly greater proportion of the income (...) Although educational credential inflation expands on false premises—the ideology that more education will produce more equality of opportunity, more high-tech economic performance, and more good jobs—it does provide some degree of solution to technological displacement of the middle class. Educational credential inflation helps absorb surplus labor by keeping more people out of the labor force (...) Of the five escape routes from capitalist crisis, continued educational inflation seems to me the most plausible (...) It is conceivable that liberal governments might find their way to keep expanding educational systems, using them as a Keynesian safety valve, and a form of transfer payments from the capitalists and the diminishing sector of the employed, to sustain the otherwise unemployed. But to get such a government might well take a near-revolutionary disillusionment with capitalism.”

Collins, Randall (2013): “The end of middle-class work: No more escapes”, chapter 2 in .

308. Systemic disorders of contemporary capitalism (Wolfgang Streeck, 2016)

“Capitalism without opposition is left to its own devices, which do not include self-restraint. The capitalist pursuit of profit is open-ended, and cannot be otherwise.”

- **Disorder 1: Stagnation.** “As Keynes would have known, concentration of income at the top must detract from effective demand and make capital owners look for speculative profit opportunities outside the ‘real economy’. This may in fact have been one of the causes of the ‘financialization’ of capitalism that began in the 1980s. The power elites of global capitalism would seem to be resigning themselves to low or no growth on aggregate for the foreseeable future (...) The scenario of ‘stagnation with a chance of bubbles’ may most plausibly be imagined as a battle of all against all, punctured by occasional panics and with the playing of endgames becoming a popular pastime.”
 - **Disorder 2: Oligarchic redistribution.** “There is no indication that the long-term trend towards greater economic inequality will be broken any time soon, or indeed ever. Inequality depresses growth (...) But the easy money currently provided by central banks to restore growth – easy for capital but not, of course, for labour – further adds to inequality, by blowing up the financial sector and inviting speculative rather than productive investment. Redistribution to the top thus becomes oligarchic: rather than serving a collective interest in economic progress, as promised by neoclassical economics, it turns into extraction of resources from increasingly impoverished, declining societies (...) Under oligarchic redistribution, the Keynesian bond which tied the profits of the rich to the wages of the poor is severed, cutting the fate of economic elites loose from that of the masses.”
 - **Disorder 3: “Plundering of the public domain through underfunding and privatization.”** “Foremost among the causes of this shift were the new opportunities offered by global capital markets since the 1980s for tax flight, tax evasion, tax-regime shopping and the extortion of tax cuts from governments by corporations and earners of high incomes. Attempts to close public deficits relied almost exclusively on cuts in government spending – both to social security and to investment in physical infrastructures and human capital. As income gains accrued increasingly to the top 1 per cent, the public domain of capitalist economies shrank, often dramatically, starved in favour of internationally mobile oligarchic wealth. Part of the process was privatization, carried out regardless of the contribution public investment in productivity and social cohesion might have made to economic growth and social equity.”
- “What may be surfacing here is the fundamental tension described by Marx between, on the one hand, the increasingly social nature of production in an advanced economy and society, and private ownership of the means of production on the other. As productivity growth requires more public provision, it tends to become incompatible with private accumulation of profits, forcing capitalist elites to choose between the two. The result is what we are seeing already today: economic stagnation combined with oligarchic redistribution.”
- **Disorder 4: Corruption.** “Fraud and corruption have forever been companions of capitalism. But there are good reasons to believe that with the rise of the financial sector to economic dominance, they have become (...) pervasive (...) Finance is an ‘industry’ where innovation is hard to distinguish from rule-bending or rule-breaking; where the pay-offs from semi-legal and illegal activities are particularly high; where the gradient in expertise and pay between firms and regulatory authorities is extreme; where revolving doors between the two offer unending possibilities for subtle and not-so-subtle corruption; where the largest firms are not just too big to fail, but also too big to jail, given their importance for national economic policy and tax revenue; and where the borderline between private companies and the state is more blurred than anywhere else.”
 - **Disorder 5: Global anarchy.** “Global capitalism needs a centre to secure its periphery and provide it with a credible monetary regime. Until the 1920s, this role was performed by Britain, and from 1945 until the 1970s by the United States (...) Stable relations between the currencies of the countries participating in the capitalist world economy are essential for trade and capital flows across national borders, which are in turn essential for capital accumulation; they need to be underwritten by a global banker of last resort. An effective centre is also required to support regimes on the periphery willing to condone the low-price extraction of raw materials. Moreover, local collaboration is needed to hold down traditionalist opposition to capitalist *Landnahme* outside the developed world. Contemporary capitalism increasingly suffers from global anarchy, as the United States is no longer able to serve in its post-war role, and a multipolar world order is nowhere on the horizon.”

“Capitalism, as a social order held together by a promise of boundless collective progress, is in critical condition. Growth is giving way to secular stagnation; what economic progress remains is less and less shared; and confidence in the capitalist money economy is leveraged on a rising mountain of promises that are ever less likely to be kept. Since the 1970s, the capitalist centre has undergone three successive crises, of inflation, public finances and private debt (...) What is to be expected (...) is a long and painful period of cumulative decay: of intensifying frictions, of fragility and uncertainty, and of a steady succession of ‘normal accidents’ – not necessarily but quite possibly on the scale of the global breakdown of the 1930s.”

Streeck, Wolfgang (2016): *How will capitalism end? Essays on a failing system*, Verso, New York.

309. The global stage of capitalism

“Social change is the restructuring of human social institutions: culture, consciousness, technology, organizations, settlement systems, forms of exchange, and structures of authority and decision-making. It is commonly observed that some aspects of human social change, especially those connected with technology, have greatly accelerated over the past few centuries (...) Today, in addition to studying social change in a global context, social scientists study globalization itself as an important form of social change.”

“A global phenomenon is defined as ‘one that represents a single, interacting system on a global scale that does not respect international borders.’ The physical science archetype of a global phenomenon is the atmosphere; in the sphere of social science, markets, information, and pop culture are all examples of global phenomena (...) The clearest example of a kind of social change that can be studied only at a global level of analysis is the process of globalization itself.”

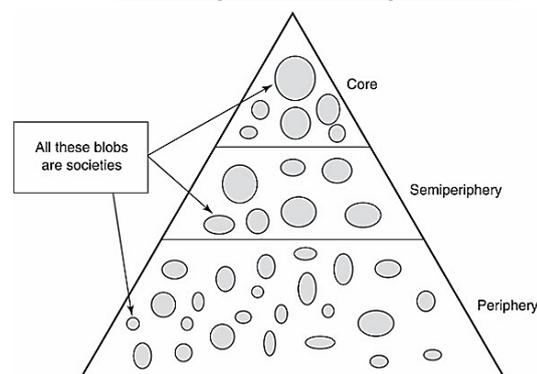
“A profit squeeze and accumulation crisis occurred in the 1970s when Japan and Germany caught up with the United States in the production of important core commodities (...) The reactionary response to the accumulation crisis (...) was Reaganism-Thatcherism, also called the ‘Washington Consensus’ and the ‘globalization project.’ This response was a revival of the nineteenth-century ideology of ‘market magic’ and an attack on the welfare state and organized labor. It borrowed the antistatist ideology of the New Left and used new communications and information technologies to globalize capitalist production, undercutting nationally organized trade unions and attacking the entitlements of the welfare state as undeserved and inefficient rents. This ‘global stage of capitalism’ is what has brought globalization into the popular consciousness, but rather than being the first time that the world has experienced strong global processes, it is a response to the problems of capitalist accumulation as they emerged from the prior Global New Deal, which was itself a response to the earlier Age of Extremes and deglobalization.”

Chase-Dunn, Christopher; Salvatore J. Babones; eds. (2006): *Global social change: Historical and comparative perspectives*, The Johns Hopkins University Press, Baltimore, Maryland.

310. The modern world-system: core, periphery and semiperiphery

“The comparative world-systems perspective is a strategy for explaining social change that focuses on whole intersocietal systems rather than single societies. The main insight is that important interaction networks (trade, information flows, alliances, and fighting) have woven polities and cultures together since the beginning of human social evolution. Explanations of social change need to take intersocietal systems (world-systems) as the units that evolve. But intersocietal interaction networks were rather small when transportation was mainly a matter of hiking with a pack. Globalization, in the sense of the expansion and intensification of larger interaction networks, has been increasing for millennia, albeit unevenly and in waves. World-systems are systems of societies. Systemness means that these societies are interacting with one another in important ways.”

“The modern world-system is structured politically as an interstate system—a system of competing and allying states (...) The modern world-system is also importantly structured as a core-periphery hierarchy in which some regions contain economically and militarily powerful states while other regions contain polities that are much less powerful and less developed. The countries that are called ‘advanced’ (...) The modern core includes the United States, the European countries, Japan, Australia, and Canada. In the

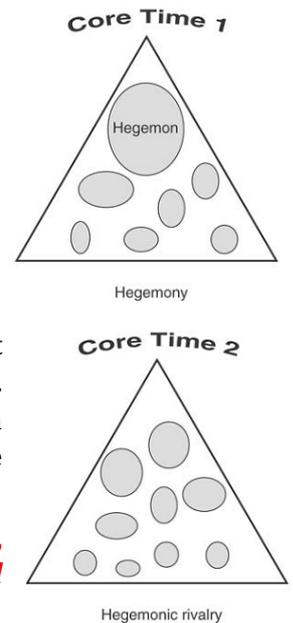


contemporary periphery we have relatively weak states that are not strongly supported by the populations within them and have little power relative to other states in the system.”

“The core-periphery hierarchy in the modern world-system is a system of stratification in which socially structured inequalities are reproduced by the institutional features of the system (...). The periphery is not ‘catching up’ with the core. Rather, both core and peripheral regions are developing, but most core states are staying well ahead of most peripheral states. There is also a stratum of countries that we call the semiperiphery: countries that are in between the core and the periphery.”

“So the modern world-system is now a global economy with a global political system (the interstate system). (...) Culturally the modern system is composed of several civilizational traditions (e.g., Islam, Christendom, Hinduism), nationally defined cultural entities—nations (...), and the cultures of indigenous and minority ethnic groups within states. The modern system is multicultural in the sense that important political and economic interaction networks connect people who have rather different languages, religions, and other cultural aspects. Most earlier world-systems have also been multicultural.”

“One of the important systemic features of the modern system is the rise and fall of hegemonic core powers—the so-called hegemonic sequence. A hegemon is a core state that has a significantly greater amount of economic power than any other state and that takes on the political role of system leader. In the seventeenth century the Dutch Republic performed the role of hegemon in the Europe-centered system, while Great Britain was the hegemon of the nineteenth century, and the United States has been the hegemon in the twentieth century. Hegemons provide leadership and order for the interstate system and the world economy. But the normal operating processes of the modern system—uneven economic development and competition among states—make it difficult for hegemons to sustain their dominant positions, and so they tend to decline. Thus the structure of the core oscillates back and forth between hegemony and a situation in which several competing core states have a roughly similar amount of power and are contending for hegemony.”



Hall, Thomas D.; Christopher Chase-Dunn (2006), chapter 3 in Chase-Dunn, Christopher; Salvatore J. Babones; eds. (2006): *Global social change. Historical and comparative perspectives*, The Johns Hopkins University Press, Baltimore, Maryland.

The Problems of Progress	
In general, what we call “progress” can lead to abuse of the natural environment, the burden of learning new jobs, and general disorientation due to change itself. Examples of other negative consequences of “progress”:	
<i>Better machines</i>	→ Displaced workers, loss of status
<i>Growing wealth</i>	→ Increase in rich/poor disparity, fewer workers for less-desired tasks
<i>New products</i>	→ Difficulty of making choices
<i>More, better food</i>	→ Obesity, clogged arteries
<i>Better health care</i>	→ Rising costs, higher expectations
<i>Longer lives</i>	→ Cost of supporting idle elderly, increase in disability, stress on natural resources
<i>Saving newborn</i>	→ More birth defects
<i>Better transport</i>	→ Decline of local communities
<i>More TV programs</i>	→ Inactivity, desocialization
<i>Increasing comfort</i>	→ Boredom, apathy
<i>Portable telephones</i>	→ Forced exposure to noxious chatter
<i>Easy bill paying</i>	→ Credit-card fraud, identity theft
<i>Quick information</i>	→ Internet hoaxes, scams, viruses
<i>Cheap, easy messaging</i>	→ Junk e-mail, insensitive comments

311. The growth imperative/trap (Douglas Rushkoff, 2016)

“Plants grow, people grow, even whole forests, jungles, and coral reefs grow—but eventually, they stop. This doesn’t mean they’re dead. They’ve simply reached a level of maturity where health is no longer about getting bigger but about sustaining vitality. There may be a turnover of cells, organisms, and even entire species, but the whole system learns to maintain itself over time, without the obligation to grow. Companies deserve to work this way as well. They should be allowed to get to an appropriate size and then stay there, or even get smaller if the marketplace changes for a while. But in the current business landscape, that’s just not permitted. Corporations in particular are duty bound to grow by any means necessary. For Coke, Pepsi, Exxon, and Citibank, there’s no such thing as “big enough”; every aspect of their operations is geared toward meeting new growth targets perpetually. That’s because, like a shark that must move in order to breathe, corporations must grow in order to survive (...) A corporation is just a set of rules, and so is software. It’s all code, and it doesn’t care about people, our priorities, or our future unless we bother to program those concerns into it.”

“The corporation has no choice other than to exercise the four sides of its original tetrad: extract value, squash local peer-to-peer markets, expand the empire, and seek personhood—all in order to grow pots of money, or capital. The most successful and most loathed corporations of the last century all work this way. Walmart, for one ready example, lives by the tetrad. It extracts value from local communities, replacing their peer-to-peer economies with a single, one-way distribution point for foreign goods. Workers are paid less than they earned in their previous jobs or businesses and are often limited to part-time employment so the company can externalize the cost of health care and other benefits to local government (...) When it moves

Economy types	ARTISANAL 1000–1300	INDUSTRIAL 1300–1990	DIGITAL INDUSTRIALISM 1990–2015	DIGITAL DISTRIBUTISM 2015–
Direction	•	↗	↻	↻
Purpose	Subsistence	Growth	Exponential growth	Sustainable prosperity
Company	Family business	Chartered monopoly/corporation	Platform monopoly (Amazon, Uber)	Platform cooperative (Mondragon, La’Zooz)
Currency	Market money (support trade)	Central currency (support banks)	Derivative instruments (leverage debt)	Bitcoin and P2P (promote circulation)
Investment	Direct investment	Stock markets	Algorithms	Crowdfunding
Production	Handmade (manuscript)	Mass-produced (printed book)	Replicable (file)	Collaborative (wiki)
Marketing	Human face	Brand icon	Big data (prediction)	Utility, legacy (product attributes, company ethics)
Communications	Personal contact	Mass media	Apps	Networks
Land & resources	Church commons	Colonization	Privatization	Public commons
Wages	Paid for value (craftsperson)	Paid for time (employee)	Not paid/underpaid (independent contractor)	Value exchanged (community member)
Scale	Local	National	Global	Strategically bounded
Optimized for	Creation of value	Extraction of value	Destruction of value	Exchange of value

into a new region, it undercuts the prices of local merchants—often taking a loss on sales of locally available goods simply to put smaller merchants out of business (...) Walmart retrieves the values of empire, where expansion is the primary aim. It has opened as many as one store a day in the United States alone.⁷ The company sometimes opens two stores, ten or twenty miles apart in a new region, and keeps them both open until local merchants go out of business and new consumer patterns are established. Then it closes the less popular store, forcing those consumers to travel to the other one (...) Finally, in its flip toward personhood, Walmart has attempted to accomplish all this with a human face—quite literally. The company adopted a version of the iconic 1970s yellow smiley face as a brand personality (...) Walmart’s motto went from the utilitarian and immortal ‘Always Low Prices’ to the much more humanistic ‘Save Money. Live Better.’”

Rushkoff, Douglas (2016): *Throwing rocks at the Google bus. How growth became the enemy of prosperity, Portfolio/Penguin.*

312. Unstable world, stable delusions (Chris Harman, 2010)

“We live in an unstable world, and the instability is going to increase. It is a world where a billion people feel hungry every day, and the hunger is going to increase. It is a world which is destroying its own environment, and the destruction is going to increase. It is a violent world, and the violence is going to increase. It is a world where people are less happy, even in the industrially advanced countries, than they used to be, and the unhappiness is going to increase.”

“The moment any part of the global economy begins to stabilise they will forget the hundreds of millions of lives that have been shattered by the crisis. A few months when banks are not collapsing and profits are not falling through the floor and the apologists will be pumping out candyfloss once again. Their futures will seem better and they will generalise this to the world at large with renewed talk about the wonders of capitalism and the impossibility of any alternative –until crisis hits again and throws them into another panic.”

“Capitalism transforms society in its entirety as it sucks people by the billions into labouring for it. It changes the whole pattern by which humanity lives, remoulding human nature itself. It gives a new character to old oppressions and throws up completely new ones. It creates drives to war and ecological destruction. It seems to act like a force of nature, creating chaos and devastation on a scale much greater than any earthquake, hurricane or tsunami. Yet the system is not a product of nature, but of human activity, human activity that has somehow escaped from human control and taken on a life of its own.”

Harman, Chris (2010): *Zombie capitalism. Global crisis and the relevance of Marx*, Haymarket Books, Chicago, Illinois.

313. How capitalism ends (Alan Nasser, 2018, pp. 225-226)

“The evidence indicates that American capitalism, and, by implication, every industrially mature capitalist society, reaches a critical developmental stage. At that point the kind of real-economic growth that brings secure employment and living standards to the majority, much less to every working household, slows down. What comes to predominate is financialized growth, where such economic growth as there is is sustained by bubbles, which bring with them working-class austerity and precarity, social dislocation and a resulting repressive State. It is increasingly clear that capitalism and democracy are incompatible. There emerges the need for economic and political democracy. Economic democracy has never existed under capitalism and political democracy is in conspicuous decline. Some form of socialist democracy is the order of the epoch.”

Nasser, Alan (2018): *Override economy: American capitalism and the crisis of democracy*, Pluto Press, London.

314. A cure for capitalism (Richard Wolff, 2012)

“... moving beyond the internal organization of capitalist enterprises toward a specific, democratic alternative organization of production is the way forward now. Not only does a transition to worker-directed enterprises offer better prospects for preventing future crises, it also entails solutions for a host of related problems that have long defined capitalist societies.”

Wolff, Richard (2012): *Democracy at work. A cure for capitalism*, Haymarket Books, Chicago.

315. Capitalism does not imply democratization

Political authoritarianism has survived in an age of capitalist globalization in part because it has presented itself as guarantor of domestic and international marketization. It is claimed that an oppressive state is needed to conduct the unpopular policies required to respond to the shock that represents economic liberalization. Globalization appears to strengthen dictatorial regimes and the illiberal policies pursued by democracies. The paradox is that “the more economically liberal a country becomes, the greater its reliance on authoritarianism seems to be across contexts” (Bloom, 2016).

Bloom, Peter (2016): *Authoritarian capitalism in the age of globalization*, Edward Elgar, Cheltenham, UK.

Kupchan, Charles (2012): *No one's world. The West, the Rising Rest, and the coming global turn*, Oxford University Press, New York.

316. Yates' (2016, p. 47) dilemma

“It is impossible to create a society that is both just and capitalist.” According to Yates, in a capitalist economy, capital rules: the system works by creating a few winners and many losers, poles of wealth and poverty, periods of expansion and recession, overworked employees, alienating workplaces, exploitation by the powerful, despoiled environments... “Losses are always socialized, and gains are always privatized.”

Yates, Michael (2016): *The great inequality*, Routledge, New York.

317. Emergence of capitalism

“The emergence of capitalism was not a general phenomenon, but one specific to time and place. People who take the long-run-up view of the emergence of capitalism note factors like the discovery of the New World, the invention of the printing press, the use of clocks, or papal property arrangements. These were present in countries that did not change their economic ways. Logically, widely shared developments can’t explain a response that was unique to one country. What the myriad theories about how the West broke with its past do have right is that there were many, many elements that went into capitalism’s breakout from its traditional origins. It is also important to keep in mind that a succession is not a process. A process is a linked series of operations; a succession is open to interruption and contingency. There was nothing inevitable about the English moving from the agricultural innovations that freed up workers and capital for other uses to a globe-circling trade and on to the pioneering of machine-driven industry. It’s only in retrospect that this progression seems seamlessly interconnected. But it wasn’t. This appearance reflects a human tendency to believe that what happened had to happen.”

“Everything that was remarkable about Portuguese and Spanish voyages got folded back into old ways. What differed in England was that a sequence of developments never stopped. And they attracted commentary, debate, and explanations. This intellectual engagement with the meaning of economic change blocked a reversion to old ways of thinking. Novel practices and astute analysis of them are what it took to overturn the wisdom of the ages. Many countries had brilliant episodes in their history; sustaining innovation through successive stages of development distinguishes England’s performance.”

“... the seventeenth century brought fundamental alterations to England, and contemporaries became acutely and astutely aware of them. At its beginning a venerable social order existed to keep in place established precepts, prerogatives, and regulations. A century and a half later capitalism had gained critical momentum against the regime of status, stasis, and royal control. From the risky ventures and trial-and-error methods of large and small entrepreneurs emerged successes so resounding that there was no turning back. Changes became irreversible and cumulative. Growth turned into development, not just expansion, but getting more from less. Capital would never again be scarce. Indeed, the Dutch became the financiers of Europe with the savings accumulated during their heyday as the world’s greatest traders.”

Appleby, Joyce Oldham (2010): *The relentless revolution. A history of capitalism, W. W. Norton, New York.*

318. Views of the emergence of capitalism

“Smith placed economic development in a long sequence of progressive steps that had evolved over time. This interpretation of the history of capitalism as moving forward effortlessly has produced the greatest irony in the history of capitalism, an explanation of its origins that makes natural what was really an astounding break with precedent. This view also depends upon people already thinking within the capitalist frame of reference. (...) Because the full elaboration of economic developments in England took place over two centuries—almost seven generations of lived experience—it was possible to imagine it as the evolutionary process that Smith described. But in continental Europe industrialization came with brutal speed (...) Karl Marx, observing this disruption in the middle decades of the nineteenth century, could not accept the English evolutionary explanation for the emergence of capitalism. He believed that coercion had been absolutely necessary in effecting this transformation. Marx traced that force to a new class of men who coalesced around their shared interest in production, particularly their need to organize laboring men and women in new work patterns.”

“Max Weber, assessed the grand theories of Smith and Marx and found both of them wanting in one crucial feature: They gave attitudes to men and women that they couldn’t possibly have had before capitalist practices arrived. Weber asked how the values, habits, and modes of reasoning that were essential to progressive economic advance ever rooted themselves in the soil of premodern Europe characterized by other life rhythms and a moral vocabulary different in every respect (...) Following Smith, economic analyzers presumed a natural human psychology geared to ceaseless economic activity. Weber challenged this assumption with a single line: ‘A man does not by nature wish to earn more and more money, but simply to live as he is accustomed to live and to

earn as much as is necessary for that purpose.' Weber began with an interesting phenomenon to explore: the convergence of economically advanced countries and the Protestant religion."

319. Capitalism

"Capitalism is a cultural system rooted in economic practices that rotate around the imperative of private investors to turn a profit."

"Capitalism has produced some enduring tensions, evident from the sixteenth century onward. Where the extremes of riches in a society of scarcity were usually tolerated, capitalism's capacity to generate wealth made salient, and hence open to criticism, inequalities in the distribution of economic and political power. Similarly, government interference was acceptable when the society was at risk of starving, but no longer so when the system seemed to function better when its participants had the most freedom. This very lack of government regulation in market economies enhanced chances for cycles of boom and bust."

"Nor is greed the only thing that people hold against capitalism. I've made a little list, and it includes such charges as responding to short-term opportunities to the neglect of long-term effects, dispensing power without responsibility, promoting material values over spiritual ones, commoditizing human relations, monetizing social values, corrupting democracy, unsettling old communities, institutions, and arrangements, and rewarding aggressiveness and—yes—greed. Two other capitalist responsibilities have cast long shadows forward: intractable poverty and a deteriorating environment (...) Capitalism's voracious appetite for natural resources, especially oil, has led to the unthinkable: human beings making the atmosphere of their planet permanently inhospitable."

"Capitalism is not a unified, coordinated system, despite that suggestion in the word 'system.' Rather it is a set of practices and institutions that permit billions of people to pursue their economic interests in the marketplace. There is no monolithic international corporate power, but many diverse players in the world market with, yes, a wide disparity in the influence that each wields (...) Capitalism's history suggests that democracy and capitalism might be decoupled because they generate values that are often in conflict. Democracy means majority rule with regular, contested elections; American and European democracies include the protection of civil and personal rights. Capitalism refers to investments in productive processes that may or may not rely on politically empowered participants. Capitalism is amoral while democracy is suffused with moral concerns about the well-being of the whole and the rectitude of leaders. Since capitalist growth depends upon innovation, and innovation upsets the status quo, the free market system regularly creates social problems that the government must address. 'We, the people' then jars against 'I, the individual.'"

"James Madison (...) warned that the concentration of power in one branch of government is tantamount to despotism. The whole structure of the U.S. Constitution involves a balance of powers with additional checks on abuses (...). The danger of concentration is even greater if the two leviathans in our lives—the government and the economy—read off the same profit sheet. When government works hand in glove with the nation's businessmen, you can be sure that the market's own corrective mechanism will be disabled. Competition will then be muted, cronyism rampant, and inefficiency protected."

"Schumpeter raised the possibility that capitalism was doomed because of its tendency to destroy the institutions that protect it (...) But Schumpeter failed to take into account the different experiences market participants draw upon when making decisions (...) People do learn from their mistakes. There is no reason to think that societies won't continue to modify and monitor their economies in pursuit of shared goals."

Appleby, Joyce Oldham (2010): *The relentless revolution: A history of capitalism*, W. W. Norton, New York.

320. Underconsumption theories

"An underconsumption theory is a theory of the capitalist economy which contains both of the following two elements:

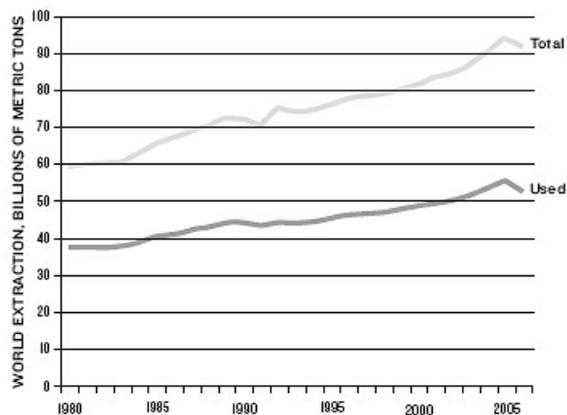
1) the idea that a state of depression is not just a phase of the industrial cycle or the result of a temporary conjunction of circumstances but is the state towards which the economy naturally tends in the absence of offsetting factors;

2) the idea that this is the result of a persistent tendency towards insufficiency of demand for consumption goods."

Bleaney, M. F. (1976): *Underconsumption theories. A history and critical analysis*, International Publishers, New York.

321. Worldwide materials extraction, 1980-2005 (Schor, 2011)

"In contrast to predictions of dematerialization, the volume of materials used globally, as well as in each individual region of the world, is rising. The extraction and transformation of resources like fuels, wood, sand, gravel, minerals, and biomass create the pulse of an economy (...) We now have the first comprehensive global estimates of material flows over time. In 1980 humans extracted and used 40 billion metric tons of metals, fossil fuels, biomass, and minerals (...) Twenty-five years later, the annual use of materials had increased 45 percent, to 58 billion. All regions are heavier users, including North America. While 58 billion tons is a very large number, it represents only that portion of extracted resources that actually enter the economy. Another 39 billion or so tons are displaced in the process of production. This unused or wasted extraction is sometimes called overburden. It's the soil that's removed in coal mining, the discarded shells of plants, and so forth. For some commodities, the overburden is enormous. To yield one ounce of gold, a mining company can excavate a hundred or more tons of earth."



Sustainable Europe Research Institute (2009)

Schor, Juliet B. (2011): *True wealth. How and why millions of Americans are creating a time-rich, ecologically light, small-scale, high-satisfaction economy*, Penguin Books, New York.

322. Democratic capitalism

"Of all the systems of political economy which have shaped our history, none has so revolutionized ordinary expectations of human life—lengthened the life span, made the elimination of poverty and famine thinkable, enlarged the range of human choice—as democratic capitalism."

"What do I mean by 'democratic capitalism'? I mean three systems in one: a predominantly market economy; a polity respectful of the rights of the individual to life, liberty, and the pursuit of happiness; and a system of cultural institutions moved by ideals of liberty and justice for all. In short, three dynamic and converging systems functioning as one: a democratic polity, an economy based on markets and incentives, and a moral-cultural system which is pluralistic and, in the largest sense, liberal. Social systems like those of the United States, West Germany, and Japan (with perhaps a score of others among the world's nations) illustrate the type."

"In the conventional view, the link between a democratic political system and a market economy is merely an accident of history. My argument is that the link is stronger: political democracy is compatible in practice only with a market economy. In turn, both systems nourish and are best nourished by a pluralistic liberal culture. It is important to give attention to all three systems."

"... modern democracy and modern capitalism proceed from identical historical impulses. These impulses had moral form before institutions were invented to realize them; they aimed (1) to limit the power of the state, in defense against tyranny and stagnation; and (2) to liberate the energies of individuals and independently organized communities. Such impulses gave birth to modern European cities, whose first citizens took as their battle cry 'City air makes men free.' Such citizens sought liberation from the crippling taxation, heavy bureaucracy, and dreary regulations of state and church. The moral vision of such citizens demanded forms of self-government in 'city republics' and 'free cities.' It led them to cherish economies based upon free markets, incentives, and contracts. Gradually, such citizens developed polities based upon covenants, suffrage, the separation of powers, and the declaration of individual rights. The two revolutions—political and economic—in practice, but also in theory, nourished each other."

“While bastard forms of capitalism do seem able for a time to endure without democracy, the natural logic of capitalism leads to democracy. For economic liberties without political liberties are inherently unstable. Citizens economically free soon demand political freedoms (...) The state which does not recognize limits to its power in the economic sphere inevitably destroys liberties in the political sphere (...) Another point must be noted. Democratic polities depend upon the reality of economic growth.”

“A democratic system depends for its legitimacy, therefore, not upon equal results but upon a sense of equal opportunity. Such legitimacy flows from the belief of all individuals that they can better their condition. This belief can be realized only under conditions of economic growth. Liberty requires expanse and openness. In addition, liberty also requires social mobility.”

“Democratic capitalism is neither the Kingdom of God nor without sin. Yet all other known systems of political economy are worse.”

Novak, Michael (1991): *The spirit of democratic capitalism*, Madison Books, Lanham, Maryland.

323. Three related features of the capitalist world system (Zack Cope, 2015)

“(1) The enrichment of the working class of the core, metropolitan or First World nations within capitalist social structures; (2) the massive and growing income disparity between the people living in advanced capitalist societies and those living in peripheral, economically extraverted or dependent capitalist societies; and (3) the widespread racism, ethnic chauvinism and xenophobia pervading First World society today.”

“The conditions of life for the working class in the countries of the Global North are predicated upon the immiseration, national oppression and exploitation of the workers and farmers of the Global South (...) The metropolitan working class has been transformed into a petty bourgeois labour aristocracy subsisting in large measure from the surplus labour of the superexploited workforce in the oppressed nations of the Third World has met with resistance on the part of the metropolitan left.”

“If a free market truly existed, capital would accumulate in and flow to the Third World generating dramatic rises in Third World wages (...). However, there is not a free market. Rather, there exist two things demonstrating the indelibly political nature of economics. First, there is a system of violent government repression in the Third World, whereby autocratic ‘free trade’ regimes are installed, financed and legitimated by imperialist governments (particularly, but not exclusively, the USA) to keep wages low and natural resources cheap. At the same time, racist and discriminatory border controls are established that prevent competition between the proletariat of the Third World and the labour aristocracy of the First World.”

“On a global scale (...) the largest multinational corporations (MNCs) are indeed based in countries with the highest wage levels. As in the past, imperialist countries today are able to invest in more productive technologies and more capital-intensive industries only because they can maintain profit rates by importing more economic surplus from foreign territories than they export to the same. Currently (...) this surplus comes not only in the form of unpaid-for raw materials and foodstuffs produced by land-starved agrarian populations, as in the colonial era, but also, and increasingly, of surplus value produced by superexploited wage-labourers.”

“Presently, MNCs control about 70 per cent of all world trade and over a quarter of the world’s economic activity takes place within the 200 largest corporations (...) ‘Free trade’ in an international capitalist system with a ‘class monopoly’ by the northern countries over the means of production allocates all of the efficiency trading gains to the North, just as ‘free markets’ under domestic capitalism with a class monopoly by capitalists over the means of production allocates all efficiency gains to capital (with surplus labour and in the absence of countervailing power by unions and the state).”

“One of the most striking features of the imperialist world economy revealed in the data is that Northern firms do not compete with Southern firms; they compete with other Northern firms (...) There is North-North competition, and fierce competition between Southern producers for contracts with Northern-led firms, but no North-South competition.”

“Remove the Third World as a source of superprofits, and the economies of the First World would be bankrupt. Moreover, if capitalism was to survive under such conditions, First World workers would see their standard of living sink like a stone, for they would thus fall back into the proletariat. In short, economically speaking, the core imperialist countries are net parasites subsisting off the land, labour and resources of the Third World and not

value produced by their own workers (...) Capitalism's ability to maintain itself in the teeth of crisis revolves around its ability or otherwise to maintain the Third World in a subordinate position."

Cope, Zak (2015): *Divided world divided class. Global political economy and the stratification of labour under capitalism, second edition, Kersplebedeb, Montreal.*

324. Postcapitalism: network vs hierarchy

"Neoliberalism is the doctrine of uncontrolled markets: it says that the best route to prosperity is individuals pursuing their own self-interest, and the market is the only way to express that self-interest. It says the state should be small (except for its riot squad and secret police); that financial speculation is good; that inequality is good; that the natural state of humankind is to be a bunch of ruthless individuals, competing with each other."

"Capitalism is more than just an economic structure or a set of laws and institutions. It is the whole system – social, economic, demographic, cultural, ideological – needed to make a developed society function through markets and private ownership. That includes companies, markets and states. But it also includes criminal gangs, secret power networks, miracle preachers in a Lagos slum, rogue analysts on Wall Street."

"That, in short, is the argument of this book: that capitalism is a complex, adaptive system which has reached the limits of its capacity to adapt (...) Capitalism (...) will not be abolished by forced-march techniques. It will be abolished by creating something more dynamic that exists, at first, almost unseen within the old system, but which breaks through, reshaping the economy around new values, behaviours and norms."

"Postcapitalism is possible because of three impacts of the new technology in the past twenty-five years. First, information technology has reduced the need for work, blurred the edges between work and free time and loosened the relationship between work and wages. Second, information goods are corroding the market's ability to form prices correctly. That is because markets are based on scarcity while information is abundant. The system's defence mechanism is to form monopolies on a scale not seen in the past 200 years – yet these cannot last. Third, we're seeing the spontaneous rise of collaborative production: goods, services and organizations are appearing that no longer respond to the dictates of the market and the managerial hierarchy. The biggest information product in the world – Wikipedia – is made by 27,000 volunteers, for free, abolishing the encyclopaedia business and depriving the advertising industry of an estimated \$3 billion a year in revenue (...) Parallel currencies, time banks, cooperatives and self-managed spaces have proliferated, barely noticed by the economics profession, and often as a direct result of the shattering of old structures after the 2008 crisis. New forms of ownership, new forms of lending, new legal contracts: a whole business subculture has emerged over the past ten years, which the media has dubbed the 'sharing economy'. Buzzterms such as the 'commons' and 'peer-production' are thrown around, but few have bothered to ask what this means for capitalism itself. I believe it offers an escape route – but only if these micro-level projects are nurtured, promoted and protected by a massive change in what governments do. This must in turn be driven by a change in our thinking about technology, ownership and work itself."

"Collaborative production, using network technology to produce goods and services that work only when they are free, or shared, defines the route beyond the market system. It will need the state to create the framework, and the postcapitalist sector might coexist with the market sector for decades. But it is happening (...) The main contradiction today is between the possibility of free, abundant goods and information and a system of monopolies, banks and governments trying to keep things private, scarce and commercial. Everything comes down to the struggle between the network and the hierarchy, between old forms of society moulded around capitalism and new forms of society that prefigure what comes next."

Mason, Paul (2015): *Postcapitalism. A guide to our future, Allen Lane.*

325. Suggestions for a post-labour world (Peter Fleming, 2015)

"We work, pay taxes, take care of the bills and commuting costs for one single reason: not to 'survive' but so that the governing elite gains its privileges for nothing. Our labour is designed to provide freedom to the rich. Our work exists in order to subsidize the costs of their existence (...) The more the neoliberal elite desires complete exemption from the social systems we are forced to participate in, the more we have to work. And because neoliberal capitalism entails such extreme inequalities of wealth distribution, work must become an inexorable way of life for most of us, rather than something we do among other things."

- “**A surplus living wage.** Everybody in society ought to be paid at least an average of £30,000 irrespective of what they do. And no one should be paid more than £95,000 a year (roughly a 1:3 income ratio between the poorest and richest in society).”
- “**Post-state democratic organizations.** The governmental structure as it currently stands should be abandoned and a more direct form of participatory democracy should be instituted. Parliamentary democracy is neither parliamentary nor democratic, but a vehicle of direct oppression to enhance the interests of an elite so minute and removed from everyday life that we have little idea who most of them are.”
- “**The transfer of all monopolistic and oligopolistic enterprises into public hands,** that is, under the direct control of their own users. Railways, banks, healthcare providers, suppliers of water, electricity and foodstuffs, for example, have completely lost sight of their respective purposes under neoliberal capitalism.”
- “**The three-day work week.** From a historical viewpoint, societies that insisted people work more than three days a week were usually slave societies. The maintenance of even a ‘sophisticated self-subsistence’ does not require more than 20 hours of work a week (...) No economic value is added after a certain threshold is passed. Little of interest is created over and above the three days a week.”

[Parkinson’s Law: the time used to perform a task is adapted to the time given to perform it. “If we are given eight hours to perform a task, it usually takes eight hours to do so successfully. If we are only given three hours to do the same task, it typically takes three hours to do so successfully.”]

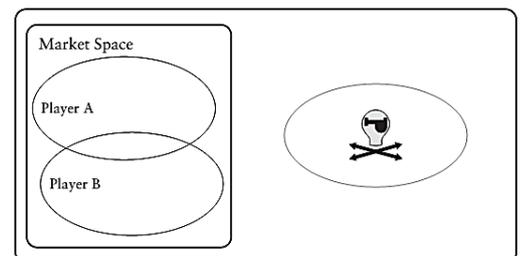
- “**Demassifying society as a positive global movement.** A friend recently sent me this: ‘About 70 per cent of agricultural land and freshwater is used for livestock –more for grains as livestock feed. Beef production uses three-fifths of global farmland. It yields under 5 per cent of protein. A kilogram of beef requires 15,000 liters of water. Shouldn’t we stop eating meat?’ Slowing down meat consumption is a metaphor for a wider process: slowing down the massification of ways of life that not only have little ethical purpose but are incredible self-destructive (...) Contemporary capitalist work patterns and coercive state communism share a set of elective affinities in this regard. And much of this has to do with the pointless and self-referential aspects of work – accelerated actions that go nowhere, that use up more energy than they give back, and so forth. Capitalism does not equate to individual freedom of expression; exactly the opposite is true.”
- “**Demonetarizing incentive structures.** (...) We are currently imprisoned in a theory of money that suggests that its endless accumulation is the only thing that makes us do anything –getting out of bed in the morning, acquiring an education, going to work (...) But the theory is false (...) A panoply of research tells us that we become our creative, moral, insightful, inventive and productive best (i.e. happy people) when motivated by intrinsic rewards rather than financial ones (...). After a certain threshold is passed, money tends to spoil things; our desire for it (to buy things, obtain status, etc.) quickly becomes self-referential and tautological (we want money for its own sake) (...) We tend to be at our best when we do things that we are inherently interested in for their own worth or geared towards important social goals.”

Fleming, Peter (2015): *The mythology of work. How capitalism persists despite itself*, Pluto Press, London.

326. The Pirate’s Dilemma

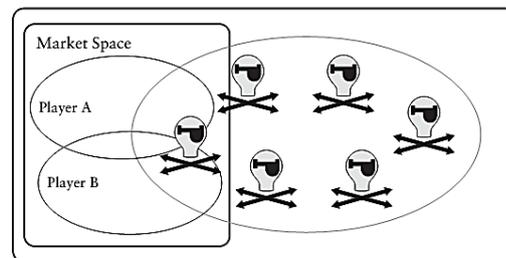
“In the Pirate’s Dilemma, Players A and B are not burglars but individuals or companies selling competing products. The players are not being threatened by police, but by pirates: those creating a new space outside of the traditional, legitimate market. Let’s assume our definition of ‘pirates’ also includes those providing free substitute products powered by altruism, such as open-source software, for example. These pirates can add value to society, but in doing so take value from companies or individuals such as Players A and B. When people switch to Linux, for example, that takes market share away from Microsoft (...) When pirates create value for society, society supports them. If the pirates grow and take a larger chunk out of the traditional market space, Players A and B soon find they face a Pirate’s Dilemma. Do they try to fight piracy with the law, at the risk of alienating the public, the way the record business did, or do they do what iTunes did, and compete with the pirates in the new market space?”

Pirates create a gap outside of the market.



Mason, Matt (2008): *The pirate's dilemma. How youth culture reinvented capitalism*, Free Press, New York.

If piracy grows, Players A and B will face a Pirate's Dilemma.



327. Marx's law of profitability as a theory of crises: falling profitability is the cause of crises in capitalism

“... the cause of recurring and regular economic crises or slumps in output, investment, and employment in modern economies can be found in Marx's law of the tendential fall in the rate of profit. Marx believed, and we agree, that this is ‘the most important law in political economy.’ The law is either ignored or disputed by mainstream economics, for an obvious reason: it suggests a fundamental flaw in the capitalist mode of production.”

“The law reveals that crises arise from the very essence of capitalism—the fundamental contradiction inherent in technological progress, the motor of capitalism's development—namely, that technological progress, while increasing labor productivity, at the same time replaces labor with the means of production, thus decreasing the value of the greater output. If less value and surplus value is generated, less value and surplus value can be realized. This is the root cause of falling profitability and crises (...) Marx's law implies the unpalatable truth that capitalist crises cannot be permanently ended without ending the capitalist mode of production itself.”

“Marx's law of the tendency of the rate of profit to fall provides the best explanation of the cause of recurrent and regular crises (slumps) in global capitalism.”

Carchedi, Guglielmo; Michael Roberts; eds. (2018): *World in crisis. A global analysis of Marx's law of profitability*, Haymarket Books, Chicago, Illinois.

328. Global capitalism

“Our world is burning. We face a global crisis that is unprecedented in terms of its magnitude, its global reach, the extent of ecological degradation and social deterioration, and the scale of the means of violence (...) The global capitalism perspective offers a powerful explanatory framework for making sense of the crisis.”

“Globalization constitutes a qualitatively new epoch in the ongoing and open-ended evolution of world capitalism, marked by a number of qualitative shifts in the capitalist system and by novel articulations of social power. I have highlighted four aspects unique to this epoch.”

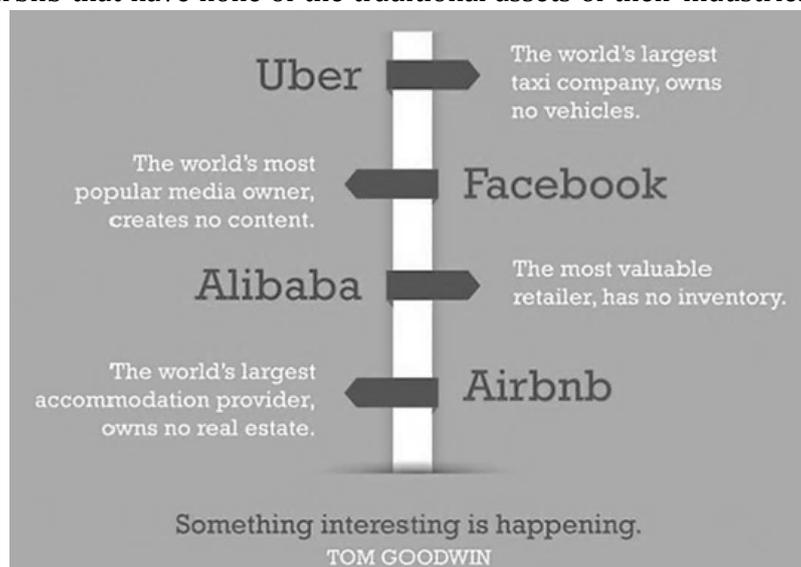
- “First is the rise of truly transnational capital and a new global production and financial system into which all nations and much of humanity have been integrated, either directly or indirectly. We have gone from a world economy, in which countries and regions were linked to each other via trade and financial flows in an integrated international market, to a global economy, in which nations are linked to each other more organically through the transnationalization of the production process, of finance, and of the circuits of capital accumulation.”
- “Second is the rise of a Transnational Capitalist Class (TCC), a class group that has drawn in contingents from most countries around the world, North and South, and has attempted to position itself as a global ruling class. This TCC is the hegemonic fraction of capital on a world scale.”
- “Third is the rise of Transnational State (TNS) apparatuses. The TNS is constituted as a loose network made up of trans- and supra-national organizations together with national states that functions to organize the conditions for transnational accumulation and through which the TCC attempts to organize and institutionally exercise its class power.”
- “Fourth are novel relations of inequality, domination, and exploitation in global society, including an increasing importance of transnational social and class inequalities relative to North-South inequalities that are geographically or territorially conceived.”

Robinson, William I. (2014): *Global capitalism and the crisis of humanity*, Cambridge University Press, New York.

329. Machine | platform | crowd

“In March of 2015, strategist Tom Goodwin pointed out a pattern. “Uber, the world’s largest taxi company, owns no vehicles,” he wrote. “Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world’s largest accommodation provider, owns no real estate.” (...) The three examples we’ve just described—AlphaGo’s triumph over the best human Go players, the success of new companies like Facebook and Airbnb that have none of the traditional assets of their industries, and GE’s use of an online crowd to help it design and market a product that was well within its expertise—illustrate three great trends that are reshaping the business world.”

“The first trend consists of the rapidly increasing and expanding capabilities of machines, as exemplified by AlphaGo’s unexpected emergence as the world’s best Go player. The second is captured by Goodwin’s observations about the recent appearance of large and influential young companies that bear little resemblance to the established incumbents in their industries, yet are deeply disrupting them. These upstarts are platforms, and they are fearsome competitors. The third trend, epitomized by GE’s unconventional development process for its Opal ice maker, is the emergence of the crowd, our term for the startlingly large amount of human knowledge, expertise, and enthusiasm distributed all over the world and now available, and able to be focused, online.”



McAfee, Andrew; Erik Brynjolfsson (2017): *Machine, platform, crowd. Harnessing our digital future*, W. W. Norton & Company, New York.

330. The rise of the collaborative commons

“The capitalist era is passing... not quickly, but inevitably. A new economic paradigm—the Collaborative Commons is rising in its wake that will transform our way of life (...) The struggle between these two competing economic paradigms is going to be protracted and hard fought (...) While I suspect that capitalism will remain part of the social schema for at least the next half century or so, I doubt that it will be the dominant economic paradigm by the second half of the twenty-first century (...) the Collaborative Commons is ascendant and, by 2050, it will likely settle in as the primary arbiter of economic life in most of the world.”

“The Internet of Things will connect every thing with everyone in an integrated global network. People, machines, natural resources, production lines, logistics networks, consumption habits, recycling flows, and virtually every other aspect of economic and social life will be linked via sensors and software to the IoT platform, continually feeding Big Data to every node—businesses, homes, vehicles—moment to moment, in real time.”

“We are so used to thinking of the capitalist market and government as the only two means of organizing economic life that we overlook the other organizing model in our midst that we depend on daily to deliver a range of goods and services that neither market nor government provides. The Commons predates both the capitalist market and representative government and is the oldest form of institutionalized, self-managed activity in the world.

The contemporary Commons is where billions of people engage in the deeply social aspects of life. It is made up of literally millions of self-managed, mostly democratically run organizations, including charities, religious bodies, arts and cultural groups, educational foundations, amateur sports clubs, producer and consumer cooperatives, credit unions, health-care organizations, advocacy groups, condominium associations, and a near endless list of other formal and informal institutions that generate the social capital of society (...) The IoT is the technological ‘soul mate’ of an emerging Collaborative Commons.”

“The technology platforms of the First and Second Industrial Revolutions were designed to be centralized with top-down command and control. That’s because fossil fuels are only found in certain places and require centralized management to move them from underground to the final end users (...) The high up-front cost of establishing vertically integrated enterprises in the First and Second Industrial Revolutions required large amounts of investment capital (...) The emergence of the IoT infrastructure of the Third Industrial Revolution, with its open architecture and distributed features, allows social enterprises on the Collaborative Commons to break the monopoly hold of giant, vertically integrated companies operating in capitalist markets by enabling peer production in laterally scaled continental and global networks at near zero marginal cost.”

Rifkin, Jeremy (2014): *The zero marginal cost society. The internet of things, the collaborative commons, and the eclipse of capitalism*, Palgrave Macmillan, New York.

331. Carceral capitalism

“If—to borrow Wolfgang Streeck’s taxonomy—the tax state (i.e., the postwar Keynesian welfare state) has evolved into the debt state (which authorizes austerity), then what we are witnessing now is the emergence of the predatory state, which functions to modulate the dysfunctional aspects of neoliberalism and in particular the realization problem in the financial sector.”

“The question of who owns the public debt is a political one that enables the financial sector and the wealthiest Americans to assert their interests by claiming that they are everyone’s interests. As the public debt is financialized and the money to cover government expenditures is increasingly supplied by the financial sector, government bodies become more accountable to creditors than to the public. Over time, this has a de-democratizing effect. In short, the outcome of neoliberal policies and federal fiscal retrenchment has been not only privatization and austerity, but predatory and parasitic governance on the state and local levels and indebtedness as a generalized social condition. Increasingly, local governments are engaging in risky forms of borrowing, making high-risk financial bets with public money. When these deals go south—as many of them did in the wake of the 2008 financial crisis—governments have sought to balance the budget on the backs of the poor, the unemployed, and black and brown people.”

“As we have seen with the explosion of prisons in the latter half of the twentieth century (which occurred alongside market liberalization), the supposed scaling back of government does not necessarily lead to the shrinking of police, prisons, and military spending. Prisons and law enforcement may actually grow when the ideology of small government is hegemonic because the maintenance of law and order is considered the proper (morally authorized) domain of government.”

“The collapse of the tax state owing to neoliberalization has created a situation where the livelihoods of local government bodies are increasingly tied to predatory fiscal structures that foster looting (...) From an economic perspective, the new sentencing regime that emerged alongside the War on Drugs—such as three strikes laws for drug possession—make little economic sense: Why waste an exorbitant amount of public money on incarcerating nonviolent offenders, sometimes for life?”

Wang, Jackie (2018): *Carceral capitalism, Semiotext(e), South Pasadena, CA.*

332. Modalities of contemporary racial capitalism: predatory lending and parasitic governance (Jackie Wang, 2018)

“Predatory lending is a form of bad-faith lending that uses the extension of credit as a method of dispossession (...) Bad-faith lending might be a high-interest or free-floating interest rate loan (often offered with a “hook” rate that eventually expires) and is designed such that the borrowers will likely default and thus their property will be taken away (their goods repossessed, their homes foreclosed, etc.) (...) Overall, predatory lending enables profit maximization when growth is stagnant, but this form of credit will always be plagued by realization problems, which are sometimes resolved using state force.

Parasitic forms of governance—which have intensified in the wake of the 2008 crash—are actually rooted in decades-old problems (...) Beginning in the 1970s, there was a revolt in the capitalist class that undermined the tax state and led to the transformation of public finance. During the subsequent decades the tax state was gradually transformed into the debt state (...) This model of public finance creates a situation where creditors, rather than the public, become the privileged constituency of governments. The hegemony of finance is antidemocratic not only because financial institutions are opaque and can influence finance through their

ownership of the public debt, but also because fiscal crises (which can be induced by the financial sector) authorize the use of state power to extract from the public. Parasitic governance, as a modality of the new racial capitalism, uses five primary techniques: 1) financial states of exception, 2) automated processing, 3) extraction and looting, 4) confinement, and 5) gratuitous violence.”

Wang, Jackie (2018): *Carceral capitalism, Semiotext(e), South Pasadena, CA.*

333. Does capitalism have a future?

“We are reluctant to call the ‘state,’ let alone ‘global state,’ the political structure of a better future. This is in fact the biggest unknown (...) Most of us doubt that existing international organizations add up to the prototype of such structures. The United Nations, the European Union, the IMF, Davos, G-8, G-20 (...) belong to the epoch of capitalist integration and American hegemony. At present these institutions are weakened or compromised by political manipulation and technocratic aloofness. Some of us, however, see the only solution to environmental crisis in a much stronger network of relations between states—a Super United Nations. Others of us doubt that this political integration can be achieved fast enough, and it is not without its own worries (...) The changing structures and directions of future politics will surely deliver big surprises.”

“The coming decades will be anything but usual: that is, usual in the perspective of the last 500 years. The collective trajectory of humanity is taking a big turn, but not necessarily for the worse. (...) There is no reason to believe, on the basis of the accumulated understandings of sociology, that history will ever end, as long as there are human beings connected in social organization. The direst scenarios involving a world nuclear war or environmental collapse, fortunately, seem avoidable precisely because collective extinction has been widely regarded as a real danger for some decades now. The end of capitalism is not a catastrophe of that sort (...) Ultimately, the end of capitalism is a hopeful vision. Yes, it comes with its own dangers. We must remember how early twentieth-century attempts to foster anticapitalist alternatives in response to crisis developed totalitarian tendencies and ended in bureaucratic inertia. Nor should we forget how directly these anticapitalist projects arose from the state machineries and personnel constructed in the world wars. The crucial political vectors in the coming decades will have to be curbing militarism and institutionalizing democratic human rights around the planet.”

“Those who worry about postcapitalism ushering in a period of deadly stagnation are surely wrong. Those who hope that postcapitalism will deliver a lasting paradise without its own crises are likely wrong, too. After the crisis—and, some of us predict, the postcapitalist transition of the mid-21st century—there will be a great deal happening. Hopefully, much of it will be good. We shall see, and soon enough.”

Wallerstein, Immanuel Maurice; Randall Collins; Michael Mann; Georgi Derluguian; Craig Calhoun (2013): *Does capitalism have a future?*, Oxford University Press, New York.

334. Do capitalism and globalization endanger the provision of public goods?

“The expansion of the market system encourages individual rationality in each of us, weakening the drive for cooperation (...) However, it is a cooperative attitude which is needed to come to collective decisions which make public goods possible.” (de Grauwe, 2017, p. 51)

The growing interdependence that comes with globalization creates the need to identify and supply public goods, by public authorities, beyond the national level (at the regional and the world level). Two basic examples of these new public goods are a multilateral trade system and global financial stability. Cooperation at the international level is not only needed to provide these goods but also to correct the negative externalities that arise from domestic policies taken without concern for their international repercussions. Lack of cooperation among states replicates at the global level what lack of cooperation among individuals produces at the national market level.

The 2007-08 global financial crisis can be seen as a consequence of the failure to endow a globalized economy with credible global rules, at least regarding international financial relations and macroeconomic policies. Global finance and global trade call for global regulation and global cooperation.

Bini Smaghi, Lorenzo (2011): “Tommaso Padoa-Schioppa: Economist, policymaker, citizen in search of European unity, ,Speech given at the European University Institute, Fiesole, 28 January 2011.

de Grauwe, Paul (2017): *The limits of the market. The pendulum between government and market*, Oxford University Press, Oxford, UK.

Sinn, Hans-Werner (2010): *Casino capitalism. How the financial crisis came about and what needs to be done*, Oxford University Press, Oxford, UK.

335. Yunus' (2017) three zeroes

Muhammad Yunus (winner of the Nobel Peace Prize) views the current capitalist economic system as suffering from three big failures: persistence of poverty, unemployment and environmental degradation. He contends that the system must be redesigned by pursuing three goals: zero poverty, zero unemployment, zero net carbon emission.

Yunus, Muhammad with Karl Weber (2017): *A world of three zeros. The new economics of zero poverty, zero unemployment, and zero carbon emissions*, PublicAffairs, New York.

336. Workers vs (businesses & government): new state of exploitation?

“Since the beginning of the twenty-first century, we have been living in a state of drastic social transition; indeed, it is surprising that nobody forecast such extreme changes. Especially in Japan, the increase in the gap between the rich and poor has become quite large (...) The power of big business is quite formidable, and the status of workers is in a very fluid state. Indeed, it seems that so-called disposable workers are no longer “human beings.” Younger generations are completely exhausted by the new state of exploitation (...) and have little hope for the future. They can be easily replaced by foreign unskilled workers. They are excluded from labor union protections that are typically in place solely for regular workers. And they are looking in vain for rosy opportunities just to become regular workers (...) Foreign workers employed as technical interns also find themselves in terrible situations: they are being exploited with wage rates that are much lower than legal minimum standards. They must work long hours as unskilled workers and cannot acquire any new promised occupational skills. Disappointed from such unfair treatment, they quit their jobs, but then find (at least in Japan) that they have no public status or employment insurance. Some of them turn to crime (...) On the other hand, big business is warmly supported by the government on the pretext of national profits and the maintenance of global competitive power. Why on earth is it that for 15 years we, the common people, have had to struggle for only small and ordinary levels of happiness?”

Kondoh, Kenji (2017): *The economics of international immigration. Environment, unemployment, the wage gap, and economic welfare*, Springer, Singapore.

Powell, Benjamin; ed. (2015): *The economics of immigration. Market-based approaches, social science, and public policy*, Oxford University Press, New York.

337. The rise of data-rich markets: data-driven vs money-based markets (Thomas Range, 2018)

“To do their magic, markets depend on the easy flow of data, and the ability of humans to translate this data into decisions—that’s how we transact on markets, where decision-making is decentralized (...) Until recently, communicating such rich information in markets was difficult and costly. So we used a workaround and condensed all of this information into a single metric: price. And we conveyed that information with the help of money.”

“Price and money have proved to be an ingenious stopgap to mitigate a seemingly intractable challenge, and it worked—to a degree. But as information is compressed, details and nuance get lost, leading to suboptimal transactions (...) For millennia, we tolerated this inadequate solution, as no better alternative was available. That’s changing. Soon, rich data will flow through markets comprehensively, swiftly, and at low cost. We’ll combine huge volumes of such data with machine learning and cutting-edge matching algorithms to create an adaptive system that can identify the best possible transaction partner on the market. It will be easy enough that we’ll do this even for seemingly straightforward transactions.

Conventional markets have been highly useful, but they simply can’t compete with their data-driven kin. Data translates into too much of an improvement in transactions and efficiency. Data-rich markets finally deliver what markets, in theory, should always have been very good at—enabling optimal transactions—but because of informational constraints really weren’t (...) The benefits of this momentous change will extend to every marketplace.

The key difference between conventional markets and data-rich ones is the role of information flowing through them, and how it gets translated into decisions. In data-rich markets, we no longer have to condense our preferences into price and can abandon the oversimplification that was necessary because of communicative and cognitive limits (...)

There is a gold rush just around the corner, and it will soon be in full swing. It's a rush toward data-rich markets that deliver ample efficiency dividends to their participants and offer to the providers a sizable chunk of the total transaction volume. The digital innovations of the last two decades are finally beginning to alter the foundations of our economy. If done well, market-driven coordination greased by rich data will allow us to meet vexing challenges and work toward sustainable solutions, from enhancing education to improving health care and addressing climate change. Gaining the ability to better coordinate human activity is a big deal (...)

The rise of a market in which a substantial part of the transactional process is automated, and the decline of the firm as the dominating organizational structure to organize human activity efficiently will uproot labor markets around the world (...) A shift from finance to data capitalism will question many long-held beliefs, such as work as a standardized bundle of duties and benefits."

Mayer-Schönberger, Viktor; Thomas Ramge (2018): *Reinventing capitalism in the age of Big Data*, Basic Books, New York.

IX. Finance and globalization

338. Is globalized finance destroying the economy?

Technological advances reduce the need of labour in production. Instead of creating a leisure economy it appears that those advances are forcing employees to work overtime to repay debts incurred because of insufficient wages. There is a global debt overhead that increases faster than the value of global production (the economy's ability to pay). Economies (national and global) are endangered by the privilege granted to the financial sector to generate debts without regard to the wealth creation process that ensures debt repayment. It is very difficult for physical wealth to expand exponentially but financial wealth can grow exponentially with certain ease (money is just numbers on a computer screen, mere accounting entries: can be created in huge amounts immediately). The financial sector is autonomous and plays according to its own rules: the casino rules.

339. Two kinds of progress

Traditional idea of progress: from 1945 to 1980, the dominant idea was growth in living standards (children inherit a better world than their fathers). The neoliberal (pro-financial) idea: since 1980, the financial sector (banks, financial investors) want the economic surplus (growth in wages and corporate profits) for themselves, so the benefits of an expanding economy are concentrated on a small percentage of population (which does not leave much room for the rise in living standards).

Hudson, Michael (2012): *Finance capitalism and its discontents. Interviews and speeches 2003-2012, ISLET, Dresden.*

340. Laws of capitalist economies (Michael Hudson)

- “The inexorable tendency of debt to grow beyond the ability to be paid.”
- “There is no way to sustain the rise in debt without killing the economy.”

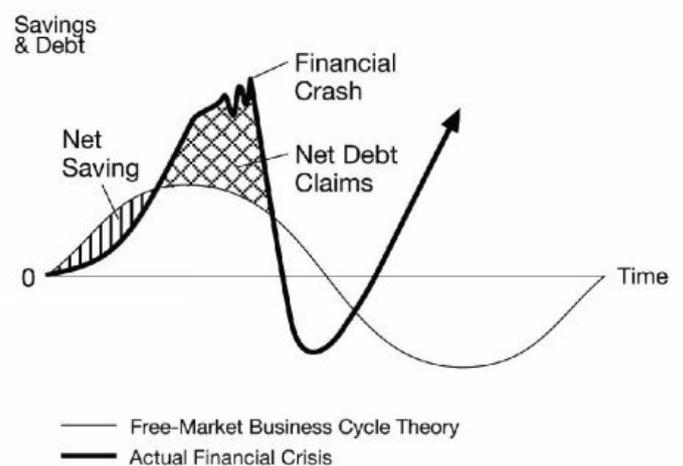
“Neoliberals say they're against government, but what they're really against is democratic government. (...) As Germany's Wolfgang Schäuble said, 'democracy doesn't count.' Neoliberals want the kind of government that will create gains for the banks, not necessarily for the economy at large. Such governments basically are oligarchic. Once high finance takes over governments as a means of exploiting the 99%, it's all for active government policy – for itself.”

Hudson, Michael (2017): *J is for junk economics. A guide to reality in an age of deception.*

341. Complementary currencies

A complementary currency is a currency not issued by a national public authority (a government, a central bank: state-issued currency) having the monopoly to issue currency. A complementary currency is not supposed to necessarily satisfy all the usual properties of money (medium of exchange, store of value, unit of account, means of payment, means to settle debts): it suffices for the currency to satisfy at least one of them. Complementary currencies help to protect local economies and local communities and contribute to separate the global financial sector from the local/regional real sector (as big corporations cannot send complementary currency abroad to avoid paying taxes). Two examples of complementary currencies are the Bristol pound (a community currency launched on 19 September 2012 in Bristol, UK) and the WIR franc (a private, electronic currency issued and managed by the Swiss WIR Bank).

Financial Crisis vs. Business Cycle



https://en.wikipedia.org/wiki/Community_currency

https://en.wikipedia.org/wiki/Bristol_Pound | https://en.wikipedia.org/wiki/WIR_Bank

https://en.wikipedia.org/wiki/Complementary_currency

Blanc, Jérôme; Marie Fare (2013): "Understanding the role of governments and administrations in the implementation of community and complementary currencies", *Annals of Public and Cooperative Economics* 84(1), 63-81.

Meyer, Camille; Hudon, Marek (2017): "Alternative organizations in finance: Commoning in complementary currencies", *Organization* 24(5), 629-647

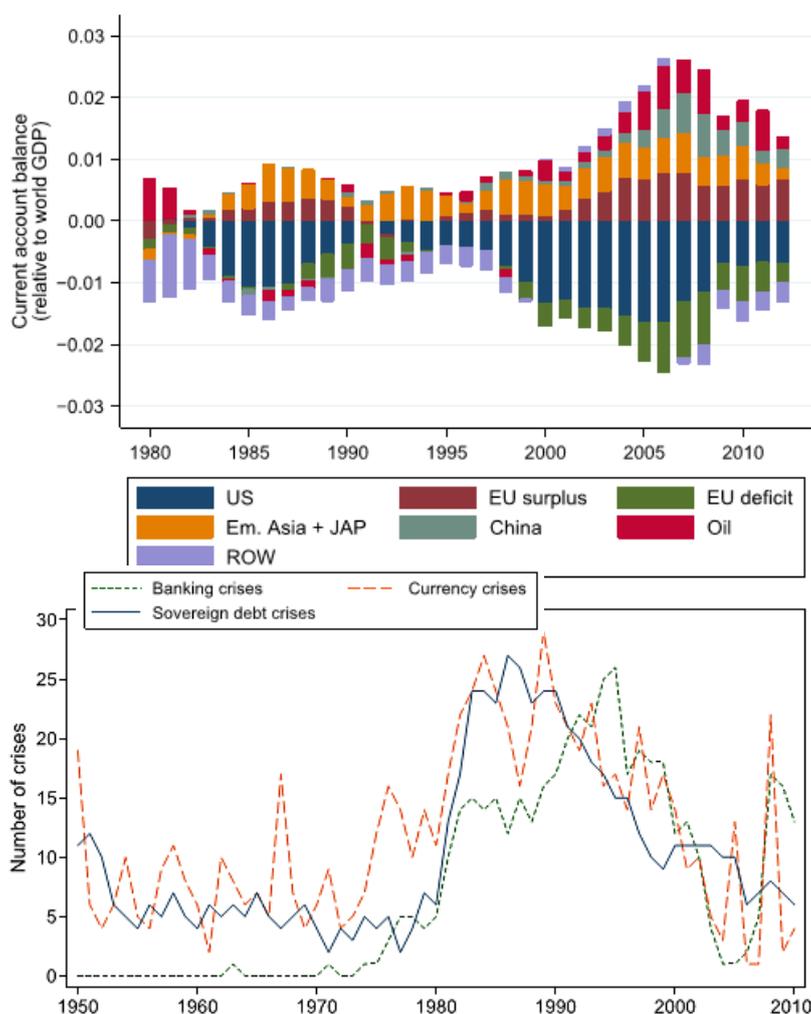
Peacock, Mark S. (2014): "Complementary currencies: History, theory, prospects", *Local Economy* 29(6-7), 708-722.

Seyfang, Gill (2000): "The euro, the pound and the shell in our pockets: Rationales for complementary currencies in a global economy", *New Political Economy* 5(2), 227-246

Spano, Alessandro; John Martin (2018): "Complementary currencies: What role should they be playing in local and regional government?", *Public Money and Management* 38(2), 139-146.

342. Stylized facts of global trade and finance

- In the period 1985-2012, foreign direct investment (FDI) become more volatile and grew faster than exports (in the period 1975-1985, trade grew faster).
- Persistent global imbalances appear to contradict the free trade doctrine: in the post 1985 era, external deficits by (mostly) developed countries are matched by external surpluses by (mostly) developing countries. The US has accounted for a large share of global external deficits, whereas China has accounted for a large share of global external surpluses.
- The above facts have coincided with an extraordinary growth of transnational corporations. Intra-firm trade of transnational corporation seems to represent one third of global trade.
- Financial globalization dwarfs trade (and FDI) globalization. World GDP itself is many times smaller than the value of non-FDI financial capital flows, most of which is speculative capital.
- For certain internationally traded commodities, it is no longer true that developed countries employ the newest production technologies, plants or equipment. In some industries, developing countries enjoy a double advantage over developed countries: lower wages and more productive technologies.



Baiman, Ron (2017): *The global free trade error. The infeasibility of Ricardo's comparative advantage theory*, Routledge, London and New York.

Steiner, Andreas (2016): *Global imbalances, financial crises, and central bank policies*, Academic Press, London, pp. 6, 8.

343. The efficient market hypothesis: the orthodox representation of financial markets

The efficient market hypothesis, held by orthodox economists, views financial systems as mechanisms that, left to themselves, reach an optimal steady state equilibrium. According to this view, asset market prices always and everywhere correctly reflect the assets' true (or fundamental) value. Asset price movements are simply the market response to external shocks, mainly represented by information changes. As a corollary, asset price bubbles or busts (as commonly understood) do not exist: any observed wild price swings are the market response to a change in the fundamentals (the factors that establish an asset's true value).

Cooper, George (2008): *The origin of financial crises. Central banks, credit bubbles and the efficient market fallacy*, Harriman House, Petersfield, UK.

344. The heterodox view of financial markets

The heterodox view regards the financial system as inherently unstable, with no steady state equilibrium and with an in-built tendency to generate boom-bust cycles that severely damage the economic activity in the real sector (production, consumption and employment). In this alternative view, if unregulated, financial markets are engines that create asset price bubbles that are in turn followed by credit crunches. To control this instability, and provide a stabilizing influence on economic activity, central banks must manage credit (debt) creation. The risk is that if this control is not conducted properly, central bank policies (and central bank mistakes) may amplify boom-bust financial cycles and exacerbate the damaging effects on economies. No one knows the 'equilibrium' prices in financial markets. The behaviour of market participants tends to move market prices away from equilibrium prices. The advantage of public authorities is that they are better positioned to ascertain the intensity of a market disequilibrium and to take into account the social consequences of allowing disequilibrium states to persist.

- "Blind faith in the efficiency of deregulated financial markets and the absence of a cooperative financial and monetary system created an illusion of risk-free profits and licensed profligacy through speculative finance in many areas." UN (2009)

United Nations (2009): *The global economic crisis. Systemic failures and multilateral remedies*, Report by the UNCTAD Secretariat Task Force on Systemic Issues and Economic Cooperation.

345. Financial instability hypothesis (Hyman Minsky)

It is a theory of the business cycle based on the premise that the stability of a capitalist financial system is ultimately destabilizing. A booming economy validates the bets made by borrowers, as a growing economy allows them to repay debt. The more the boom continues, the more evident becomes that borrowers prosper. It then appears not so necessary to follow too prudential rules when incurring debt. Therefore more debt accumulates and the boom goes on.

- Hedge finance (cash flows are enough to meet payment commitments on debt) tends to be displaced by speculative finance (cash flows are insufficient but future cash flows are expected to be enough to cover all debt payments). In a booming economy finance is increasingly available and that validates speculative finance. The sustainability of hedge finance depends on the expansion of real activity (markets for inputs and markets for goods). The sustainability of speculative finance depends on the expansion of financial activity (a normal functioning of the financial markets is necessary to refinance debt). Speculative finance becomes with time increasingly vulnerable: to interest rate rises, to the loss of value of financial assets held, to the willingness of creditors to refinance debt... Lender may quickly and radically redefine what debt structures are considered sustainable and force borrowers to lower debt ratios.
- Ponzi finance occurs when debt can only be repaid with more debt. The transition to Ponzi finance by a sufficiently large number of borrowers generates a financial structure which is increasingly susceptible to a crisis, arising when Ponzi borrowers cannot roll over their debt and generalized when most borrowers regard their debt levels as excessive and start reducing investment and consumption to lower debt ratios.

- Minsky moment. This refers to the moment when the perception that indebtedness is excessive has become widespread. It is followed, to increase liquidity, by massive sales of financial assets, which in turn precipitate a market crash.
- The financial instability hypothesis can be summarized as follows: “over periods of prolonged prosperity, the economy transits from financial relations that make for a stable financial system to financial relations that make for an unstable system.” (Minsky 1992)

Minsky, Hyman P. (1977): “The financial instability hypothesis: An interpretation of Keynes and an alternative to ‘standard’ theory”, *Challenge* 20(1), 20-27.

Minsky, Hyman P. (1992): “The financial instability hypothesis”, Working Paper 74, The Jerome Levy Economics Institute.

Vercelli, Alessandro (2011): “A perspective on Minsky moments: Revisiting the core of the financial instability hypothesis”, *Review of Political Economy* 23(1), 49-67.

346. Two views on crises and severe economic fluctuations

- Orthodox view. Financial crises and severe fluctuations of production and employment are considered anomalies, exceptional events. As such, the orthodox theory need not care to provide explanations for them: financial tranquility is the norm. Markets provide tranquility and efficient outcomes; government intervention brings instability and waste.
- Heterodox view (originated in J. M. Keynes). The combination of uncertainty regarding the future and economic activity conducted in relatively unregulated markets generates financial and economic instability. Financial markets are disequilibrating forces (so financial crises are systemic rather than accidental events) and economic activity depends on the pace of investment (as investment determines aggregate demand and how viable the debt structure is). But investment depends on the subjective evaluation of its profitability.

347. International financial instability: tamers vs tigers

Monetary and financial authorities (the tamers) and global finance (the tigers) pursue goals that sometimes are contradictory: authorities pursue financial stability, whereas financial markets pursue profits by embracing risky undertakings. By pursuing goals that are not always mutually consistent, they maintain a relationship which is often confrontational and even conflictual. Monetary and financial authorities (treasury or finance ministries and central banks) appear to have accepted the following ideas.

- Global financial markets are viewed as fundamental elements for the growth of the world economy.
- Accordingly, they should be allowed to operate freely within a transparent and sound regulatory framework that does not distort the functioning of global financial markets.
- Monetary and financial policies must aim at providing a stable monetary and financial environment for the economy, which is viewed as a prerequisite to achieve a sustainable growth of production and employment.
- Credibility is an essential feature of monetary and financial authorities. Credible authorities (those ensuring the consistency of announcements and decisions) are more effective in influencing the expectations of the participants in the global markets. Steering expectations in the right direction reinforces policy effectiveness.
- Global financial stability is strengthened by cooperation (preferably in a multilateral institutional framework) among the most important monetary and financial national authorities. Cooperation is a remedy to the mismatch created by the global scope of financial markets and the national jurisdiction of the regulatory authorities.

Saccomanni, Fabrizio (2008): *Managing international financial instability. National tamers versus global tigers*, Edward Elgar, Cheltenham, UK, and Northampton, MA.

348. Two models to explain capital flows from richer to poorer countries (Michael Pettis)

- The investment model. This model (the dominant one) posits that the prime determinant of capital flows is the destination of the flows: developed-country investors compare expected profit returns in different countries and decide to invest in less developed countries when the growth prospects there are considered more favourable. It is the characteristics ('local economic fundamentals') and policies ('eliminate distortions', 'get the country ready for growth') of the countries receiving the flows that matter.
- The liquidity model. This model posits that the prime determinant of capital flows is the source of the flows: it is a situation of excess liquidity in the richer countries that stimulates capital outflows to the poorer ones.

Vestergaard, Jakob (2009): *Discipline in the global economy. International finance and the end of liberalism*, Routledge, New York.

349. The Lucas paradox (Robert Lucas, Jr, 1990)

Orthodox macroeconomic theory predicts that capital (lending) should flow from the richer to the poorer economies until rates of return are equalized. The Lucas paradox is the observation that such flows are not occurring. Why does does not flow from rich to poor countries?

- In a 1990 paper, Nobel laureate Robert Lucas, Jr. estimated that, if orthodox macro-economic theory were true, the return to investment in India in 1988 should be around 58 times higher than in the United States. Such monumental return differential should make capital to flow from the United States to India. Yet this flow has not been observed.

It is likely that the real interest rate will substantially differ between richer and poorer economies. In a poor economy, by definition, GDP per capita is low and, accordingly, savings are low. In addition, lack of productive capital (which lies behind a low GDP per capita level) implies that the return to capital will also tend to be high. Scarce supply of savings combined with high demand for capital lead to high real interest rates. The reverse is expected to occur in a rich economy. As a consequence, given that capital is mobile internationally, it is natural to predict a flow of funds from richer to poorer economies. One reason why such a flow has not been observed is that investment (lending) in poorer economies is riskier. Hence, it would not be surprising to observe funds flowing from poorer to richer economies, where investment, despite being probably less profitable, is safer. This will cause real interest rate differences between rich and poor economies to widen rather than to contract.

- Investors may lack relevant information: poorer economies are typically less transparent than richer ones.
- There is also exchange rate risk, that is, that the currency of the poor economy receiving investment will fall with respect to the currency of the domestic economy of the investor. If this fall occurs, the investor incurs a loss when converting the invested funds back into the investor's currency.
- Investors may believe that the default risk is higher in a poor (less well known) than in a rich (better known) economy. Justification of this belief: poorer economies are weak agents in international capital markets (it is harder for them to obtain foreign funds) and historically they have been politically and/or socially more unstable than rich countries.
- In general, the environment of a poor economy tends to be more unstable or unpredictable. For example, governments may lack credibility insofar as they are prone to make frequent changes in regulations and taxes.

Akhtaruzzaman, Muhammad; Christopher Hajzler; P. Dorian Owen (2017): "Does institutional quality resolve the Lucas paradox?," *Applied Economics*, DOI: 10.1080/00036846.2017.1321840.

350. The dollar in the international monetary system

The international monetary system is currently characterized by a centre (developed countries) and a periphery that uses as reserves assets from the centre. The viability of this system depends on its participants to obtain from it what they want or need. Jeanne (2012) identifies three necessary conditions for its viability:

- the centre must provide liquid and safe assets;
- in a sufficient amount to meet the international demand; and

- providing a satisfactory return (global stable store of value).

The US has been so far playing a central role in the international monetary system. Will it continue to do so and for long? The 2008 financial crisis questioned the safety and liquidity of US assets. It is not clear whether the US economy will be strong enough to meet a rising demand for international liquidity. And the decisions by the US authorities on the return on the dollar (the US interest rate) are solely based on domestic considerations and do not take into account whether the decisions ensure that the dollar remains an international stable store of value. Despite all this, it does not appear likely that, in the near future, the international monetary system will become more multipolar (with the central role of the dollar shared with other currencies, like the euro or the renminbi, or replaced by the IMF's Special Drawing Rights).

Jeanne, Olivier (2012): "The dollar and its discontents", *Journal of International Money and Finance* 31, 1976-1989.

351. Debt cancellation ('clean slate')

In ancient civilizations debt cancellation was a policy preventing the financial sector from ruining the whole economy: ancient policy-makers discovered that debt (which can accumulate exponentially) can quickly surpass the economy's ability to pay. Periodic debt cancellation was a standard measure of financial regulation in ancient societies.

- An example of this policy occurred around 1792 BC in Babylonia under King Hammurabi. At the time, barley was the basic foodstuff households consumed. Households runned up debts denominated in barley as liabilities for crop-sharing rents and water fees. These debts, owed to the temple-state public financial system, were forgiven, but not the debt denominated in silver (already 'the money of the world'), incurred by traders as commercial debt.

Hudson, Michael; C Wunsch (2004): *Creating economic order. Accounting in the Ancient Near East.*

352. Babylonians did better than us

The global financial liberalization unfolding since the 1980s coincided (in most developed economies) with financial policies stimulating credit expansion but without enough prudential measures. Banks exploited these opportunities for debt creation by engaging in securities trading (trying to manipulate asset prices), downplaying their traditional functions as deposit takers and credit providers. Public support to banks continued with bank bailouts and the real sector of the economy suffered the consequences (more unemployment, firms closing down, families losing their homes). These policies implicitly considered the lack of credit as the problem, when the real problem is excessive debt: governments helped the creditors (banks) instead of the debtors (families, firms). (When debt is built up, it creates the illusion of wealth.) The inverse of the clean slate policy is policy in support of creditors, which treats the symptom (the credit crisis) not the cause (debt overhead). Allowing creditors to pursue debtors makes economic recovery almost impossible: a debt workout should be preferable to a bank bailout.

Bezemer, Dirk J. (2009): "This is not a credit crisis -it is a debt crisis", *Economic Affairs.*

353. Hypocrisy or challenge of policy paradigm during the 2008 global financial crisis?

The IMF, and most economists, gave support during the 2008 global financial crisis to policy measures different from those (based on unfettered markets and uncontrolled capitalism) advocated during the 1997 Asian financial crisis: bank rescue plans (bank bailouts), bank nationalizations (government purchases of banks), strong expansionary policies (fiscal stimulus plans), near-zero interest rates, massive quantitative easing programmes (purchases of government bonds and other privately-issued financial assets), huge public deficits (two-digit deficit-to-GDP ratios), discussion of more strict financial regulation, consideration of the elimination of tax havens...

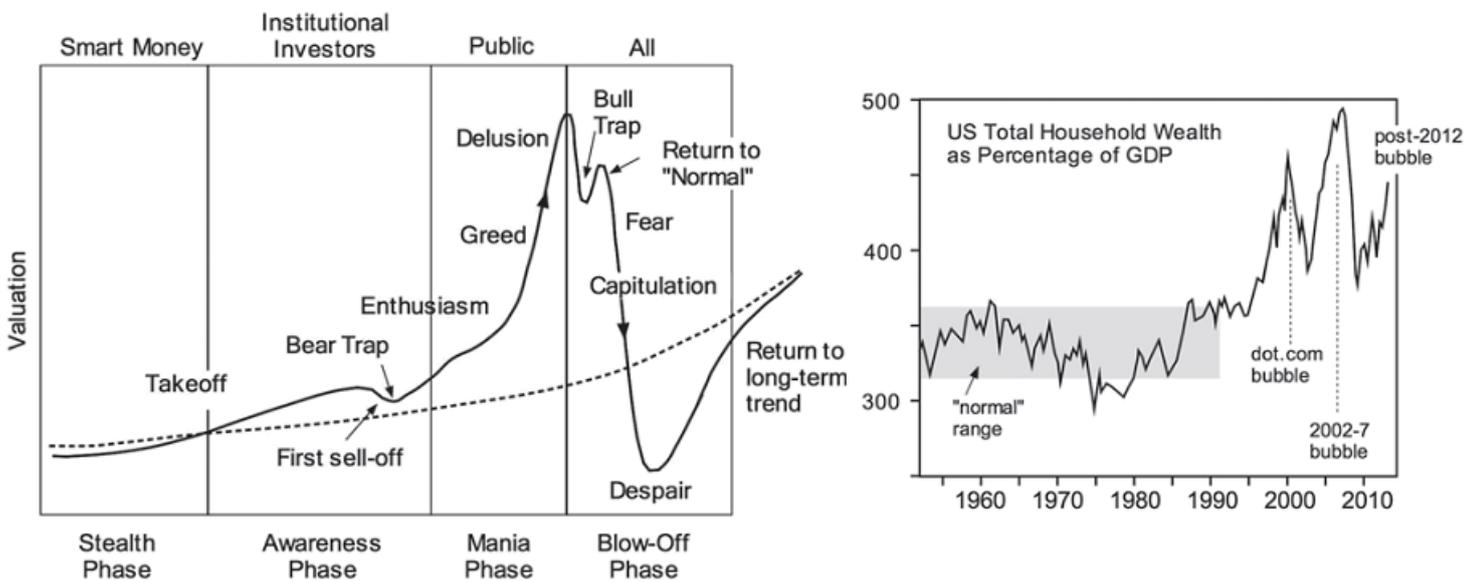
- The policy prescriptions by the most orthodox economists amount to closing the central banking, dismantling regulations and keeping the government budgeted balanced.

- “When things go really wrong, neoclassical theories are thrown out of the window, being replaced by more pragmatic and realistic theories. With public deficits, governments are hopeful that aggregate demand will be sustained and that corporate profits will recover.”

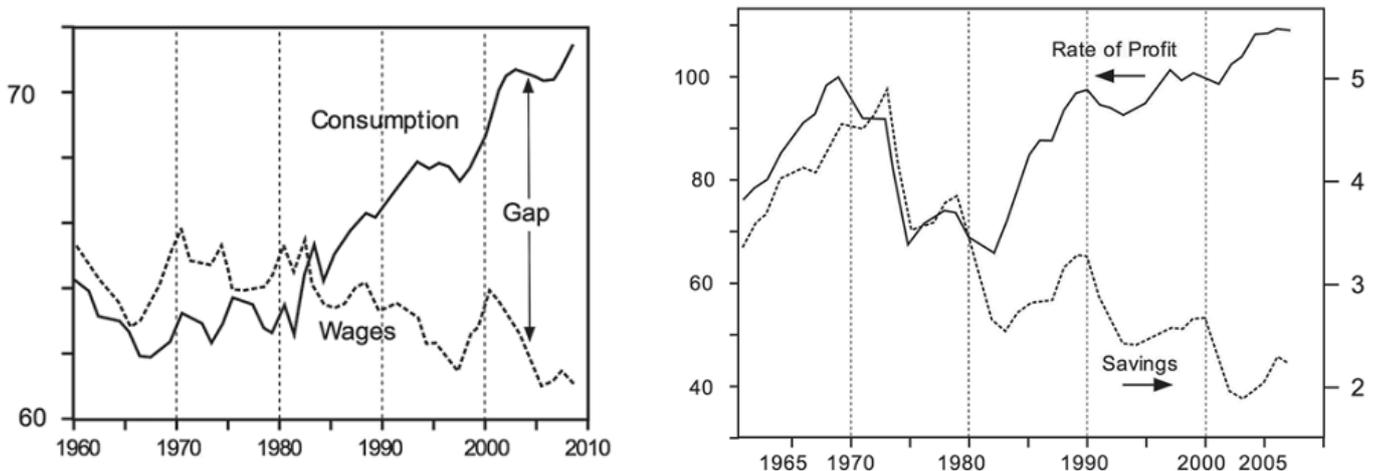
Lavoie, Marc (2011): “The global financial crisis: Methodological reflections from a heterodox perspective”, Studies in Political Economy 88(1), 35-57.

Paradox of thrift (Keynes)	Higher saving rates lead to reduced output
Paradox of costs (Kalecki)	Higher real wages lead to higher profit rates
Paradox of public deficits (Kalecki)	Government deficits raise private profits
Paradox of debt (Steindl)	Efforts to de-leverage might lead to higher leverage ratios
Paradox of tranquillity (Minsky)	Stability is destabilizing
Paradox of liquidity (Nesvetailova)	New ways to create liquidity end up transforming liquid assets into illiquid ones
Paradox of risk (Wojnilower)	The availability of individual risk cover leads to more risk overall

Crisis-related macroeconomic paradoxes (Lavoie, 2011, p. 46)



Stylized stages of a boom, bubble, bust, and recovery US household wealth with respect to GDP
 Rapp, Donald (2015): *Bubbles, booms, and busts: The rise and fall of financial assets*, pp. 19 and 24



Shares of consumption & wages in GDP (US, EU, Japan) Rates of profit & savings (US, EU, Japan)
 Rapp, Donald (2015): *Bubbles, booms, and busts: The rise and fall of financial assets*, p. 25

354. A policy dilemma for central banks

Central banks face a policy dilemma in a booming/bubble economy: action vs inaction. Suppose borrowing and spending is considered excessive, with indebtedness growing alarmingly and the typical economic agent being reluctant to save. There are two options.

- Option 1: puncture the bubble. The typical measure to try to discourage borrowing and spending is to raise the interest rate. But this rise may result in a sharp contraction in economic activity. In this case, borrowing and spending appears insufficient.
- Option 2: let the boom continue and the bubble burst. If no policy is adopted to control or regulate the high levels of borrowing and spending, a worse contraction may occur when it is realized that the levels of borrowing and spending can no longer be sustained.

Financial activities were liberalized during the 1970s and 1980s. The liberalization transferred the control of the financial sector from the public to the private sector by removing controls over financial flows. The financial liberalization allowed the accumulation and international circulation of large amounts of money and also permitted interest rates to be established in the financial sector itself without substantial public interference. The empirical evidence makes the following sequence appear plausible:

financial deregulation → free mobility of capital and no credit control → debt increase every-where (by governments, firms, households...) → threat to financial stability → financial crises.

355. Barry Eichengreen's four main determinants of financial crises and instability

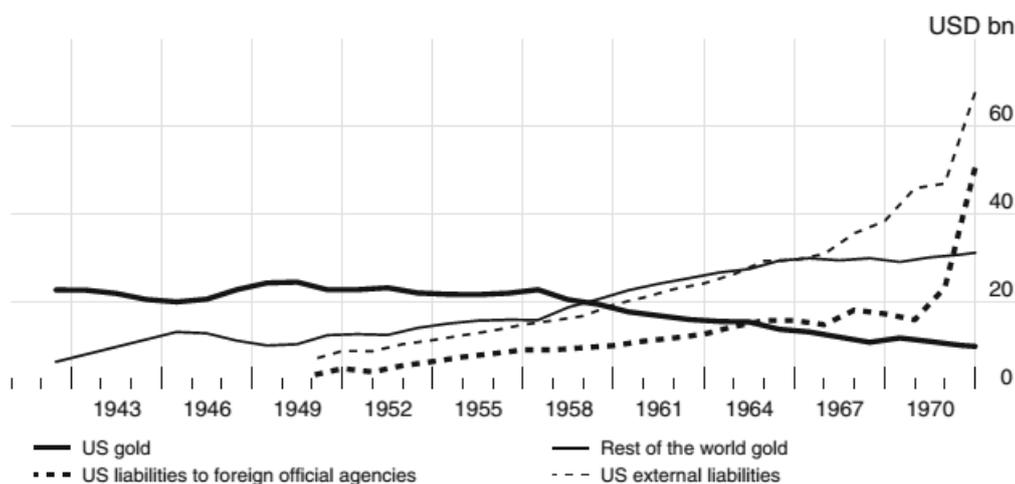
- Unsustainable macroeconomic policies
- Fragile financial systems
- Institutional weaknesses
- Flaws in the structure and operation of international financial markets (booms and busts in capital flows, followed by significant contagion effects, may be caused by information asymmetries, herd behaviour and competitive pressures).

356. Barry Eichengreen's types of financial instability and possible policy solutions

- Types of financial instability: banking crises, currency crises and twin crises (a banking crisis that occurs at the same time as a currency crisis).
- Policy solutions: (i) reregulation of domestic financial markets to address a banking crisis; (ii) reimposition of capital controls to address a currency crisis; (iii) creation of a single global currency; and (iv) definition of an international financial solution. Eichengreen considers the last two as better options in terms of a cost-benefit analysis.

357. The Triffin dilemma (Robert Triffin, 1960)

Triffin predicted the end of the Bretton Woods system, which relied on the credibility of the commitment of the convertibility of dollars into gold. Triffin argued that the system faced a dilemma. On the one hand, to meet the international liquidity needs (which were growing with an expansionary world economy), a sufficient amount of dollars



should circulate; that is, foreign dollar balances should increase. But, on the other, a large and growing proportion of foreign dollar balances with respect to US gold reserves endangers the credibility of the convertibility commitment. Hence, if the US international liabilities grow too slowly, global trade is restrained and deflation may ensue; but if the US international liabilities grow too much (to satisfy the demands of a growing international trade), the dollar would lose value against gold and a run on the US gold stock will precipitate the downfall of the system. The chart on the right illustrates how the Bretton Woods system broke down.

358. The safe assets dilemma: A new Triffin dilemma?

The Triffin dilemma was the discovery that the unbalanced growth of certain macrofinancial magnitudes could generate systemic instability. The safe assets dilemma would provide another instance of this principle of instability fuelled by unsustainable growth. Specifically, the Triffin dilemma highlights the possibility that the global demand for a stock (US international liabilities) would outgrow the US official holdings of another stock (gold). The safe assets dilemma points out another financial trouble: the possibility that the global demand for another stock (US Treasury liabilities) would outgrow a flow (the US GDP, a flow that provides the taxes needed to service the Treasury's debt).

359. Fundamental problems of the international monetary system I: A Triffin general dilemma

Tommaso Padoa-Schioppa suggested in 2010 a 'Triffin general dilemma': "the stability requirements of the system as a whole are inconsistent with the pursuit of economic and monetary policy forged solely on the basis of domestic rationales in all monetary regimes devoid of some form of supranationality." In particular, as during the Bretton Woods era, the US monetary policy strongly influences global monetary conditions; yet, this policy is conducted without taking into account its international repercussions. In general, the US use its privileged economic status to its own advantage, letting the rest bear the costs of the collateral effects the US decisions cause abroad (the global financial crisis, started in mid-2007 in the US, could be a case at hand; the collapse of the Bretton Woods system, another).

360. Fundamental problems of the international monetary system II: Bias against deficit countries

The present international monetary system has a bias against countries with current account deficits. Since countries running a current account surplus have in general no incentive to eliminate the surplus, the burden of the adjustment of international trade imbalances falls exclusively on deficit countries (a point already made by J. M. Keynes). If the deficit countries do not receive the financing need to handle the adjustment or the surplus countries do not pursue more expansionary policies to neutralize the global contractionary effects of the adjustment by deficit countries, the impact of the adjustment on the world economy will be contractionary.

- In connection with this bias, the absence of a cooperative international system to manage exchange rate fluctuations has increased currency speculation and global imbalances.
- Global (or at least multilateral) exchange rate arrangements appear necessary to maintain global stability, to avoid the risk of collapse of the global trading system and to facilitate adjustment in crisis-stricken countries.

361. Fundamental problems of the international monetary system III: Rich-country bias

The present international monetary system is not equitable. Developing countries have a need to accumulate international reserves. These reserves are typically issued by developed (rich) economies. Consequently, developing countries are compelled to transfer resources to developed countries to obtain international reserves. Financial liberalization and the pro-cyclical nature of the capital flows destined to developing countries (foreign capital quickly flies from a developing country with disappointing growth performance) have magnified the inequity bias. In this context, developing countries have been forced to accumulate international reserves in excess as a precaution against sudden or intense contractions in international financing.

- In that respect, it appears that, from the point of view of developing countries, the first role of international financial institutions should be the ability to counteract the pro-cyclical effects of financial markets.

- Not paradoxically, the same financial markets that create trouble in developing countries subject those countries to crisis ratings reinforcing the rich-country bias.

362. Lessons from debt crises in developing countries

- The crisis is preceded by massive net inflows of foreign capital (taking many forms: bank loans, portfolio investment—bonds, shares—and direct investment).
- The foreign funds were mostly used, a few years before the crisis unfolded, to finance growing current account deficits.
- Net outflows (of bank credit and/or portfolio disinvestment) trigger the crisis.
- Intense currency devaluations follow, accompanied by the suspension of foreign debt repayment (public and/or private) and the insolvency of companies and financial institutions.

363. Political reaction to international financial crises

“There is a remarkably simple observation about how political systems reacted to the Depression, reflecting what happens when an international financial system freezes up. Countries that owed money and were now cut off from more borrowing saw no virtue in continuing to depend on an international system that had let them down and moved toward economic isolationism and political authoritarianism. Countries to whom money was owed sustained smaller economic damage and remained wedded to democracy and the international economy. Even within continents and among neighboring countries this rule held.”

Beattie, Alan (2009): *False economy. A surprising economic history of the world*, Riverhead Books, New York.

364. Finance and Wall Street

“One of the most shocking aspects of the financial services annex to TISA [the Trade in Services Agreement], distributed by WikiLeaks, is that it shows that the world’s deepest economic crisis since the Great Depression has done nothing to alter the financial orthodoxy of the world’s leading states. The American empire is still evidently committed to the same financial regulatory model as it was in the days of the ‘goldilocks economy,’ when Wall Street was booming and the internet was still on dial-up.”

“Finance came to be understood as the true epitome of capitalism and was linked to the virtues of innovation, dynamism, and the allure of testosterone-driven aggression and risk-taking. With great risks, after all, came great rewards. And countries of the South were told that, if they opened their financial markets, the flows of ‘hot’ cash would kick-start their slow economies. Such claims were pure myth-making: most of the movements of money in financial markets have nothing to do with kick-starting investment in the productive sector. They are bets—increasingly elaborate and risky gambling instruments, through which investors hope to make a royalty (...) The profits of investment in, for example, capital markets, are essentially a drain on productive investment. There is certainly little empirical evidence of a link between financial ‘innovation’ and enhanced growth.”

“Wall Street banks have become the strategic nerve centers not only of financial capital, but of the world economy as such. In the United States, between 1973 and 2007, as a result of politically driven changes to the domestic and global economy, financial profits rose from 16 percent to 41 percent of total profits in the US economy. Wall Street accounts for just over a third of total global financial transactions (...) The centrality of the dollar and Wall Street to the global system furnishes far too much political leverage to Washington for there to be any appetite to relinquish it—which would imply not bringing the banks to heel, but also reforming global trade institutions and the US state itself.”

“The dominance of Wall Street is reminiscent of British domination of world trade in the nineteenth century, in that US interests have in a way become synonymous with those of the world. If it goes down, we all go down.”

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire*, Verso, London and New York.

365. Local money and the globalization of capital

“Uneven development is an inherent characteristic of the globalisation of capitalism which stems from the propensity of capital to flow to locations which offer the greatest potential return. The differential use of space by capital in pursuit of profit creates a mosaic of inequality at all geographic scales, from global to local (...) However, when the ‘normal business’ of the capitalist economic system is disrupted by crisis, the uneven economic and social consequences are amplified.”

“Globalisation is a highly uneven set of processes whose impact varies over space, through time, and between social groups (...) Local people and places may be overwhelmed and exploited by the forces of globalisation, or they may seek to resist, adapt or turn globally induced change into an opportunity (...) The problems of poverty and deprivation experienced by people and places marginal to the capitalist development process have intensified over recent decades.”

“... globalisation does not lead automatically to the disintegration of local life (...) globalisation may promote a search for local identity in a mobilised world (...) One local response to the globalisation of capitalism is the creation and circulation of a local currency.”

Pacione, Michael (2011): “Local money – A response to the globalisation of capital?,” *Questiones Geographicae* 30(4), 9-19.

366. Local currency

“Robertson (1989) [Robertson, J. (1989): *Future wealth: A new economics for the 21st century*, Cassell, London] envisaged a hierarchy of money with a world currency for use in international trade, national currencies for use in national trading, and local currencies for use in local trading, together with regional or continental currencies (such as the Euro) (...) A principal argument in favour of local currencies is that when localities are dependent entirely on national currency as a medium of exchange to facilitate local economic activity, any decline in local competitiveness within the national or international economy can result in a shortage of money in local circulation even for internal economic purposes within the locality. This leads to the situation experienced in many formerly flourishing industrial cities in Europe and North America where local unemployment rises and local assets remain underutilised, while local needs remain unmet.”

“A local currency can stem the leakage of money out of the local economy. In addition, use of a local currency retains local control over investment decisions which is lost even when local capital is ‘re-imported’ via distant financial institutions. A local currency also encourages individuals and businesses to support each other rather than buying from outside the community, and can help to meet the credit needs of small businesses, thereby stimulating the local economy and diversifying its economic base. Another related advantage is that a local currency can generate local employment by overcoming the mismatch between the shortage of money and the excess of work required to be done in any local economy. In general, people will be prepared to work in return for a local currency in which they have confidence.”

“A second principal advantage of a local currency lies in its ability to reduce dependency on transfer payments in the form of central government welfare benefits, economic grants and annual council spending budgets (...) A final advantage of a local currency is that, in certain forms, it can facilitate a non-inflationary monetary system.”

“A local currency cannot insulate the local economy from the negative effects of globalisation, but it can afford a degree of protection against the spatially-insensitive currents of the international financial system. A combination of alternative financial institutions such as credit unions and local exchange trading systems, and a publicly-issued local currency has the potential to re-invigorate localities (...) The introduction of a local currency has the capacity to stimulate the social and economic regeneration of a community.”

Pacione, Michael (2011): “Local money – A response to the globalisation of capital?,” *Questiones Geographicae* 30(4), 9-19.

367. Local currencies: Massachusetts BerkShare, Detroit dollar, Bristol pound (Douglas Rushkoff, 2016)

“The simplest approach to limiting the delocalizing, extractive power of central currency is for communities to adopt their own local moneys, pegged or tied in some way to central currency. One of the first and most successful contemporary efforts is the Massachusetts BerkShare, which was developed to help keep money from

flowing out of the Berkshire region. One hundred BerkShares cost ninety-five dollars and are available at local banks throughout the region. Participating local merchants then accept them as if they were dollars—offering their customers what amounts to a 5 percent discount for using the local money. Although it amounts to selling goods at a perpetual discount, merchants can in turn spend their local currency at other local businesses and receive the same discounted rate. Nonlocals and tourists purchase goods with dollars at full price, and those who bother to purchase items with BerkShares presumably leave town with a bit of unspent local money in their pockets.”

“Simple, dollar-pegged local currencies like BerkShares are depending on what is known as the local multiplier effect. Money of any kind, even regular old dollars, spent at local businesses tends to stay within the local economy. That’s because local, independent businesses tend to source their materials and services from nearby instead of from some distant corporate headquarters. According to a broad study (...) 48 percent of each dollar spent at locally owned retailers recirculates through the community, compared with 14 percent at chain stores. With geographically limited local currencies, that number stays close to 100 percent, until they are exchanged back into dollars. Such currencies are biased against extraction and toward velocity (...) With geographically based currencies, the thinking goes, the ‘buy local’ ethos becomes visible (...) Local currencies are their own best publicity, rendering ‘buy local’ visible and thereby fostering the community spirit and soft peer pressure that lead to widespread buy-in and network effect (...) Many other communities are experimenting with variations on the BerkShare model. Proponents claim that by being removed from the greater economy, these currencies work against the scarcity bias of central currency and are more resistant to boom, bust, and bubble cycles. Detroit Dollars, Santa Barbara Missions, and, in the UK, the Bristol, Brixton, and Cumbrian Pounds each offer their particular variations. Detroit Dollars offer much the same arrangement as BerkShares, only at a 10 percent discounted exchange rate. The UK’s Bristol Pound is backed by a credit union, has a digital debit payment system, and can be used by businesses to pay certain taxes. A pilot program in Nantes, France, promises to allow citizens to pay municipal fees in local currency.”

368. Lessons from the history of financial crises

- “The history of financial crises shows that there is a crisis somewhere in the world about every decade.”
- “Fiscal and financial crises have been increasingly linked together by the increased use of government guarantees of financial intermediaries.”
- “Government rescues to avoid the costs of old-fashioned banking panics have led to more virulent modern banking crises.”
- “There is a trade-off between the costs of financial crises that accompany financial development and growth and the moral hazard costs of insurance.”
- “Eliminating crises entirely is not desirable, but letting them burn out without intervention is also not ideal.”

Bordo, Michael D. (2018): “Reflections on the evolution of financial crises: Theory, history and empirics”, chapter 1 in Rockoff, Hugh; Isao Suto; eds. (2018): *Coping with financial crises. Some lessons from economic history*, Springer, Singapore.

369. Hallucinated wealth (John Michael Greer, 2008)

“It surprises me how many people still seem to think that the main business of a modern economy is the production and distribution of goods and services. Far and away the majority of economic activity nowadays consists of the production and exchange of IOUs. The United States has the world’s largest economy not because it produces more goods and services than anyone else — it hasn’t done that for decades — but because it produces more IOUs than anyone else, and it sells those IOUs to the rest of the world in exchange for goods and services.”

“The resulting IOU economy is highly unstable because hallucinated wealth has value only as long as people believe it does. The history of modern economics is thus a chronicle of booms and busts, as tidal shifts in opinion send various classes of IOUs zooming up in value and then crashing back down to Earth. Crashes, far from being signs of breakdown, are a necessary and normal part of the process. They serve the same role as laundry day did in the schoolroom IOU economy: by paring down the total number of IOUs, they maintain the fiction that the ones left still have value.”

370. The financial sector's rise to power (Michael Hudson, 2015)

- “A nation’s destiny is shaped by two sets of economic relationships. Most textbooks and mainstream economists focus on the ‘real’ economy of production and consumption, based on the employment of labor, tangible means of production and technological potential. This tangible Economy #1 is wrapped in a legal and institutional network of credit and debt, property relations and ownership privileges, while Economy #2 is centered on the Finance, Insurance and Real Estate (FIRE) sector. This ‘debt and ownership’ economy transforms its economic gains into political control to enforce payment of debts and to preserve property and natural resource or monopoly rent privileges (typically inherited).”
- “Today’s banks don’t finance tangible investment in factories, new means of production or research and development –the ‘productive lending’ that is supposed to provide borrowers with the means to pay off their debt. Banks largely lend against collateral already in place, mainly real estate (80 percent of bank loans), stocks and bonds. The effect is to transfer ownership of these assets, not produce more.”
- “Borrowers use these loans to bid up prices for the assets they buy on credit: homes and office buildings, entire companies (by debt-leveraged buyouts), and infrastructure in the public domain on which to install tollbooths and charge access rents. Lending against such assets bids up their prices –Asset-Price Inflation.”
- “Mainstream policy pretends that economies are able to pay their debts without reducing their living standards or losing property. But debts grow exponentially faster than the economy’s ability to pay as interest accrues and is recycled (while new bank credit is created electronically).”
- “Debts that can’t be paid, won’t be. The question is: how won’t they be paid? There are two ways not to pay. The most drastic and disruptive way (euphemized as “business as usual”) is for individuals, companies or governments to sell off or forfeit their assets. The second way to resolve matters is to write down debts to a level that can be paid. Bankers and bondholders prefer the former option, and insist that all debts can be paid, given the “will to do so’ (...) This is the solution that mainstream monetarist economists, government policy and the mass media popularize as basic morality. But it destroys Economy #1 to enrich the 1 percent who dominate Economy #2.”
- “The financial sector (the One Percent) backs oligarchies.”
- “Every economy is planned. The question is, who will do the planning: banks or elected governments? Will planning and structuring the economy serve short-term financial interests (making asset-price gains and extracting rent) or will it promote the long-term upgrading of industry and living standards?”

Hudson, Michael (2015): *Killing the host. How financial parasites and debt bondage destroy the global economy*, CounterPunch Books, Petrolia, California.

371. Michael Hudson’s (2015) ten reforms to restore industrial prosperity

1. Write down debts with a Clean Slate, or at least in keeping with the ability to pay
2. Tax economic rent to save it from being capitalized into interest payments
3. Revoke the tax deductibility of interest, to stop subsidizing debt leveraging
4. Create a public banking option
5. Fund government deficits by central banks, not by taxes to pay bondholders
6. Pay Social Security and Medicare out of the general budget
7. Keep natural monopolies in the public domain to prevent rent extraction
8. Tax capital gains at the higher rates levied on earned income
9. Deter irresponsible lending with a Fraudulent Conveyance principle
10. Revive classical value and rent theory (and its statistical categories)

372. Two views of the financial world

The orthodox view of the financial markets holds that asset prices are determined by rational predictions of future fundamentals. In the heterodox view asset prices are driven by confidence (which makes prices more volatiles because confidence is more unstable than fundamentals).

- The Efficient Market Hypothesis (EMH). The EMH holds that the market price of an asset reflects the asset's true value, so market prices are always 'correct'. According to EMH, (i) changes in asset prices are caused by external shocks, like new information related to the asset and (ii) there do not exist asset price bubbles nor asset price busts: sudden or intense asset price swings are merely the response by buyers and sellers of the assets to changes in the fundamental variables that determine the 'real' value of the asset.
- The Financial Instability Hypothesis (FIH). The FIH contends that the financial sector is inherently unstable because forces endogenous to the sector generate cycles of credit expansion/asset inflation and credit contraction/asset deflation.

The EMH and the FIH are both theories of what makes financial prices move. The EMH claims that market forces lead the market to an equilibrium state. This state is stationary in the sense that the market will not be pushed to another (stationary, equilibrium) state unless some unexpected external event (a 'shock') hits the market. The FIH asserts that the dynamics of financial markets is naturally unstable: left by themselves such markets show no tendency to reach stationary states. Destabilizing forces prevent financial markets from achieving efficient states and producing optimal outcomes.

For the FIH to be true, it is necessary to identify built-in destabilizing mechanisms. In a typical debt market, institutions accept deposits, which are subsequently lent. To get high profits in this business it is in general associated with charging a high interest in loans. The basic strategy to obtain a high interest rate is to accept more risk by lending, for the longest period, to the least-reliable borrowers. But a high-risk lending strategy increases the risk of not being repaid, which in turn increases the probability of not returning the deposits and thereby destabilizing the market (because of a run on the institutions that accept deposits). The source of potential instability is the fact that achieving higher returns involves taking higher risks, which endangers the normal, stable operation of the market.

Bank runs seem to contradict the EMH: they are serious threats to the stability of the banking sector. Feedback processes (like speculative bubbles) have the potential of being inconsistent with the logic of the EMH. The EMH requires independence from the past: the transition from today's price of an asset to tomorrow's price must be essentially random. No immediate tendency of the evolution of the price should be predictable. By contrast, a feedback process is memory-driven: what has just happen affects in a very significant way what is going to happen next. For instance, if many people start withdrawing money from a bank, it is likely that additional clients will withdraw their funds, which in turn increases the likelihood of more future withdrawals. In view of this, a test to establish which of the two hypothesis is more accurate to describe the financial sector is how much memory possess the mechanisms at work in the financial sector: memoryless mechanisms tend to provide support to EMH; memory-driven mechanisms, to FIH

Cooper, George (2008): *The origin of financial crises. Central Banks, credit bubbles and the efficient market fallacy*, Harriman House, Hampshire, Great Britain.

373. Minsky moment

Named after the American economist Hyman Minsky (1919-1996), a Minsky moment is a situation where asset prices suffer a sudden and precipitous collapse as a result of an excessive speculation, financed by borrowed money, that forces speculators to start a major sell-off to pay back the loans.

Farmer, Roger E. A. (2010): *How the economy works*, Oxford UP, p. 92

https://en.wikipedia.org/wiki/Minsky_moment



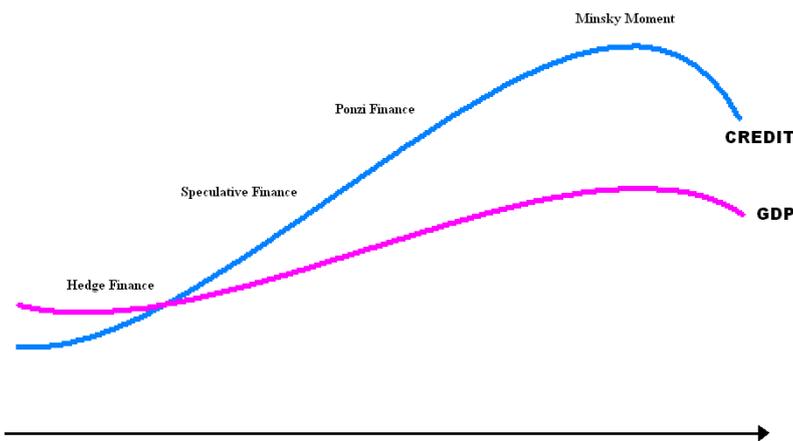
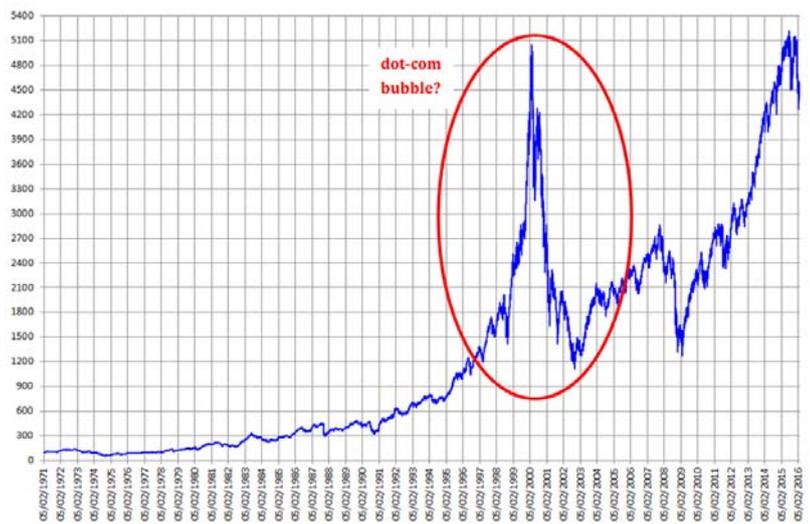
The Wile E. Coyote moment as a metaphor for the Minsky moment

http://www.disneycharacters.net/data/media/7/Wile_E_Coyote_Fall_Cartoon_Image.jpg

“According to Minsky’s view, the natural state of an economic system is one of recurrent expansions and crashes that are characterized by credit crises. A Minsky moment is the point when the house of cards comes tumbling down and the economy moves from boom to crash.”

The NASDAQ Composite, 5 Feb 1971-29 Feb 2016

<http://finance.yahoo.com/q/hp?s=^IXIC&a=01&b=5&c=1971&d=02&e=1&f=2016&g=d>

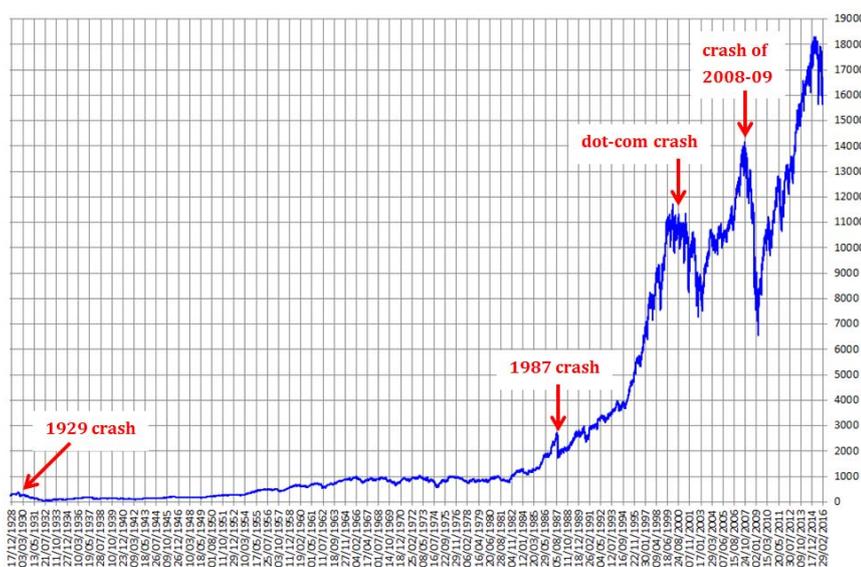


Stylized representation of the Minsky cycle

https://en.wikipedia.org/wiki/File:Stylized_Minsky_Cycle.PNG

“A Minsky moment is a sudden major collapse of asset values which is part of the credit cycle or business cycle. Such moments occur because long periods of prosperity and increasing value of investments lead to increasing speculation using borrowed money. The spiraling debt incurred in

financing speculative investments leads to cash flow problems for investors. The cash generated by their assets no longer is sufficient to pay off the debt they took on to acquire them. Losses on such speculative assets prompt lenders to call in their loans. This is likely to lead to a collapse of asset values. Meanwhile, the over-indebted investors are forced to sell even their less-speculative positions to make good on their loans. However, at this point no counterparty can be found to bid at the high asking prices previously quoted. This starts a major sell-off, leading to a sudden and precipitous collapse in market-clearing asset prices, a sharp drop in market liquidity, and a severe demand for cash.”



Dow Jones Industrial Average, 1 Oct 1928 -29 Feb 2016

<http://finance.yahoo.com/q/hp?s=^DJI&a=00&b=11&c=2010&d=01&e=29&f=2016&g=d&z=66&y=1254>

374. Paradox of efficient markets

“... if you think a market is efficient—efficient enough that you can’t really beat it for a profit—then it would be irrational for you to place any trades. In fact, efficient-market hypothesis is intrinsically somewhat self-defeating. If all investors believed the theory—that

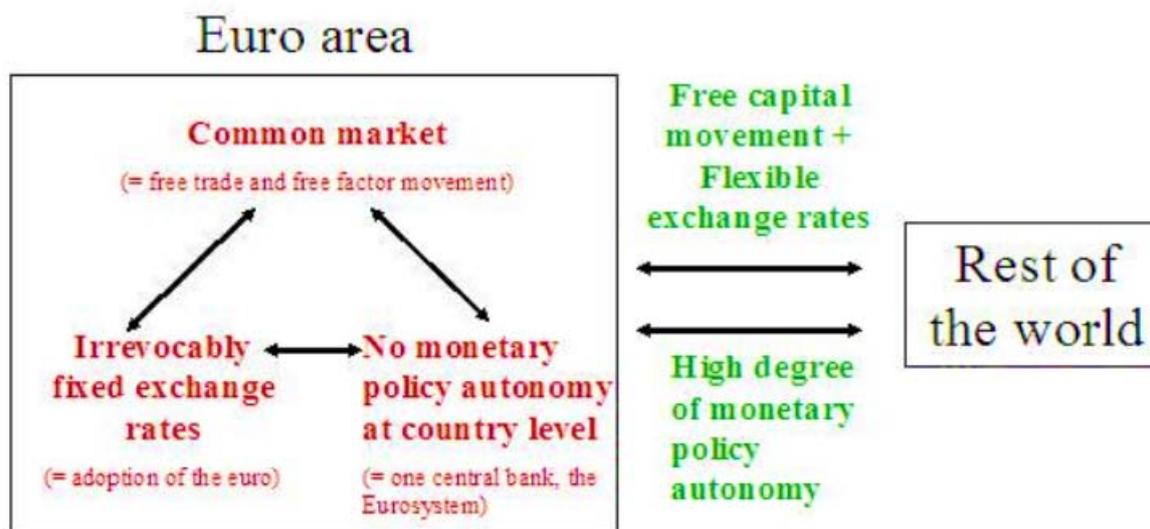
they can’t make any money from trading since the stock market is unbeatable—there would be no one left to make trades and therefore no market at all.”

Silver, Nate (2012): *The signal and the noise. Why most predictions fail but some don’t*, Penguin Press, New York.

375. The inconsistent quartet (Tommaso Padoa-Schioppa, ‘founding father’ of the euro)

The open economy trilemma asserts a financial impossibility: under free international mobility of capital (there is no capital control), if it is not possible for an economy to control at the same time the foreign price of its currency (the nominal exchange rate) and its domestic price (the nominal interest rate).

Tommaso Padoa-Schioppa suggested, in 1982, a variant of the open economy trilemma. In this variant, four apparently desirable goals (the inconsistent quartet, *quartetto inconciliabile*) cannot be simultaneously achieved. According to Padoa-Schioppa, a group of countries (such as the European Union) cannot have free trade, international capital mobility, independent domestic monetary policies and fixed exchange rates.



Padoa-Schioppa's view of the open economy trilemma (taken from Bini Smaghi, 2011)

Bini Smaghi, Lorenzo (2011): "Tommaso Padoa-Schioppa: Economist, policymaker, citizen in search of European unity", Speech given at the European University Institute, Fiesole, 28 January 2011.

<https://www.ecb.europa.eu/press/key/date/2011/html/sp110128.en.html>

376. Will money ever become obsolete? (*The Orville*, Season 1, Episode 11)

"It [money] became obsolete with the invention of matter synthesis. The predominant currency became reputation (...) Human ambition didn't vanish. The only thing that changed was how we quantify wealth. People still want to be rich, only now rich means being the best at what you do."

X. Democracy and politics under globalization

377. Two ways democracies die (Levitsky and Ziblatt, 2018)

- Democracies may fall quickly and spectacularly, immediately and evidently, through military power and coercion. Examples of democracies dying at the hands of men with guns, who seize power violently: Argentina, Brazil, Chile (1973), the Dominican Republic, Egypt (2013), Ghana, Greece, Guatemala, Nigeria, Pakistan, Peru, Thailand (2014), Turkey, Uruguay.
- Democracies may be broken from within by elected leaders, generally slowly and imperceptibly. In this case, presidents or primer ministers used the power legally obtained to erode or subvert the rules that allowed them to come to power, taking steps towards authoritarianism. When the subversion process consolidates, democracy ends replaced by autocracy with a façade of legitimacy. The country is still nominally a democracy (elections are held, democratic institutions continue to exist, the rule of law on the surface remains intact, elected leaders claim to act in the name of democracy and democratic ideals), but the substance of democracy has vanished. The crossing of the line separating democracy from autocracy goes unnoticed to most people. Examples of democracies dismantled by elected governments without having to put tanks on the streets: Georgia, Hungary, Nicaragua, Peru, the Philippines, Poland, Russia, Sri Lanka, Turkey, Ukraine, Venezuela.
- “The tragic paradox of the electoral route to authoritarianism is that democracy’s assassins use the very institutions of democracy—gradually, subtly, and even legally—to kill it.” De-democratization does not tend to be sudden, but incremental.

378. What makes democracies strong

- What makes democracies strong and healthy is not the lack of political figures with autocratic leanings, but having tools (like political parties) preventing them to gain enough power or, ultimately, having the most relevant political leaders oppose and reject anti-democratic inclinations.
- “Democracies work best—and survive longer—where constitutions are reinforced by unwritten democratic norms. Two basic norms have preserved America’s checks and balances in ways we have come to take for granted: mutual toleration, or the understanding that competing parties accept one another as legitimate rivals, and forbearance, or the idea that politicians should exercise restraint in deploying their institutional prerogatives (...) Leaders of the two major parties accepted one another as legitimate and resisted the temptation to use their temporary control of institutions to maximum partisan advantage. (...) The weakening of our democratic norms [toleration and restraint] is rooted in extreme partisan polarization (...) And if one thing is clear from studying breakdowns throughout history, it’s that extreme polarization can kill democracies.”

Levitsky, Steven; Daniel Ziblatt (2018): *How democracies die*, Crown, New York.

379. De-democratization (*Homeland*, Season 7, Episode 12)

“When we think of democracies dying, we think of revolutions, of military coup d’etats, of armed men in the street. But that’s less and less how it happens anymore. Turkey, Poland, Hungary, Nicaragua, The Philippines. Democracies now die when we’re not looking, when we’re not paying attention. And the end rarely comes in an instant, but arrives slowly, like twilight. And at first, our eyes dont’ notice.”

380. Two futures for American capitalism (Alan Nasser, 2018, pp. 1-2)

“either ongoing repressive austerity for working people, or a society constituted by a shift from private to public investment, a much-shortened work week, and a vast increase in household income, enabled in large part, as was the case during the Second New Deal, by large-scale government employment (...) I contend that the present historical conjuncture, properly diagnosed, points to its own prescription: a democratic socialist polity as successor to a capitalism that has, like living organisms, exhausted its potential for nonpredatory growth. Capitalism’s life can be prolonged only at the expense of democracy and of material and psychological security.”

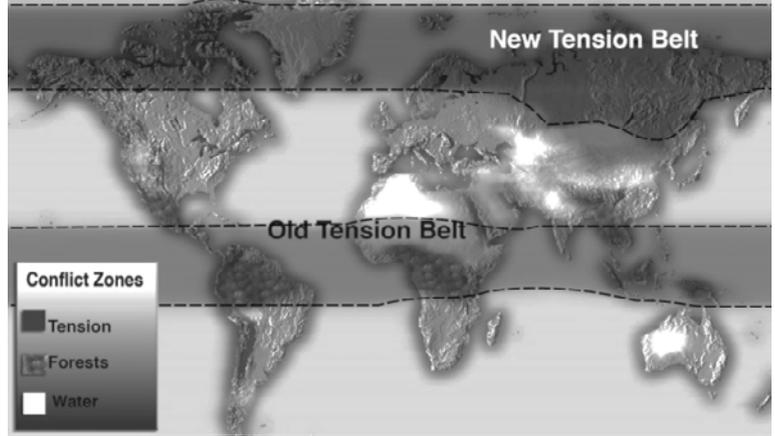
Nasser, Alan (2018): *Override economy. American capitalism and the crisis of democracy*, Pluto Press, London.

381. Two ways democracies die (Levitsky and Ziblatt, 2018)

382. Tension belts

The tension belts are the manifestation of the view that climate change will reinforce political conflict. Climate change will produce scarcity in some regions and abundance in others; induce the massive displacements of people; generate new sovereignty claims and border disputes...

- Equatorial tension belt. Involves mainly developing countries. Here climate change will lead to hot wars, as it will make the regions hotter and drier (increasing deforestation and worsening water shortages).
- Polar tension belt. Involves developed countries. Climate change will make this region more valuable (it will attract population, create new opportunities for resource exploitation and induce states to fight for its control). As distinguished from the hot wars in the equatorial belt, the duration of the cold wars in the polar belt is more likely to be short-term, motivated by opportunity (not desperation) and relative to specific (rather than general) resources.

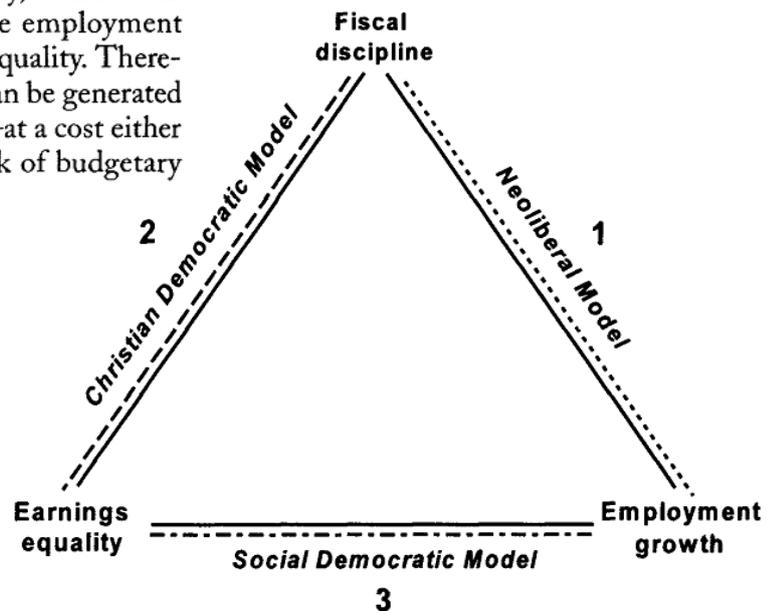


Lee, James (2009): *Climate change and armed conflict. Hot and cold wars.*

383. The trilemma of the service economy (Torben Iversen, Anne Wren, 1998)

In contrast to the globalization literature, this paper argues that the most important change in the advanced liberal democracies over the past three decades has been the transition from an economy dominated by (exposed) manufacturing production to one dominated by (sheltered) services production.⁴ Borrowing from portions of the emerging literature on the postindustrial society, the paper develops a political-economic model of the service economy which implies that governments and nations confront a three-way choice, or “trilemma,” between budgetary restraint, income equality, and employment growth. While it is possible to pursue two of these goals simultaneously, it has so far proved impossible to achieve all three. Private service employment growth can be accomplished only at a cost of wage inequality. Therefore, if wage equality is a priority, employment growth can be generated only through employment in the public services sector—at a cost either of higher tax rates or of borrowing (both implying lack of budgetary restraint).

Iversen, Torben; Anne Wren (1998): “Equality, employment, and budgetary restraint: The trilemma of the service economy,” *World Politics* 50, 507-546.



384. The political will trilemma (Nacho Álvarez)

“... en los países periféricos de la zona euro no parece viable satisfacer al mismo tiempo las exigencias de la ciudadanía, las exigencias de las élites nacionales y las exigencias financieras internacionales (cristalizadas en las normas de Bruselas). Hay que elegir y descartar, al menos, uno de estos tres vértices (o, en este trilema, incluso dos).”

“... in the peripheral countries of the eurozone it does not appear possible to satisfy, at the same time, the demands by the people, the demands by national elites and the international financial demands (as expressed in Brussels’ norms). A choice must be made and discard, at least, one of the three demands (or, in the present trilemma, even two of them).”

Álvarez, Nacho (2018): “Pedro Sánchez y el trilema de la voluntad política”, <https://ctxt.es/es/20180905/Firmas/21589/pedro-sanchez-unidos-podemos-austeridad-deficitreforma-fiscal-dani-rodriknacho-alvarez.htm>

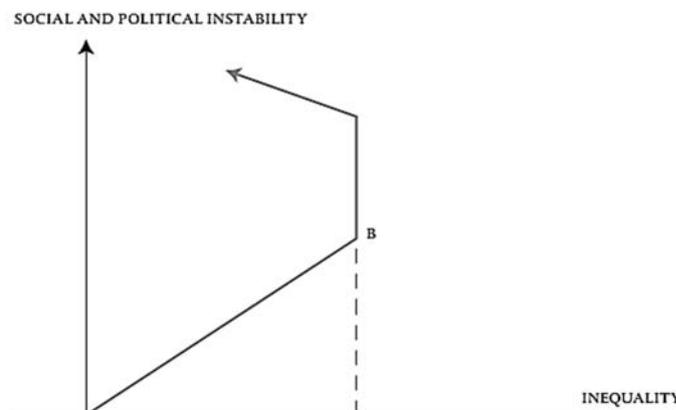
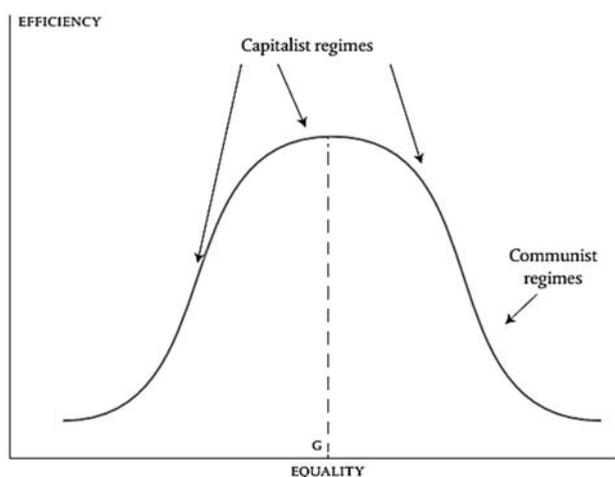
“En países con débiles regímenes fiscales, como los países periféricos de la eurozona, una expansión fiscal que permita reconstruir los derechos que las políticas de austeridad se han llevado por delante, y ampliar otros nuevos, ha de financiarse con cierto déficit público –anatema para Bruselas–, o con cargo a una reforma tributaria, que necesariamente debe descansar sobre las élites del país, dado que en estas latitudes las clases medias y populares ya soportan buena parte de la carga tributaria (...) Gobernar es elegir, decidir si (...) se atenderán las exigencias de las élites del país, las de la tecnocracia de Bruselas o las de la mayoría social. El gobierno italiano ha elegido chocar con Bruselas.”

“In countries having a weak fiscal structure, like the eurozone peripheral countries, a fiscal expansion aimed at rebuilding rights devastated by austerity policies, and expanding new ones, must be debt-financed –a capital sin for Brussels– or tax-financed. The latter option would require a tax reform, the burden of which shall fall on the country’s elites, since in these countries the middle and lower classes already bear a heavy tax burden (...) Governing means choosing, decide which demands will be served: the country’s elites’, the Brussels technocrats’ or the social majority’s. The Italian government has chosen to clash with Brussels.”

385. Government vs market: efficiency, equality, stability

The chart below on the left (de Grauwe, 2017, p. 88) shows the presumed link between efficiency and equality. If correct, this link establishes limits to what can be achieved through redistribution policies. “The loss of prosperity can be so great that many people reject the system. This reaction was an important factor in the implosion of communist regimes, which were no longer capable of guaranteeing minimal material prosperity. They had clearly exceeded their limits and were punished.”

The chart below on the right (de Grauwe, 2017, p. 150) shows the presumed link between instability and inequality. “When inequality increases, so does the degree of political and social instability. At B we have reached a tipping point. Great inequality leads to revolution, violently overturning the market system. From that point on the degree of inequality is dramatically reduced. Such revolutions, however, do not always lead to reduced instability; in fact instability may initially rise, because many conflicting groups attempt to grasp power. In time this tends to lead to consolidation of power in the hands of an authoritarian regime. The cycle can begin again.” (de Grauwe, 2017, p. 149)



de Grauwe, Paul (2017): *The limits of the market: The pendulum between government and market*, Oxford University Press, Oxford, UK.

386. ‘The paradox of our times’, Held (2010, p. 4)

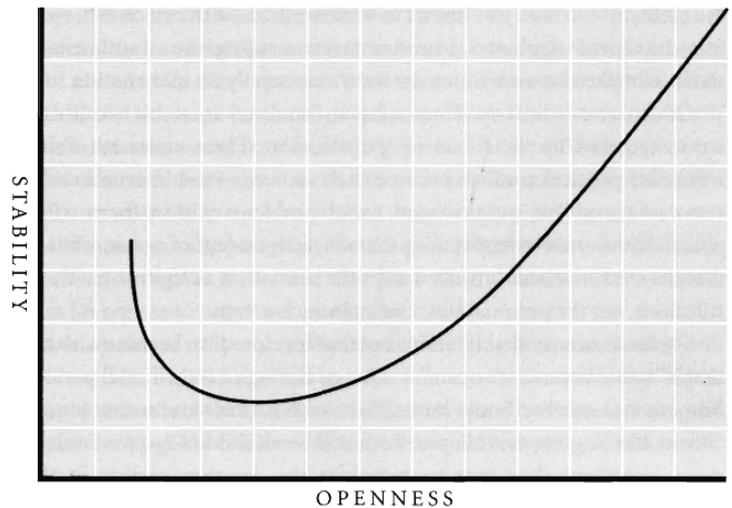
The paradox is that the global core problems (associated with sharing the planet, sustaining societies and establishing global regulations) increasingly transcend political borders but the tools to handle these issues are inadequate or insufficient (problems addressed in an ad hoc manner, with international/global institutions lacking coordination and accountability). The paradox expresses a problem of global governance: global problems cannot be solved at the national level or by nations acting alone. Worse still, the gap between the need for global solutions and the inability of multilateral institutions to meet that need is growing.

Held, David (2010): *Cosmopolitanism: Ideals and realities*, Polity Press, Cambridge, UK.

387. Ian Bremmer's (2006) J curve between stability and openness

"Each nation whose level of stability and openness we want to measure appears as a data point on the graph. These data points, taken together, produce a J shape. Nations to the left of the dip in the J are less open; nations to the right are more open. Nations higher on the graph are more stable; those that are lower are less stable." (Bremmer, 2006, p. 6)

Bremmer, Ian (2006): *The J curve. A new way to understand why nations rise and fall*, Simon & Schuster, New York.



388. Rodrik's (2007, p. 8) central dilemma of the world economy

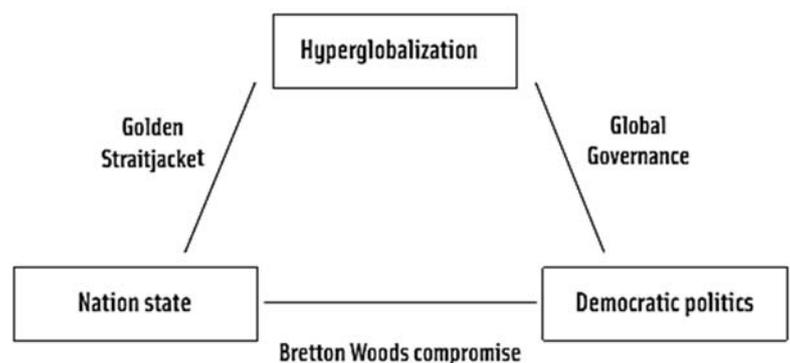
There exists a tension between the economic reality (the global nature of many markets) and the political reality (the local nature of the institutions under which markets operate).

Rodrik, Dani (2007): *One economics, many recipes: Globalization, institutions, and economic growth*, Princeton University Press, Princeton, NJ.

389. Rodrik's (2011) trilemma: The inevitable clash between politics and hyperglobalization

"The fundamental political trilemma of the world economy: we cannot have hyperglobalization, democracy, and national self-determination all at once." A fully globalized economy forces the state to preserve the economic globalization and satisfy the needs and expectations of international traders and investors. When there is a conflict between the needs of the people and the needs of these agents, the state must give priority to the latter. To restore domestic democratic legitimacy, globalization must be limited. The third option is to give up state sovereignty to globalize democracy. Hence, the options are: restrict democracy, limit globalization or globalize democracy (sacrificing national sovereignty).

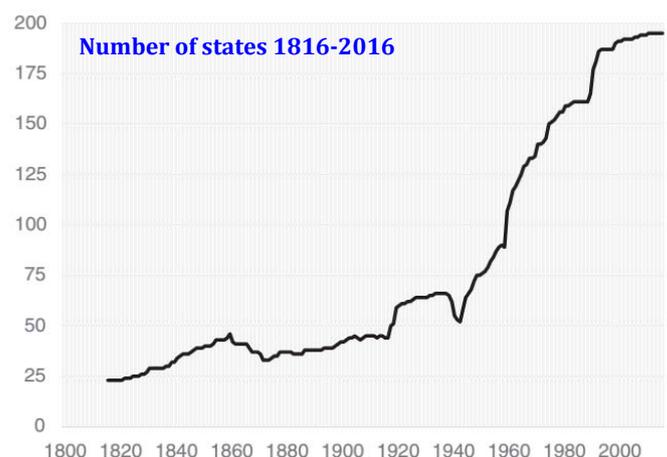
Rodrik, Dani (2011): *The globalization paradox: Why global markets, states, and democracy can't coexist*, Oxford University Press, Oxford, UK.



The political trilemma of the world economy, Rodrik (2011, p. 201)

390. Birth and death of states

"A clear trend in the international state system during the last 200 years is the increasing number of states (...) Since 1816, the international state system has expanded from 25 members to almost 200 members. During this period, the system has been in more or less continual flux. Old states have died through conquest, occupation, or dissolution, while new states have emerged after decolonization, integration, or secession. About 25% of all states that have existed since 1816 have perished, mostly after violent processes (...), and almost 90% of all states currently in existence were born after 1816."



Denk, Thomas; Sarah Lehtinen (2019): *State-formation and democratization*, Palgrave Macmillan, Cham, Switzerland.

391. The need for good governance, not less governance

“A strong belief in continuous human progress has been a legacy of the Enlightenment to many generations (...) Neither a lack of financial, or natural resources, nor of insufficient technical know-how is slowing potential progress. The binding constraint on progress in this second decade of the 21st century is the ability of nations, various social groups, and citizens to compromise and cooperate. This constraint is embodied in obstacles preventing good governance and reasonable policies, locally, nationally, and globally.”

“National markets have been embedded in national political processes for along time. The nation-state has regulated, supervised, and redistributed—not always in the best possible way but without doubt adding a much-needed social and regulatory dimension to market economies and contributing to successful societies in the second half of the 20th century (...) In the 21st century, something similar to the “institutional embedding” of national markets must happen for global markets to avoid similar catastrophes (...) Public policy must be designed and implemented at multiple levels, going from the very local to the national, regional, and global (...) Governance has to be multilevel and multichannel, involving civil society and private initiative in multifaceted partnerships that cross national borders.”

“Economic cross-border spillover effects and economic interdependence have also become more important and need a stronger global framework that can deal with problems such as persistent and large trade imbalances, tax avoidance, and the need to harmonize financial regulation, manage migration, and ensure adequate competition in international market.”

Dervis, Kemal (2016): *Reflections on progress. Essays on the global political economy*, The Brookings Institution, Washington D.C.

392. Exit, voice and loyalty

“The performance of a firm or an organization is assumed to be subject to deterioration (...) Management then finds out about its failings via two alternative routes:

(1) Some customers stop buying the firm's products or some members leave the organization: this is the exit option. As a result, revenues drop, membership declines, and management is impelled to search for ways and means to correct whatever faults have led to exit.

(2) The firm's customers or the organization's members express their dissatisfaction directly to management or to some other authority to which management is subordinate or through general protest addressed to anyone who cares to listen: this is the voice option. As a result, management once again engages in a search for the causes and possible cures of customers' and members' dissatisfaction.” Hirschman (1970, pp. 3-4)

“Every state-and indeed every organization-requires for its establishment and existence some limitations or ceilings on the extent of exit or of voice or of both. In other words, there are levels of exit (disintegration) and voice (disruption) beyond which it is impossible for an organization to exist as an organization. At the same time, an organization needs minimal or floor levels of exit and voice in order to receive the necessary feedback about its performance. Every organization thus navigates between the Scylla of disintegration-disruption and the Charybdis of deterioration due to lack of feedback.” Hirschman (1980, p. 441)

“The interaction of these three variables —suppression of exit, suppression of voice, and repression— can also be observed in other settings. One might even propose a theorem: a state can control only two out of these three variables. In Cuba, Fidel Castro chose to suppress voice and to limit the amount of repression: so he had to put up with an unexpectedly large loss of skilled manpower as hundreds of thousands of Cubans chose to emigrate. In Stalin's Russia, complete suppression of exit and voice yielded repression of a size and kind that surely had not been fully intended at the outset, while in post-Stalinist Russia, the decision to set limits to repression, combined with the continued strict controls on exit, has led to the voicing of considerably more dissent than the authorities had planned for.” Hirschman (1980, p. 444)

Hirschman, Albert O. (1970): *Exit, voice, and loyalty. Responses to decline in firms, organizations, and states*, Harvard University Press, Harvard, MA.

Hirschman, Albert O. (1980): “Exit, voice, and loyalty’: further reflections and a survey of recent contributions”, *Health and Society* 58(3), 430-453.

393. The four D’s behind the rise of national populism

“National populists prioritize the culture and interests of the nation, and promise to give voice to a people who feel that they have been neglected, even held in contempt, by distant and often corrupt elites. It is an ideology rooted in very deep and long-term currents that have been swirling beneath our democracies and gaining strength over many decades.”

“National populism revolves around a set of four deep-rooted societal changes (...) The first is the way in which the elitist nature of liberal democracy has promoted distrust of politicians and institutions and fuelled a sense among large numbers of citizens that they no longer have a voice in their national conversation. Liberal democracy always sought to minimize the participation of the masses (...)

The second is how immigration and hyper ethnic change are cultivating strong fears about the possible destruction of the national group’s historic identity and established ways of life. These fears are wrapped up in a belief that culturally liberal politicians, transnational organizations and global finance are eroding the nation by encouraging further mass immigration, while ‘politically correct’ agendas seek to silence any opposition (...)

The third is the way in which neoliberal globalized economics has stoked strong feelings of what psychologists call relative deprivation as a result of rising inequalities of income and wealth in the West and a loss of faith in a better future (...) This means they are very fearful about the future and what lies ahead for themselves and their children. This profound sense of loss is intimately entwined with the way in which people think through issues like immigration and identity. Today there are millions of voters who are convinced that the past was better than the present and that the present, however bleak, is still better than the future (...)

National-populist leaders feed on this deep dissatisfaction, but their path into the mainstream has also been cleared by a fourth trend: the weakening bonds between the traditional mainstream parties and the people, or what we refer to as de-alignment. The classic era of liberal democracy was characterized by relatively stable politics, strong mainstream parties and loyal voters; we have seen it now come to an end. Many people are no longer strongly aligned to the mainstream. The bonds are breaking. This de-alignment is making political systems across the West far more volatile, fragmented and unpredictable than at any point in the history of mass democracy. Politics today feels more chaotic and less predictable than in the past because it is. This trend too was a long time coming, and it still has a long way to run.

Together, the ‘Four Ds’ have carved out considerable room for national populists, or what we call the ‘pool of potential’ – large numbers of people who feel that they no longer have a voice in politics, that rising immigration and rapid ethnic change threaten their national group, culture and ways of life, that the neoliberal economic system is leaving them behind relative to others in society, and who no longer identify with established politicians.”

Eatwell, Roger; Matthew Goodwin (2018): *National populism. The revolt against liberal democracy*, Pelican, UK.

394. On two global forces: does trade make conflict (and war) less likely?

“Although there have been and still are critics of international trade who denounce it because it damages the environment, causes domestic unemployment, undermines local communities and cultures and exacerbates conditions of inequality – in other words, because of the many ways in which it is destructive – the association between international trade and conditions of stability, if not peace, has endured at the levels of government policy, in the work of international organizations and in academic analysis (...) We see trade as an inherently competitive endeavour in which participants vie to establish their dominance that is achieved by defeating or besting others. Our case studies also show that historically conflict has not stopped trade (...) Trade might or might not be the object of the war but trade can become essential to sustain a war effort. Rather than seeing a zero-sum dynamic defining the relationship between trade and conflict, we have found that there is a reciprocal transformative relationship. (...) Even if the expression of conflict has mostly shifted from physical violence to rhetorical disputes, the encounters remained highly conflictual. Commercial competition remains a cut-throat contest in which not all will thrive or survive. Neither has the shift from mercantilism to liberalism that

demarcated commercial eras eradicated the connection between trade and war. Wars have been pursued in the name of free trade. There was also the specific commercial variant –trade war– that provoked anxiety throughout the twentieth century.”

“‘Make trade, not war’ is a classical motto that, depending on the times, finds more or less debatable theoretical and empirical support (...) Acceptance that trade relations are conflicting, essentially dynamic and oftentimes disaggregating will surely ease the task of all – academics, negotiators, businessmen, policymakers, social leaders – involved in the trade drama. The WTO exists exactly because trade is conflict; it will never lead us to a rosy garden of free, perpetually peaceful trade. Not at all; it will through considerable trouble and strife mend fences, try to impose close to ‘fairer practices’ in the swiftly changing trade flows and stand as one of the (fragile) barriers to more drastic approaches to conflict resolution. [By rejecting the view that trade makes conflict less likely] we shall be in better condition to face the myriad problems posed by trade relations, focusing in a more realistic manner on what should and may be changed.”

Coppolaro, Lucia; Francine McKenzie; eds. (2013): *A global history of trade and conflict since 1500*, Palgrave Macmillan, Basingstoke, UK.

395. Globalization and sovereignty (John Agnew, 2018)

“... just as there never was a stable world of state territorial sovereignty that was suddenly undermined by the onset of globalization in the 1970s, neither is there now a reversion to a world of absolute state sovereignty exercised over neat chunks of terrestrial space. Effective sovereignty is always and everywhere exercised in relation to a variety of actors—state-based, corporate, societal, and so on—who can be enrolled in its exercise even as they share in its effects at home and spread its impacts far and wide beyond the bounds of any state’s territory sensu stricto.”

Agnew, John (2018): *Globalization and sovereignty. Beyond the territorial trap*, second edition, Rowman & Littlefield, London.

396. Ultrasociality (Peter Turchin, 2016)

“... ultrasociality—the ability of human beings to cooperate in very large groups of strangers, groups ranging from towns and cities to whole nations, and beyond.”

Social scale (people)	Polity Types	Time (kya)
10s	Foraging bands	200
100s	Farming villages	10
1,000s	Simple chiefdoms	7.5
10,000s	Complex chiefdoms	7
100,000s	Archaic states	5
1,000,000s	Macrostates	4.5
10,000,000s	Mega-empires	2.5
100,000,000s	Large nation-states	0.2

“The increase in the scale of human societies, measured by the number of people in a polity (a politically independent unit).” (100s = between 100 and 1,000)

“Time (kya) is time in thousands of years since the first appearance of the polity type.”

“... cooperation is actually astonishingly difficult to achieve and, once achieved, hard to preserve. We tend not to appreciate just how fragile it is (...) Today we live in huge societies of millions of people, most of whom are perfect strangers to us. We don’t fear strangers (...). More than that, we actually need them. We often forget how much we depend on the kindness of strangers.”

“The central question of this book is why, during the past 10,000 years, large-scale, complex societies have replaced small-scale societies (...) The pace of cultural evolution is faster today, but research shows that the economic development and political stability of a modern country depend on cultural innovations and political decisions made decades and even centuries ago. If we want to make life better for people everywhere, we need to learn how to fix failed states and restart failed economies. The key (...) is cooperation. Where millions of strangers cooperate with each other, we see strong states and thriving economies. Where cooperation fails, so do states and economies. That is why it is so important to solve the puzzle of ultrasociality; to understand how the human capacity for cooperating in huge, anonymous societies evolved.”

Turchin, Peter (2016): *Ultrasociety: How 10,000 years of war made humans the greatest cooperators on Earth*, Beresta Books, Chaplin, Connecticut.

397. A war without war? (Peter Turchin, 2016)

“Human social evolution has followed a remarkable, even bizarre trajectory, with sharp turns one after the other. Why? Philosophers and social scientists have offered many explanations, but there is still no accepted answer. Now, however, thanks to the new science of Cultural Evolution, we are beginning to see the outlines of the explanation. The answer is surprising. It was competition and conflict between human groups that drove the transformation of small bands of hunter-gatherers into huge nation-states (...) it was war that first created despotic, archaic states and then destroyed them, replacing them with better, more equal societies. War both destroys and creates. It is a force of creative destruction, to borrow a phrase from the economist Joseph Schumpeter. In fact, that phrase gets the emphasis wrong. War is a force of destructive creation, a terrible means to a remarkable end. And there are good reasons to believe that eventually it will destroy itself and create a world without war.”

“The key process in the decline of violence has been the increase in the scale of human cooperation. Remember, peace is not just the absence of war; lasting, stable peace demands a lot of management. And the only way to accomplish it is by cooperation.”

398. Balanced society and the plural sector (Henry Mintzberg, 2015)

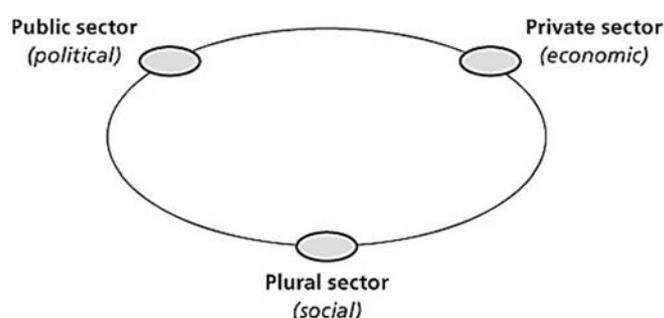
“Enough of the imbalance that is destroying our democracies, our planet, and ourselves (...) Enough of the visible claw of lobbying in place of the invisible hand of competing. Enough of the economic globalization that undermines sovereign states and local communities.”

“When the communist regimes of Eastern Europe began to collapse in 1989, pundits in the West had a ready explanation: capitalism had triumphed. They were dead wrong, and the consequences are now proving fateful. It was balance that triumphed in 1989. While those communist regimes were severely out of balance, with so much power concentrated in their public sectors, the successful countries of the West maintained sufficient balance across their public, private, and what can be called plural sectors. But a failure to understand this point has been throwing many countries out of balance ever since, in favor of their private sectors.

There are three consequential sectors in society, not two. The one least understood is known by a variety of inadequate labels, including the “not-for-profit sector,” the “third sector,” and “civil society.” Calling it “plural” can help it take its place alongside the ones called public and private (...) Consider all those associations that are neither public nor private—owned neither by the state nor by private investors—such as foundations, places of worship, unions, cooperatives, Greenpeace, the Red Cross, and many renowned universities and hospitals. Some are owned by their members; most are owned by no one. Included here, too, are social movements that arise to protest what some people find unacceptable (...) and social initiatives, usually started by small community groups, to bring about some change they feel is necessary (...) Despite the prominence of all this activity, the plural sector remains surprisingly obscure, having been ignored for so long in the great debates over left versus right.”

“... picture instead a balanced society as sitting on a stool with three sturdy legs: a public sector of respected governments, to provide many of our protections (such as policing and regulating); a private sector of responsible businesses, to supply many of our goods and services; and a plural sector of robust communities, wherein we find many of our social affiliations. How do we regain balance in our societies? Some people believe that the answer lies in the private sector—specifically, with greater corporate social responsibility (...) Other people expect democratic governments to act vigorously. This they must do, but they will not so long as public states continue to be dominated by private entitlements, domestic and global. This leaves but one sector, the plural, which is not made up of “them” but of you, and me, and we, acting together. We shall have to engage in many more social movements and social initiatives, to challenge destructive practices and replace them with constructive ones. We need to cease being human resources, in the service of imbalance, and instead tap our resourcefulness as human beings, in the service of our progeny and our planet.”

“A society out of balance, with power concentrated in a privileged elite, can be ripe for revolution (...) The trouble with revolution is that it usually replaces one form of imbalance with another. As some people among the



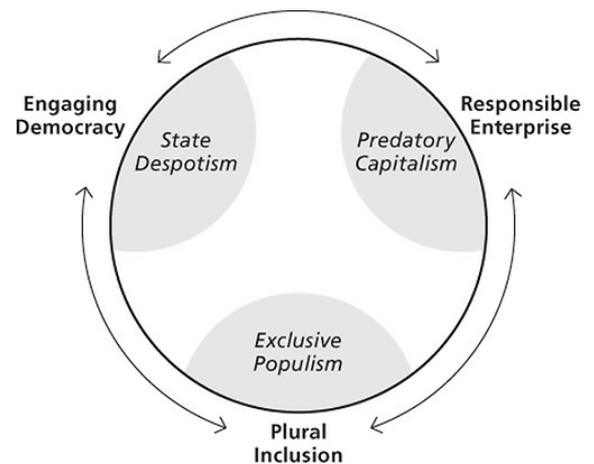
disenfranchised gain power through force, they tend to carry their society toward some new extreme.”

“The plural sector is not a “third way” between the other two sectors but (...) one of three ways required in a balanced society. Each sector suffers from a potentially fatal flaw. Governments can be crude. Markets can be crass. And communities can be closed—at the limit, xenophobic (...) Crudeness, crassness, and closed-ness are countered when each sector takes its appropriate place in society, cooperating with the other two while helping to keep both—and their institutions—in check (...) Healthy development—social, political, and economic—allows power to shift among the sectors according to need, in a dynamic equilibrium that encourages responsiveness without domination.”

Mintzberg, Henry (2015): *Rebalancing society. Radical renewal beyond left, right, and center*, Berrett-Koehler Publishers, Oakland, CA.

399. Balance and imbalance (Henry Mintzberg, 2015)

“Countries today seem to be going backward, to imbalance, in three ways, and perhaps in one way forward, toward balance. One sector dominates each of the ways backward, shown in the figure (...) by the lopsided bulges shaded inside the circle. On the left is state despotism, dominated by government in the public sector (as we have seen under communism (...)). On the right is predatory capitalism, dominated by exploitative enterprises in the private sector (...). And at the bottom is exclusive populism, where some segment of the plural sector dominates society, excluding even other segments in that sector (as did the Muslim Brotherhood in Egypt). Take your choice—crude, crass, or closed—bearing in mind that one can lead to another. Exclusive populism easily gives rise to state despotism (as in Nazi Germany), while the fall of state despotism in the communist regimes of Eastern Europe has encouraged the growth of predatory capitalism in the West. In contrast, connected around the outside of the circle, in the spirit of balance, are plural inclusion, based on open collaboration; responsible enterprise, concerned with the legitimate needs of all stakeholders; and engaging democracy, which seeks widespread involvement of the citizenry. No one of these can rebalance society, but together they can.”



Mintzberg, Henry (2015): *Rebalancing society. Radical renewal beyond left, right, and center*, Berrett-Koehler Publishers, Oakland, CA.

400. The fall of American democracy and the rise of technocracy? (Parag Khanna, 2017)

“Over the past decade, Americans have become accustomed to hearing that their position in the global rankings of wealth, life expectancy, education, public safety and other metrics has slid below that of their first world peers (...) America today far better represents degenerative politics than good governance. Many American intellectuals celebrate the theater of politics as if it is the embodiment of Tocqueville’s praise for civic democracy. But democracy is not an end in itself. The greater goal is effective governance and improved national well-being. Because Americans no longer sense collective progress, they don’t trust their institutions anymore, whether the White House, Congress, political parties, the Supreme Court, big business, or church. These organs of American leadership are passing down to the next generation a less well functioning government and society rather than the one they need to manage a complex future.”

“Francis Fukuyama wonders whether the American system requires some kind of external ‘shock to the political order’—such as a war or revolution—to jolt itself out of the present downward spiral and return to a focus on performance rather than politics. Perhaps Donald Trump represented just such a shock. By taking the White House, while Republicans retained the Senate and House, Trump’s populist revolution led many to fear that he represents a kind of tyranny that no checks and balances can prevent. Democracy producing tyranny: Plato saw it coming (...) For Plato, the essential ingredients for a successful *polis* were an educated and engaged citizenry and a wise ruling class: Democracy combined with political aristocracy. Democracy with neither of these attributes would be a free but dangerously anarchic society whose lack of discipline made it easily susceptible to tyranny. To ward against such decay, his preferred form of government was led by a committee of public-spirited

'Guardians.' Today we call such a system technocracy. America has more than enough democracy. What it needs is more technocracy—a lot more.

The way to get there is ideally neither war nor revolution—nor a bout of tyranny—but to evolve America's political system in a more technocratic direction. Technocratic government is built around expert analysis and long-term planning rather than narrow-minded and short-term populist whims. Technocrats are *not* to be confused with the complacent establishment elites that were just stunned by Trump. Real technocracy has the virtues of being both utilitarian (inclusively seeking the broadest societal benefit) and meritocratic (with the most qualified and non-corrupt leaders). Instead of *ad hoc* and reactive politics, technocracies are where political science starts to look like something worthy of the term: A rigorous approach to policy."

"There are three things that the best governments do well: Respond efficiently to citizens' needs and preferences, learn from international experience in devising policies, and use data and scenarios for long-term planning. If done right, such governments marry the virtues of democratic inclusiveness with the effectiveness of technocratic management. The ideal type of government that results is what I call a *direct technocracy*.

In America, direct technocracy would look like this: A collective presidency of about a half-dozen committee members backed by a strong civil service better able to juggle complex challenges; a multi-party legislature better reflective of the diversity of political views and using data technologies for real-time citizen consultation, and the Senate replaced by a Governors Assembly that prioritizes the common needs of states and shares successful policies across them; and a judicial branch that monitors international benchmarks and standards, and proposes constitutional amendments to keep pace with our rapidly changing times."

"In the coming decades, global competition will punish the sentimental. A society that could do something better but doesn't is either stupid or suicidal—or both. For political systems this means less emphasis on democracy and more on good governance. Success is measured by delivering welfare domestically and managing global complexity, not by holding elections."

"America is still the most powerful nation in the world and home to more than 300 million capable people from all walks of life. For their sake, America needs to learn how to govern itself as a more effective state. We cannot simply assume that because in past generations America has demonstrated a capacity for self-renewal that this will happen again today (...) Direct technocracy is the superior model for 21st century governance. It combines Switzerland's collective presidency executive and multi-party parliament with Singapore's data-driven and utilitarian-minded civil service: A blend of technocracy and democracy, assisted by technology."

Khanna, Parag (2017): *Technocracy in America. Rise of the info-state, CreateSpace.*

401. A paradox of technology and politics (Daniel Innerarity, 2013)

"In complex societies, where everything is closely linked, the main problem consists of knowing how we can protect ourselves from our own irrationality. Catastrophic chains of events from which we should protect ourselves stem from our irresponsible tendency of fearing too much or not enough (...) Contemporary societies are faced with the crucial problem of how to re-determine the relationship between risk and security. The search for socially acceptable methods for managing risks effectively has become a task of particular interest both for political reflection and for the praxis of governance."

"In our collective imagination, technology appears as a potential threat (...) we can all recall the warning made by Lane (1966) [Lane, R. E. (1966): "The decline of politics and ideology in a knowledgeable society," American Sociological Review 31, 649-662.] that we were at the beginning of a new era where scientific knowledge would reduce the significance of politics. Today, the reality is quite different: in addition to techniques which are beneficial, we are surrounded by others that have failed (...) Toxic waste in the Gulf of Mexico, the economic crisis produced largely by the failure of sophisticated technological financial mechanisms, climate change brought about by our model of development are not only disasters with serious social repercussions but are also, and from the outset, resounding technological failures. In the light of such fiascos, we might conclude that the technocrats were wrong, but so were those who feared the failures of technology less than its successes."

"What is interesting in this historical turmoil is that it radically changed our way of understanding the articulation between politics and technology. Neither the technocratic Right nor the neo-Marxist Left of the 1960s and 1970s thought that the renewal of politics could one day arise from the failure of technology (...) We

were expecting politics to protect us from the power of technology, and it now turns out that politics is being called upon to resolve the problems caused by technology's weakness."

"Far from transforming politics into an anachronism, technology (or rather its resounding failures or its potential risks) has reinforced the prestige of politics (...) managing these risks may be a new source of the legitimacy of political action (...). Whether politics knows how to successfully exercise this responsibility or has the instruments necessary to do so is another question. Therefore, politics is making a comeback in three fundamental areas: as the return of the state, as a recovery of political logic, and finally as the demand for a democratic management of risks."

"...the gradual awareness of the dangers of technological civilizations is encouraging the state to take on new tasks, albeit in very different contexts from the contexts where the state was accustomed to acting sovereignly (...) We can experience a moment of "re-politicization" precisely because of the discrediting of the so-called experts. Those who had monopolized accuracy and efficiency have failed; resorting to science and technology to put an end to controversies has become ideologically suspect; the world of the experts has turned out to be as rarely unanimous as our pluralistic societies."

"We find ourselves faced with a strange paradox: politics has not been strengthened through technological perfection, but through its failure. Technology needs political regulation now more than ever (...) Whenever technological failures are perceived as a serious threat to citizen rights, we demand that politics assumes the responsibility of creating the conditions that will allow us to meet these consequences as a society (...) Where we used to believe that there would be a technological solution for every problem in the future, our response has now been reversed (even if with more modesty): we can now be reasonably certain that problems brought about by technology will be solved politically or not at all."

Innerarity, Daniel (2013): "Introduction: Governing global risks", in Innerarity, Daniel; Javier Solana; eds. (2013): *Humanity at risk. The need for global governance*, Bloomsbury, New York.

402. Manipulation of democracy to sustain authoritarian rule, global democratic backsliding and inability of elections to deliver democracy

"The greatest political paradox of our time is this: there are more elections than ever before, and yet the world is becoming less democratic (...) The vast majority of governments at least go through the motions of election campaigns, and are rhetorically committed to allowing citizens to cast ballots to choose the leaders who will govern them. However, in many places, that choice is little more than an illusion: the contest is rigged from the start. Take Azerbaijan's 2013 elections, when the highly repressive government of President Ilham Aliyev sought to boost its democratic credentials by launching an iPhone app that enabled citizens to keep up to speed with the vote tallies as ballot counting took place (...) Those who were keen to try out the new technology were surprised to find that they could see the results on the app the day before the polls opened (...) In other authoritarian states in which leaders hold elections despite not being committed to democratic values, rigging is the norm rather than the exception."

"... on a scale of 1 to 10, in which 10 reflects a perfect election and 1 reflects the worst possible, the average election around the world scores just 6. In Asia, Africa, post-communist Europe and the Middle East the figure is closer to 5 (...). Moreover, even if we move away from a specific focus on authoritarian leaders to consider the entire universe of all elections globally, only about 30 per cent of elections result in a transfer of power. In other words, incumbents win seven times out of ten – and this figure has not moved much since the early 1990s (...) The last decade has witnessed a gradual decline in the quality of democracy in the world. Moreover, there is little evidence that this trend is easing (...) The erosion of democracy can be identified in all of the regions caught up in the 'third wave' of democratization –Latin America, Eastern Europe and Africa– as well as areas that have yet to democratize, such as the Middle East."

"These developments are particularly striking when stacked up against the other major trend of recent times: the growing prevalence of multiparty elections (...) Dictators, despots and counterfeit democrats have figured out how to rig elections and get away with it (...) more elections are being held, but more elections are also being rigged."

"What is less well known is that in many countries elections do not simply fail to topple dictators and despots; they sometimes actively help them shore up their grip on power. This is because reintroducing elections typically enables embattled governments to secure access to valuable economic resources like foreign aid, while

reinvigorating the ruling party and – in many cases – dividing the opposition (...) If authoritarian leaders can hold elections without losing, they can have their cake and eat it –boosting their resources and legitimacy while retaining their grip on power (...) Once competitive elections have been reinstated, these regimes often prove to be remarkably adept at manipulating them for their own purposes. As a result, authoritarian systems that hold elections but do not allow opposition parties to meaningfully contest them prove to be more durable than those that do not.”

Cheeseman, Nic; Brian Klaas (2018): *How to rig an election*, Yale University Press, New Haven, MA.

403. The dilemma of state secrecy (Rahul Sagar, 2013)

“The realization that the practice of leaking is itself prone to grave abuse puts us in a difficult position. If we prohibit the publication of leaks of classified information, we stand to lose the most effective and credible means by which we can be alerted to wrongdoing that occurs under cover of secrecy. But if we permit the publication of such leaks, then we risk contaminating our public life with conspiracy and covert warfare, as not only good men and women but also partisans and zealots take advantage of anonymity to disclose information that suits their narrow purposes.”

Sagar, Rahul (2013): *Secrets and leaks. The dilemma of state secrecy*, Princeton University Press, Princeton, NJ.

404. Twenty lessons from the twentieth century

“History does not repeat, but it does instruct.” On number 5: “Authoritarians need obedient civil servants there is no such thing as ‘just following orders.’”

Snyder, Timothy (2017): *On tyranny. Twenty lessons from the twentieth century*, Tim Duggan Books, New York.

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|---|---|
| 1. Do not obey in advance. | 11. Investigate. |
| 2. Defend institutions. | 12. Make eye contact and small talk. |
| 3. Beware the one-party state. | 13. Practice corporeal politics. |
| 4. Take responsibility for the face of the world. | 14. Establish a private life. |
| 5. Remember professional ethics. | 15. Contribute to good causes. |
| 6. Be wary of paramilitaries. | 16. Learn from peers in other countries. |
| 7. Be reflective if you must be armed. | 17. Listen for dangerous words. |
| 8. Stand out. | 18. Be calm when the unthinkable arrives. |
| 9. Be kind to our language. | 19. Be a patriot. |
| 10. Believe in truth. | 20. Be as courageous as you can. |

405. Rules of thumb to prevent disaster in policy-making

A “few rules of thumb that, if observed, could make development planning less prone to disaster.

- **Take small steps.** In an experimental approach to social change, presume that we cannot know the consequences of our interventions in advance. Given this postulate of ignorance, prefer wherever possible to take a small step, stand back, observe, and then plan the next small move.
- **Favor reversibility.** Prefer interventions that can easily be undone if they turn out to be mistakes. Irreversible interventions have irreversible consequences.
- **Plan on surprises.** Choose plans that allow the largest accommodation to the unforeseen.
- **Plan on human inventiveness.** Always plan under the assumption that those who become involved in the project later will have or will develop the experience and insight to improve on the design.”

Scott, James C. (1998): *Seeing like a state: How certain schemes to improve the human condition have failed*, Yale University Press, New Haven and London.

406. Algorithmic power (Jackie Wang, 2018)

“With the ascendancy of algorithmic power in the Age of Big Data we are presented with a number of problems that are at once political and aesthetic (...) A job applicant might wonder, Why was my application rejected? *Because a private company gave you an e-score that indicates you are not credible.* Why was I given this score? What data was used to make such calculation? *We cannot tell you. We do not know.* Then how the fuck can I get

out of the invisible box that hems me in? These new forms of power create the illusion of freedom and flexibility while actually being more totalizing in their diffuseness (...) Yet it is worth restating that when it comes to policing, soft power (algorithmic policing) has not replaced hard power (militarized policing)."

Wang, Jackie (2018): Carceral capitalism, Semiotext(e), South Pasadena, CA.

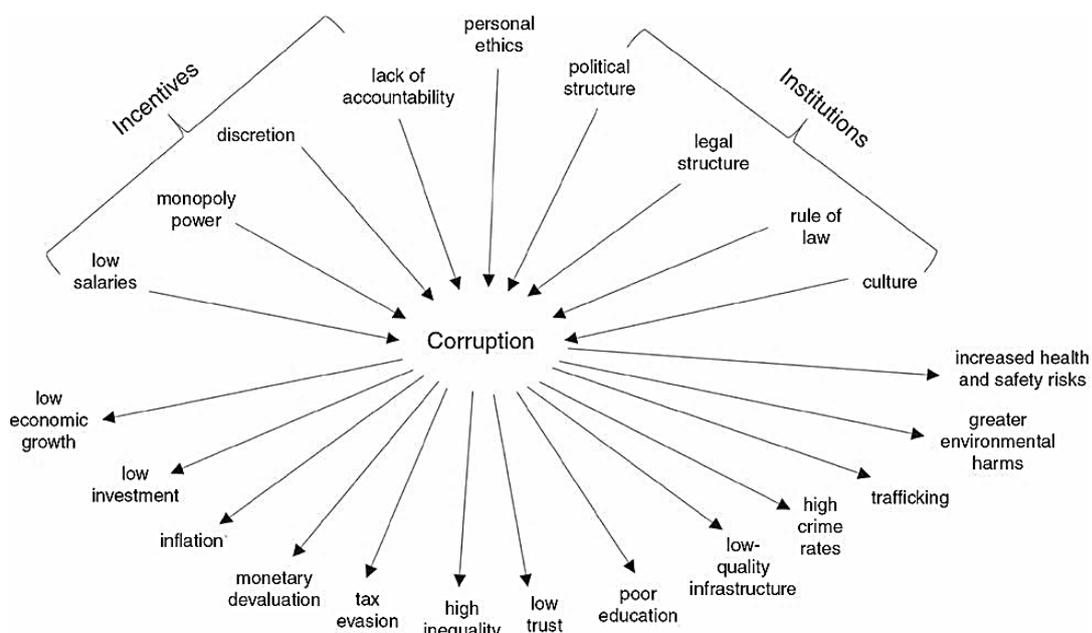
407. A sample of corrupt acts (Rose-Ackerman and Palifka, 2016)

Transparency International definition of corruption: "abuse of an entrusted power for private gain."

Measures of corruption: Corruption Perceptions Index (Transparency International, www.transparency.org) and Control of Corruption Indicator (World Bank, World Governance Indicators).

- **Bribery.** "The explicit exchange of money, gifts in kind, or favors for rule breaking or as payment for benefits that should legally be costless or be allocated on terms other than willingness to pay. Includes both bribery of public officials and commercial bribery of private firm agents."
- **Extortion.** "Demand of a bribe or favor by an official as a sine qua non for doing his or her duty or for breaking a rule. We treat extortion as a form of bribery where the bribe taker plays an active role. (Sometimes the rule is created by the extortionist in order to exact the bribe.)"
- **Exchange of favours.** "The exchange of one broken rule for another."
- **Nepotism.** "Hiring a family member or one with close social ties, rather than a more qualified but unrelated applicant."
- **Cronyism.** "Preferring members of one's group – racial/ethnic, religious, political, or social – over members of other groups in job-related decisions."
- **Judicial fraud.** "A decision based on any of the preceding types of corruption, or threats to the judge, rather than the merits of the case."
- **Accounting fraud.** "Intentional deception regarding sales or profits (usually in order to boost stock prices)."
- **Electoral fraud.** "Manipulation of election results, through vote buying or threats to the electorate, or by falsification or destruction of votes."

• **Public service fraud.** "Any activity that undermines the legal requirements of public service delivery even if no bribes are paid. For example, teachers might provide students with the correct answers or change students' responses on standardized tests (usually in order to ensure funding). Health care providers might prescribe unnecessary tests or invent patients to increase reimbursements. Civil servants might neglect their jobs for private-sector work, steal supplies for resale, or simply not show up for work."



- **Embezzlement.** "Theft from the employer (firm, government, or NGO) by the employee."
- **Kleptocracy.** "An autocratic state that is managed to maximize the personal wealth of the top leaders."

- **Influence peddling.** “Using one’s power of decision in government to extract bribes or favors from interested parties.”
- **Conflicts of interest.** “Having a personal stake in the effects of the policies one decides.”

Causes and consequences of corruption (Rose-Ackerman and Palifka, 2016)

Rose-Ackerman, Susan; Bonnie J. Palifka (2016): *Corruption and government. Causes, consequences, and reform*, Cambridge University Press, New York.

408. Graeber’s Iron Law of Liberalism (David Graeber, 2015)

“The Iron Law of Liberalism states that any market reform, any government initiative intended to reduce red tape and promote market forces will have the ultimate effect of increasing the total number of regulations, the total amount of paperwork, and the total number of bureaucrats the government employs.”

This law expresses a paradox: “...government policies intending to reduce government interference in the economy actually end up producing more regulations, more bureaucrats, and more police.”

Graeber, David (2015): *The utopia of rules. On technology, stupidity, and the secret joys of bureaucracy*, Melville House, Brooklyn, NY.

409. We live in a deeply bureaucratic society (David Graeber, 2015)

“... we live in a deeply bureaucratic society. If we do not notice it, it is largely because bureaucratic practices and requirements have become so all-pervasive that we can barely see them— or worse, cannot imagine doing things any other way. Computers have played a crucial role in all of this. Just as the invention of new forms of industrial automation in the eighteenth and nineteenth centuries had the paradoxical effect of turning more and more of the world’s population into full-time industrial workers, so has all the software designed to save us from administrative responsibilities in recent decades ultimately turned us all into part or full-time administrators.”

Graeber, David (2015): *The utopia of rules. On technology, stupidity, and the secret joys of bureaucracy*, Melville House, Brooklyn, NY.

410. Role of the liberal class

The role of the liberal class in a traditional democracy is to ensure that reform remains a viable alternative. It is placed between the power elite and the general population. The liberal class controls the behaviour of (and civilizes) the power elite, offers hope for change to the general population, makes proposals to gradually reduce inequality and protect the weak, and becomes useful to power elite by discrediting proposals of radical change. In the last instance, the liberal class attributes legitimacy to the power elite and serves as a voice to the general population in their demands for change and improvement.

- One of the consequences of globalization has been the accumulation of economic power (and, through it, political influence and even political power) in the hands of multinational corporations. This power has been used to assault the traditional democracies and deprive the liberal class of its role as a safety valve. The role of the liberal class has been reduced to offer empty rhetoric. “The inability of the liberal class to acknowledge that corporations have wrested power from the hands of citizens, that the Constitution and its guarantees of personal liberty have become irrelevant, and that the phrase consent of the governed is meaningless, has left it speaking and acting in ways that no longer correspond to reality.” (Hedges, 2010) Since the liberal class has lost its ability to articulate responses to discontent, it becomes more likely that populist movements and/or violence will arise to deal with the sources of discontent.
- One political lesson of history is that those in power that appear incapable of performing their duties, and this notwithstanding persist in retaining their privileges, tend to be removed by force. By not fulfilling its traditional tasks the liberal class is exposed to the same fate: to be brutally discarded.
- An ineffectual (dead) liberal class creates a more polarized society: the power elite has no check to prevent the plundering of the economy and the general population increases its frustration and finds more attractive

finding solutions outside the democratic institutions or without the instruments of a traditional democracy. In killing the liberal class, the 'corporate class' behaves like a parasite that kills its host: without the liberal class the power elite is free to demolish the system of measures (welfare state) erected by the liberal class to protect the general population from the inequities of the economic system.

Hedges, Chris (2010): *Death of the liberal class*, Nation Books.

Mau, Steffen (2015): *Inequality, marketization and the majority class. Why did the European middle classes accept neo-liberalism?*, Palgrave Macmillan, New York.

411. The paradox of power (Jack Hirshleifer)

In power struggles, it is natural to expect that the strong will grow stronger (and the weak, weaker). The paradox of power is that poorer or smaller groups often end up improving their positions in relation to richer or larger ones. One explanation is that the group starting at a disadvantage has an incentive to make more effort (fight harder, invest more, take more risks, try new strategies) than the group enjoying an advantage. It is only when the conflict is sufficiently decisive that the richer or larger group gains relative to the poorer or smaller. The paradox explains the adoption of policies that redistribute income from the rich to the poor.

412. The retreat of the welfare state in the last two decades

- Dominant explanation? The retreat of the welfare state is a forced adaptation to changing circumstances. Enjoying a welfare state is like living beyond one's means. The welfare state started to be dismantled once politicians realized the insustainability of the welfare state.
- Alternative view (Giacomo Corneo, 2017): capitalism is inconsistent with the welfare state. Specifically, the capitalist system (= markets + private ownership of the means of production) tends to repel collective welfare systems. The welfare state emerged as a response to the threat of rebellion by industrial workers and lasted thanks to accidental and exceptionally favourable circumstances (world wars, global depression, cold war). Once these circumstances disappear, capitalism returns to normal and its working starts deteriorating the welfare state. If capitalism is not subject to control, the erosion of the welfare state will continue. If the mechanisms endangering the welfare state are not confronted,

“capitalism's friendly mask will keep slipping, revealing its original face. It will return to its default operating mode—as a system in which most people are abandoned to their fates and exposed to the vicissitudes of the market without any protection, and in which there are no limits to economic and social inequality. Implied by this line of thought is a need for constant work to defend the value of the welfare state.” (p. 231)

It is only through politics that the welfare state can be protected against capitalism. Without that protection, the welfare state eventually becomes extinct. In this respect, Corneo (2017, App.) makes a proposal for increasing public ownership of capital (for instance, by generalizing sovereign wealth funds, such as those existing in Alaska, Australia, New Zealand and Norway, and make those funds socially responsible).

“A high level of wealth in equality is a threat to both shared prosperity and democracy. Public capital can play a crucial role in counteracting that threat. It can generate a social dividend for every citizen and it can spur individuals' participation in their workplaces and the political arena. By doing these things, public capital can break the vicious circle of increasing wealth concentration and political capture, contribute to more equality of opportunity, and reduce the transaction costs of financial investment.” (p. 282)

Corneo, Giacomo (2017): *Is capitalism obsolete? A journey through alternative economic systems*, Harvard University Press, Cambridge, MA.

413. Old power vs new power: stock vs flow (Jeremy Heimans and Henry Timms, 2018)

- “Old power works like a currency. It is held by few. Once gained, it is jealously guarded, and the powerful have a substantial store of it to spend. It is closed, inaccessible, and leader-driven. It downloads, and it captures.

- New power operates differently, like a current. It is made by many. It is open, participatory, and peer-driven. It uploads, and it distributes. Like water or electricity, it's most forceful when it surges. The goal with new power is not to hoard it but to channel it."

"Thanks to today's ubiquitous connectivity, we can come together and organize ourselves in ways that are geographically boundless and highly distributed and with unprecedented velocity and reach. This hyperconnectedness has given birth to new models and mindsets that are shaping our age (...) That's the 'new' in new power (...). The future will be a battle over mobilization. The everyday people, leaders, and organizations who flourish will be those best able to channel the participatory energy of those around them—for the good, for the bad, and for the trivial."

- "An ACE idea: An idea designed so that the crowd will take hold of it and spread it. It is *actionable* because it is designed to make a user do something, *connected* because it makes a user feel part of a like-minded community, and *extensible* because it is structured with a common stem that encourages its communities to alter and extend it."

"New power is here to stay and is, in many sectors, ascendant. In the right hands, it is doing wonders: the crowd-sourced drug trials; the fast-growing movements in the name of love and compassion. Yet in the wrong hands, as we see with ISIS or the growing hordes of white supremacists, these same skills can be enormously destructive."

Heimans, Jeremy; Henry Timms (2018): *New power: How power works in our hyperconnected world—and how to make it work for you*, Doubleday, New York.

Old Power Values

New Power Values

Formal (representative) governance, managerialism, institutionalism

Competition, exclusivity, resource consolidation

Confidentiality, discretion, separation between private and public spheres

Expertise, professionalism, specialization

Long-term affiliation and loyalty, less overall participation

Informal (networked) governance, opt-in decision-making, self-organization

Collaboration, crowd wisdom, sharing, open-sourcing

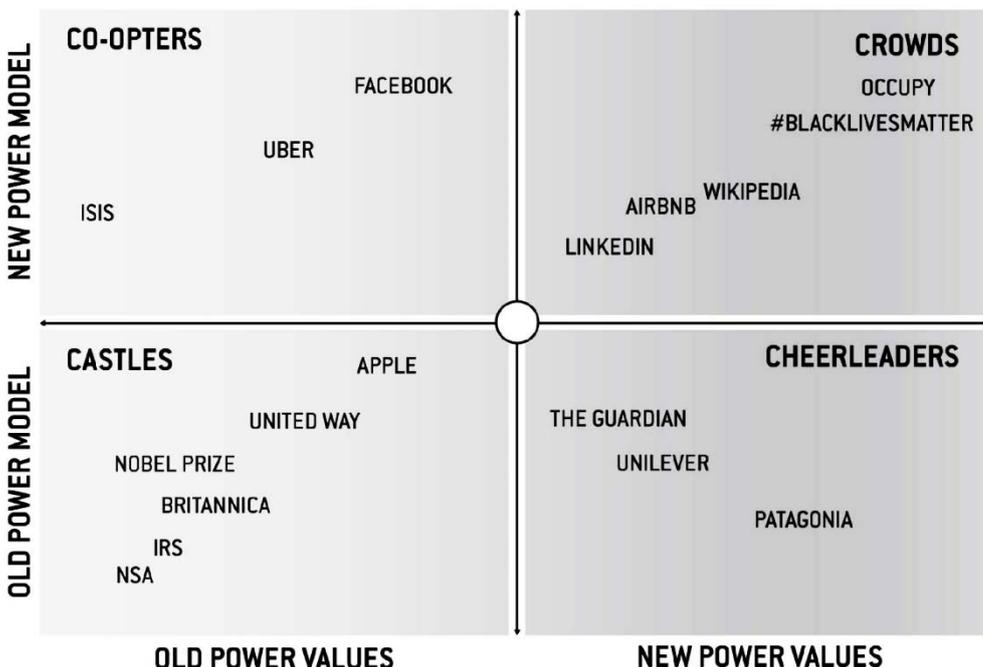
Radical transparency

Maker culture, "do-it ourselves" ethic

Short-term conditional affiliation, more overall participation

The two mindsets doing battle in today's world: formal vs. informal governance; competition vs. collaboration; confidentiality vs. radical transparency; experts vs. makers; long-term vs. transient affiliation.

The New Power Compass



"The horizontal axis tracks the values of an organization: whether it exhibits new or old power values. The vertical looks at its model: whether it is a new power model designed and structured to encourage mass participation and peer coordination or an old power model that asks us to do little more than comply or consume."

414. The two mindsets in today's world and the new power compass (J. Heimans and H. Timms, 2018)

"The twentieth century was built from the top down. Society was imagined as a great machine, intricately powered by big bureaucracies and great corporations. To keep the machine humming, ordinary people had critical, but small and standardized, roles to play (...) Yet the rise of new power is shifting people's norms and beliefs about how the world should work and where they should fit in. The more we engage with new power models, the more these norms are shifting. Indeed, what is emerging—most visibly among people under thirty (now more than half the world's population)—is a new expectation: an inalienable right to participate."

415. The death of conflict hypothesis

The expression 'death of conflict' captures the idea that the adoption of a core of values and principles in a society will bring social conflict/tensions to an end. Societies become like markets, where interaction/competition is peaceful. The 'rationality' of technology spreads to the social world: social problems can be solved 'technically.' In the end, a stable social order is reached and the interests of all the groups are reconciled. Globalization is said to dissolve the sources of social and political conflict.

Amoore, Louise (2002): *Globalisation contested. An international political economy of work*, Manchester University Press, Manchester and New York.

416. Democratic peace correlation: why do democracies not fight each other?

"Perhaps the simplest explanation for where fault lines lie in a political process involves the presence of an 'other.' Difference divides and similarity unites. These similarities and differences can in turn orient and propagate conflict. Yet, similarity and difference are also dynamic, evolving in response to changing population characteristics or a new reference point. We offer a simple explanation for interstate conflict in which the salience of similarity or difference varies with the prevalence or capabilities of groups. We apply our argument in the context of the democratic peace. When democracies are scarce or weak, and autocracies plentiful and powerful, democracies face a common threat. As the democratic community strengthens, however, the threat from autocracies declines and differences among democracies appear more salient. Our findings contrast with standard expectations about how democratization shapes world affairs."

Gartzke, Erik; Weisiger, Alex (2013): "Permanent friends? Dynamic difference and the democratic peace", *International Studies Quarterly* 57(1), 171-185.

Dafoe, Allan; Oneal, John R.; Russett, Bruce (2013): "The democratic peace: Weighing the evidence and cautious inference", *International Studies Quarterly* 57(1), 201-214.

417. Democratic vs economic peace: contract flows within nations may cause both democracy within nations and peace among them.

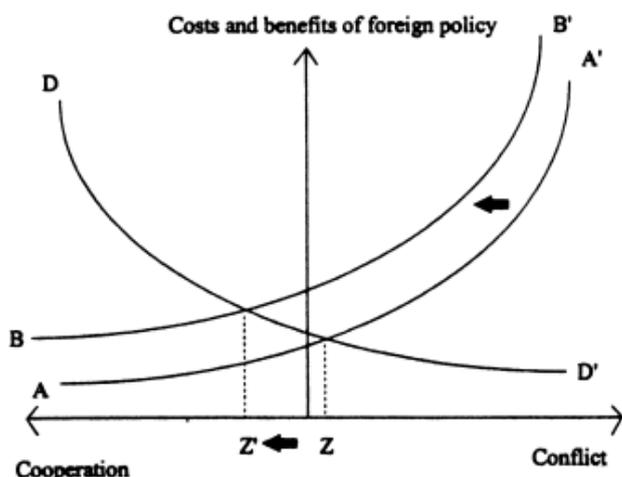
"Recent studies show that the democratic peace correlation is not significant once the potentially confounding variable that can cause both democracy and peace, contract-intensive economy, is considered; this pattern holds in analyses of wars, fatal militarized interstate conflicts, and interstate crises. These studies rescind the primary evidence for democracy being a cause of the democratic peace and indicate that contract-intensive economy is the more likely explanation for it. This article addresses all recent defenses of the democratic peace correlation, reports results using a new measure of contract flows, and extends the investigation to all militarized interstate conflicts. Analyses of most nations from 1961 to 2001 show that there is no correlation of democracy with peace, and contract-intensive economy is one of the most powerful nontrivial variables in international conflict. The era of the democratic peace appears to be at an end, subsumed by an economic peace."

Mousseau, Michael (2013): "The democratic peace unraveled: It's the economy", *International Studies Quarterly* 57(1), 186-197.

418. War and trade

"Liberal theories generally assume that political leaders are deterred from engage conflict when they anticipate that conflict will disrupt or eliminate trade or adversely affect the terms of trade, so the hypothesis that trade deters war rests on the assumption that war impedes trade. Realist theories suggest that the concern over

relative gains will lead at least one of the belligerents to terminate trade in order to prevent its adversary from using the gains from trade to increase its relative military power.”



Barbieri, Katherine; Jack S. Levy (1999): “Sleeping with the enemy: The impact of war on trade”, Journal of Peace Research 36(4), 463-479.

Barbieri, K. (1996): “Economic interdependence: A path to peace or a source of interstate conflict?”, Journal of Peace Research Volume 33(1), 29-49.

Optimal level of conflict

Barbieri, K.; Schneider, G. (1999): “Globalization and peace: Assessing new directions in the study of trade and conflict”, Journal of Peace Research 36(4), 387-404.

Barbieri, Katherine (2002): *The liberal illusion. Does trade promote peace?*, University of Michigan Press.

419. Why do states ratify international treaties?

“Why do states ratify international treaties? While previous research has emphasized domestic political factors, we focus on power politics in situations in which powerful states disagree on the merits of a treaty. We argue that states supporting the status quo should discourage third parties from ratifying the treaty, whereas challenger states should entice them to do so. Based on this theory, we expect third parties’ ratification decisions to be influenced by their dependence on the conflicting states. To test the theory, we use data on the conflict between the United States and the European Union over the regulation of trade in genetically modified organisms. The European Union created a new treaty, the Cartagena Protocol, to enhance biosafety regulation and propagate the ‘precautionary principle’ over the ‘sound science principle’ defended by the United States. Our quantitative analysis shows that ratification decisions of third parties were influenced by relations to and dependence on the clashing giants.”

Schneider, Christina J.; Urpelainen, Johannes (2013): “Distributional conflict between powerful states and international treaty ratification”, International Studies Quarterly 57(1), 13-27.

420. Preferential trade agreements

“The growing number of preferential trading arrangements (PTAs) since World War II has generated substantial interest in their economic and political effects. It has also prompted interest in the factors that give rise to PTAs, but very little research has been conducted on the growth of extant PTAs. To address this shortcoming, we analyze why some arrangements expand, whereas others do not. We find strong evidence that expansion is most likely when the existing members of a PTA display a high degree of trade openness and when the size distribution of these members is fairly uniform. We also find that PTAs that add new members are likely to do so again in the near future and that, throughout the global system, PTAs tend to expand in clusters. Equally, there is some indication that the market size of a PTA affects its odds of expansion. Finally, we investigate which states join enlarging PTAs. We find that PTAs expand by taking on new members that are economically and politically similar to existing members.”

Mansfield, Edward D.; Pevehouse, Jon C.W. (2013): “The expansion of Preferential Trading Arrangements”, International Studies Quarterly Volume 57(3), 592-604.

421. Does violence backfire?

“Implicit in the rationalist literature on bargaining over the last half-century is the political utility of violence. Given our anarchical international system populated with egoistic actors, violence is thought to promote concessions by lending credibility to their threats. From the vantage of bargaining theory, then, empirical research on terrorism poses a puzzle. For nonstate actors, terrorism signals a credible threat in comparison with less extreme tactical alternatives. In recent years, however, a spate of studies across disciplines and

methodologies has nonetheless found that neither escalating to terrorism nor with terrorism encourages government concessions. In fact, perpetrating terrorist acts reportedly lowers the likelihood of government compliance, particularly as the civilian casualties rise. The apparent tendency for this extreme form of violence to impede concessions challenges the external validity of bargaining theory, as traditionally understood. In this study, I propose and test an important psychological refinement to the standard rationalist narrative. Via an experiment on a national sample of adults, I find evidence of a newfound cognitive heuristic undermining the coercive logic of escalation enshrined in bargaining theory. Due to this oversight, mainstream bargaining theory overestimates the political utility of violence, particularly as an instrument of coercion.”

Abrahms, Max (2013): “The credibility paradox: Violence as a double-edged sword in international politics”, *International Studies Quarterly* Volume 57(4), 660-671.

422. Domestic dimension of trade and conflict

“Liberal international relations theory suggests that mutual gains from trade prevent conflict between states (...) This paper examines the influence of economic interests arising from international trade on the policy-making process at the domestic level. If the benefits of trade increase the opportunity cost of conflict, then support for a harmonious foreign policy should be strongest among trade’s domestic beneficiaries. Those whose income is diminished by trade have no reason to favor a friendly foreign policy and might even prefer a hostile alternative. We test whether the domestic distributional effects of trade affect support for hostile foreign policies toward China among representatives in the US Congress. An analysis of cosponsorship and roll-call voting suggests that the export orientation and import sensitivity of their districts influences members’ positions on measures that criticize Chinese policies or treat the country as a security threat.”

Kleinberg, Katja B.; Fordham, Benjamin O. (2013): “The domestic politics of trade and conflict”, *International Studies Quarterly* 57(3), 605-619.

423. World War I, trade and conflict

“The First World War is often cited as proof par excellence of the flaws in the liberal peace argument because the adversaries it engaged had been each other’s major pre-war trading partners. Although commonly assumed to have wreaked havoc on the trade of the states it engaged, the war’s impact on commerce has rarely been rigorously examined. Using an original dataset, this study shows that the Great War triggered substitution processes that reduced its trade-related costs. Although recourse to second-best alternatives always induces efficiency losses, the costs of adjustment were small relative to the other costs that states incurred during the war. The analysis shows that the Great War is not the egregious exception to the theory that conventional wisdom has long assumed it to be. At the same time, it makes clear that the deterrent power of trade varies inversely with belligerents’ ability to access the markets of alternative trading partners.”

Gowa, Joanne; Hicks, Raymond (2015): “Commerce and conflict: New data about the Great War”, *British Journal of Political Science* 1-22.

XI. Culture and globalization

424. Are there gods good for growth?

“So why did the societies of the Islamic civilization stagnate, along with the Chinese, the other serious rival to European economic dominance in the first half of the second millennium? The answer emerges from a more subtle and less fatalist analysis of the role of religion in economic history. What matters, it seems, is less the precise doctrines than the uses to which the religion itself is put, and the willingness of societies to change or reinterpret laws grounded in religious belief. Islamic economies struggled to increase productivity, or output per head of population. There was no great breakthrough in agricultural efficiency—the advance that would centuries later spur the development of Europe. Businesses and partnerships remained small. There were few examples of substantial private sectors operating genuinely independently of the state (...) Unlike European cities, Muslim cities were not allowed to develop into autonomous entities, or to pioneer ideas of personal and commercial freedom. They remained centers of religious piety. The Islamic empires did not develop states that were primarily interested in technological progress or productivity. They spent more time fighting over what they already had or trying to seize more through invasion. But this had a lot more to do with accidents of geography and history than with the theology or ‘management structure’ of the prevailing religion. It was perhaps Islam’s misfortune to have been born in the Middle East and maintain its centers of political power there, originally in Mecca and Baghdad (...) Being in the Middle East meant bad luck on the resource front: shortages of minerals and timber made the transition to a manufacturing market economy much harder than it was in Europe. And, then as now, it was bad for peace. The Islamic world was plagued by destructive raids by marauders that frequently threatened to knock stable, sustained economic development off course. In particular, the growing threat of the Mongols in Central Asia realized its destructive capacity under the rule of Genghis Khan in the thirteenth century. The Mongol invasion laid waste to cities across the Islamic world.”

“... it was the failure of any one denomination to predominate, not the nature of Protestantism itself, that created a comparatively open European civilization with a variety of beliefs (...) By contrast, the dominant culture in the operation of the Islamic empires tended toward one of military authority: top-down, unquestioning, with a vast amount of power vested in a centralized state.”

“The crucial difference between Islamic societies in the Middle East and Christian societies in Europe was not in the theology of the respective religions (...) The difference was that European merchants were powerful enough to have inconvenient laws disposed of, even when that required changing the religious justification of those laws. Their counterparts in Islamic countries, for reasons largely unrelated to the nature of the religion itself, were not (...) Islam has sometimes provided a useful cover to governments wanting to maintain control over their economies and their people.”

“Perhaps, rather than its values becoming embedded in the psychology of its followers, religion influences growth mainly through its exploitation by the institutions of power.”

Beattie, Alan (2009): *False economy. A surprising economic history of the world*, Riverhead Books, New York.

425. Objections to religious faith

“There still remain four irreducible objections to religious faith: that it wholly misrepresents the origins of man and the cosmos, that because of this original error it manages to combine the maximum of servility with the maximum of solipsism, that it is both the result and the cause of dangerous sexual repression, and that it is ultimately grounded on wish-thinking.”

“And here is the point, about myself and my co-thinkers. Our belief is not a belief. Our principles are not a faith. We do not rely solely upon science and reason, because these are necessary rather than sufficient factors, but we distrust anything that contradicts science or outrages reason. We may differ on many things, but what we respect is free inquiry, openmindedness, and the pursuit of ideas for their own sake. We do not hold our convictions dogmatically.”

“We are reconciled to living only once, except through our children, for whom we are perfectly happy to notice that we must make way, and room. We speculate that it is at least possible that, once people accepted the fact of their short and struggling lives, they might behave better toward each other and not worse. We believe with

certainty that an ethical life can be lived without religion. And we know for a fact that the corollary holds true—that religion has caused innumerable people not just to conduct themselves no better than others, but to award themselves permission to behave in ways that would make a brothel-keeper or an ethnic cleanser raise an eyebrow. Most important of all, perhaps, we infidels do not need any machinery of reinforcement (...) We atheists do not require any priests, or any hierarchy above them, to police our doctrine (...) How much effort it takes to affirm the incredible! The Aztecs had to tear open a human chest cavity *every day* just to make sure that the sun would rise.”

“Past and present religious atrocities have occurred not because we are evil, but because it is a fact of nature that the human species is, biologically, only partly rational.”

“Religion has run out of justifications. Thanks to the telescope and the microscope, it no longer offers an explanation of anything important.”

“We are in need of a renewed Enlightenment, which will base itself on the proposition that the proper study of mankind is man, and woman. This Enlightenment will not need to depend, like its predecessors, on the heroic breakthroughs of a few gifted and exceptionally courageous people. It is within the compass of the average person.”

Hitchens, Christopher (2007): *God is not great. How religion poisons everything*, Twelve, New York.

426. Religion as an unavoidable danger?

“Religion is man-made. Even the men who made it cannot agree on what their prophets or redeemers or gurus actually said or did. Still less can they hope to tell us the ‘meaning’ of later discoveries and developments which were, when they began, either obstructed by their religions or denounced by them. And yet—the believers still claim to know! Not just to know, but to know *everything*. Not just to know that god exists, and that he created and supervised the whole enterprise, but also to know what “he” demands of us—from our diet to our observances to our sexual morality (...) The person who is certain, and who claims divine warrant for his certainty, belongs now to the infancy of our species.”

“Religious faith is, precisely because we are still-evolving creatures, ineradicable. It will never die out, or at least not until we get over our fear of death, and of the dark, and of the unknown, and of each other. For this reason, I would not prohibit it even if I thought I could. Very generous of me, you may say. But will the religious grant me the same indulgence? (...) As I write these words, and as you read them, people of faith are in their different ways planning your and my destruction, and the destruction of all the hard-won human attainments that I have touched upon. *Religion poisons everything.*”

Hitchens, Christopher (2007): *God is not great. How religion poisons everything*, Twelve, New York.

427. The celebration of violence

“... the current practice of publicizing every violent attack is radicalizing more people than al-Qaeda or IS combined. Young people don’t have to be radicalized by religious extremism; the simple lure of fame is often enough. There wouldn’t be nearly as many violent incidents if the media and its consumers simply stopped rewarding the perpetrators. This celebration of violence creates two problems. The first is that we now live in a society where anyone can become an instant celebrity by simply killing a lot of people (...) In the process they become famous— and in turn, they inspire others. The second problem is that the majority of these incidents are automatically assumed to be ‘terror’ attacks, and the perpetrator is assumed to have either been connected to or radicalized by Islamic State. After constant exposure to this type of reporting, the public begins to conflate Islamic extremism with mainstream Islam, which opens the door for widespread Islamophobia.”

“...it just seems common sense that if one wants to avoid the persecution of an entire group of people, the first step would involve the elimination of scapegoats. And since that can only happen by dispelling the myth of us versus them, that’s where we should focus our efforts. Collective action is tricky but not impossible. Remember how boycotts helped eradicate apartheid in South Africa? As consumers of the news, we can also put an end to the sensationalizing of violence. The onus is on us.”

“The news is literally saturated with incidents involving Islamic extremism but very little, if anything at all, on Islam itself (...) As a result the average viewer is led to believe that the threat from Islamic extremism is far

greater than it actually is. This perception creates fear, and fear leads to toleration of and even demand for policies that are both oppressive and discriminatory.”

“The reason that the discipline of terrorism studies is in such a state of chaos is politics. All this politicking serves as a gatekeeping function that protects the status quo.”

“Harold Lasswell famously defined politics as ‘who gets what, when and how.’”

Maszka, John (2018): *Washington’s dark secret. The real truth about terrorism and Islamic extremism*, Potomac Books, Lincoln, Nebraska.

428. Global protection of children

“... the United Nations has passed resolutions and initiated treaties establishing and attempting to enforce children’s rights. Going far beyond the 1924 and 1959 declarations, the 1989 Convention on the Rights of the Child offered a wide-ranging affirmation that the best interests of the child should guide all policies and decisions regarding childhood. The convention’s forty articles reflect all of the concerns, values, and issues that had swirled around the idea of childhood throughout the previous century, including health, education, freedom of speech and religion, and the right to a name and nationality. The UN’s Committee on the Rights of the Child oversees the enforcement of its provisions. Although the United States was involved in the drafting of the convention, it remained the only nation not to have ratified it as of 2017.”

“In addition to primary care programs related to nutrition and health, the UN has worked to eliminate child marriage, provide standards for children’s rights within families and the treatment of refugees, eliminate child prostitution and child pornography, and discourage the exploitation of children in armed conflicts. Despite these efforts (...) in 2000 an estimated 100 million school-age children were out of school, 50 million were working in harsh conditions, 30 million were involved in sex trades, 150 million were malnourished, and millions more had been orphaned by or suffered from AIDS.”

“Ideas about children’s responsibilities and commitment to their rights continue to vary from nation to nation. In the West, children’s rights and autonomy tend to prevail over parental prerogative (...) Yet, in another demonstration that children’s history is far from linear, some of the rights gained by children during the twentieth century had eroded by late in the century, at least in the United States. This was especially true in the courts, as juvenile offenders were increasingly tried as adults, and in cases involving free speech.”

“By the early twenty-first century even developing nations had seen great improvements in their children’s health over the previous fifty years. Yet poverty continued to limit the educational opportunities and influence the health of tens of millions of children. Malnutrition was a fact of life for perhaps 40 percent of young people living in the developing world. In a single year over 800,000 children died of AIDS, primarily in sub-Saharan Africa. Even in the United States and the United Kingdom, around 20 percent of children lived in poverty (...) Climate change has emerged as a new threat to the world’s children (...) Brazil provides an example of the many issues related to poverty, violence, and health that confront most of the world’s children in the early twenty-first century. Many Brazilian children were subjected to poverty and violence that hindered the realization of a ‘modern’ childhood.”

“Lest one think violence plagues only developing and poor nations, it is important to note that at least 16 million American children live below the poverty line and that nearly 1,300 children are killed by guns each year, making it the third leading cause of death among children. Over 90 percent of all children under the age of fourteen who die from gun violence live in the United States.”

“Despite numerous declarations by the United Nations and other international groups deploring the use of child labor, and although most countries have passed laws forbidding the work of young children and limiting the kinds of work older children can do, paid labor remains a reality for hundreds of millions of children around the world.”

“Activists believe that many children are trapped in forms of coerced labor prohibited by the United Nations and other international human rights organizations. These include slavery and other forms of involuntary work (forced ‘apprenticeships,’ for instance, and indentured servitude), sex trafficking, and forced marriage. Although exposure to these conditions is difficult to track, a 2017 report by one advocacy group estimates that a fourth of the more than 40 million people (mostly females) facing such coercion were children.”

Marten, James (2018): *The history of childhood. A very short introduction*, Oxford University Press, New York.

429. Globalization of children's culture

“At the same time that post-Second World War child welfare activism has become increasingly global in outlook, child and youth culture has also taken a global turn. Its modern version started with the American “Baby Boom” generation, which came to represent the growing cultural and economic importance of children and youth. The 76.5 million American baby boomers born between 1946 and 1964 grew up during a period of sustained economic growth, unrivaled American power, and rapid suburbanization.”

“It became easier to track the similarities and differences in the experiences of children and youth because, long before the term *globalization* was common currency, a youth culture that ignored national boundaries had emerged. Protest and political activism was one form of youth culture occurring in the 1950s and 1960s, but starting as early as the 1920s, many forms of popular culture, from movies to music to dress to technology, united an increasingly large percentage of the world's children and youth, at least superficially, and at least for those affluent enough to join in. Indeed, the consumerism that had begun developing in the nineteenth century and flourished prior to the Second World War grew into a major driver of the world economy by the twenty-first century.”

“Much of the content that shaped consumption by children originated in the United States (...) But major threads did appear elsewhere, from ‘Beatlemania’ and the global rise of rock and roll music coming out of Great Britain in the early 1960s to the development in the 1990s of video games, comics, television shows, and t-shirts, caps, backpacks, and other merchandise branded with images from such global franchises as Pokémon and Hello Kitty that originated in Japan (...) the most common experience of children throughout the world was their access to television (...) This development drove an expansion of child consumerism; between 1989 and 2002, for instance, spending by American children increased by 400 percent.”

“This is not to say that the globalization of children's culture has been uniform. Poverty necessarily limits access to some of the technology, mobility, and discretionary spending required to fuel that culture. Thus, while this global culture has reached into virtually every part of the world, it has also highlighted class, ethnic, and even religious differences.”

Marten, James (2018): *The history of childhood. A very short introduction*, Oxford University Press, New York.

430. Miyamoto Musashi's (1582-1645) strategy rules

“I hereby convey to the world for the first time in writing my strategy for collective and individual combat (...) For those who care to learn my principles of combat strategy, follow these rules in observing the Way:

1. Think never to veer from the Way
2. Train unremittingly in the Way
3. Acquaint yourself with all arts
4. Know the Ways of all vocations
5. Discern the truth in all things
6. See the intrinsic worth in all things
7. Perceive and know what cannot be seen with the eyes
8. Pay attention even to trifles
9. Do not engage in superfluous activities.”

Musashi, Miyamoto (2018): *The complete Musashi. The Book of Five Rings and other works*, Tuttle Publishing, Tokyo (Translated with an Introduction by Alexander Bennett)

431. The psychology of Silicon Valley

“Two of the most salient values found throughout Silicon Valley are a dedication to problem-solving and big ideas (...) Many believe the success of the industry, combined with its newfound cultural relevance and the glamorous

pull of working for a top tech company, has reinforced not only Silicon Valley's insularity, but also driven what some describe as outright hubris (...) The creator of the World Wide Web, Tim Berners-Lee, has repeatedly expressed his dismay at the current state of his invention and a desire to restore the more prosocial foundations of the internet as he intended it to be."

Cook, Katy (2020): *The psychology of Silicon Valley*,

432. The hubris syndrome

The hubris syndrome refers to the personality change acquired by some persons occupying positions of social, political, economic, ideological leadership. The change is characterized by lack of realism (the loss of touch with reality) and excessive self-regard. Both traits lead to incorrect decision-making. The Hubris Syndrome and power go together: power is necessary for the syndrome occur; leaders suffering from the syndrome that have lost power never regain it.

433. The inverse law of sanity

"Normal persons have mild positive illusion, which, in the context of power, predisposes them to developing hubristic behavior. In contrast, depressed persons are more realistic and empathic than normal persons, and thus, in the context of power, less prone to the Hubris Syndrome."

Garrard, Peter; Graham Robinson; eds. (2016): *The intoxication of power. Interdisciplinary insights*, Palgrave Macmillan, Basingstoke, UK.

434. The Dunning-Kruger effect

The Dunning-Kruger effect is the cognitive bias according to which people tend to overestimate their own competence (one's is not fully aware of his or her own ignorance).

435. Self-confirming bias

Self-confirming bias is the cognitive bias in which people tend to take into account or emphasize information/evidence that reinforces their views/beliefs, and neglect information/evidence contradicting their views/beliefs.

436. Self-serving bias

Self-serving bias is the cognitive bias in which people tend to attribute success to themselves and failure to external factors. It is an expression of overconfidence: people seem to overestimate their skill, knowledge, competence, efficiency, moral virtues...

437. The principle of social proof

People tend to make decisions and adopt beliefs on the basis on what others do and believe. The individuals' perception of correct/acceptable behaviour/beliefs depends on the extent to which other follow/hold the behaviour/beliefs. To decide what is appropriate people tend to rely on what others do. The presumption is that one makes fewer mistakes by respecting social evidence (the majority cannot be wrong). Social proof appears most influential under uncertainty and similarity.

438. The halo effect

The halo effect is the cognitive bias in which the overall impression of a person influences the belief regarding the person's character (attractive-looking people tend to be perceived as kind, intelligent, successful). [Special case: the Dr. Fox effect. Students tend to rate higher a teacher who presents the material in an engaging, expressive, enthusiastic manner, regardless of the value, interest, usefulness, meaning, plausibility of the content.

Talk nonsense under conditions of high expressiveness gets higher ratings than providing informative and useful contents in a dull manner.] [To which extent can social proof be manipulated by the Halo effect?]

439. The role of the teacher

“But the terrible mistake that our civilisation has made, I believe, is to turn the truth about our dying civilisation into an excuse for lying systematically to our children. We lie to our children every time we pretend that they can expect an ordinary career of their choice in an endlessly growing economy (...) We lie to them every time we tell them we love them while giving them a new piece of plastic crap before turning our attention swiftly back to our mobile phones. We lie to them, and ourselves, if we think or declare that we love them and yet the actions we take, rather than being directed with determination toward the aim of seeking to transform this civilisation for the better, actually hasten its likely collapse. We lie to them because much of the time we lie to ourselves, of course. But also *because we are pierced by the thought that their innocence shouldn't be swept away instantly* before it has had any time to give them some feeling of safety within which they can become sanely ‘attached’ and sanely individuated.”

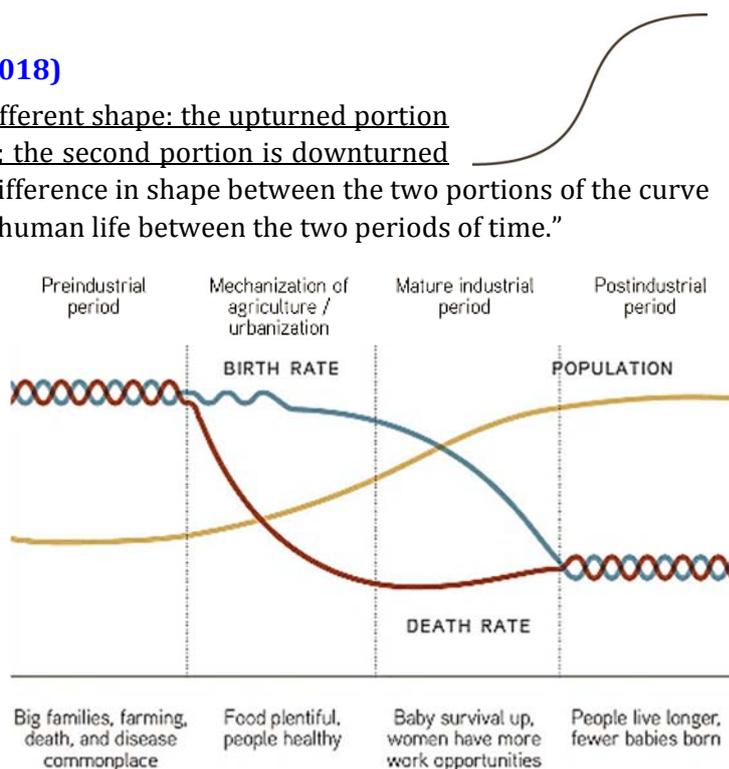
“The first responsibility of intellectuals and of teachers at a time like this is to come clean. We should tell it like it is; and we should apologise for not having a better story to tell, a better world to bestow. We should be inspired by figures like Spartacus, Cato the Younger, Vaclav Havel, Mahatma Gandhi, Petra Kelly, Greta Thunberg: we should be clear that our power, such as it is, rests now in being authentic; in not shying away from extremely uncomfortable realities; in sharing how we feel. I find that one of the most powerful things I can do now is to share my fear (and grief) for the younger generation with them. That’s the basis of real dialogue; real empathy.”

Read, Rupert; Samuel Alexander (2019): *This civilisation is finished. Conversations on the end of Empire—and what lies beyond*, Simplicity Institute, Melbourne.

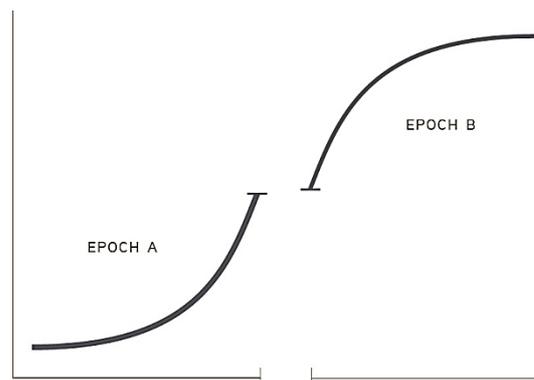
440. Epochs A and B (Jonas Salk and Jonathan Salk, 2018)

“The sigmoid growth curve consists of two sections of different shape: the upturned portion describes a phase of progressive acceleration of growth; the second portion is downturned and describes a phase of progressive deceleration. The difference in shape between the two portions of the curve suggests both quantitative and qualitative differences in human life between the two periods of time.”

“We are moving from an era dominated by limitless growth, competitive strategies, short-range thinking, and independence to one characterized by awareness of limits, cooperation, long-range thinking, and interdependence (...) We are on a frontier, but it is not territorial or technological; it is human and social (...) In the years to come, we face the challenge of understanding and facilitating a slowing of human population growth and, ultimately, of adapting to conditions associated with a relatively constant population size at a level far beyond anything we have previously experienced.”



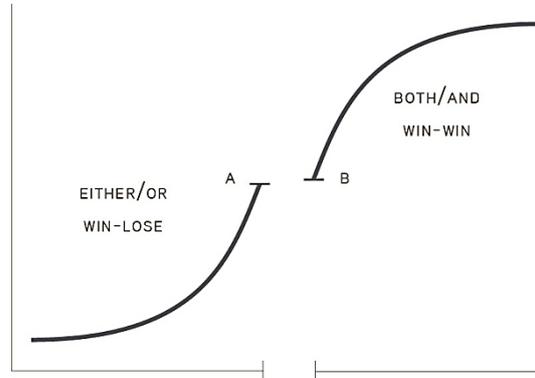
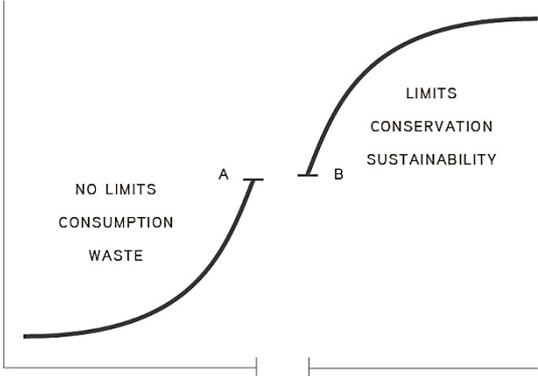
Big families, farming, death, and disease commonplace | Food plentiful, people healthy | Baby survival up, women have more work opportunities | People live longer, fewer babies born



“To someone born in Epoch A, the future would appear to have few limitations in terms of growth, resources, and available energy. Someone living in Epoch B would, however, have a distinct sense of limitations and of the necessity to adapt to the approaching of a plateau in population growth.”

“In Epoch A, progressive increase in population was seen to be positive; in Epoch B, this increase is now of negative value and, if left unchecked, threatens our very existence.”

“In Epoch A, competition and the demands accelerating growth were inherently

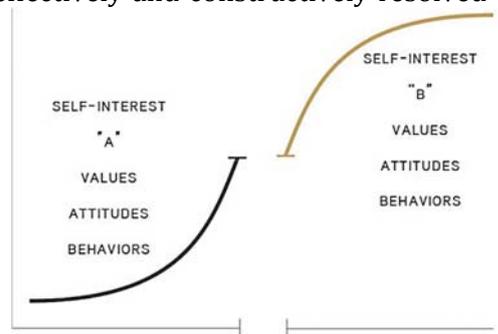


of persistent, associated with either/or attitudes and philosophies and the prevalence of win-lose strategies in the resolution of conflict. People or nations saw the world as a place in which any benefit to the other is a loss or

detriment to the self. In Epoch B, however, the tendency toward balance, collaboration, and interdependence will be based upon and evoke a philosophy of both/and and the development of win-win strategies.”

“Epoch B values, attitudes, and behaviors are emerging not only because they are humane but also because they are advantageous to individuals and to society. During this transition, it can be expected that conflict, at all levels of human life, will increase. In the long term, such conflict will be most effectively and constructively resolved with both/and rather than either/or strategies and through the integration of the values of Epoch A and Epoch B. The present period is especially sensitive. In resisting change, we may cling to values that are obsolete and exceed the tolerance of nature. Resisting change may ameliorate some problems in the short term but will not provide the basic shift in values needed in this epochal transition.”

“Those in the Baby Boom generation were born just before the point of inflection; however, the inflection of the curve occurred during their lifetimes. Thus, they were born in the reality of Epoch A but have lived the later part of their lives in Epoch B—the part of the curve where growth is slowing. Those in the Millennial generation were born after the point of inflection of the growth curve, fully in Epoch B. From the time of their birth, the reality they have experienced has been one of awareness of limits, the need to conserve, and the sense of the planet as an integrated whole. Thus, their attitudes, values, and behaviors have been shaped by and are adapted to a reality very different from that

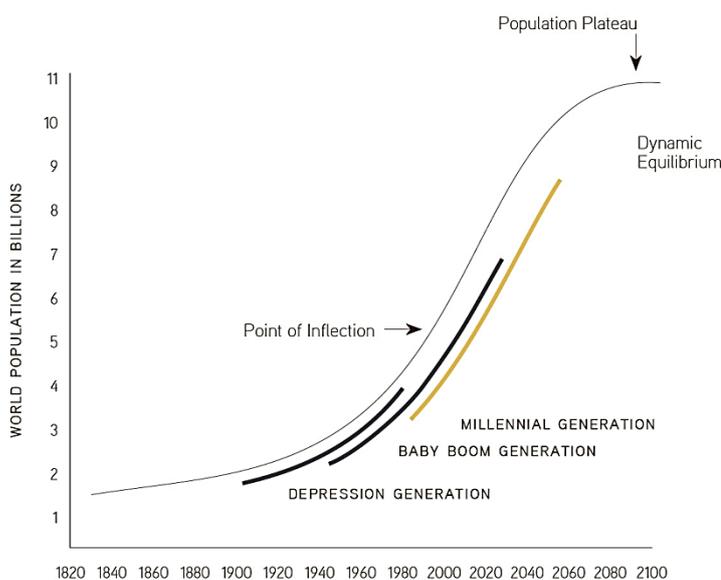


EPOCH A	EPOCH B
INDIVIDUAL	INDIVIDUAL AND GROUP
POWER	CONSENSUS
COMPETITION	COLLABORATION
INDEPENDENCE	INTERDEPENDENCE
EXTREMES	BALANCE
PART	WHOLE
EITHER/OR	BOTH/AND

experienced by any generation before them.”

“The epochal change now taking place affects every aspect of human life—individual and institutional, emotional and cognitive, personal and technological. It calls for the resolution of imbalances and conflicts that have arisen in the course of preceding centuries and for the integration of divergent tendencies in human life. This integration will occur in ways that will differ according to local history, culture, and ecological conditions, but it must occur.”

Salk, Jonas; Jonathan Salk (2018): *A new reality. Human evolution for a sustainable future*, City Point Press, Stratford, CT.



441. The Great Seesaw (Geoffrey Blainey, 1988)

“In the western world a powerful seesaw is at work but is rarely noticed. The seesaw carries a wide range of beliefs and attitudes, and when the seesaw moves many of those attitudes move too. The seesaw has been tilting

up and down since at least the eighteenth century, and at times it reaches an extreme angle (...) The seesaw is an indicator of the condition of the western world, and is especially vital during a long period of relative peace between western nations (...) Those who admire Technology have tended to criticise Nature, and those who admire Nature have tended to criticise Technology (...) The arts in all their variety reflect the swing of the seesaw.”

“The movements of the seesaw influence the birth of new ideas, the way they are expressed, and the enthusiasm or apathy of scholars towards those ideas (...) Technology is the sum total of mankind's current skills as a problem solver; and when our faith in those skills becomes weaker, we view more pessimistically the world's main natural resources and above all, the hope of finding substitutes for those resources.”

“A swing of the seesaw has strong economic effects. A loss of confidence in Technology -that powerful dynamo of modern capitalism- sends shock waves through the economic system, while an increased respect for Technology adds zest to economic activity. Although the seesaw is linked to economic life, the evidence does not indicate that economic changes are always propelling the swings in intellectual and social attitudes. Economic changes do affect the seesaw but in turn the seesaw affects economic life (...) The time will probably come when economists recognise these cultural signs.”

“The swing between Technology and Nature is in a sense a swing between optimism and pessimism. Those who believe in Technology, I sometimes call the optimists. Those who believe in Nature, I sometimes call the pessimists. I know this is too simple a contrast, for many who favour a return to Nature are pessimistic towards the short-term future of their civilisation but, believing they hold the ultimate panacea, are optimistic towards the long-term future (...) An optimist, by my definition, respects our science-based civilisation and believes that it will continue to flourish.”

“My own conclusion is that a version of the seesaw existed in earlier centuries but was slower and less powerful. Later the seesaw became influential as society became more secular and as new technology became decisive (...) The seesaw stands at one of its most revealing positions in the period extending roughly from 1750 to 1790 when both Nature and western civilisation had powerful admirers; it illuminates the period from the 1840s to the 1870s when faith in western civilisation and specially its technology reigned supreme; it is important in the shorter period after the 1890s when faith in Nature revived powerfully, and in the recent post-war period when a strong swing towards Technology was followed by a strong swing towards Nature (...) The seesaw is more than a guide to people's attitudes to Nature on the one hand and to modern industrial society on the other. Many of our important values and attitudes are clustered at one end of the seesaw. The seesaw often carries, at opposite ends, the following riders and beliefs:

OPTIMISTS	PESSIMISTS
Optimists believe that: Man is intelligent	Pessimists believe that: Man is not as clever as he thinks he is
Our industrial civilisation is admirable	Our industrial civilisation is sick
New technology is beneficial	New technology is dangerous
Reason is the highest virtue	Imagination, instinct and emotion are the highest virtues
City life is noblest	Rural life is noblest
Rural life fosters idiocy	City life corrupts and pollutes
The work ethic deserves three cheers	Leisure deserves three cheers
Paradise is full of change	Paradise is stability and simplicity
Nature must be harnessed	Nature, if left alone, is bountiful
Science will provide	Nature will provide
Specialisation is wise	The all-rounder is preferable
Competition is a virtue	Co-operation is a virtue
Modern man is the ideal	The noble savage is the ideal
The golden age lies in the present and future but not in the past	The golden age lies in the past and maybe in a far-away, utopian future

Blainey, Geoffrey (1988): *The Great Seesaw. A new view of the western world, 1750-2000, Macmillan, Basingstoke, UK.*

442. It all has happened before: the four turnings (William Strauss and Neil Howe, 1997)

“The reward of the historian is to locate patterns that recur over time and to discover the natural rhythms of social experience. In fact, at the core of modern history lies this remarkable pattern: Over the past five centuries, Anglo-American society has entered a new era—a new turning—every two decades or so. At the start of each

turning, people change how they feel about themselves, the culture, the nation, and the future. Turnings come in cycles of four. Each cycle spans the length of a long human life, roughly eighty to one hundred years, a unit of time the ancients called the saeculum. Together, the four turnings of the saeculum comprise history's seasonal rhythm of growth, maturation, entropy, and destruction:"

- The *First Turning* is a *High*, an upbeat era of strengthening institutions and weakening individualism, when a new civic order implants and the old values regime decays.
- The *Second Turning* is an *Awakening*, a passionate era of spiritual upheaval, when the civic order comes under attack from a new values regime.
- The *Third Turning* is an *Unraveling*, a downcast era of strengthening individualism and weakening institutions, when the old civic order decays and the new values regime implants.
- The *Fourth Turning* is a *Crisis*, a decisive era of secular upheaval, when the values regime propels the replacement of the old civic order with a new one."

"Each turning comes with its own identifiable mood. Always, these mood shifts catch people by surprise. In the current saeculum, the First Turning was the American High of the Truman, Eisenhower, and Kennedy presidencies (...) The Second Turning was the Consciousness Revolution, stretching from the campus revolts of the mid-1960s to the tax revolts of the early 1980s (...) The Third Turning has been the Culture Wars, an era that began with Reagan's mid-1980s Morning in America and is due to expire around the middle of the Oh-Oh decade, eight or ten years from now (...) The Fourth Turning is history's great discontinuity. It ends one epoch and begins another. History is seasonal, and winter is coming."

"Sometime around the year 2005, perhaps a few years before or after, America will enter the Fourth Turning (...) Trying to foresee where the eruption will go once it bursts free of the channels is like trying to predict the exact fault line of an earthquake. All you know in advance is something about the molten ingredients of the climax, which could include the following:

- *Economic distress*, with public debt in default, entitlement trust funds in bankruptcy, mounting poverty and unemployment, trade wars, collapsing financial markets, and hyperinflation (or deflation).
- *Social distress*, with violence fueled by class, race, nativism, or religion and abetted by armed gangs, underground militias, and mercenaries hired by walled communities.
- *Cultural distress*, with the media plunging into a dizzying decay, and a decency backlash in favor of state censorship.
- *Technological distress*, with cryptoanarchy, high-tech oligarchy, and biogenetic chaos.
- *Ecological distress*, with atmospheric damage, energy or water shortages, and new diseases.
- *Political distress*, with institutional collapse, open tax revolts, one-party hegemony, major constitutional change, secessionism, authoritarianism, and altered national borders.
- *Military distress*, with war against terrorists or foreign regimes equipped with weapons of mass destruction."

Strauss, William; Neil Howe (1997): *The fourth turning. An American prophecy*, Broadway Books, New York.

443. 'We' versus 'Me'

"The energies of a duality drive the Pendulum of public opinion. On one side is 'Me,' the individual—unique, special, and possessing unlimited potential. On the other side is 'We'—the group, the team, the tribe, the collective. 'Me' and 'We' are the equal-but-opposite attractions that pull society's Pendulum one way, then the other. The twenty-year Upswing to the Zenith of 'We' (e.g., 1923–1943) is followed by a twenty-year Downswing as that 'We' cycle loses energy (e.g., 1943–1963).



Society then begins a twenty-year Upswing into 'Me' (e.g., 1963–1983), followed by a twenty-year Downswing as the 'Me' cycle loses energy (1983–2003). Think of the Pendulum as the forty-year heartbeat of society, systolic and diastolic."

"The 'Me' cycle.

1. demands freedom of expression;
2. applauds personal liberty;
3. believes one man is wiser than a million men: 'A camel is a racehorse designed by a committee';
4. wants to achieve a better life;
5. is about big dreams;
6. desires to be Number One: 'I came, I saw, I conquered';
7. admires individual confidence and is attracted to decisive persons;
8. believes leadership is 'Look at me. Admire me. Emulate me if you can'; and
9. strengthens a society's sense of identity as it elevates attractive heroes."

"The 'We' cycle.

1. demands conformity for the common good;
2. applauds personal responsibility;
3. believes a million men are wiser than one man: "Two heads are better than one";
4. wants to create a better world;
5. is about small actions;
6. desires to be a productive member of the team: 'I came, I saw, I concurred';
7. admires individual humility and is attracted to thoughtful persons;
8. believes leadership is 'This is the problem as I see it. Please consider the things I am telling you and perhaps we can solve this problem together'; and
9. strengthens a society's sense of purpose as it considers all its problems."

"It's not about age; it's about attitude. It's not about when you were born; it's about how you see the world. In this book, the word generation will be defined as, 'life cohorts bonded by a set of values that dictate the prevailing worldview of the majority.' Life cohorts, not birth cohorts. Everyone alive—regardless of their age—who sees the world through the lens of a particular set of values is part of that generation."

"New values are introduced every forty years at a tipping point, also known as a fulcrum. This tipping point/fulcrum is where the Pendulum hangs directly downward, having just completed a Downswing and ready to begin the Upswing on the other side. On one side of society's Pendulum is 'Me,' marked by the idealization of individuality and freedom of expression. The values of 'Me' are the values of the grasshopper, not the ant. The grasshopper is happy-go-lucky, living always in the moment. On the other side of the Pendulum is 'We,' marked by the idealization of authenticity and belonging to a tribe, working together for the common good. The ants are 'We,' trying to do the right thing, fulfilling their obligations, cleaning up the mess the grasshopper left behind."

"It would appear that the Eastern and Western Pendulums are locked in opposite cycles. Western Europe, the Americas, and Australia are headed into a 'We' just as China, India, and the rest of Asia seem to be headed into a 'Me.' In essence, China is experiencing the '60s. Our 1963 happened for them in 2003."

WHAT HAPPENS WHEN WE TAKE A GOOD THING TOO FAR			
UPSWING WE VALUES	ZENITH WE (TOO FAR) VALUES	UPSWING ME VALUES	ZENITH ME (TOO FAR) VALUES
Responsibility	» Duty	Big dreams	» Hollowness
Humility	» Obligation	Individual expression	» Posing
Thoughtfulness	» Sacrifice	Freedom	» Phoniness
Conformity	» Regimentation	Being cool	» Self-centeredness
Authenticity	» Self-righteousness	Personal achievement	» Guru worship
Transparency	» Oppressiveness	Rose-colored lenses	» Depravity

- Demands conformity for the common good.
- Applauds personal responsibility.
- Believes a million men are wiser than one man.
- Wants to create a better world. “I came, I saw, I concurred.”
- Is about small actions.
- Desires to be part of a productive team.
- Admires humility and thoughtful persons.
- Believes leadership is “This is the problem as I see it. Let’s solve it together.”
- Strengthen society’s sense of purpose, focuses on solving problems.

- Demands freedom of expression.
- Applauds personal liberty.
- Believes one man is wiser than a million men.
- Wants to achieve a better life: “I came, I saw, I conquered.”
- Is about big dreams.
- Desires to be Number One.
- Admires individual confidence and decisive persons.
- Believes leadership is “Look at me. Admire me. Emulate me if you can.”
- Strengthen society’s sense of identity, elevates attractive heroes.

WE		“WE” MINDSET VS. “ME” MINDSET		ME	
“UNITED WE STAND, DIVIDED WE FALL”		“BE #1—SECOND PLACE IS THE FIRST LOSER”			
VALUES	REJECTS	VALUES	REJECTS		
Responsibility	Relationships	Big dreams	Small actions		
Humility	Teams	Individual expression	Conformity		
Thoughtful	Small actions	Freedom	Self-sacrifice		
Conformity	Connecting	Being cool	Self-denial		
Authenticity	Volunteerism	Personal achievement	Personal responsibility		
Transparency	Common good	Rose-colored lenses	Reality check		

WE		EGO “WE” VS. SELF “ME”		ME	
SEAT OF OBJECTIVE IDENTITY		SEAT OF SUBJECTIVE IDENTITY			
RESPONSIBILITIES		DESIRES			
<ul style="list-style-type: none"> • Relationships and connections • Am I making a difference? • Do I matter? 				<ul style="list-style-type: none"> • Personal wants and needs • Am I happy? • Do I have status? 	
<p>Responsibility carried too far becomes slavery.</p>				<p>Freedom carried too far becomes depravity.</p>	

444. Discrimination and democracy

“Both Western and non-Western societies continue to struggle with the conflict between relatively recent egalitarian ideals and inegalitarian social and political orders designed by prior generations of government and leadership to maintain dominance of a particular ethno-national group, religion, or presumed race. The most durable and enduring democratic polities have nurtured an ethnos within them, often at the expense of minoritized and racialized groups. The United States, France, and Britain—but also contemporary Germany, Switzerland, Belgium, the Scandinavian nations, Ghana, South Africa, Indonesia, and many other countries classified as democratic—have exhibited this tendency. The larger number of studies of these countries and the likelihood of particular groups or subgroups attaining the most preferable positions in the economy, polity, and society attest to this bias in the most democratic and societies in the contemporary world. How to make societies less ethnocentric, and more ethos-centric, is one of the great challenges of balancing cultural difference and democracy in contemporary nation-states.”

“... population homogeneity, like the category of the foreigner and citizen, is a political artifact, not something we find ready-made in the world. So much of the origin tales told by various ultranationalist and xenophobic movements is mythical, not historical. the nation-state has always been a container populated by an ever-evolving assortment of nationalities, languages, migrants, and religions. Diversity on its own will not produce democracy, no more than homogeneous societies will.”

“With few exceptions, the overwhelming majority of nation-states, city-states, colonies, or principalities in the world’s history were founded with more than one readily identifiable population. The disagreements within Europe regarding who is, and who can be, a European and even more specifically, who can and cannot cross national and regional boundaries, generated another set of questions: Shall we let any of these outsiders in, and if so, which ones? By what criteria shall we include some people and exclude others? Once allowed in, who should be encouraged to leave, and who should be encouraged to stay? How people answer these questions in vastly distinct places in the world will help determine whether an ethos or an ethnos of democracy ultimately prevails in what is often referred to as the West.”

Hanchard, Michael G. (2018): *The spectre of race. How discrimination haunts western democracy*, Princeton University Press, Princeton, New Jersey.

445. 'Nobody Knows Anything'

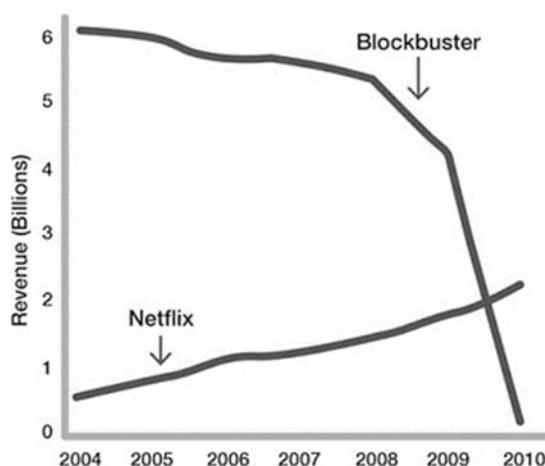
"... how is it possible that you can have a film directed by an Academy Award-winning director (Michael Cimino), starring a best-actor Academy Award winner (Christopher Walken), with a can't-miss script and a \$50 million budget...and end up with *Heaven's Gate*, one of the biggest Hollywood flops of all time? On the other hand, how can you have a film with a first-time director, a handful of amateur actors, no script at all, a budget under \$50,000...and end up with *The Blair Witch Project*, which, after grossing more than \$250 million, is one of the most successful independent films of all time? There's a simple explanation. It's because Nobody Knows Anything. And it's not just in Hollywood. It's true in Silicon Valley, too (...) If Nobody Knows Anything—if it's truly impossible to know in advance which ideas are the good ones and which aren't, if it's impossible to know who is going to succeed and who isn't—then any idea could be the one to succeed. If Nobody Knows Anything, then you have to trust yourself. You have to test yourself. And you have to be willing to fail."

"Silicon Valley brainstorming sessions often begin with someone saying, 'There are no bad ideas.' I've always disagreed. There *are* bad ideas. But you don't know an idea is bad until you've tried it. And, as Netflix shows, sometimes bad ideas have a way of becoming good ones. Not only had all the people who told me that Netflix would never work (including my wife) gotten it wrong, but so had I. We all had. We'd all known that the idea *could* work, but in the end nobody knew anything about *how*—until it did."

446. Randolph's rules for success

1. "Do at least 10% more than you are asked.
2. Never, ever, to anybody present as fact opinions on things you don't know. Takes great care and discipline.
3. Be courteous and considerate always—up and down.
4. Don't knock, don't complain—stick to constructive, serious criticism.
5. Don't be afraid to make decisions when you have the facts on which to make them.
6. Quantify where possible.
7. Be open-minded but skeptical.
8. Be prompt."

Randolph, Marc (2019): *That will never work. The birth of Netflix and the amazing life of an idea*, Little, Brown and Company, New York.



Collapse of Blockbuster and rise of Netflix

Bardi, Ugo (2020): *Before the collapse. A guide to the other side of growth*, Springer, Cham, Switzerland.

Satell, G.: A look back at why blockbuster really failed and why it didn't have to. Forbes (2014). <https://www.forbes.com/sites/gregsatell/2014/09/05/a-look-back-at-why-blockbuster-really-failed-and-why-it-didnt-have-to/#6df219961d64>.

447. The social capital thesis

“Social capital represents a propensity for mutually beneficial collective action, and it derives from the quality of relationships among people within a particular group or community. Communities with high social capital will achieve superior outcomes in multiple domains, it is claimed; and communities with low social capital can be assisted to build up stocks of this resource, so their performance will also improve over time. Economic development, community peace, and democratic participation can all be promoted in this manner, simply by investing in the stock of social capital. Social capital is not directly observable; people carry it inside their heads.”

“Social capital is defined by Putnam (1995: 67) [Putnam, Robert D. (1995): “Bowling alone: America’s declining social capital,” *Journal of Democracy*, 65-78] as ‘features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit.’ Relatively stable patterns of social interaction exist within some communities that are useful, social capital theory suggests, for sustaining mutually beneficial collective action.”

“The broadest argument made on behalf of social capital can be briefly summarized as follows. Persons bound together in dense social networks, infused with norms of reciprocity and trust, are better able and more inclined to act collectively for mutual benefit and social purposes (...) The existence of such norms and networks enables these groups—and society as a whole—to deal smoothly and effectively with multiple social and economic issues. In addition to cooperating with each other for mutual economic betterment, citizens bound together by norms and networks are also able to obtain better governance.”

Krishna, Anirudh (2002): *Active social capital. Tracing the roots of development and democracy*, Columbia University Press, New York.

448. Paradoxes of the knowledge society (Daniel Innerarity, 2013)

“It is said that we live in an information or knowledge society, but we should admit just the opposite: ours is a society of disinformation and ignorance (...) in a way that is simultaneously both more complex and more banal. Our ignorance is a consequence of three characteristics found in contemporary societies: the non-immediate nature of our experience of the world, the concentration of information, and the technology that intervenes between us and reality.”

- **“A second-hand world.** The fundamental problem of the knowledge society is that (...) it makes us all a little dumber; the contrast between what we know and what can and, especially, should be known is so marked that it would make more sense to call it a society of ignorance (...) In other cultures, human beings knew very little, but that little bit was practically everything they could and should know (...) Our world is second-hand and mediated. It cannot be any other way: we would know very little if we only knew what we know personally (...) Our cognitive growth is dependent on trusting and delegating (...) Almost everything we know about the world is known through specific intermediations.”
- **“A second-hand world.** The fundamental problem of the knowledge society is that (...) it makes us all a little dumber; the contrast between what we know and what can and, especially, should be known is so marked that it would make more sense to call it a society of ignorance (...) In other cultures, human beings knew very little, but that little bit was practically everything they could and should know (...) Our world is second-hand and mediated. It cannot be any other way: we would know very little if we only knew what we know personally (...) Our cognitive growth is dependent on trusting and delegating (...) Almost everything we know about the world is known through specific intermediations.”
- **“Excessive information.** One of the uncomfortable discrepancies in our world is a type of ignorance (...) produced by an excess of information and is designated by neologisms such as ‘infotrash’ or ‘infotoxiation.’ The specialization and fragmentation of knowledge has produced a plethora of information that is accompanied by a very slight increase in our comprehension of the world. Human knowledge doubles every five years. But in proportion to the available knowledge, we are increasingly less wise. We also find that the knowledge we have is not divisible, but demands an overarching perspective, which is increasingly difficult to attain. Connections between things frequently become unmanageable. Software designers call this ‘overlinking,’ an excess of references between different areas of knowledge (...) It is a paradox of privation in the midst of abundance. In a knowledge society, excess is the enemy (...) Badly managed complexity is the new ignorance. Or better yet, as Weick (1995) says: “the problem is confusion, not

ignorance.” There is a type of impasse that stems from the very accumulation of information, because information does not distinguish between what makes sense and what does not (...) We live in an informative environment filled with a massive amount of data that does not provide direction.”

- **“The submissive user.** All the paradoxes of the knowledge society are summarized in the following statement: we live in a society that is more intelligent than each one of us. Knowledge is everywhere; there is more knowledge than we can know (...) Cyberspace is a giant rumor cooker, a consumer of other people’s knowledge. Managing rumors and making use of other people’s knowledge are habitual ways for us to experience reality (...) Use and comprehension of an instrument are two different things. Knowing how to use something is not the same as understanding it; one thing is ‘know-how’ and another is knowledge. In the contemporary world, knowledge that is used but not understood is on the rise. The division of work that was typical in the industrial society has now been replaced by the division of knowledge in the knowledge society. The user is a client of simplicity. We do not want to know anything about the deeper logic of processors and programs; we prefer to remain on the pleasant surface of functionality.”

Innerarity, Daniel (2013): *The democracy of knowledge*, Bloomsbury, New York.

449. Cooperation vs competition (Buxton and Hayes, 2016)

“Perhaps the most important lesson of this book is that by portraying people as some kind of Hobbesian mass that will inevitably meet food shortages with violence, or as hordes of would-be migrants massing at our borders, we are giving succour to the security strategists and the politics of fear that make people more willing to contemplate giving up their freedoms (...) Crises, more often than not, lead not to civilisational collapse, but altruism and solidarity. The fear of disorder, mayhem and the justification for military responses is the instinct of the richest –those with most to lose. This is what Solnit [Solnit, R. (2009): *A paradise built in hell: The extraordinary communities that arise in disasters*, Viking, New York] describes as ‘elite panic.’ In contrast, what emerged from the disasters she studied, are mini ephemeral utopian societies built on precisely the solidarity, democracy and accountability that neoliberalism and authoritarianism have stripped from contemporary political systems (...) In contrast to the ‘perspective of Malthusian dog-eat-dog resource competition’, the issues engendered or exacerbated by climate change have just as much potential to produce cooperation among peoples. In other words, when you have lots to lose, you are more compelled to collaborate than compete.”

“Faced with the sure knowledge of worsening climate change, corporations determined to continue business-as-usual, and a security industry promoting a politics of fear and insecurity, humanity faces a critical choice (...) we can throw up our hands in despair and darkly predict our demise – in which case we will entrench the power of those thriving from the politics of dystopia and hasten some of the worst-case scenarios that they predict or (...) we can reject their forecasts and believe in the power of popular movements to advance a different vision of the future, one that harnesses humanity’s compassion, creativity and cooperation.”

Buxton, Nick; Ben Hayes (2016): “Conclusion: Finding security in a climate-changed world”

450. ‘What may be the most important thing that has ever happened in human history’ (Pinker , 2011)

The decline in violence over the course of history and the fact that mankind may be living now the most peaceable era ever. Pinker identifies six major steps in the retreat from violence: the Pacification Process (transition from hunting/gathering to farming), the Civilizing Process (consolidation of centralized authorities), the Humanitarian Revolution (appearance around the Enlightenment period of organized movements to abolish socially sanctioned forms of violence and the ideology of pacifism), the Long Peace (after the Second World War the major powers stopped waging wars among themselves), the New Peace (since 1989, the end of the Cold War, organized conflicts have declined throughout the world) and the Rights Revolutions (inaugurated by the Universal Declaration of Human Rights in 1948, corresponds to the growing revulsion against aggression on smaller scales: against ethnic minorities, women, children, homosexuals, animals...). Forces driving the decline in violence: the state, commerce, feminization (societies more respectful with women tend to be less violent), cosmopolitanism (which allows to understand better others’ perspective), and the spread of reason to deal with human affairs.

Pinker, Steven (2011): *The better angels of our nature. Why violence has declined*, Viking, New York.

451. The bright side

Historically recent global trends that have coincided with the unfolding of the last globalization wave: decline in the number of wars and war-related deaths, continuous reduction in absolute poverty, more educated population, more people enjoying higher education, expansion of the middle class...

XII. Challenges of globalization

452. A political challenge of globalization: can national borders be redefined?

“... one of the most fundamental changes in the Western world – and, by implication, also the rest of the world – the formation of the state, which [Joseph Strayer] dates to between 1100 and 1600, with the thirteenth century as a particularly crucial period (...) The definition of a state in contemporary international law is based on the Treaty of Montevideo of 1933: a state must have a permanent population, well-defined borders, a government and a capacity to honour international obligations. By contrast, there are no demands regarding the quality of government, internal sovereignty, impersonal bureaucracy, etc. (...) Despite – or rather because of – the arbitrary character of these borders, the United Nations and other international bodies insist on their permanence, fearing that concessions on this point would endanger the whole system.”

“Politically, the development of the European Union has questioned the idea of the national state as the logical conclusion to a development going back to the Middle Ages and the early modern period.”

“Whereas the importance of the European state has been reduced after 1945, the opposite is the case with the rest of the world, where the number of states increased from 51 to 193 during the post-war period and some kind of a national state for the first time in history became the normal political organization all over the world.”

“[Charles] Tilly’s understanding of European state formation is succinctly expressed in the statement ‘War made the state and vice versa.’ States were formed through military competition, in particular through the military revolution in the early modern period.”

“Tilly later (...) introduces the distinction between coercion and capital, the former characterizing agrarian states, the latter urban ones, although the most successful states are combinations of the two.”

“The national state is no longer the obvious political unit it was (...) 50 years ago. Europe no longer has the central place it then had in historical research and teaching. Concerning the former, however, a comparison with the rest of the world increases the importance of the political division of Europe and its origins – there is no other example of an area of similar size being divided in this way.”

Bagge, Sverre Håkon (2019): *State formation in Europe, 843-1789. A divided world*, Routledge, London and New York.

453. Disruption

Through globalization, actual and potential connections and interactions increase. The new (more global) interactions tend to disrupt the existing (more local) ones. But globalization does not appear to create mechanisms to give a satisfactory solution to the disruptions. Left by itself, globalization is like a force of nature: you adapt (and accept it) or die.

454. Becoming more connected vs becoming more similar

Globalization occurs by increasing links. A possible side effect is that what is linked becomes more similar (ideas, technologies, goods, institutions, habits... are increasingly shared). Is that necessarily the case? Are there social dimensions (religion, culture, institutions) for which a reaction to increasing similarity will prevail? To which extent is the sequence links → diffusion → integration → homogeneity the most likely result?

455. What is new in the current (since the 1980s) globalization process?

One view is that all the globalization processes that have so far occurred are essentially the same and that the acceleration of these processes appear to be the radical novelty of the current globalization episode: same nature, fastest speed.

456. Economic dominance

The extension of the globalization process is more profound in the economic domain. This makes economic globalization the dominant force, to which the rest of globalizations (political, cultural, social, ideological...)

subordinate. Though there are many globalizations, the economic one seems to dominate and determine the rest: one globalization controls the rest.

457. Economic revolutions and globalization

If globalization processes are primarily driven by economic forces, it may be conjectured that economic revolutions fuel globalization. Once a sufficient number of hunter-gatherer economies developed, the necessary conditions for the agricultural revolution were created; this revolution gave new momentum to the ongoing (yet limited) globalization processes. When enough agricultural societies approached the limit of their development potential, an industrial revolution became feasible, which in turn facilitated the scaling-up of the globalization process. More recently, with industrialization spreading to underdeveloped economies, the developed economies acquired the potential to ignite a new economic revolution (the digital revolution) capable of boosting again the globalization process.

458. How inevitable is globalization?

If economic development is locally inevitable (at least, in the longest run), then globalization also appears to be inevitable: the global economy is the domain where (with enough material means available) economic development would ultimately unfold. Economic expansion would then be like a wild, unstoppable beast that overcomes any obstacle and that nothing can constrain.

459. Capitalism and globalization

Capitalism and globalization appear to feed each other. Capitalism facilitates the occurrence of economic revolutions (powers the beast of economic expansion) and thereby accelerates the globalization process. Globalization facilitates the continuation of capitalism and reinforces it. This view would explain why globalization has become more intense and widespread when (since the 1980s) the forces of capitalism have been freed of most controls and have been allowed to exert all its expansionary powers. The new capitalism launched in the 1980s seems responsible for the current globalization wave. Are they then inextricably linked? Is the fate of globalization determined by the fate of the new capitalism? Is a defining characteristic of capitalism creating by destroying?

460. Financial globalization: international rise of the financial sector

Globalization is a magnifier: it amplifies effects and consequences. Finance itself is also a magnifier of real activity (production, circulation and distribution of goods): finance contributes to makes expansions (economic booms) more expansionary, but also to make contractions (economic busts and crashes) more contractionary. At the national level, finance has proved to be a source of instability. It is likely that it will also contribute to make the global economy also more unstable and volatile. Is a global financial meltdown the most likely possibility in the medium-long run, of which the 2008 financial crisis episode centered on developed countries was an early warning?

461. Labour and globalization

Though the labour market is so far the less globally integrated, it has been one of the most affected by globalization. The international mobility of capital and the relative international immobility of labour has produced a tendency (at least in the developed economies) to the rise of unemployment, a slow growth of average wages, a deterioration in the position of the low-skilled workers and a widening of the gap between high-skilled workers (and those at the head of companies and financial institutions) and the rest of workers and employees. Globalization has created a race to the bottom among the less skilled workers in the developed countries (reinforced as well by the decentralization of wage bargaining) and favoured a redistribution of income in favour of those at the upper ranks of the salary scale (increase in earnings inequality). Globalization

has coincided with a shift of power to employers, who have improved considerably their position in the distributional conflict against employees.

462. Economic inequality and globalization

One of the aspects that, at the national level, finance has contributed to magnify is economic inequality. Liberalization and financialization have made property incomes (capital income) more important and capable of growing faster than wages (labour income), thereby redistributing wealth from the majority to a minority. Since, by itself, capitalism appears to concentrate a large share of its benefits in a few hands, a globalization going hand in hand with capitalism is expected to increase economic inequality (the benefits of globalization are asymmetrically distributed).

463. Polarization and globalization

The asymmetry of globalization at a global scale has reinforced the privileged position of 'the centre' (the most developed countries) against 'the periphery' (the rest of countries). The centre is becoming more powerful, which in turn increases the polarization of the global system. The centre still monopolizes technology, finance, resource exploitation, global mass media and the most destructive weapons. The geopolitics is currently dominated by war and competition: among states, among companies, and among states and companies. The game being played (survival of the biggest) may eventually put an end to the game (human civilization is self-destructed).

464. Technology and globalization

Globalization helps to accelerate technological change. Technological change endangers certain types of jobs. The faster technological change, the harder for workers to retrain and adapt to the new production environment. This makes technological unemployment more widespread and durable.

465. Welfare state and globalization

The ongoing globalization surge has coincided (has been caused) why the widespread adoption among developed countries of economies policies favouring 'the market' against 'the state' (associated with the neoliberal ideology): financial discipline (austerity measures), privatization, deregulation, tight monetary policy, retreat of the welfare state... This neoliberal globalization appears to put in great danger the survival of the welfare state built during the golden age boom (1945-1975). But without a welfare state compensating the strong economic inequalities that capitalism is prone to create, how viable is likely capitalism to be? Is the neoliberal globalization itself viable? Will globalization eventually demand a rebalance between *laissez-faire* and intervention/regulation in favour of the latter?

466. Democracy and globalization

Successful participation in globalization seems to require sacrificing the needs of the majority (Rodrik's trilemma). Will democratic societies adapt or tolerate to this requirement? How will national social structures respond to the domestic asymmetries (gap between economic elite and mass increasingly widened) created by globalization? Is in the last instance democracy incompatible with globalization? Which social structures are consistent with globalization? Specifically, are sufficiently egalitarian social structures unviable under full globalization?

467. Environment and globalization

The productive forces unleashed by capitalism are fed by natural resources. If the continuation of the globalization process (or simply the maintenance of the current state of globalization) depends on the continued expansion of the scale of operation of those productive forces, the limited amount of resources on the planet points to the unfeasibility of an indefinite growth of the global economy. How would globalization

respond to the halting of the global growth engine once it runs out of fuel? How much of what globalization has so far achieved is reversible (and how much will be reverted)? Are capitalism and globalization in the last instance bubbles that last and expand as long as there are enough available resources? Are they just parasites having no regard for their host (the planet)?

468. Cultural convergence?

We have not yet learned to tolerate diversity and difference (ethnic, linguistic, cultural, religious, political, sexual...). Cultural integration and uniformity seems to be reached by imposition. Western nationstates were erected applying this strategy. Will it work at the global scale? Will globalization backfire culturally? That is, will globalization cause a defensive reaction to what make be perceived as an attempt 'by them' to destroy 'us' (our identity, our way of live, our beliefs, our traditions)?

469. Political convergence?

Is global convergence to a unique political system likely? Is global economic convergence possible without political convergence?

470. The big triad: growth, distribution, stability

The challenges of globalization could be defined in terms of three dimensions.

- Growth dimension. Globalization is an expansionary process. The expansion of globalization unfolds in parallel with the growth, expansion or extension of other phenomena: flow of goods, people, information, practices, technologies, habits... Globalization has proved to be good at growth. Many variables have grown with it: global population, development and well-being, technological progress, material prosperity, energy usage, consumption, impact on the Earth System, speed of transport and communication... The impression is that the success of globalization along this dimension has been associated with its connection with the market institution: periods in which international mobility (of goods, capital, people) have been tolerated or stimulated appears to have intensified economic growth and globalization. Globalization itself has grown, as in encompasses or affects more aspects of human and social life.

- Distribution dimension. This refers to how the outcomes of the growth dimension are distributed among people (in this case, those involved in the globalization process). These outcomes could be positive (benefits and gains) or negative (costs and losses). There also a multiplicity of such outcomes, which can be defined in terms of income, wealth, political power, social influence or prestige, knowlege... Regarding distribution, globalization seems to have generated a mixed result: over the long run, its benefits tend to spread; over the short run, they tend to be concentrated. Hence, globalization is not necessarily good at distribution. An accelerated globalization could create a new dynamics in which the benefits initially shared by a few fail to be more or less evenly distributed among the rest. Without social or political institutions accelerating distribution, the benefactors of globalization may successfully block the extension of its benefits to the general population. In this case, inequality and heterogeneity may be the result of a decentralized (unregulated) globalization. The success of globalization to deliver fair distribution appears then to be related to the capacity of some centralized authority to steer, regulate or control globalization. The need for this authority seems more likely the fastest globalization expands or deepens.

- Stability dimension. This dimension has to do with the conditions necessary for the first and second dimensions to be viable. Concerning globalization, this dimension defines those conditions under which globalization can continue or, at least, be preserved.

(1) Social stability. A breakdown of globalization may occur as a result of insurmountable social or political tensions generated by an unfair distribution. The prospects in this respect do not appear favourable: nothing in

past or current globalization processes ensure that social institutions will be developed to handle successfully the distributional problems caused by globalization. Globalization seems to benefit (and favour) mechanisms (like free markets, property rights, monetary profits) that contribute to produce technological progress. Contrariwise, no such mechanism appears to consistently operate to create social institutions conducive to institutional progress (globalization does not need democracy, civil rights and freedoms, social benefits... nor has directly contributed to their creation).

(2) Ecological stability. Destroying the material base of globalization (the environment, its resources and renewal cycles) is the main threat to the continuation of the growth of globalization. Again, globalization is in a precarious position along the stability dimension: though the optimists regard the engine of growth (technology) as the source of solutions for ecological deterioration, the pessimists point to the impossibility of making continued growth sustainable (stable) on a finite environment. Against that limitation there is no technological solution. In parallel, there is the damage already inflicted on the environment, which could be possibly be well beyond repair. Given the characteristics of globalization (growth comes first and above all), it appears very likely that globalization (and civilization, its partner and co-creation) has been the fortunate outcome of exceptionally good conditions provided (but just for a short period of time) by nature. Nature eventually returns to unfavourable conditions. Globalization just helps nature to reach those conditions and, in the process, destroys civilization.

471. Global instability?

- **Sources of financial instability.** (i) Global shadow banking. (ii) International dimension of Hyman Minsky's financial instability hypothesis. (iii) Insufficient or weak global financial institutions. (iv) Lack of global financial regulation. (v) Excessive privileges of the US economy and the dollar: the US is the centre of financial flows and US monetary policy diverts international financial flows. (vi) Triffin dilemma: stability vs liquidity.
- **Sources of economic instability.** (i) The global dual structure centre (rich and productive) vs periphery, which also tends to be reproduced at smaller economic scales. (ii) Domestic source: real-wage growth vs productivity growth. Insufficient real-wage growth leads to excessive debt accumulation, which endangers financial stability. (iii) Persistent global trade imbalances. (iv) Growth of transnational corporations. (v) Two views on the impact of globalization on economies: is it a stabilizing or a desatabilizing force? (vi) Is the increasing role of regional powers (EU, China and Japan) a stabilizing or a destabilizing global economic force? Do they favour discrimination excessively (preferential trade agreements)? (vii) Is the rise of China ultimately destabilizing for the global economy? (viii) Technological challenges: (a) is technological development out of control?; (b) is this development creating massive technological unemployment? (ix) Environmental challenges: (a) are we putting to an end the period of benign climatic conditions?; (b) is the working of the global economy depleting the stock of natural resources?
- **Sources of political instability.** (i) How stable are international political alliances? (ii) How stable is an international state system lacking strong institutions of global governance? (iii) The Thucydides trap (risk of an all-out war between hegemon and contender to global dominance) and the Churchill trap (risk of a long-term confrontation between two major powers, as in the Cold War). (iv) Are emerging powers (China, India, Russia) sufficiently stable domestically? (v) The paradox of dominance: dominant powers create a system used by challengers to rise.

472. The great challenge

The great challenge is to ascertain whether there is a form of globalization in which the three dimensions coexist and if, they cannot, if globalization can mutate into a process in which the last two dimensions are sustainable at the expense of the first one: an intensive rather than extensive form of globalization.

473. Challenges of contemporary political life

“The four great challenges of contemporary political life are global trade, the Internet, human migration, and safeguarding the environment. Of the four, global trade has achieved a kind of conflicted peace. Finance is free to move. Although financial crises and competition between economic sectors, institutions, and governments create exceptions, sleights of hand like corporate bankruptcy allow amazing fluidity. Data, which as we have seen are integral to the movement of finance, are likewise almost entirely unrestricted. However, data are subject to far more regulation. Crime, terrorism, pornography, spam, identity theft, intellectual property, and the security of online trade are among the themes addressed in the major international forums where Internet governance is addressed.”

“Media governance is shaped by the argument between the freedom of information to move and the restriction of data to authorized users. Freedom of human movement, meanwhile, is subject to increasingly virulent restrictions (...) Thus while money can move at will and data within limited constraints, people are both restricted and compelled to move or to stay. Movements of money are relatively unsupervised, so much so that money laundering has begun to worry even the world’s financial centers. The Internet includes enclaves of intense security and others of untrammelled exchange. Meanwhile, the movements of people are highly managed. Cosmopolitan elites are by and large free to go where they will, but all others are governed by complex sets of international agreements and surveillance operations.”

“The environment shares features with all three. It is subject to what the current jargon calls multistakeholder governance, involving not only nationstates but markets, expert bodies, and civil society organizations, which, however, in the case of environmental action have not produced shared policies, institutional forms, or convincing instruments to effect change. Like trade and the Internet, the environment continues to function but is surrounded by threats. Like migrants, it is subject to regimes of exclusion, especially from political debate, where it is spoken for and spoken about but has no voice of its own.”

Cubitt, Sean (2017): *Finite media. Environmental implications of digital technologies*, Duke University Press Durham and London.

474. ‘The state of our imbalance’ (Henry Mintzberg, 2015)

- **“Consumed by consumption.** In today’s world, we glorify consumption while we consume ourselves and our planet.”
- **“Corporate persons and human resources.** As corporations have become ‘persons’ in the law, persons have become ‘resources’ in the corporations. Are you a human resource? I am a human being.”
- **“The corporate press.** Most countries called democratic do not have an independent press so much as a corporate press, beholden to the owners and the advertisers (...) To restore balance in society, we need more alternate voices in the press and the media, not fewer.”
- **“Numbed by advertising.** Stop for a moment and have a look at the next few advertisements you see. Ask yourself how many of them go beyond informing, to demean basic human values (mixing up diamonds with love, for example) or else to lie outright, by commission (...) or by omission.”
- **“The commercialization of almost everything.** Consider the extent to which our world has become commercial, where everything possible is supposed to be ‘monetized.’”
- **“The emasculation of government.** In the win-win scenario of communism, the state was supposed to ‘wither away.’ Now capitalism is working on it instead—at least for those government departments that do not serve its purposes. Many countries have been relentlessly ‘privatizing’ their public services, as if business is inevitably superior to government.”
- **“Globalization for the global.** In the name of globalization, many large enterprises run freely around the globe, cheered on by the powerful international agencies that should be regulating them, all of these economic: the International Monetary Fund, the World Bank, the World Trade Organization (...) Here is where the economic dogma has dug itself in most deeply, for the benefit of corporate entitlements worldwide.”

- **“Democracy in America—Twenty-five years later.** Democracy is a dynamic process, not some fixed state. It comprises a variety of components, such as a truly free press, open elections, equal rights, and an independent judiciary. No country can just be declared democratic (...) The United States wrote the book on democracy as we know it. How has it been doing in the quarter century since the triumph of imbalance? Not well (...) Many people in the ‘developed’ world point their fingers at the corruption of politics in some of the poor countries. The difference in America today is that the corruption is legal.”

“The country’s greatest period of development—socially and politically as well as economically—arguably came in the four decades following World War II (...) The years since 1989 have borne witness to an alarming reversal on many fronts, including some where the country used to have the best record in the world. Consider the evidence on rates of incarceration (the highest in the world) and obesity (the second-highest); the use of antidepressants (the second-most prescribed drugs in the United States); the costs of health care (the highest in the world by far, with mediocre results); levels of poverty (the highest rates in 52 years of reporting), of voter turnout (114th of all nations), of high school dropouts (18th of the top 24 industrialized nations), of college graduation per capita (16th in the world), even of social mobility (now behind a number of the industrialized countries) (...) Yet denial remains the order of the day. In revisiting his ‘end of history’ thesis after twenty-five years, Francis Fukuyama (2014) concluded that he was right after all (...) The *New York Times* published an article (Shane 2012) that also discussed some of this evidence, but under a title that indicated another conclusion: “A Rule for U.S. politicians: ‘We’re No 1!’” In denial, at least. Especially worrisome is that so much of the American population has passively accepted such myths. What will happen when they have to face the reality?”

- **“Democracy for the globe?** The American record abroad has been mixed, yet here, too, a powerful myth prevails (...) The country has (...) promoted democratic elections in many countries. Meanwhile, nasty America has supported its share of oppressive regimes and has worked to undermine some decent ones, much of this to protect the interests of its businesses (...) Must we rely on a single country to lead the world to some just order, especially a country that continues to promote internationally the very model that has been causing so many of its domestic problems? Can the world’s most enthusiastic proponent of individualism—for itself as a nation alongside its citizens—be expected to foster the cooperation that the world so desperately needs?”

Mintzberg, Henry (2015): *Rebalancing society. Radical renewal beyond left, right, and center,* Berrett-Koehler Publishers, Oakland, CA.

475. The most important lesson in history?

“...perhaps the most important lesson we can learn from history is that short-term solutions and quick profits come at a great price in the long run.”

Fawcett, Bill (2013): *Doomed to repeat The lessons of history we’ve failed to learn,* William Morrow.

476. The fallacy of metaphysical questions

“The fallacy of metaphysical questions is an attempt to resolve a nonempirical problem by empirical means (...) A prime example is the problem which is eternally popular among Civil War historians : ‘Was the War inevitable?’ A scholar who carries this question to the archives can illustrate his answer by reference to historical events; he can add persuasive power to his metaphysical proposition by the appearance of factual solidity. But he can no more hope to resolve the issue of inevitability by empirical research than he can hope to determine by modern methods of quantification the number of angels which might be made to perch upon the head of a proverbial pin.”

Fischer, David H. (1970): *Historians’ fallacies. Toward a logic of historical thought,* Harper Perennial, New York.

477. The didactic fallacy

“The didactic fallacy is the attempt to extract specific ‘lessons’ from history, and to apply them literally as policies to present problems, without regard for intervening changes.” (Fischer, 1970, p. 157)

478. The quantitative fallacy

“The quantitative fallacy (...) consists in the idea that the facts which count best count most. (...) [It is] a criterion of significance which assumes that facts are important in proportion to their susceptibility to quantification. There is an epigram, perhaps apocryphal, attributed to Lord Kelvin, that everything which exists, exists in quantity. Enthusiastic quantifiers have amended Lord Kelvin's statement to read, ‘Unless a thing can be measured quantitatively, it does not exist significantly.’ Therein lies a fallacy.” (Fischer, 1970, p. 90)

XIII. The future of globalization

479. Six supertrends shaping the future (Edward Cornish, 2004)

- **Technological progress.** “We can think of technological progress as the growing capability of humans to achieve their purposes. Technological progress has been the supremely important trend in human evolution for millions of years.”
- **Economic growth.** “Technological progress promotes economic growth (...) because people are eager to use their know-how to produce goods and services, both for their own use and to sell to others. Economic growth is also a self-sustaining process.”
- **Improving health.** “Technological progress and economic growth have led to improving human health because they have produced more food, more effective sanitation, better health services, and so on. Improving health leads to increasing longevity, which has two very important consequences: population growth and a rise in the average age of the population.”
- **Increasing mobility.** “People, goods, and information move from place to place faster and in greater quantity than ever before (...) Mobility can also cause social and cultural disruption.”
- **Environmental decline.** “Environmental decline is continuing for the world as a whole because of continuing high population growth and economic development.”
- **Increasing deculturation (loss of traditional culture).** “Deculturation occurs when people lose their culture or cannot use it because of changed circumstances (...) Today, the world is estimated to have 6,000 languages, but the number is expected to dwindle to about 3,000 by the end of the twenty-first century due to high mobility, globalization of economic activities, and other factors. Urbanization also contributes to deculturation.”

Cornish, Edward (2004): *Futuring. The exploration of the future*, World Future Society, Bethesda, Maryland.

480. Yuval Noah Harari's (2018) lessons for the 21st century

- **IDEOLOGY.** History has not ended. The fascist ideology was defeated in World War II. The communist ideology after the Cold War. The liberal ideology emerged apparently definitively triumphant. But since the 2008 global financial crisis, freedoms seem to be in retreat in many countries: new walls erected; restrictions on trade and immigration applied; the independence of the judiciary system compromised; freedom of the press under attack; strongmen impose illiberal democracies or, even, autocracies; Brexit; Trump; internally non-democratic but externally liberal China has become an emergent hegemonic power... Will liberalism reemerge as the dominant ideology or will a new ideology (nihilism?) replace it?
- **WORK.** The rise of technological unemployment and of an economically useless class. Is technological development going to make having a job a luxury? Or will the current fears of massive unemployment become just another illustration of the Luddite fallacy, as in the long run automation will create more jobs than it destroys? Machines have initially displaced humans in activities involving physical abilities (manual jobs in agriculture and industry). Now, machines (artificial intelligence) are rivalling with humans in cognitive abilities (use of information). Is there another type of abilities (beyond the physical and the cognitive) in which machines will not be able to outperform humans (art, emotions, intuitions about other humans)? Is there an unhackable trait of humans? For if everything in a human can be replicated by a machine, what are the long run prospects of humanity?

“The AI revolution won't be a single watershed event after which the job market will just settle into a new equilibrium. Rather, it will be a cascade of ever-bigger disruptions. Already today few employees expect to work in the same job for their entire life. By 2050, not just the idea of ‘a job for life’, but even the idea of ‘a profession for life’ might seem antediluvian.”

“The challenge posed to humankind in the twenty-first century by infotech and biotech is arguably much bigger than the challenge posed in the previous era by steam engines, railroads and electricity. And given the immense destructive power of our civilisation, we just cannot afford more failed models, world wars and bloody revolutions. This time around, the failed models might result in nuclear wars, genetically engineered

monstrosities, and a complete breakdown of the biosphere. Consequently, we have to do better than we did in confronting the Industrial Revolution.”

“Potential solutions fall into three main categories: what to do in order to prevent jobs from being lost; what to do in order to create enough new jobs; and what to do if, despite our best efforts, job losses significantly outstrip job creation.”

“It is debatable whether it is better to provide people with universal basic income (the capitalist paradise) or universal basic services (the communist paradise).”

- **BIG DATA. Help or control?** A benign use of Big Data algorithms might empower people, helping them to make fast and easily what currently are difficult decisions. They could help people to discover what they really want and help them to obtain it efficiently. Alternatively, there are at least two dark scenarios.
 - (i) **Rise of the robots: the Terminator world.** AI entities created by humans could not remain obedient to humans and become free to develop their own agenda (which need not be beneficial to humans).
 - (ii) **Big Brother and digital dictatorship: the Orwellian world.** AI entities created by humans could actually be too obedient to humans. Unscrupulous governments might use too efficient killing machines and too powerful surveillance algorithms to monitor people all the time and impose an absolute control on all human activities. Computing power contributes to reduce the comparative advantage of democracies over dictatorships in data-processing: information processing and decision making need no longer to be distributed among many social and political agents. “AI might make centralised systems far more efficient than diffused systems.” And even if political systems manage to remain democratic under the AI impact, people may suffer from new forms of exploitation, oppression or discrimination: the Big Brother could develop in the private sector (banks and corporations could benefit far more from the AI revolution than the ordinary citizen).

Harari, Yuval Noah (2018): *21 lessons for the 21st century*, Jonathan Cape, London.

481. Jorgen Randers’ (2012) five big issues toward 2052

- **The sustainability revolution.** “The future world will not have an expanding population. It will still use much energy per person, but that energy will be used wisely and be of the renewable sort. In the end the world will run on energy from the sun (...) It will be a world that focuses on human well-being, not only on its material component. The big question is how fast the transition to sustainability will happen. The sustainability revolution has already begun, that is for sure.”
- **The end of capitalism?** “Capitalism has done wonders for global wealth creation over the last centuries, and this system for allocation of human activity dominates the current world economy. Capitalism has successfully focused attention and capital on organizations that are able to provide goods and services to customers who are willing and able to pay. Whenever demand shifts, the capitalistic system reallocates, again and again, thereby contributing to a continuing restructuring and growth of the societal pie. But in the same process, uncontrolled capitalism concentrates wealth in fewer hands. So there is a growing group of critics who point to the inequitable distribution of success in the system. The defenders of capitalism have always responded that this is the task of the politicians. But since politicians, particularly in democratic societies, seem unable to tax and redistribute in a sufficient manner, capitalism normally ends with the blame. Employment is the main tool of distribution in the capitalist economy (...) But unemployment compensation is normally quite limited both in value and in the length of time it is available. This is why job loss is so much feared in all capitalist economies, and why capitalism comes under fire whenever unemployment rates increase.”
- **The end of economic growth?** “Yes, economic growth can continue, but only as long as the accompanying ecological footprint remains within the carrying capacity of the globe. (...) Will humanity manage to limit its ecological footprint to fit within the carrying capacity of the planet? Or will we continue to allow overuse of natural resources and the pollution-absorption capacity of the global environment? As you will see later, current lifestyles require roughly the support of 1.4 planets. Humanity has overshoot. We see the result of the overshoot most clearly in the ongoing accumulation of CO₂ in the atmosphere (...) It will be physically impossible to lift the material standard of living of all nations to that of the current West (...). In summary,

global average per capita resource consumption will never reach the level that Americans enjoyed around the year 2000."

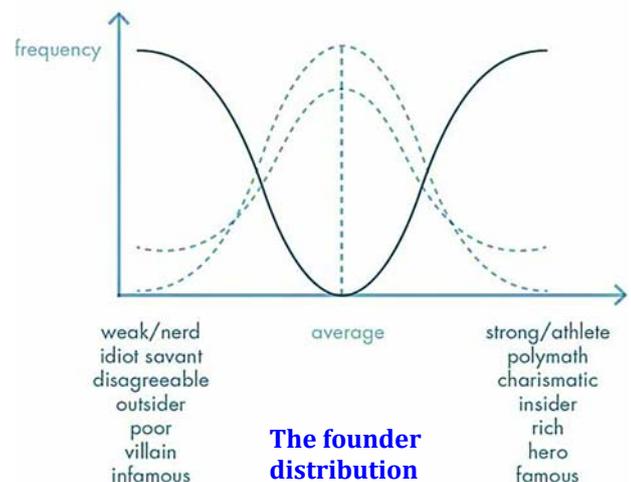
- The end of slow democracy? "Democracy has many advantages and often yields solutions that are more sustainable than top-down decisions. But speed is not one of the characteristics of democratic decision making. So the way I see it, the fundamental question in this domain is whether democracy will agree on a stronger state (and faster decision making) before it is too late—before we run into the brick wall of self-reinforcing climate change, irreversible biodiversity loss, and insufficient investment in forward-looking research and development."
- The end of generational harmony? "Over the last hundred years or so we have gotten used to expecting that each generation enters the world in better shape. That means with better health, better education, more wealth, and better prospects (...) Today's young, particularly in the rich world, are facing a new situation. They are inheriting a significant burden of national debt from their parents; they have to beat their way into markets characterized by persistent unemployment; they can ill afford housing at the same level as their parents; and they are expected to pay for their parents' pensions. On top of this, the prospects for a quick resolution of these issues are grim. So the relevant question becomes: Will the younger generation calmly accept the burden bestowed on them by the older generation? Or will we get an aggressive and paralyzing confrontation between young and old, starting with confrontations with the baby boomers in the rich world?"
- The end of stable climate? The intergenerational issue (...) is most obvious in three areas: anthropogenic biodiversity destruction, climate change, and entombment of radioactive waste (...) The prime legacy issue in 2012 is humanity's big and growing emissions of greenhouse gases, which lead to global warming. The CO₂ is emitted as a gas into the atmosphere and quickly moves around the globe. It remains in the atmosphere for a long time while waiting to get absorbed in the ocean (as carbonic acid in the water) or in trees and plants (as plant material when they grow). Presently, very roughly one-quarter of the CO₂ flows into the ocean, one-quarter flows into new biomass, and one-half remains in the atmosphere. The long-run accumulated effect of these flows has been to lift the concentration of CO₂ in the atmosphere from 280 ppm in preindustrial times (circa 1750) to 390 ppm today (2010). The CO₂ flows also have increased the acidity of the oceans and created a more difficult life for shell-forming species. More CO₂ in the atmosphere accelerates plant and tree growth, but it also leads to higher temperatures on the surface of the earth. The global average temperature has increased by 0.7°C since preindustrial times (...) And if we are to keep the temperature rise below plus 2°C we must keep the concentration of CO₂ in the atmosphere below 450 ppm (...). The concentration is currently going up by 2 ppm per year."

482. Jorgen Randers' (2012) 'grocline'

"In the last third of the twenty-first century I believe the world economy will have entered into an era where the combination of individual growth and societal decline has become the norm. Per capita consumption will be growing year by year, just as in the good old days. And at the same time the total economy—the GDP—will be in constant decline. This could be called 'grocline'—simultaneous growth and decline. The grocline world is one where the individual situation improves while the total pie shrinks. It's good and bad at the same time—decade after decade.

483. The founder's paradox

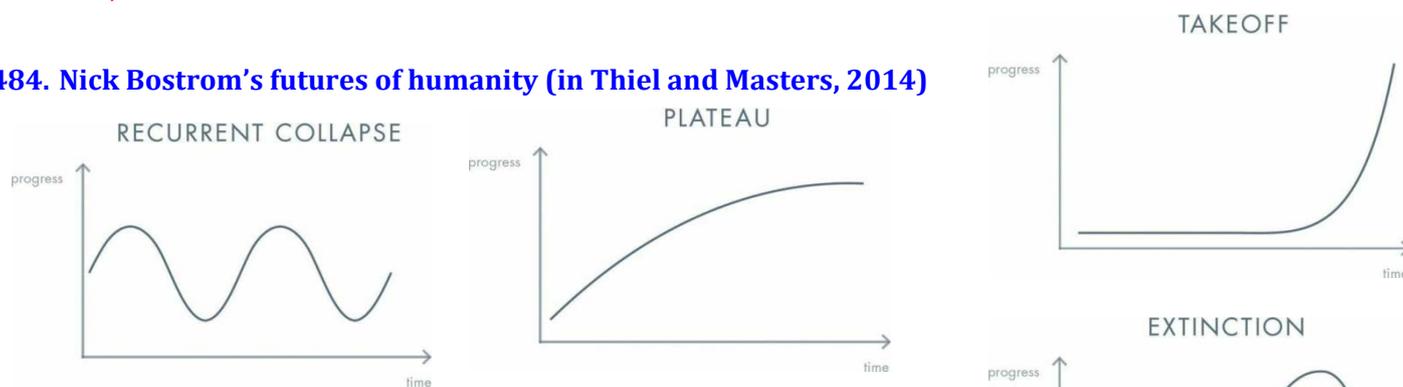
"Of the six people who started PayPal, four had built bombs in high school. Five were just 23 years old—or younger. Four of us had been born outside the United States. Three had escaped here from communist countries: Yu Pan from China, Luke Nosek from Poland, and Max Levchin from Soviet Ukraine (...) Are all founders unusual people? (...) Some people are strong, some are weak, some are geniuses, some are dullards—but most people are in the middle. Plot where everyone falls and you'll see a bell curve. Since so many founders seem to have extreme traits, you might guess that a plot



showing only founders' traits would have fatter tails with more people at either end. But that doesn't capture the strangest thing about founders. Normally we expect opposite traits to be mutually exclusive: a normal person can't be both rich and poor at the same time, for instance. But it happens all the time to founders: startup CEOs can be cash poor but millionaires on paper. They may oscillate between sullen jerkiness and appealing charisma. Almost all successful entrepreneurs are simultaneously insiders and outsiders. And when they do succeed, they attract both fame and infamy. When you plot them out, founders' traits appear to follow an inverse normal distribution."

Thiel, Peter; Blake Masters (2014): *Zero to one. Notes on startups, or how to build the future, Crown Business, New York.*

484. Nick Bostrom's futures of humanity (in Thiel and Masters, 2014)



485. The future as seen in the past and as seen now

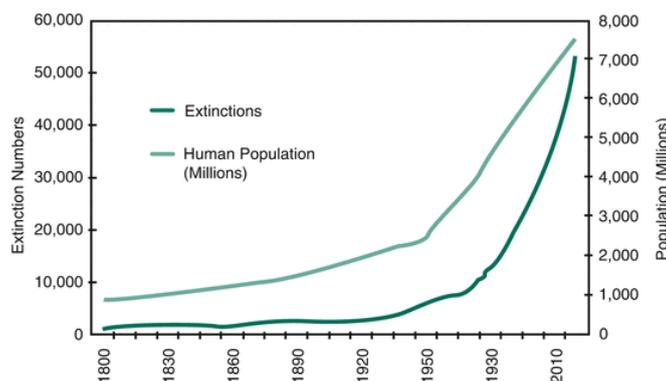
"What distinguishes modernity's from antiquity's conception of the future is the idea of the future as a garden of forking paths. The modern understanding is no longer based on the notion of a thread of life that unravels inexorably and can only be apprehended or misapprehended. It presupposes an open and malleable future that can be predicted in the present and also altered. Prognoses are no longer self-fulfilling but seen as a form of pragmatic knowledge. They envision a contingent future subject to change."



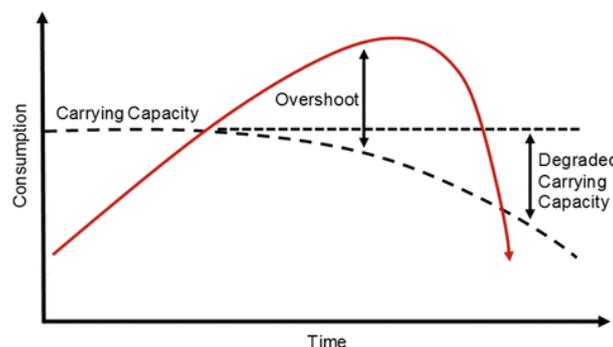
Horn, Eva (2018): *The future as catastrophe. Imagining disaster in the modern age, Columbia University Press, New York.*

486. Humanity's challenges (Julian Cribb, 2017)

- **Species extinction, defaunation.** "Of all the human impacts which affect other creatures and plants, by far the largest is our practice of modifying natural landscapes and seascapes, so they support less and less wildlife. The main reason we modify these environments is for farming, fishing and grazing in order to supply the food we need each day (...) A major extinction event driven by humans is poised to occur in the world's oceans, similar to the one which has already taken place among land animals over recent history."



- **Global overshoot: resource scarcity, water scarcity, soil degradation, deforestation, desertification, ocean mining, energy struggle.** "The human story in the twenty-first century will be dominated by a titanic global struggle—economic, political, scientific and military—for resources. On this, to a significant degree, turns the fate of civilisation. In every prior age till now the bounty of the Earth was ample to sustain the ascent of human society. Scarcities, when they occurred, were local, regional or else the result of human interference or mismanagement. Now (...) the physical demands of seven to ten billion humans, each aspiring to a higher standard of living, are

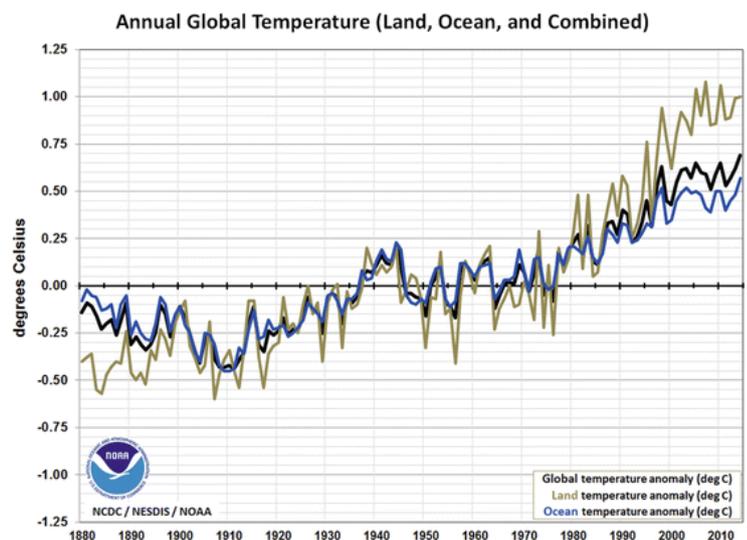


combining to exceed the Earth's carrying capacity. Put simply, we are using more stuff than the planet can renewably provide (...) To support the average citizen of Earth takes around 1386 tonnes of water a year. This is known as our 'water footprint' and consists of all the water used to produce our food, consumer products, or provide the services on which we rely (...) In total, humanity goes through more than 9 trillion tonnes of fresh water annually (...) Even in the late twentieth century many people believed it inconceivable that human demands could possibly exceed the bounty of the world's vast oceans, or cause them such harm as to undermine their health and deplete the life they hold. This is no longer true."

"Cheap energy is the blood supply of modern civilization. To keep the world ticking over requires the use of about 550,000,000,000,000,000 British thermal units (550 quadrillion Btus) of primary energy each year (...) The typical Canadian consumes around 400 million Btus a year to maintain their lifestyle, the average German 165 m, the average Argentinian 90 m, the average Chinese 80 m and the average Egyptian 42 m. To satisfy this gargantuan global energy hunger in the second decade of the twenty-first century took 33 billion barrels of oil, 120 billion cubic feet of gas, 8.5 billion tonnes of coal and 20 trillion kilowatt hours of electricity every year. Of this total, fossil fuels supplied around 80 % of all primary energy and renewables about 20 % in the years 2013–2015."

- **Weapons of mass destruction, arms race, chemical and biowarfare.** "Eight countries have the technical capability to unleash nuclear mayhem (...) In 2015, (...) China had about 260 total warheads. France had around 300 operational warheads. Russia had about 1512 strategic warheads deployed on 498 missiles and bombers and was thought to hold another 1000 strategic warheads and 2000 tactical nuclear warheads. Several thousand more awaited dismantlement. The United Kingdom had 160 deployed strategic warheads and a total stockpile of 225. The United States had 7700 nuclear warheads (...) 4500 active warheads and 3200 'retired' weapons (...). India had 120 nuclear warheads. Israel had 80 (...). Pakistan had 120 (...) One reason why weapons of mass destruction are more to be feared in the twenty-first century than in the twentieth is that humanity is much more vulnerable than in the past."

- **Global and uncontrollable warming.** "The data—whether measured on land, in the air, in the oceans, or at the interface in the form of sea-level rise, told the same story: there has been a steady rise in the Earth's temperature. 2014 was officially proclaimed the warmest year on record—at 0.69 °C hotter than the average for the whole twentieth century—only to be eclipsed by 2015, according to the World Meteorological Organisation. In February 2016, the world was shocked by reports that the surface of the Earth north of the equator was already 2 °C warmer than pre-industrial temperatures—this was the line that was never supposed to be crossed. Nine of the ten warmest years ever recorded occurred during the twenty-first century, and average temperatures rose worldwide for 38 consecutive years since 1977."



- **“Planetary poisoning.** Earth, and all life on it, are being saturated with man-made chemicals in an event unlike anything which has occurred in all four billion years of our planet's story. Each moment of our lives, from conception unto death, we are exposed to thousands of substances, some deadly in even tiny doses and most of them unknown in their effects on our health and wellbeing or upon the natural world. These enter our bodies with every breath, each meal or drink, the clothes we wear, the products with which we adorn ourselves, our homes, workplaces, cars and furniture, the things we encounter every day. There is no escaping them.

- **“Food insecurity.** There are ten main factors which drive global food insecurity (...) On the demand side, the requirement for a doubling in global food production is driven by population growth (...) and rising

living standards coupled with economic demand for higher quality, richer, more nutritious foods (...). On the supply side, the main things that limit our ability to double food production are:

- Physical loss and decline in fertility of soils worldwide, combined with a shrinking world farming area.
- Scarcities of fresh, clean water in heavily populated regions (...).
- Uncertain availability and high cost of liquid transport fuels out to mid-century and beyond.
- Emerging scarcities of high-quality mineral fertilisers (...).
- Continuing decline and potential collapse of wild fish stocks due to overfishing and ocean pollution.
- Global decline in public sector investment in food, agricultural and fisheries science (...).
- A worldwide drought of ‘patient capital’ for new investment in farming and food production, along with speculative investment in farm land and commodities and ‘landgrabs’ by speculators and rich corporations.
- Extinction of the temperate climate which gave rise to agriculture (...).

It is the synergy between these ten drivers that is the primary cause of global food insecurity, present and future (...) Ours is the first generation in human history to throw away half our food. Between one third and a half of the efforts of the world’s farmers, horticulturalists and agri-scientists, amounting to 1.3 billion tonnes of food a year worth over \$1 trillion, are sent to landfill or else rot in the fields (...) The modern diet is neither safe nor healthy: medical scientists estimate that today two out of every three people in the world die from a diet-related disease (...) the world diet has to change—to one that is fresh, diverse, healthy and which prevents disease instead of causing it.”

- **Megacity collapse, new plagues, machine minds.** “The greater risk from AI may stem less from autonomous weapons (...) than from machine intelligence which might seek—for reasons of its own—to dominate, supplant or eradicate humans (...) A second dimension in which the march of technology imperils the human future is through the rise of the ‘nanocracy’, a condition in which close surveillance and information about individuals throughout the whole of their lives will be maintained by a network of governments, commercial corporations and law enforcement agencies.”
- **Wealth divide.** “Worldwide, while there is abundant evidence that humanity is becoming wealthier and achieving higher living standards as a whole, there is also evidence that wealth is being distributed less evenly across many societies and is concentrating in fewer hands (...) Oxfam argues that half the world’s wealth is now held by just 1 % of its people (...) According to The Guardian, in 2014, 80 individuals on Earth controlled more wealth than the poorest 3,600,000,000 (...). The Credit Suisse Wealth Report in 2015 came up with a similar estimate, that 1 % of the population controlled half the household assets in the world (...) For civilisation and our species to survive and prosper sustainably in the long run, common understandings and co-operation are essential, across all the gulfs that divide us—political, ethnic, religious and economic.”
- **Illusions, delusions.** “The modern world is founded on a belief in money, a commodity that did not exist until about 5000 years ago and probably won’t exist in the far future. Yet most people behave as if money were, in fact, real—rather than a consensual belief or a bond of trust between people (...) Religious belief has been the primary construct on which humanity has founded its vision of the world, its moral laws and social order (...) It is likely to be as significant a power and influence over human affairs in the twenty-first century as in the past (...) Religious faith has proven both a great strength and sometimes a fatal weakness for humans. Many faiths, while asserting their own truth, have a habit of denying the truths of others, and this often ends in tears. Between 1618 and 1648, for example, Europe was plunged into one of the bloodiest and most brutal sectarian conflicts in its history, between Catholic and Protestant states of the fragmenting Holy Roman Empire. It caused famines and epidemics, killed 7.5 million people, bankrupted many countries.”

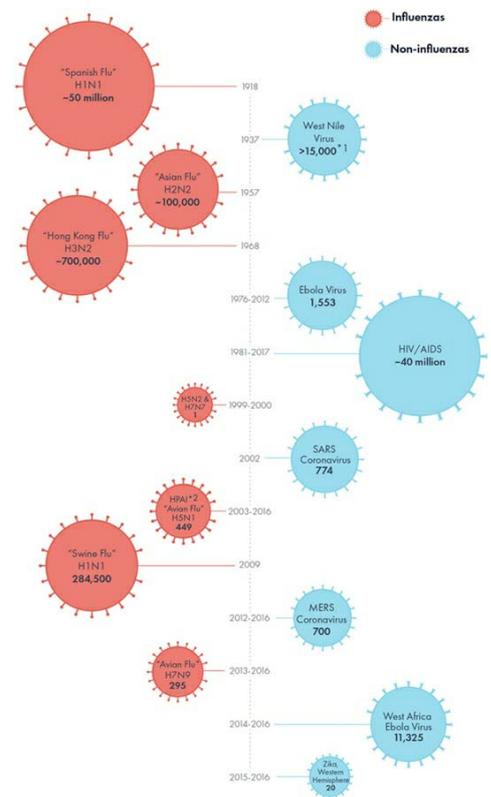
Cribb, Julian (2017): *Surviving the 21st century. Humanity’s ten great challenges and how we can overcome them*, Springer, Cham, Switzerland.

487. The end of pandemics: 'the power of seven'

"The enormous health and financial impacts of epidemics are made worse through human foibles like fear, denial, panic, complacency, hubris, and self-interest. But we can end epidemics by facing up to them and applying concrete actions I call 'The Power of Seven': (1) ensuring bold leadership at all levels; (2) building resilient health systems; (3) fortifying three lines of defense against disease (prevention, detection, and response); (4) ensuring timely and accurate communication; (5) investing in smart innovation; (6) spending wisely to prevent disease before an epidemic strikes; and (7) mobilizing citizen activism."

Quick, Jonathan D.; Bronwyn Fryer (2018): *The end of epidemics. The looming threat to humanity and how to stop it*, St. Martin's Press, New York.

A century of deadly outbreaks



488. The Doomsday argument

"... the Argument goes like this: if you assume that the human race will survive millions more years, perhaps for the remaining lifetime of our sun, say 5 billion years or so, and that the population of the Earth stabilizes at around 15 billion at any one time, then there would have been at the end of all that about 500 quadrillion humans. Since, at the most, 40 billion or so people have lived on Planet Earth to now, that means that we, you and I, would be among the first 0.00001 percent of all humans. In probability theory (using Bayes's theorem, which essentially says that a hypothesis is confirmed by any body of data that its truth renders probable), the chances of so unlikely an outcome are vanishingly small—ask any gambler. What makes us so lucky, or so special? On the other hand, suppose that humans are wiped out by some catastrophe in the next decade or so. That would make us 40 billionth out of a total human population of maybe 50 billion, much better odds, and therefore much more probable. Conclusion: scenario two is more likely to be true. Therefore: doom sooner rather than later."

De Villiers, Marq (2011): *The end. Natural disasters, manmade catastrophes, and the future of human survival*, St. Martin's Press, New York.

489. Collapse

"... a NASA-funded group recently created the Human and Nature DYNamics (HANDY) program to model the fall of the Roman, Han, Mauryan, and Gupta Empires, and when they pushed the button, it spit out a disquieting forecast: 'Global industrial civilization could collapse in coming decades due to unsustainable resource exploitation and increasingly unequal wealth distribution.' (...) In this model, by the way, one of the greatest dangers came from elites who argued against structural change on the grounds that 'so far' things were working out. That 'so far' is always the problem, as the man who fell off the skyscraper found out (...)

We've displaced most everything else: if you weigh the earth's terrestrial vertebrates, humans account for 30 percent of their total mass, and our farm animals for another 67 percent, meaning wild animals (...) total just 3 percent. In fact, there are half as many wild animals on the planet as there were in 1970, an awesome and mostly unnoticed silencing. And yet nothing slows us down—just the opposite. By most accounts, we've used more energy and resources during the last thirty-five years than in all of human history that came before (...) On his way to the theoretically groundbreaking Rio environmental summit in 1992, the first President Bush famously declared, 'The American way of life is not up for negotiation' (...)

Why should you take seriously my fear that the game, in fact, may be starting to play itself out? The source of my disquiet can be summed up in a single word, a word that will be repeated regularly in this book: *leverage*. We're simply so big, and moving so fast, that every decision carries enormous risk.

Rome's collapse was, of course, a large-ish deal. But given that there were vast swaths of the world that didn't even know there was a Roman Empire, it wasn't a big deal *everywhere*. Rome fell, and the Mayans didn't

tremble, nor the Chinese, nor the Inuit. But an interconnected world is different. It offers a certain kind of stability—everyone in every country can all hear the scientists warning of impending climate change, say—but it removes the defense of distance (...) We are putting the human game at risk, that is, from things going powerfully wrong and powerfully right. As we shall see, humans have now emerged as a destructive geologic force (...) And humans have simultaneously emerged as a massive *creative* force, in ways that threaten the human game not through destruction but through substitution. Robots are not just another technology, and artificial intelligence not just one more improvement like asphalt shingles. They are instead a replacement technology, and the thing's that's going obsolete may well be us (...) The outsize leverage is so crucial because, for the first time, we threaten to cut off our own lines of retreat. When Rome fell, something else was there (...) The human game we've been playing has no rules and no end, but it does come with two logical imperatives. The first is to keep it going, and the second is to keep it human.”

McKibben, Bill (2019): *Falter: Has the human game begun to play itself out?*, Henry Holt and Company, New York.

490. Three ways of falling: runaway train, dinosaurs, house of cards

“Consider Tainter’s three aspects of collapse: the Runaway Train, the Dinosaur, the House of Cards. The rise in population and pollution, the acceleration of technology, the concentration of wealth and power — all are runaway trains, and most are linked together (...) If civilization is to survive, it must live on the interest, not the capital, of nature. Ecological markers suggest that in the early 1960s, humans were using about 70 per cent of nature’s yearly output; by the early 1980s, we’d reached 100 per cent; and in 1999, we were at 125 per cent. Such numbers may be imprecise, but their trend is clear — they mark the road to bankruptcy. None of this should surprise us after reading the flight recorders in the wreckage of crashed civilizations; our present behaviour is typical of failed societies at the zenith of their greed and arrogance. This is the dinosaur factor: hostility to change from vested interests, and inertia at all social levels (...) Civilizations often fall quite suddenly — the House of Cards effect — because as they reach full demand on their ecologies, they become highly vulnerable to natural fluctuations. The most immediate danger posed by climate change is weather instability causing a series of crop failures in the world’s breadbaskets. Droughts, floods, fires, and hurricanes are rising in frequency and severity. The pollution surges caused by these — and by wars — add to the gyre of destruction. Medical experts worry that nature may swat us with disease.”

Wright, Ronald (2004): *A short history of progress*, Anansi, Toronto.

491. A new globalization?

“Our challenge now is to move forward from emergency state Wilsonianism to a twenty-first-century internationalism more suited to our economic and security needs, more suited to our democratic constitutional traditions, and more suited to our increasingly permeable twenty-first-century world (...) An internationalism no longer defined by crisis management and ideological crusades would make essential global problems like halting climate degradation, curbing nuclear weapons proliferation, and combating preventable infectious diseases the central themes of American foreign policy.”

“Of the world’s nearly 7 billion people, about one in four still live on less than \$1.25 per day and nearly half on less than \$2.50 a day.”

“What is needed is a contemporary version of the 1944 Bretton Woods global financial agreement. Its purpose would be to build the same kind of financial architecture for decades of largely uninterrupted prosperity and sustainable, equitable growth that the original Bretton Woods created.”

“A new Bretton Woods system would have to be more internationally diversified, like today’s world economy. It would need to provide for other means of expanding international reserves than printing and exporting dollars. To accommodate rising economic powers like China, it would probably have to hark back to the original Bretton Woods formula favoring open world trade but allowing limited national capital control.”

“A reformed, sustainable international economic system should not just address currencies and exchange rates. It also needs to renegotiate international trade rules to let countries take some account of the environmental and labor conditions under which goods are produced. Otherwise, trade can only mean a race to the bottom for poor and rich countries alike.”

“That could help restore the lost balance between market expansion and democratic accountability and could help narrow, rather than widen, economic inequalities at home and abroad. Some goods might cost more at Walmart, but there would be trade-offs like better-paying, more secure jobs in the West and lower public health and environmental cleanup costs in the newly industrializing world. Such arrangements would help raise living and social standards around the world. They would make it possible to replace the current model of globalization—based on transferring work to low-wage countries while sustaining continued high levels of consumption in deindustrializing countries with deficits and foreign borrowing—with a more sustainable one: a new model based on expanding production and rising living standards everywhere. This second-generation model for globalization lacks the theoretical simplicity of the current neoliberal model. But it has the decided advantage of being more economically and environmentally sustainable, more humane, and more capable of mobilizing broad public support.”

“The essential precondition for a wiser approach to globalization is moving away from the obsolete American worldview that nourishes and is nourished by our emergency state. Our relations with the rest of the world will need to become less militarized and managerial, our sense of national identity less rooted in a Wilsonian sense of moral mission and American exceptionalism.”

Unger, David C. (2012): *The emergency state. America's pursuit of absolute security at all costs*, Penguin Press, New York.

492. A lesson from the past?

“The short-lived Empire of Ur exhibits the same behaviour as we saw on Easter Island: sticking to entrenched beliefs and practices, robbing the future to pay the present, spending the last reserves of natural capital on a reckless binge of excessive wealth and glory. Canals were lengthened, fallow periods reduced, population increased, and the economic surplus concentrated on Ur itself to support grandiose building projects. The result was a few generations of prosperity (for the rulers), followed by a collapse from which southern Mesopotamia has never recovered. By 2000 B.C., scribes were reporting that the earth had ‘turned white.’ All crops, including barley, were failing. Yields fell to a third of their original levels. The Sumerians’ thousand years in the sun of history came to an end. Political power shifted north to Babylon and Assyria, and much later, under Islam, to Baghdad. Northern Mesopotamia is better drained than the south, but even there the same cycle of degradation would be repeated by empire after empire, down to modern times. No one, it seems, was willing to learn from the past. Today, fully half of Iraq's irrigated land is saline — the highest proportion in the world, followed by the other two centres of floodplain civilization, Egypt and Pakistan.”

Wright, Ronald (2004): *A short history of progress*, Anansi, Toronto.

493. Civilizations as pyramid schemes?

“The careers of Rome and the Maya also show, I think, that civilizations often behave like ‘pyramid’ sales schemes, thriving only while they grow. They gather wealth to the centre from an expanding periphery, which may be the frontier of a political and trading empire or a colonization of nature through intensified use of resources, often both. Such a civilization is therefore most unstable at its peak, when it has reached maximum demand on the ecology. Unless a new source of wealth or energy appears, it has no room left to raise production or absorb the shock of natural fluctuations. The only way onward is to keep wringing new loans from nature and humanity. Once nature starts to foreclose — with erosion, crop failure, famine, disease — the social contract breaks down. People may suffer stoically for a while, but sooner or later the ruler’s relationship with heaven is exposed as a delusion or a lie. Then the temples are looted, the statues thrown down, the barbarians welcomed, and the emperor’s naked rump is last seen fleeing through a palace window.”

“As the crisis gathered, the response of the rulers was not to seek a new course, to cut back on royal and military expenditures, to put effort into land reclamation through terracing, or to encourage birth control (means of which the Maya may have known). No, they dug in their heels and carried on doing what they had always done, only more so. Their solution was higher pyramids, more power to the kings, harder work for the masses, more foreign wars. In modern terms, the Maya elite became extremists, or ultra-conservatives, squeezing the last drops of profit from nature and humanity.”

“Easter Island and Sumer failed to recover because their ecologies were unable to regenerate (...) Rome and the Maya, collapsed heavily in their heartlands, where ecological demand had been highest, but left remnant societies whose descendants have come down to modern times. During a thousand years of low population, the land in both countries managed to recover (...) Why, if civilizations so often destroy themselves, has the overall experiment of civilization done so well? If Rome couldn’t feed itself in the long run, how is it possible that for every person on earth in Roman times, there are thirty here today? Natural regeneration and human migration are part of the answer. Ancient civilizations were local, feeding on particular ecologies. As one fell, another would be rising elsewhere. Large tracts of the planet were still very lightly settled.”

“A second answer is that while most civilizations have outrun natural limits and collapsed within a thousand years or so, not *all* have. Egypt and China were able to keep burning, without using up their natural fuel, for more than 3,000 years. What made them different? (...) The Nile valley’s narrowness and drainage slowed the salt build-up that poisoned Sumer; and unlike the Maya and ourselves, ancient Egyptians generally knew better than to build on farmland. Egypt’s population growth was unusually slow (...) Nature made Egypt live within its means. But Egypt’s means were those of a remittance man (...) China also received more than her fair share of topsoil, though it had come as a lump-sum deposit rather than a yearly allowance (...) This land was almost endlessly forgiving, with erosion merely exposing new layers of good earth (...) Despite such upsets, and the recurring scythes of famine and disease, the generous ecologies of Egypt and China allowed revival before the culture lost its headway.”

“We in the lucky countries of the West now regard our two-century bubble of freedom and affluence as normal and inevitable; it has even been called the ‘end’ of history, in both a temporal and teleological sense. Yet this new order is an anomaly: the opposite of what usually happens as civilizations grow. Our age was bankrolled by the seizing of half a planet, extended by taking over most of the remaining half, and has been sustained by spending down new forms of natural capital, especially fossil fuels. In the New World, the West hit the biggest bonanza of all time. And there won’t be another like it.”

Wright, Ronald (2004): *A short history of progress*, Anansi, Toronto.

494. Deglobalization of the World Wide Web?

“The World Wide Web is slowly returning to Earth and its entanglements: states, laws, cultures. Cyberspace, for a host of commercial and political reasons, is becoming many cyberspaces, some of which fit distressingly well onto the old political maps of nation-states. The web has even become a battleground for states’ wars. Why is this happening, and what will remain of the old, free, and anarchic web to take into the future? Digital computing, the Internet, and eventually the web were invented and grew as part of a long line of government projects, mainly military ones, dating back to the First World War. But, beginning in the late 1960s, the Internet and geek culture split off from government, launching a period of spectacular innovation, excitement, and profit. The web became a place for enacting dreams of freedom.”

“The web as a solvent of sovereignty had a very strong appeal, and was soon taken up by (...) Thomas L. Friedman, a fixture at Davos, in his 1999 bestseller *The Lexus and the Olive Tree*: “The symbol of the Cold War system was a wall, which divided everyone. The symbol of the globalization system is a World Wide Web, which unites everyone (...) In the era of globalization we reach for the Internet—a symbol that we are all connected but nobody is totally in charge’. Not *totally*: the United States remained a good deal more in charge than any other power (...) Without doubt, the web is and will be used for surveillance and for the projection of force, just as its forebears were. States and like-minded regions will assert control over it and most users’ experience of it will be locally inflected. At the same time, the web will continue to have a global infrastructure and no one state will be able to dominate it, both because the other states won’t let that happen and because the leading companies on the web will not abandon their drive for global growth. The web will be neither entirely united nor entirely divided. The web is a global private marketplace built on a government platform, not unlike the global airport system.”

“For users and consumers, the attractions of interoperability overwhelm isolation; and the same becomes true, most of the time, for companies and governments, who find it hard to maintain their closed commercial or political monopolies if they want to continue to grow and assert themselves. This creates both competitive innovation and a dynamic Internet balance of power: As long as some major players continue to struggle against capture by other major players, the global infrastructure of the Internet will be preserved, mainly

because the desire to compete beyond borders will continue to animate all of those major players, private and public. The unending will to power provides its own anxious guarantee of freedom. Nonetheless, the Internet as an entirely cross-border enterprise (...) will not return, just as the American hyperpower dominance that created it will not return. It is very hard to see how that geopolitical moment could recur. The idea of a global web public wholly independent of state sovereignty was to a great extent an illusion of the early web industry."

Assange, Julian et al. (2015): *The WikiLeaks files. The world according to US empire*, Verso, London and New York.

495. Will the internet become militarized?

"Will commercially controlled data, which is the vast majority of web data, also be state-controlled data, or not? There are two major trends at work now. One is that enough money or power can buy security. The other is that the logic of interstate war is now being applied to the web as it was to predecessor technologies (...) It's tempting to see a long-term pattern at work: technology born in war returns to war."

"The key question for the Internet is whether it will become caught up in this great-power military logic (...) There are reasons to hope that a militarized Internet is not inevitable. The first (...) is the commercial dominance of the Internet, which gives it, by virtue of the desire of web companies and national economies to prosper, a relative autonomy from politics. The second is the growing technical ability of major players to secure their own systems, thus reducing their fears about the Internet as a whole. The third is a dawning realization among governments that they need to reach some minimal Internet *modus vivendi* (...) The fourth is that states are realizing that the Internet is not inevitably a mechanism for regime change—that it is a relative danger but not an absolute one. The United States has so far not crushed the opposition of its obstreperous multinationals. China has very reluctantly but materially accepted that its Netizens will upload photos of major disasters and demand official accountability. None of this points to any final victory of Internet freedom over the power of the state."

Malcomson, Scott (2016): *Splinternet. How geopolitics and commerce are fragmenting the world wide web*, OR Books, New York and London.

496. The tipping point

"*The Tipping Point* is the biography of an idea, and the idea is very simple. It is that the best way to understand the emergence of fashion trends, the ebb and flow of crime waves, or, for that matter, the transformation of unknown books into bestsellers, or the rise of teenage smoking, or the phenomena of word of mouth, or any number of the other mysterious changes that mark everyday life is to think of them as epidemics. Ideas and products and messages and behaviors spread just like viruses do."

"These three characteristics—one, contagiousness; two, the fact that little causes can have big effects; and three, that change happens not gradually but at one dramatic moment —are the same three principles that define how measles moves through a grade school classroom or the flu attacks every winter. Of the three, the third trait—the idea that epidemics can rise or fall in one dramatic moment—is the most important, because it is the principle that makes sense of the first two and that permits the greatest insight into why modern change happens the way it does. The name given to that one dramatic moment in an epidemic when everything can change all at once is the Tipping Point."

"Epidemics are a function of the people who transmit infectious agents, the infectious agent itself, and the environment in which the infectious agent is operating. And when an epidemic tips, when it is jolted out of equilibrium, it tips because something has happened, some change has occurred in one (or two or three) of those areas. These three agents of change I call the Law of the Few, the Stickiness Factor, and the Power of Context."

"This is the first lesson of the Tipping Point. Starting epidemics requires concentrating resources on a few key areas. The Law of the Few says that Connectors, Mavens, and Salesmen are responsible for starting word of mouth epidemics, which means that if you are interested in starting a word of mouth epidemic, your resources ought to be solely concentrated on those three groups."

"The theory of Tipping Points requires, however, that we reframe the way we think about the world (...) We have trouble estimating dramatic, exponential change. We cannot conceive that a piece of paper folded over 50

times could reach the sun (...) The world—much as we want it to—does not accord with our intuition. This is the second lesson of the Tipping Point (...) What must underlie successful epidemics, in the end, is a bedrock belief that change is possible, that people can radically transform their behavior or beliefs in the face of the right kind of impetus. This, too, contradicts some of the most ingrained assumptions we hold about ourselves and each other.”

“But if there is difficulty and volatility in the world of the Tipping Point, there is a large measure of hopefulness as well. Merely by manipulating the size of a group, we can dramatically improve its receptivity to new ideas. By tinkering with the presentation of information, we can significantly improve its stickiness. Simply by finding and reaching those few special people who hold so much social power, we can shape the course of social epidemics. In the end, Tipping Points are a reaffirmation of the potential for change and the power of intelligent action. Look at the world around you. It may seem like an immovable, implacable place. It is not. With the slightest push—in just the right place—it can be tipped.”

Gladwell, Malcolm (2002): *The tipping point. How little things can make a big difference*, Little, Brown and Company, New York.

497. Symbiosis ('system in which members of different species live in physical contact') everywhere

“One widely held unstated assumption is the great chain of being. It defines the venerable position of humans as the exact center of the universe in the middle of the chain of being below God and above rock (...) These ideas are rejected as obsolete nonsense by a consistent scientific worldview. All beings alive today are equally evolved. All have survived over three thousand million years of evolution from common bacterial ancestors. There are no ‘higher’ beings, no ‘lower animals,’ no angels, and no gods (...) We Homo sapiens sapiens and our primate relations are not special, just recent: we are newcomers on the evolutionary stage. Human similarities to other life-forms are far more striking than the differences. Our deep connections, over vast geological periods, should inspire awe, not repulsion (...) My claim is that, like all other apes, humans are not the work of God but of thousands of millions of years of interaction among highly responsive microbes.”

“... symbionts are not obvious but they are omnipresent (...) Long-standing symbiosis led first to the evolution of complex cells with nuclei and from there to other organisms such as fungi, plants, and animals (...) To me symbiosis as a source of evolutionary novelty helps explain the observation of ‘punctuated equilibrium,’ of discontinuities in the fossil record.”

“Living beings defy neat definition. They fight, they feed, they dance, they mate, they die. At the base of the creativity of all large familiar forms of life, symbiosis generates novelty (...) Symbiosis is not a marginal or rare phenomenon. It is natural and common. We abide in a symbiotic world.”

Margulis, Lynn (2008): *Symbiotic planet. A new look at evolution*, Basic Books, New York.

498. The way forward: ‘plenitude’

“Climate destabilization, economic meltdown, and the escalation of food and energy prices are warning signs from a highly stressed planet. Ecologists have defined a number of safe operating zones for the earth’s complex systems and are finding that human activities have already led us outside a number of them. But the mainstream conversation has been stalled by fatalism. We’re better at identifying what can’t be done than what we need to accomplish.

There *is* a way forward, and I call it plenitude. The word calls attention to the inherent bounty of nature that we need to recover. It directs us to the chance to be rich in the things that matter to us most, and the wealth that is available in our relations with one another. Plenitude involves very different ways of living than those encouraged by the maxims that have dominated the discourse for the last twenty-five years. It puts ecological and social functioning at its core, but it is not a paradigm of sacrifice.”

“From the perspective of the individual, there are four principles of plenitude. The first is a new allocation of time. For decades, Americans have devoted an increasing fraction of their time and money to the market (...) This brings us to the second principle of plenitude, which is to diversify from the BAU [= business as usual] market and ‘self-provision,’ or make, grow, or do things for oneself (...) The third principle of plenitude is ‘true materialism,’ an environmentally aware approach to consumption (...) The final principle is the need to restore investments in one another and our communities. While social bonds are not typically thought of in economic

terms, these connections, which scholars call social capital, are a form of wealth that is every bit as important as money or material goods. Especially in times of distress, people survive and thrive by doing for one another. Interpersonal flows of money, goods, and labor are a parallel system of exchange and savings. One casualty of an intense market orientation is that community has gotten thinner and human ties weaker.”

Schor, Juliet B. (2011): *True wealth. How and why millions of Americans are creating a time-rich, ecologically light, small-scale, high-satisfaction economy*, Penguin Books, New York.

499. The Seneca curve (normality vs surprises) and the Seneca strategy

“Collapse is a rapid, uncontrolled, unexpected, and ruinous decline of something that had been going well before (...) Think of the case of Roseanne Barr who, in 2018, saw her career of TV anchor ruined in a day because of a single racist tweet she wrote.”

“The average lifetime of a commercial company, today, is of the order of 15 years, but small companies tend to come and go much more quickly: it is the “fail fast, fail often” strategy (...) in most cases when a company goes

down it goes fast, even for companies that were seen as the very image of solidity. Think of Lehman Brothers, the large financial company that went down in a few days at the time of the great financial crisis of 2008.”

“Collapses are bad enough in themselves but they have a further quirk: they tend to arrive unexpected (...) There is no “science of collapse” taught in universities or in business schools, and most of what we do is based on the idea that things will keep going on more or less as they have been doing in the past. The economy is supposed to be growing forever simply because it has been growing up to now. The same is true for the human population, the production of crude oil, or life expectancy at birth: they have been growing in the past and they are expected to keep growing in the future.”

“The results of decades of work tell us that rapid changes are part of the way the universe works, a manifestation of the principle that rules everything, from living cells to galaxies: entropy, the basis of the second principle of thermodynamics. The science of complexity is possibly the most fascinating field of modern science and surely one that has significant consequences for our everyday life.”

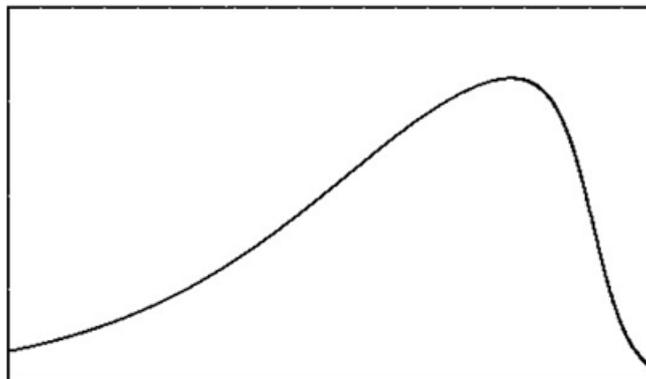
“... the basis of the Seneca strategy can be described in four main points,

1. *Attention*. Remember that collapses occur and they do not just strike other people: they may strike you. Prepare in advance for a possible collapse!
2. *Avoidance*. You can avoid collapse if you start early enough by acting on the elements that put the system under stress. Detect collapses before they come!
3. *Mitigation*. If it is too late to avoid collapse, you can still reduce its damaging effects if you take appropriate precautions. Don't try to avoid collapse at all costs, but you can always soften it!
4. *Exploitation*. In some cases, you can use collapse to get rid of obsolete structures or to damage your competitors. And, therefore, welcome collapse!”

Bardi, Ugo (2020): *Before the collapse. Guide to the other side of growth*, Springer, Cham, Switzerland.

500. The Seneca rebound

“... the fact that a society, a state, or an organization can restart growing after collapse at a faster speed than before the collapse. In this case, Europe may have obtained a decisive advantage in a specific historical period because of a combination of geographical and historical factors that caused its population to ‘rebound’ at the right moment. It happened when the technologies needed to expand all over the world had been developed and could be used for that purpose (...) The reasons for the rebound are reasonably clear: depopulation frees resources that can be exploited for a new phase of rapid growth. Before the fossil fuel age, societies had two main natural resources to exploit: fertile soil and forests. Both tend to be overexploited: forests are cut faster than trees can regrow and the fertile soil is eroded and washed to the sea faster than it can reform. That



generates a decline of agriculture and the result is not just an end to population growth, it is a ruinous collapse resulting from famines and epidemics (...) But the disappearance of a large fraction of the population frees cultivated land for forests to regrow and that regenerates the soil. Then, when the population starts regrowing, people find in the new forests a near-pristine source of wood and, once cut, of fertile soil (...) The cycle restarts and it may go faster than the earlier one because society still remembers the social structures and the technologies of the previous cycle.”

Bardi, Ugo (2020): *Before the collapse. Guide to the other side of growth*, Springer, Cham, Switzerland.

501. Ugo Bardi's guide to collapse

“1. Collapse is Not a Bug, it is a Feature (the Seneca Effect). Some 2000 years ago, the Roman philosopher Lucius Annaeus Seneca noted that growth is slow but ruin is rapid (...) Collapses occur all the time, everywhere and, over your lifetime, you are likely to experience at least a few relatively large collapses (...)

2. Collapse is Rapid (the Seneca Cliff). As Seneca noted, it takes only a short time for a large and apparently solid structure to unravel at the seams and crumble down in a heap. Think of the collapse of a house of cards (...) Collapses are fast (...)

3. Collapse is Often Unexpected (the Seneca Peak). Rarely does collapse give you an advance warning and some collapses are totally unpredictable, earthquakes, for instance. In other cases, the continuing growth before the crash may lull you to a false sensation of security, as it happened more than once to the fishing industry when the fish stocks collapsed just after that an all-time production high (the “Seneca Peak”) (...)

4. Collapse is Bad for You (the Seneca Bottleneck). Collapses are a serious matter: they destroy things, kill people, generate sickness, make you sad, unhappy and depressed and, sometimes, they are irreversible. Yet, sometimes they are necessary to redress a situation that was impossible to control and they have to be accepted as a fact of life.

5. There is Life After Collapse (the Seneca Rebound). Collapse is nothing but a “tipping point” from one condition to another. You can't go back but you can move onward and what looks like a disaster may be nothing but a passage to a new condition which may be better than the old one. This can be called the “Seneca Rebound,” a characteristic of the evolution of complex systems. So, if you lose your job that may give you the opportunity to seek a better one (...)

6. Resisting Collapse is Not a Good Idea (the Seneca Strategy). Collapse is the way the universe uses to get rid of the old to make space for the new. Resisting collapse means to strive to keep something old alive—you may succeed for a while, but often at the price of creating an even worse collapse. Often, you stick to your job, to your marriage, to your habits, as if your life were depending on not losing them, but you also know that, eventually, nothing can last forever. The Seneca Strategy consists in letting nature follow its course and let something go and disappear as it should. If you understand that, the bad effects of collapses can be reduced and, in some cases, you can even profit from them.”

Bardi, Ugo (2020): *Before the collapse. Guide to the other side of growth*, Springer, Cham, Switzerland.

502. Anti-natalism

“Anti-natalism (...) implies that it would be better if there were no more humans. The further implication of this is that it would be better if humans became extinct, at least if extinction were brought about by not creating new members of the species (...) The world will someday be devoid of humans. This outcome is certain. The uncertainty concerns when this will happen. We do not know humanity's expiry date, but the earlier it is, the more suffering will be avoided.”

“I shall argue that procreation is morally wrong. This is distinct from and does not imply the claim that we may prevent humanity from procreating. The absence of a moral right to procreate does not imply that there should be no legal right to procreate (...) The sad truth is that the human species is not voluntarily going to cease reproducing, and any attempt by a minority to prevent the rest from procreating is unlikely to work. That does not mean that individual humans will not desist from procreation. Some of them will desist as a result of considering arguments for anti-natalism. Every decision not to procreate is a decision to spare a potential person from serious harm and is thus to be welcomed.”

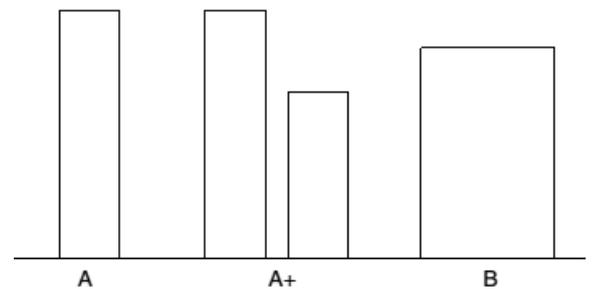
“The conclusion that coming into existence is always a harm—astounding to many people—follows from an axiological asymmetry between harms and benefits

Benatar, David; David Wasserman (2015): *Debating procreation. Is it wrong to reproduce?*, Oxford University Press, New York.

503. Derek Parfit's (1984) repugnant conclusion on population ethics

The repugnant conclusion: “For any possible population of at least ten billion people, all with a very high quality of life, there must be some much larger imaginable population whose existence, if other things are equal, would be better even though its members have lives that are barely worth living.” Parfit (1984, p. 388)

The conclusion is sustained by the following argument. The height of the bars on the chart represent the quality of life and their width the amount of people. Case A represents a society with a high standard of living. Case A+ comes from A by adding the same amount of people as in case A but with a slightly smaller standard of living. It appears that it is more desirable to have case A+ than A. Finally, case B arises from A+ by letting all the population in A+ to have the same standard of living, slightly above the average standard from A+. It also appears that B is more desirable than A+. Granted this, the repugnant conclusion follows by replicating the previous line of reasoning starting with B rather than A.



Parfit, Derek (1984): *Reasons and persons*, Clarendon Press, Oxford, UK.

504. The digital revolution, the future of work and the labour glut

“The digital revolution is now teaching journalists and other workers of the rich world what a tectonic economic transformation feels like. It is putting us in the shoes of our great-great-grandparents: those who first experienced the transmission of a human voice across an electrical wire, who watched as the time to travel from one city to a distant other shrank from weeks to hours, and who found themselves displaced from jobs as smiths or farmhands by fantastic new technologies. We have all found our working lives altered by it (...) Services such as Uber and Airbnb, virtually unknown at the beginning of this decade, are fundamentally transforming industries that employ millions of people.”

“Our concerns are not simply about the uncertainty of employment in the years to come (...) Over the last couple of decades, wages, adjusted for inflation, have scarcely grown throughout a broad range of rich countries (...) The share of income flowing to workers, as opposed to business and property owners, has fallen. And, among workers, there has been a sharp rise in inequality, with the share of income going to those earning the highest incomes increasing in an astounding fashion.”

“Wages have been rising in the fast-growing emerging economies, by contrast. But even there these other two trends – concentration of income in the hands of capital owners, and in the paycheques of the richest workers – are a growing source of concern.”

“Then there is the sobering data on employment. In America, the share of adult men of prime working age who are working or actively looking for work has fallen steadily, and in some cases dramatically, over the last generation. Among all men, the rate of participation in the workforce dropped from about 76 per cent in 1990 to 69 per cent in 2015. That may not sound especially worrying, but it corresponds to a difference of about nine million men (...) This trend is not limited to America, and neither can it be explained away as the product of ageing and retirement. In Europe, one in five adults under the age of twenty-five is unemployed.”

“For an awful lot of people, work has become a less certain and often less remunerative contributor to material security. It is a development that makes political forces of populist outsiders (...) Work is not just the means by which we obtain the resources needed to put food on the table. It is also a source of personal identity. It helps give structure to our days and our lives. It offers the possibility of personal fulfilment.”

“The digital revolution alters work in three ways. The first is through automation. New technologies are replacing certain workers (...) At the same time, the digital revolution has supercharged a second force: globalization. It would have been nearly impossible for rich Western firms to manage the sprawling global

supply chains that wrapped around the world over the last twenty years without powerful information technology (...) Global employment grew by over one billion jobs over the last generation, with most of the growth occurring in emerging economies. Workers there are, on the whole, less skilled than those in the rich world, and their incorporation into the global economy has been felt more keenly by workers in middle-skill manufacturing or back-office jobs than by white-collar professionals. That need not last.”

“Thirdly, technology provides a massive boost to the productivity of some highly skilled workers, allowing them to do work which it might previously have taken many more people to accomplish. Technology enables small teams of money managers to run vast funds; it is increasingly allowing highly skilled instructors to build courses that can be taken and re-taken by millions of students, potentially replacing hundreds or even thousands of lecturers. New technology is allowing fewer doctors and nurses to observe and treat many more patients, fewer lawyers to pour through vastly more trial-related evidence, and fewer researchers to sift through massive amounts of data and test more hypotheses more quickly.

These three trends – automation, globalization and the rising productivity of a highly skilled few – are combining to generate an abundance of labour (...) In its struggle to digest this unprecedentedly enormous ocean of would-be workers, the global economy is misfiring in worrying ways. And the institution of work – apart from family, our most important piece of social infrastructure – can no longer be counted on to fulfil its many crucial roles.”

Avent, Ryan (2016): *The wealth of humans. Work, power, and status in the twenty-first century*, St. Martin's Press, New York.

505. The struggle for social wealth

“For modern economies with more labour than they know what to do with, technological abundance creates the possibility of such progress. Like a massive gold mine or oil strike, powerful new digital technologies are a potential source of enormous wealth.”

“Wealth has always been social. The long process of cultural development that eventually yielded the industrial revolution was in many ways the process by which humanity learned ever better ways of structuring society in order to foster the emergence of complex economic activity. Wealth creation in rich economies is nurtured by a complex system of legal institutions (such as property rights and the courts that uphold them), economic networks (such as fast and efficient transportation and access to scientific communities and capital markets) and culture (such as conceptions of the ‘good life’, respect for the law, and the status accorded to those who work hard and become rich). No individual can take credit for this system; it was built and is maintained by society.”

“The digital revolution is increasing the importance of social wealth in two key ways. Firstly, new technologies increase our potential productivity and output as a society (...) And secondly, the small-scale economic processes that generate new knowledge and turn it into profitable, welfare-enhancing activity are also becoming more social, and less individual, in nature. The value-generating pieces of successful companies were once satisfyingly tangible: consisting of buildings and machines, patents and people. That is ever less the case. Company cultures, which shape worker incentives and determine how a business reacts to changes in the marketplace, have become much more important in the digital age. Today, more than 80 per cent of the value of Standard & Poor’s 500 firms is ‘dark matter’.”

“As social wealth becomes more important, fights about who belongs within particular societies – and can therefore share in that social wealth – will also intensify. Over the last generation, firms have grown ever leaner, aggressively outsourcing work not related to their ‘core competencies’ (...) Membership battles – fights over who belongs – are more pronounced in cities, where high housing costs prevent people from moving into and enjoying the benefits of the most productive parts of a country.”

“National borders create the starkest divide between the rich and the rest. No form of exclusion is as consequential. In America, a typical household of immigrants from the Philippines earns about \$75,000 per year, or more than ten times what they’d earn in their home country. There is no anti-poverty programme in the world as effective as access to American society – to its institutions and economy and opportunities.”

“So these two kinds of conflict – between individuals and society, and between society’s insiders and outsiders – create the fundamental tension presented by the digital revolution. To take full advantage of its promise,

countries must become better at sharing social wealth. Yet the better countries become at sharing social wealth among members, the greater the pressure to shrink the circle of social membership."

Avent, Ryan (2016): *The wealth of humans. Work, power, and status in the twenty-first century*, St. Martin's Press, New York.

506. The struggle for belonging

"The social battles of the industrial revolution era mostly focused on the proper role of the state. People organized and fought for a new social order (...). After a long and fitful social negotiation, most rich countries arrived at a social democratic model, in which the state to one degree or another helps to provide education, infrastructure, healthcare and social insurance to the old, poor and unemployed (...). The digital revolution will reopen these discussions, but it will also force a new argument into the light that will define the generation to come: who belongs? Societies will face the need to define the community of people entitled to share in the common, social wealth made possible by marvellous new technologies."

"The industrial revolution was an all-hands-on-deck effort; there were roles for even the least skilled of workers (...). The social contract built during this age was one that protected the safety of workers (...). But the promise of the digital revolution is an end to work. The logical endpoint is an economy in which clever software and dexterous machines and abundant energy mean that human work is unnecessary. We are generations away from realizing that promise (...). But the battle to create the institutions that will eventually support mass digital prosperity has begun. Creating mass digital prosperity is not about building institutions which ensure that all workers benefit from economic growth; it is about building institutions which provide for people who do not work because their work is not necessary to generate economic growth."

Avent, Ryan (2016): *The wealth of humans. Work, power, and status in the twenty-first century*, St. Martin's Press, New York.

507. The future of globalization

"Economic prosperity has been linked to globalization. The rapid global economic growth of the post-war period was accompanied by the fast expansion of international trade and investment (...). But trade expansion and the opening up of markets are stalling. The global trade system covering nearly all nations' exports and imports under the World Trade Organization (WTO) is fragmenting into a set of accompanying regional and bilateral free trade agreements."

"A couple of dramatic events in the past few years have highlighted a backlash against the uneven gains from globalization. Although there are numerous differences between Britain's decision to leave the European Union and the ascendancy of political outsider Donald Trump to the White House, the two events reveal a number of things about the electorate's discontent with the status quo, including globalization (...) Barack Obama attributes some of the discontent to globalization:

Globalization combined with technology combined with social media and constant information have disrupted people's lives in very concrete ways (...). When you see a Donald Trump and a Bernie Sanders – very unconventional candidates who had considerable success – then obviously there is something there that is being tapped into: a suspicion of globalization, a desire to rein in its excesses, a suspicion of elites and governing institutions that people feel may not be responsive to their immediate needs."

"The pursuit of massive regional FTAs [Free trade agreements] is a reaction to the World Trade Organization expansion stalling (...). These regional FTAs are not the best outcome relative to a multilateral agreement under the WTO, but perhaps they're better than not having any new trade deals at all (...) That's why Southeast Asia is also pursuing an ambitious free trade area."

"Economists attribute the stagnation of living standards to two main factors: globalization and 'skill-biased technical change'. The latter refers to technological progress benefiting skilled workers."

"Helping the losers from globalization"

The question is how best to do so. This challenge isn't just for America but for any nation where the benefits of globalization have not been shared fairly."

“Brexit and Trumpism are among the most prominent political expressions of discontent with the status quo. Globalization’s unequal impact, creating winners and losers, is part of that status quo. But there are other factors, such as robotics and automation, at play too.”

Yueh, Linda Y. (2018): *What would the great economists do? How twelve brilliant minds would solve today’s biggest problems*, Picador, New York.

508. This civilization is over

“... this civilisation is going down. It will not last. It cannot, because it shows almost no sign of taking the extreme climate crisis—let alone the broader ecological crisis—for what it is: a long global emergency, an existential threat. This industrial-growthist civilisation will not achieve the Paris climate accord goals; and that means that we will most likely see 3–4 degrees of global over-heat at a minimum, and *that* is not compatible with civilisation as we know it (...) By ‘this civilisation’ I mean the hegemonic civilisation of globalised capitalism—sometimes called ‘Empire’—which today governs the vast majority of human life on Earth.”

“As I see things, there are three broad possible futures that lie ahead:

(1) *This civilisation could collapse utterly and terminally*, as a result of climatic instability (leading for instance to catastrophic food shortages as a probable mechanism of collapse), or possibly sooner than that, through nuclear war, pandemic, or financial collapse leading to mass civil breakdown. Any of these are likely to be precipitated in part by ecological/climate instability, as Darfur and Syria were. Or

(2) *This civilisation (we) will manage to seed a future successor-civilisation(s)*, as this one collapses. Or

(3) *This civilisation will somehow manage to transform itself* deliberately, radically and rapidly, in an unprecedented manner, in time to avert collapse.

The third option is by far the least likely, though the most desirable, simply because either of the other options will involve vast suffering and death on an unprecedented scale. In the case of (1), we are talking the extinction or near-extinction of humanity. In the case of (2) we are talking at minimum multiple megadeaths (...) Thus, one way or another, this civilisation is finished. It may well run in the air, suspended over the edge of a cliff, for a while longer. But it will then either crash to complete chaos and catastrophe (Option 1); or seed something radically different from itself from within its dying body (Option 2); or somehow get back to safety on the cliff-edge (Option 3).”

Read, Rupert; Samuel Alexander (2019): *This civilisation is finished. Conversations on the end of Empire—and what lies beyond*, Simplicity Institute, Melbourne.

509. Paradoxical big threats to the 21st century world economy

- Threat 1: the threat of scarcity. This threat is associated with a possible ecological catastrophe and how this will affect the future of life on Earth.
- Threat 2: the threat of abundance. This threat is created by automation and is defined in terms of how automation will affect the future of work.

510. Rodrik’s (2018, ch. 10) new rules for the global economy

- ‘Markets must be deeply embedded in systems of governance.’ Markets are not self-regulated institutions: for proper functioning they need the support of other institutions (courts, legal systems, regulators, social insurance, redistributive taxation, infrastructure, public investment in R&D...). This applies to global markets as well as national markets.
- ‘Democratic governance and political communities are organized largely within nation-states, and are likely to remain so for the foreseeable future.’ “The quest for extensive global governance is a fool’s errand, both because national governments are unlikely to cede significant control to transnational institutions and because harmonizing rules would not benefit societies with diverse needs and preferences.’ “When international cooperation does “succeed,” it typically codifies the preferences of the more powerful states or, even more frequently, of international corporations and banks in those states.’
- ‘There is no “one way” to prosperity.’ Since ‘the core institutional infrastructure of the global economy must be built at the national level, it frees up countries to develop the institutions that suit them best.’ Regulations

that cover labor markets, corporate governance, antitrust, social protection, and even banking and finance differ considerably in prosperous societies: US, Europe, Japan... ‘The most successful societies of the future will leave room for experimentation and allow for further evolution of institutions over time. A global economy that recognizes the need for and value of institutional diversity would foster rather than stifle such experimentation and evolution.’ The prosperity game never ends.

- ‘Countries have the right to protect their own regulations and institutions.’ ‘The recognition of institutional diversity would be meaningless if nations were unable to “protect” domestic institutions.’
- ‘Countries do not have the right to impose their institutions on others.’ ‘The recognition of institutional diversity would be meaningless if nations were unable to “protect” domestic institutions.’ ‘Nations have a right to difference, not to impose convergence.’
- ‘The purpose of international economic arrangements must be to lay down the traffic rules for managing the interface among national institutions.’
- ‘Nondemocratic countries cannot count on the same rights and privileges in the international economic order as democracies.’ ‘What gives the previous principles their appeal and legitimacy is that they highlight democratic deliberation—where it really occurs, within nation-states. When nation-states are not democratic, this scaffolding collapse.’ ‘These principles support a different model of global governance, one that would be democracy enhancing rather than globalization enhancing.’

Rodrik, Dani (2018): *Straight talk on trade: Ideas for a sane world economy*, Princeton University Press, Princeton, NJ.

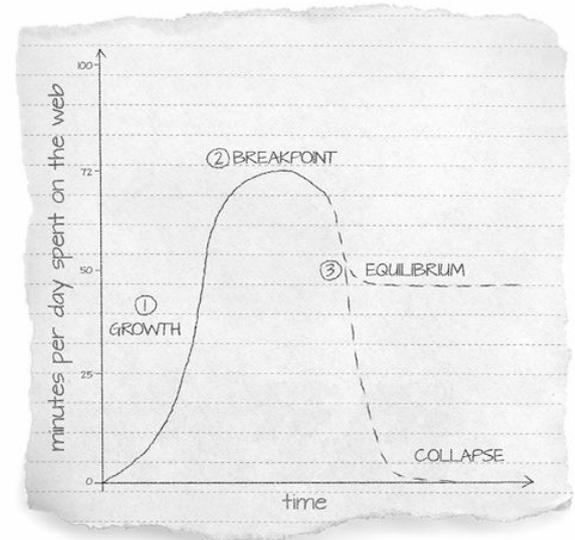
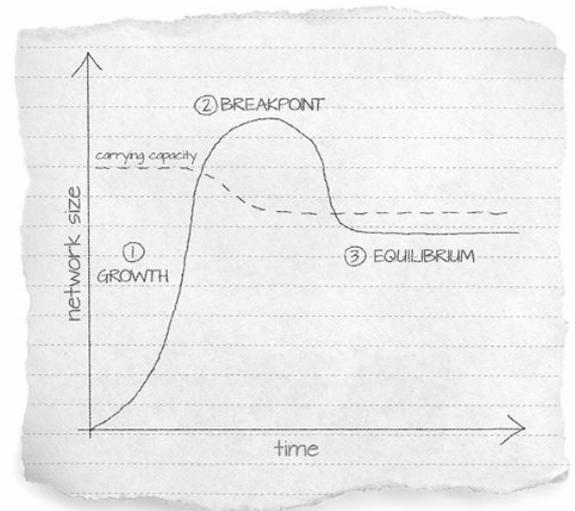
511. The three phases of networks (Jeff Stibel, 2013)

“There are three phases to any successful network: first, the network grows and grows and grows exponentially; second, the network hits a breakpoint, where it overshoots itself and overgrows to a point where it must decline, either slightly or substantially; finally, the network hits equilibrium and grows only in the cerebral sense, in quality rather than in quantity.”

“Internets, ant colonies, and brains all start small, grow steadily, and then explode into hypergrowth. In nature, all species multiply as much as resources allow. This expansion may start linearly, but it quickly becomes exponential. Populations of plants, animals, yeast, and brain cells grow unencumbered until they reach the maximum quantity that the environment can sustain, the carrying capacity of an ecosystem.”

“Ant colonies, various other animal species, brains, and internets are all networks, and as such they follow the same pattern of growth, breakpoint, and equilibrium. They start out small and grow explosively to the point where they overshoot and collapse. A successful network has only a small collapse, out of which a stronger network emerges wherein it reaches equilibrium, oscillating around an ideal size (...). At the phase of equilibrium, networks continue to grow, but in terms of quality instead of quantity. When the size of a network slows, other things speed up—like communication, intelligence, and consciousness. At this point, the real magic begins. This last network phase is poorly understood, even by biologists. We are just beginning to learn about equilibriums in biological systems, let alone in technology.”

Stibel, Jeff (2013): *Breakpoint. Why the web will implode, search will be obsolete, and everything else you need to know about technology is in your brain*,



512. The six most important drivers of global change (Al Gore, 2013)

“In order to reclaim control of our destiny and shape the future, we must think freshly and clearly about the crucial choices that confront us as a result of:

- The emergence of a deeply interconnected global economy that increasingly operates as a fully integrated holistic entity with a completely new and different relationship to capital flows, labor, consumer markets, and national governments than in the past;
- The emergence of a planet-wide electronic communications grid connecting the thoughts and feelings of billions of people and linking them to rapidly expanding volumes of data, to a fast growing web of sensors being embedded ubiquitously throughout the world, and to increasingly intelligent devices, robots, and thinking machines, the smartest of which already exceed the capabilities of humans in performing a growing list of discrete mental tasks (...);
- The emergence of a completely new balance of political, economic, and military power in the world that is radically different from the equilibrium that characterized the second half of the twentieth century, during which the United States of America provided global leadership and stability—shifting influence and initiative from West to East, from wealthy countries to rapidly emerging centers of power throughout the world, from nation-states to private actors, and from political systems to markets;
- The emergence of rapid unsustainable growth—in population; cities; resource consumption; depletion of topsoil, freshwater supplies, and living species; pollution flows; and economic output that is measured and guided by an absurd and distorted set of universally accepted metrics that blinds us to the destructive consequences of the self-deceiving choices we are routinely making;
- The emergence of a revolutionary new set of powerful biological, biochemical, genetic, and materials science technologies that are enabling us to reconstitute the molecular design of all solid matter, reweave the fabric of life itself, alter the physical form, traits, characteristics, and properties of plants, animals, and people, seize active control over evolution, cross the ancient lines dividing species, and invent entirely new ones never imagined in nature; and
- The emergence of a radically new relationship between the aggregate power of human civilization and the Earth’s ecological systems, including especially the most vulnerable—the atmosphere and climate balance upon which the continued flourishing of humankind depends—and the beginning of a massive global transformation of our energy, industrial, agricultural, and construction technologies in order to reestablish a healthy and balanced relationship between human civilization and the future.”

Gore, Al (2013): *The future. Six drivers of global change*, Random House, New York.

513. Ulrich Beck’s future scenarios of work

	Hope	Collapse
	1	2
Science-based information technologies	From the work society to the knowledge society	Capitalism without work
	3	4
Globalization	The world market – the neoliberal jobs miracle	The fixed location of work – a globalization risk
	5	6
Ecological crises	Sustainable work – the ecological economic miracle	Global apartheid
	7	8
Individualization	The self-employed – the freedom of insecurity	Individualization of work – disintegration of society

“If the framework of a full-employment society is replaced with that of a multi-activity society, the collapse scenarios become the occasion for a redefinition of work and of the necessary reforms. Three more future scenarios can then be developed (...):

9 Farewell to the work society: instead, the multi-activity society.

10 Condemned to leisure: the free-time society.

11 Post-national and political civil society: a European social model”

Beck, Ulrich (2000): *The brave new world of work*, Polity Press, Cambridge, UK.

514. Stephen Hawking (2018) on the survival of humanity

"I regard it as almost inevitable that either a nuclear confrontation or environmental catastrophe will cripple the Earth at some point in the next 1,000 years which, as geological time goes, is the mere blink of an eye. By then I hope and believe that our ingenious race will have found a way to slip the surly bonds of Earth and will therefore survive the disaster.

(...) I think we are acting with reckless indifference to our future on planet Earth (...) To leave Earth demands a concerted global approach—everyone should join in (...) The technology is almost within our grasp. It is time to explore other solar systems. Spreading out may be the only thing that saves us from ourselves. I am convinced that humans need to leave Earth. If we stay, we risk being annihilated." (ch. 7)

"When we invented fire, we messed up repeatedly, then invented the fire extinguisher. With more powerful technologies such as nuclear weapons, synthetic biology and strong artificial intelligence, we should instead plan ahead and aim to get things right the first time, because it may be the only chance we will get. Our future is a race between the growing power of our technology and the wisdom with which we use it. Let's make sure that wisdom wins." (ch. 9)

"The second development which will impact on the future of humanity is the rise of artificial intelligence (...) But the advent of super-intelligent AI would be either the best or the worst thing ever to happen to humanity. We cannot know if we will be infinitely helped by AI, or ignored by it and sidelined, or conceivably destroyed by it. As an optimist, I believe that we can create AI for the good of the world, that it can work in harmony with us. We simply need to be aware of the dangers, identify them, employ the best possible practice and management and prepare for its consequences well in advance." (ch. 10)

"I am advocating that all young people should be familiar with and confident around scientific subjects, whatever they choose to do. They need to be scientifically literate, and inspired to engage with developments in science and technology in order to learn more. A world where only a tiny super-elite are capable of understanding advanced science and technology and its applications would be, to my mind, a dangerous and limited one. I seriously doubt whether long-range beneficial projects such as cleaning up the oceans or curing diseases in the developing world would be given priority. Worse, we could find that technology is used against us and that we might have no power to stop it." (ch. 10)

Hawking, Stephen (2018): *Brief answers to the big questions*, Bantam Books, New York.

515. Is globalization prone to recurrently generate backlashes and collapses? (Harold James, 2009)

- "The phenomenon of globalization has today become a ubiquitous way of understanding the world, but people who used the concept as a tool of analysis failed to understand its volatility and instability."
- "Globalization not only involves international movements of goods, people, and capital, but is also associated with transfers of ideas and shifts of technology, which affect and restructure our preferences. In consequence, globalization generates continuous uncertainty about values."
- "Globalization is vulnerable to periodic financial catastrophes, which involve very sudden alterations of concepts of value. That is, our values themselves are reevaluated during such crises. During a crisis, unexpected and apparently random linkages become apparent. People begin to see in what complex ways the world has become interconnected."
- "The perception of instability calls into question the sophisticated techniques devised for monetary management (...) In the uncertainty of globalization setbacks, the experience of the past becomes a powerful template for understanding the contemporary predicament (...) Today, we look back to the Great Depression of the late 1920s and 1930s as a model for what can go wrong when globalization breaks apart."
- "Politics and economics are inextricably and inherently linked, and politics provides an alternative to market mechanisms for the management of globalization crises."
- "When breakdowns occur, reconstruction is extremely difficult and involves a long and arduous effort for the rebuilding of social trust. Value renewal takes time."

516. Globalization cycles: can the future of globalization be seen in its past? (Harold James, 2009)

- “Globalization is not only a process that occurs somewhere out there—in an objective and measurable world of trade and money. It also happens in our minds, and that part of globalization is often more difficult to manage. To understand both the process and our reactions to it, we need a historical grounding.”
- “All of these previous globalization episodes ended, almost always with wars that were accompanied by highly disruptive and contagious financial crises. Globalization is often thought to produce a universalization of peace, since only in a peaceful world can trade and an interchange of ideas really flourish. But in practice, a globalization of goods, capital, and people often leads to a globalization of violence.”
- “It is thus possible to speak of globalization cycles, with long periods of increased interchange of goods, and flows of people and capital. But then something happens. People feel there has been too much interaction; they draw back from the global setting and look instead for protected areas in which they can be safe from global threats and global devastation. The shock or trauma is often connected with financial collapse, especially the profound uncertainty that financial disaster brings.”

James, Harold (2009): *The creation and destruction of value: The globalization cycle*, Harvard University Press, Cambridge, MA.

517. The long descent (John Michael Greer, 2008)

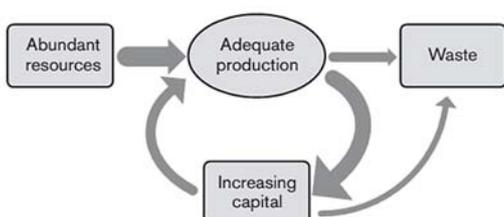
“This is the process I’ve named the Long Descent — the declining arc of industrial civilization’s trajectory through time. Like the vanished civilizations of the past, ours will likely face a gradual decline, punctuated by sudden crises and periods of partial recovery. The fall of a civilization is like tumbling down a slope, not like falling off a cliff. It’s not a single massive catastrophe, or even a series of lesser disasters, but a gradual slide down statistical curves that will ease modern industrial civilization into history’s dumpster.”

“At this point it’s almost certainly too late to manage a transition to sustainability on a global or national scale, even if the political will to attempt it existed — which it clearly does not. It’s not too late, though, for individuals, groups, and communities to make that transition themselves, and to do what they can to preserve essential cultural and practical knowledge for the future. The chance that today’s political and business interests will do anything useful in our present situation is small enough that it’s probably not worth considering. Our civilization is in the early stages of the same curve of decline and fall that so many others have followed before it, and the crises of the present — peak oil, global warming and the like — are the current versions of the historical patterns of ecological dysfunction. To judge by prior examples, we can’t count on the future to bring us a better and brighter world — or even a continuation of the status quo. Instead, what most likely lies in wait for us is a long, uneven decline into a new Dark Age from which, centuries from now, the civilizations of the future will gradually emerge.”

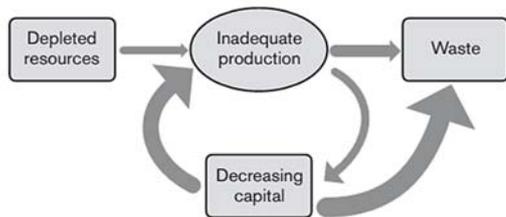
518. Catabolic collapse (John Michael Greer, 2008)

“The word “catabolism” comes from the Greek, by way of the life sciences. In today’s biology it refers to processes by which a living thing feeds on itself. One of the most striking features of the dead civilizations of the past is that they go through precisely this process as they move through the stages of decline and fall.”

“... civilizations are complex, expensive, fragile things. To keep one going, you have to maintain and replace a whole series of capital stocks: physical (such as buildings); human (such as trained workers); informational (such as agricultural knowledge); social (such as market systems); and more. If you can do this within the ‘monthly budget’ of resources provided by the natural world and the efforts of your labor force, your civilization can last a very long time. Over time, though, civilizations tend to build their capital stocks up to levels that can’t be maintained; each king (or industrial magnate) wants to build a bigger palace (or skyscraper) than the one before him, and so on. That puts a civilization into the same bind as the homeowner with the oversized house.”



“In a growing or stable society, the resource base is abundant enough that production can stay ahead of the maintenance costs of society’s capital – that is, the physical structures, trained people, information, and organizational systems that constitute the society. Capital used up in production or turned into waste can easily be replaced.”



“In a society in catabolic collapse, resources have become so depleted that not enough is available for production to meet the maintenance costs of capital. As production falters, more and more of society’s capital becomes waste, or is turned into raw material for production via salvage. If resource depletion can be stopped, the loss of capital brings maintenance costs back down below what production can meet, and the catabolic process ends; if resource depletion continues, the catabolic process continues until all capital becomes waste.”

519. Four factors/horsemen of catabolic collapse

- Declining energy availability. “As oil depletion accelerates, and other resources such as uranium and Eurasian natural gas hit their own production peaks, the shortfall widens, and many lifestyles and business models that depend on cheap energy become nonviable.”
- Economic contraction. “Energy prices are already beginning to skyrocket as nations, regions, and individuals engage in bidding wars driven to extremes by rampant speculation. The global economy, which made economic sense only in the context of the politically driven low oil prices of the 1990s, will proceed to come apart at the seams, driving many import- and export-based industries onto the ropes, and setting off a wave of bankruptcies and business failures. Shortages of many consumer products will follow, including even such essentials as food and clothing. Soaring energy prices will have the same effect more directly in many areas of the domestic economy. Unemployment will likely climb to Great Depression levels, and poverty will become widespread even in what are now wealthy nations.”
- Collapsing public health. “As poverty rates spiral upward, shortages and energy costs impact the food supply chain; energy-intensive health care becomes unaffordable for all but the obscenely rich; global warming and ecosystem disruption drive the spread of tropical and emerging diseases; malnutrition and disease become major burdens. People begin to die of what were once minor, treatable conditions. Chronic illnesses such as diabetes become death sentences as the cost of health care climbs out of reach for most people. Death rates soar as rates of live birth slump, launching the first wave of population contraction.”
- Political turmoil. “What political scientists call ‘liberal democracy’ is really a system in which competing factions of the political class buy the loyalty of sectors of the electorate by handing out economic largesse. That system depends on abundant fossil fuels and the industrial economy they make possible. Many of today’s political institutions will not survive the end of cheap energy, and the changeover to new political arrangements will likely involve violence. International affairs face similar realignments as nations whose power and influence depend on access to abundant, cheap energy fall from their present positions of strength. Today’s supposedly ‘backward’ nations may well find that their less energy-dependent economies turn into a source of strength rather than weakness in world affairs. If history is any guide, these power shifts will work themselves out on the battlefield.”

Greer, John Michael (2008): *The long descent. A user's guide to the end of the industrial age*, New Society Publishers, Gabriola Island, Canada.

520. Is history repeating itself? (Parag Khanna, 2017)

“We live in what I call the New Gilded Age. Today, we are recreating the terrible income inequality and economic divides that dominated the late nineteenth century and created the violent responses that included the Haymarket bombing and the assassination of President William McKinley. Once again, we have a society where our politicians engage in open corruption, where unregulated corporate capitalism leads to boom-and-bust economies that devastate working people, where the Supreme Court limits legislation and regulations meant to create a more equal society, and where unions are barely tolerated. Life has become more unpleasant and difficult for most Americans in our lifetimes. This has already had a profound impact on American politics.”

“What the 2016 election and its aftermath should reiterate to all of us is the deep connection between who controls the government and the success of the labor movement. As the historian Jefferson Cowie has written, there has only been one major period in American history when the power of workers coincided with the

power of government to help unions—from the 1930s to the 1970s or early 1980s. Other than this ‘Great Exception,’ we have struggled against a corporate dominated government.”

“American history is a story of freedom and oppression, often at the same time. True freedom cannot come without economic emancipation. We came very far to gain that freedom through the struggles of workers in the two centuries before today. In the past four decades, we have given back much of our freedom. Only through our combined struggle to demand the fruits of our labor can we regain our lost freedoms and expand those freedoms into a better life for all Americans.”

Loomis, Erik (2018): *A history of America in ten strikes*, The New Press, New York.

521. Two views on the history of humankind

“The theory of the noble savage revolves around the idea that primitive life was free of any aggression and cruelty, thus there was no reason for conflict. The supposedly non-violent nature of human beings and the peaceful natural world were said to complement each other ‘ecologically.’ (...) Two similar theories favor the notion that the first humans were peaceful. The religious viewpoint sees human destiny as a gradual deterioration: at the outset, humans inhabited a bucolic setting beside God, yet made the mistake of attempting to defy their Creator. Humans were thus expelled from Paradise and condemned to a life of toil and strife. The scientific view is that Paleolithic life was relatively easy since nature presented so many possibilities and, at this time, there were fewer populations to share them. Humans were, therefore, able to profit from the situation by balancing the many resources at their disposal (...) The arrival of the Neolithic tolled the knell of this golden age as humans became slaves to work: there was a regression of sorts as servitude began in earnest—a gradual descent into Hell.

The other view of the history of humankind is linked to the notion of progress. This viewpoint claims that savage man in his wild and shabby state, barely able to survive, gradually began to leave behind his inferior status through sheer persistence; by working hard and applying himself, man finally took control of nature. Thus, his destiny is one of continual improvement. Man is seen to be in control of his own plight and depends upon himself alone.”

“What if humans never were the innocent lambs nor the violent brutes that certain caricatures have made them out to be? What if humans always were the same complex and emotional beings they are today, with a tendency at times to react harshly or violently?”

Guilaine, Jean; Jean Zammit (2005): *The origins of war. Violence in prehistory*, Cambridge University Press, Cambridge, UK.

522. Three generalizations of historical dynamics (Peter Turchin and Sergey A. Nefedov, 2009)

- **Overpopulation.** “One generalization can be called the neo-Malthusian principle: during periods of sustained population growth, if the output of the agrarian economy does not keep pace with the population, a number of relative price trends will be observed. One trend is rising prices for basic foodstuffs, energy, and land. Another one is falling real wages for labor. These trends are simply a consequence of the law of supply and demand. Thus, as the supply of labor increases, and if the demand for it is limited (which it is in agrarian economies), the price of labor inevitably decreases.”
- **Elite overproduction.** “Another generalization, dealing with the elite dynamics, is also a consequence of the law of supply and demand. The principal kind of wealth in agrarian societies is land. The elite landowners profit from overpopulation in two ways. First, they are consumers of labor: they need peasants to work their land, servants to carry out domestic chores, and craftsmen and artisans for producing items for status consumption. Second, their property, land, produces food and other commodities, such as fuel and raw materials, the demand for which increases together with the growing population. Because the items they consume become cheaper while the items they produce increase in value, the elites greatly profit from overpopulation (...) In the end, elite numbers and appetites outgrow their “carrying capacity” (based on the labor of commoners). Just as overpopulation results in large segments of commoner population becoming immiserated, elite overproduction similarly results in large segments of elites becoming impoverished (not in absolute terms, as with common populace, but relatively to the standards of consumption needed to maintain the elite status). This generalization thus may be called the principle of elite overproduction.”

- **Sociopolitical instability.** “A third possible generalization deals with the causes of sociopolitical instability. The demographic-structural theory proposes three principal causes of the onset of a disintegrative trend (that is, a lengthy period of heightened instability): overpopulation, elite overproduction, and a fiscal crisis of the state. (...) Overpopulation and fiscal crisis are important contributing factors, but the dominant role in internal warfare appears to be played by elite overproduction leading to intraelite competition, fragmentation, and conflict, and the rise of counterelites who mobilize popular masses in their struggle against the existing order.”

Turchin, Peter; Sergey A. Nefedov (2009): *Secular cycles*, Princeton University Press, Princeton, New Jersey.

523. Why complex societies collapse

“Scholars typically attribute collapse to one of four causes: political or military forces, economic decline, social upheaval, or environmental/natural disasters (...) Ancient China illustrates circumstances in which one political system collapsed, only to be replaced by another, usually dynastic, system, which resulted in a re-emergent state; the defeat of the Late Shang Dynasty by the Western Zhou is one example.”

“The collapse of the Khmer Empire is perhaps one of the best illustrations of economic and social factors contributing to the dissolution of a state (...) Roman history featured several phases of social unrest and political change without complete decline. In Republican Rome, growing inequality between patricians and plebeians in the 5th century bce, combined with instances of public abuse of poor men and women (especially women) by elites, led to internal dissent that verged on rebellion. Government reforms were required to set the state back on solid footing.”

“Though the extreme case of Easter Island’s purportedly human-caused overexploitation of resources may be dismissed as a misreading of the evidence, numerous examples (...) indicate how deeply human groups are embedded within local environments, and the profound effect environmental crises may have on culture groups at all levels of complexity. A strong case may be put forward for the role of environmental crisis in the decline of Classic Maya civilization (...) The collapse of Mycenaean, Hittite, and Levantine societies at the end of the Late Bronze Age was affected by the migration of groups coming from more inland areas of Europe under circumstances of apparent subsistence stress.”

Ross, Jennifer C.; Sharon R. Steadman (2017): *Ancient complex societies*, Routledge, New York.

524. The present civilization will fall as all others did previously

“Modern civilization believes that it commands the historical process with technological power. Allied to capitalist markets that foster continual innovation, this power will allow it to overcome the challenges I identify and thereby escape the common fate of all previous civilizations. No longer bound by the past, or so we think, our future is infinitely bright. The late futurist Herman Kahn, for example, claimed that by the year 2200, ‘humans would everywhere be rich, numerous, and in control of the forces of nature.’

I argue to the contrary that industrial civilization will yield to the ‘same passions’ that have produced the ‘same results’ in all previous times. There is simply no escape from our all-too-human nature. In the end, mastering the historical process would require human beings to master themselves, something they are very far from achieving. (This is why democracy, considered by some to be an asset in the struggle against the forces that challenge industrial civilization, is in fact a liability.) Commanding history would also require them to overcome all of the natural limits that have defeated previous civilizations. As will be shown, this is unlikely. Hence our civilization, too, will decline and fall. In fact, the process of decline is already well advanced.

“The essential reason is contained in Gibbon’s terse verdict on the decline and fall of Rome: immoderate greatness (...) In essence, immoderate greatness exemplifies what the ancient Greeks would have called hubris: ‘overbearing pride or presumption.’ Civilization is *Homo sapiens*’s bold attempt to rise above the natural state in which the species lived for almost all of its two hundred thousand years on Earth. Unfortunately, by its very nature, this effort to become greater encounters four implacable biophysical limits. It also sets in motion a seemingly inexorable moral and practical progression from original vigor and virtue to terminal lethargy and decadence.”

Ophuls, William (2012): *Immoderate greatness. Why civilizations fail*, CreateSpace, North Charleston, SC.

525. Systems self-organized critically

The property of self-organized criticality means that individual behaviour tends to cause a system both to self-organize and converge to critical/tipping points where small events may have big global effects.

- Example: sand falling on a fixed point in a table. The sand accumulates forming a pile until a state of repose is reached (at a certain angle of the pile). After that state, further grains create avalanches (a potentially catastrophic global event) and part of the sand falls off of the table.
- Is there an arrow of social time? Do societies necessarily, with time, increase their complexity? If societies are self-organized critically systems, what feature(s) define then the critical points?

526. Some complexity principles

- Emergence: the whole is not just the sum of its parts. Even if the characteristics of the individual components of a system are perfectly known, its interaction may give rise to systemic properties that are difficult to predict from the individual properties.
- Red Queen hypothesis: one must run to stay in the same place (do the same is a recipe for failure). A system consisting of adaptive, evolving organisms forces the players to adapt and evolve fast and continuously just to remain in the game. This permanent race between the players tends to increase the overall complexity of the system.
- No free lunch. To increase the efficiency with which a system operates, its resilience (to shocks or changes) must be reduced. Conversely, survival in an uncertain environment demands efficiency sacrifices.
- The Goldilocks principle (food cannot be too hot not too hold). In an open, dynamic and competitive environment, systems can operate only within a limited range of conditions: the ‘edge of chaos’. Policymakers, for instance, must select the right mix of market freedom and market regulation: too much regulation may harm growth; too much *laissez-faire*, may be destabilizing.
- Undecidability: deductive reasoning (logic alone, rational argumentation) is not always enough to handle problems.
- The Butterfly effect (ripple, domino, snow-ball effect). Complex systems tend to be very sensitive to apparently minor changes: small changes may have large effects.
- Law of requisite variety: the control system has to be at least as complex (sophisticated) as the system to be controlled (higher complexity is required to manage lower complexity). Hence, to regulate a system, the complexity of the controller has to be at least as great as the complexity of the system to be controlled.. Complexity gaps do not tend to last and its involuntary adjustment is likely to be traumatic for the system.

527. The standing ovation problem

It is an example that involves thoughtful and interacting agents in time and space and thereby captures basic features of complex adaptive social systems: learning, heterogeneity, incentives, networks... A public event has taken place before an audience: a university lecture, a musical concert, a play in a theatre, a basketball game, a political meeting... Then the audience starts applauding. The question is: for how long is the ovation to be sustained? At any point during the ovation, will it continue or end? The complexity of the problem comes from the fact that members of the audience in general do not decide to stand and applaud independently of what the other members choose to do: a seated attendant being surrounded by enough standing people is more likely to join the ovation and also stand (for several possible reasons: do justice to a good performance, avoid feeling awkward, accept the majority’s opinion, possibly despite your own, that the performance deserves recognition...).

528. Diffusion processes and S-shaped curves

The standing ovation problem can be analyzed as a diffusion problem, like the spread of new technologies or commodities. A typical result in diffusion models is that an S-shaped curve fits the number of agents joining others in taking a certain action. Initially, the group of people taking the action is small. The size of the group goes larger. After the group reaches a certain size, the group begins to shrink until it eventually becomes empty. The life cycle of many products also conforms to an S-shaped curve. Is the spread of globalization also S-shaped?

Miller, John H.; Scott E. Page (2004): "The Standing Ovation Problem", Complexity.

529. El Farol bar problem

100 people must decide independently whether to go to a bar for entertainment. The stay is enjoyable if fewer than 60 come to the bar. Hence, a possible attendant chooses to go if he expects fewer than 60 to show up and refrains from going if at least 60 are expected to be present at the bar. The problem is that there is no correct model to define expectations; in fact, any such model is self-invalidating. For instance, if all believe that few will go, all will go and that will prove the belief incorrect; if all believe that the bar will be overcrowded, nobody will go, again invalidating the initial belief. All prophecies are self-defeating. This problem illustrates the difficulties of analyzing complex adaptive systems. It is an example of a minority game, where rewards accrue to a minority (political science focuses instead on majority games).

Arthur, W. B. (1994): "Inductive reasoning and bounded rationality", American Economic Review 84(2), 406-411.

530. The Seneca effect (Bardi, 2017)

"Increases are of sluggish growth, but the way to ruin is rapid." (*Nunc incrementa lente exeunt, festinatur in damnum*, Lucius Anneaus Seneca, Letters to Lucilius 91, 6.)

531. Taxonomy of collapses

- **Black elephants** (Donald Rumsfeld's 'known unknowns'). You choose to ignore (or underestimate the effects of) an elephant that you know is in the room (a pyramid scheme).
- **Gray swans**. A specific occurrence of this kind of event cannot be predicted but its frequency can be determined (so precautions against it could be taken: earthquakes).
- **Dragon Kings**. They are outliers of a distribution in terms of their large size (the size of Paris in comparison with the rest of French cities). Though their existence is conceivable on the basis of some trend, they are largely unpredictable and no precaution against them is in practice feasible.
- **Black swans** (Donald Rumsfeld's 'unknown unknowns'). They lie outside the distribution: they are absolutely unpredictable (financial crashes, massive terrorist attacks) and are then capable of generating the biggest collapses.

532. X-events

X-events are high-surprise, high-impact events. In a society, the source of X-events is the 'complexity gap' between the complexity of the control system (the government) and the increasing complexity of the controlled systems (the citizens). The gap must be bridged: either the government forces a reduction in complexity in the population (repression) or raises its own complexity to match the population's higher complexity (free elections are held, civil rights and liberties granted, social mobility allowed, openness accepted). An X-event is the default path of bridging the complexity gap, the vehicle that narrows the different complexity levels of two interacting systems. When a government is not able to bridge the gap, a revolution (an example of an X-event) is likely to break out. The rules for dealing with normal events (for which there is abundant past experience) are different from those for handling X-events (which are rare and unexpected).

533. Examples of X-events

Examples of X events: supervolcano explosions (Toba, 74kya, probably responsible for the near extinction of humanity), the 1918 Spanish influenza epidemic, high magnitude earthquakes, bees massively dying off, 9-11 terrorist attack... The 2011 revolts in the Arab world are examples of X-events. Modern communication and social-networking services (Google, Twitter, Facebook) have increased social complexity (citizens become more empowered, self-aware, informed, connected). Governments responding by restricting access to those services, or shutting them down, made the complexity gap widen to unsustainable levels. A complexity gap is synonymous with trouble and the political expression of trouble is revolt/revolution. The result in the Arab world was regime change in some countries (Tunisia, Libya, Egypt) and challenge to ruling elites (the Assad dynasty in Syria, the monarchy in Bahrain).

534. Outsourcing as an X-event

Manufacturing sectors in developed economies have become more complex (minimum-wage laws, health and safety standards, unionization) than those from developing economies. When both sectors interact through globalization, with a complexity gap becoming too large to be sustainable, the gap is closed by an X-event: outsourcing (manufacturing jobs transferred from developed to developing countries). This X-event downsizes by force the comparatively excessive complexity of the most developed sector. In this respect, globalization creates new X-events and magnifies the consequences of existing X-events.

535. Social complexity and X-events

Societies today are more vulnerable than ever to X-events: the complex structures of modern societies are extremely fragile. The increasing complexity of the global society is the direct cause of X-events. The complexity is expressed in many ways: integration, interdependence of systems and infrastructures; accumulation of bureaucratic layers; mismatch in complexity levels between interacting systems (national and foreign economies; governments and citizens; economies and ecosystems)...

536. Two scenarios for 2050 (Alexandru Vulpe, 2016)

- Open scenario. The world and its structures are open and continue to facilitate how people are actively involved in their management.
- Closed scenario. There is a differential access to almost everything: powerful players (big corporations, governments) regulate access and participation to organizations and structures

Alexandru Vulpe (2016): "Technology Advancements in 2050 and How the World Will Look Like", chapter 2 in *Wireless world in 2050 and beyond: A window into the future!*, Ramjee Prasad and Sudhir Dixit (eds.), Springer.

537. The Cassandra effect (Wierzbicki, 2016, p. 3)

The Cassandra effect: the more precise a forecast, the less likely it is believed ("the more precisely somebody forecasts future events, the less credibility is given to such forecast").

Wierzbicki, Andrzej Piotr (2016): *The future of work in information society. Political-economic arguments*, Springer, Switzerland.

538. Alter-globalization

It is a social, cultural and political movement born (around 2001) in response to the impact and apparent triumph of capitalist globalization, asserting a concept of human rights, freedom and justice within globalization. The movement denies the blind belief in markets, supports the reintroduction in economic thought of the role of the state and defends a vision of human beings in which they are not reduced to the *Homo economicus* caricature. The movement aims at strengthening the citizens' ability to act globally.

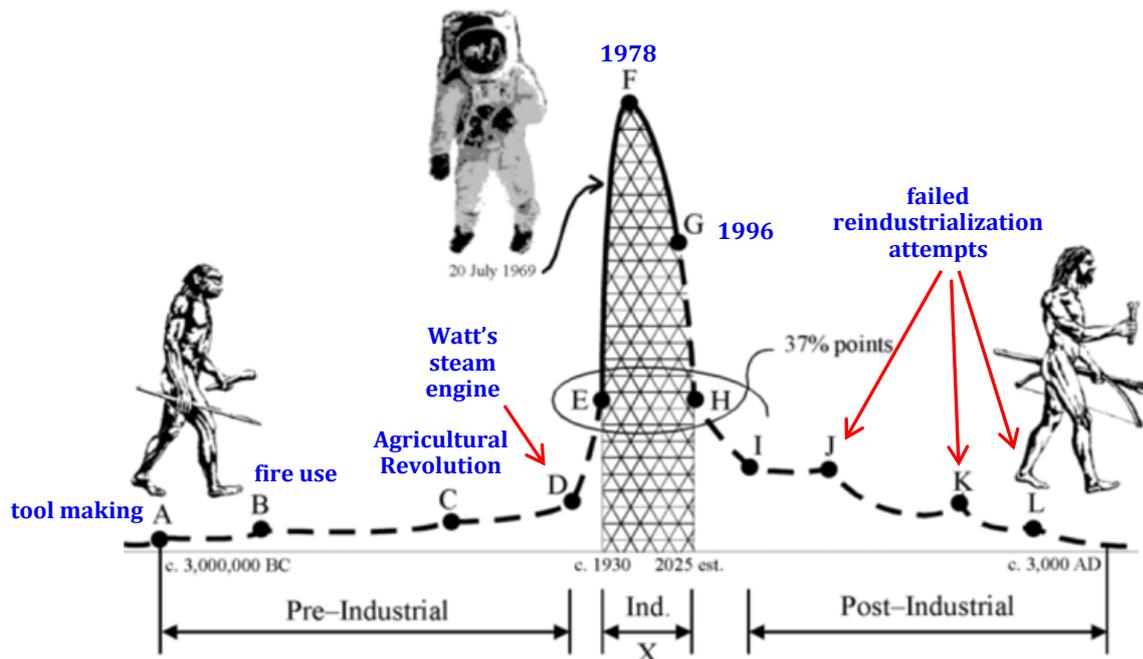
Pleyers, Geoffrey (2010): *Alter-globalization. Becoming actors in a global age.*

539. The Olduvai theory of industrial civilization (<http://www.hubbertpeak.com/duncan/olduvai.htm>)

The Olduvai theory of industrial civilization holds that industrial civilizations last around one century. The variable that determines the rise and fall of an industrial civilization is energy production per capita.

“The Olduvai Theory states that the life expectancy of industrial civilization is approximately 100 years: circa 1930-2030. Energy production per capita (e) defines it. The exponential growth of world energy production ended in 1970... Average e will show no growth from 1979 through circa 2008... The rate of change of ewill go steeply negative circa 2008... World population will decline to about two billion circa 2050... A growing number of independent studies concur...”

Richard C. Duncan (2005-2006): “The Olduvai Theory. Energy, population, and industrial civilization”, The Social Contract, Winter 2005-2006.



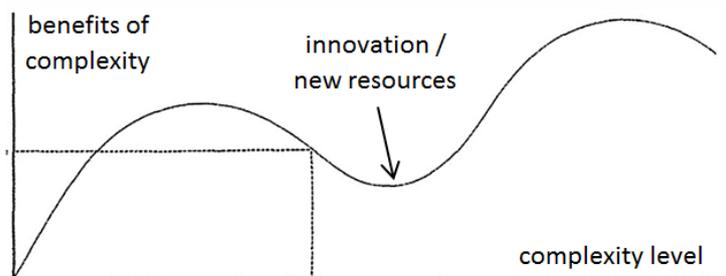
540. Diamond’s (2000) explanation of pre-industrial collapses: Societies tend to approach the margin of what the environment can support

“... people living in fragile environments, adopting solutions that were brilliantly successful and understandable in the short run, but that failed or else created fatal problems in the long run when confronted with external environmental changes or human-caused environmental changes that people without written histories or archaeologists could not have anticipated.”

541. Tainter’s (1988) theory of why societies collapse

Collapse means that a society experiences a rapid and significant loss of sociopolitical complexity. Tainter’s explanation is based on four ideas.

- (1) Societies are problem-solving organizations.
- (2) The sociopolitical organization of societies requires energy for its maintenance.
- (3) Higher complexity levels of a sociopolitical organization correspond to higher per capita costs: a rising complexity is increasing costly for each member of the more complex system.
- (4) Solving social problems by investing in sociopolitical complexity has diminishing marginal returns: each complexity upgrading is less capable of solving problems. The productivity (the benefits) of the investment in complexity is eventually declining.



Given (1)-(4), collapse arises when the benefits of investing in complexity are insufficient to cover its costs. Collapse is the natural mechanism to downsize a complexity level whose maintenance is excessively costly. Innovation or discovery of new resources (energy subsidies) are common ways to overcome the diminishing returns to investment in complexity.

Tainter, Joseph (1988): *The collapse of complex societies*, Cambridge University Press, Cambridge, UK.

542. The tragedy of the commons: 'freedom in a commons brings ruin to all'

The 'tragedy of the commons' is a parable questioning the idea that unregulated markets yield socially good outcomes: self-interest is eventually inconsistent with social stability. The tragedy applies to the exploitation of a free resource (a common), like a pasture. Self-interest compels every herdsman to maximize the cattle on the pasture. But if a sufficiently large number of herdsmen develop the same strategy of increasing the herd without restrictions, the pasture will be exhausted and all the herdsmen will be ruined for trying to take too much from the pasture. Hence, a commonly owned and freely accessible resource tends to be depleted when it is exploited by a sufficiently large number of people. Infinite demands are not consistent with a finite and fragile supply. The logic of the tragedy of the commons seems to explain resource depletion and environmental degradation: taking without concern for preservation (the present matters more than the future).

Hardin, Garrett (1968): "The tragedy of the commons", *Science* 162(3859), 1243-1248.

Machan, Tibor R. (ed) (2001): *The commons. Its tragedies and other follies*, Hoover Institution Press, Stanford, CA.

543. Punctuated equilibrium (Stephen Gould, Nils Eldredge)

The expression designates a theory of evolutionary processes according to which evolutionary processes do not occur slowly and gradually, but quickly and suddenly. Long periods of apparent stability and lack of significant change are suddenly followed by a period of radical, dramatic evolutionary changes take place (like the Cambrian explosion, 650 mya, where animals with shells and external skeletons appeared).

544. How similar are the biological and the historical evolutionary processes?

Historically, societies appear stable for long periods. Constant adaptation goes unnoticed until societies "go critical".

545. The Fermi paradox: How globalized is the galaxy?

Life seems to possess a tendency to expand everywhere and increase complexity. Technology also appears to possess a tendency to evolve and increase complexity. The universe is estimated to be some 13.8 billion years old. It is then reasonable to expect our galaxy to be full of advanced civilizations. The paradox is that we have not yet obtained solid evidence of their existence: the universe is silent. Where is everybody?

- **Basic resolutions of the Fermi paradox.** (1) Extraterrestrials are or have been already here. (2) Extraterrestrial civilizations exist but we have not yet been able to gather evidence of their existence. (3) We are essentially alone in the universe.
- **Webb's (2015) resolution.** Even if life may arise easily, intelligence is probably hard to emerge. Virtually all species on Earth did not need much intelligence to arise and prosper: in general, survival does not require intelligence. Intelligent living beings may be a rare exception in the universe. The development of intelligence may be such a protracted process that it becomes very vulnerable to events that could stop or delay its development (on Earth the process took billions of years).
- **Considerations on the Fermi paradox.** (1) As with many other basic phenomena (the emergence of life on Earth, consciousness, the industrial revolution, the scientific revolution...) we are trying to theorize from a single case/occurrence. (2) Are technologically advanced societies inherently unstable? (3) Can technology sustain a high rate of change/progress? Is the acceleration of technological advance since the industrial revolution an exceptional event? A bubble that cannot last? (4) The conditions necessary for a phenomenon

to emerge may be quite different from the conditions necessary for the phenomenon to last, develop or evolve (what works to make a poor economy prosper may not work to make it permanently prosperous; the way to become successful in globalization may be different from the way to remain successfully globalized).

Webb, Stephen (2015): *If the universe is teeming with aliens... where is everybody? Seventy-five solutions to the Fermi paradox and the problem of extraterrestrial life*, 2nd edition, Springer, Cham, Switzerland.

546. Extraterrestrial civilizations

The Russian astrophysicist Nikolai Kardashev classified extraterrestrial civilizations in terms of the potency of their technology. A KI (Kardashev type 1) civilization could employ the energy resources of a planet (human civilization would be KI). A KII, the energy resources of a star. And a KIII, the energy resources of a galaxy. It has been claimed that most extraterrestrial civilizations in our galaxy are of a KII or KIII type.

Ernst Ulrich von Weizsäcker; Anders Wijkman (2018): *Come On! Capitalism, Short-termism, Population and the Destruction of the Planet. A Report to the Club of Rome*, Springer, New York.

547. Economists vs physicists

The world is facing a perfect storm of problems: overpopulation, overconsumption, environmentally malign technologies, inequalities. All of them seem sustained by the irrational belief that permanent growth is possible in a physically finite economy. They are also the expression of the conflict between what economists believe and what physicists know.

548. Empty world vs full world

The dominant economic views and theories were created in an 'empty world': one in which population was small, natural resources did not represent a limit and the environment had enough capacity to absorb wastes. Economies in an empty world do not face planetary boundaries. If a 'full world' damages to the environment and wastes play a dominant role. On the right a projection of the world economy under a business-as-usual assumption: the logic of an empty world is applied to a full world.

549. A lesson of history?

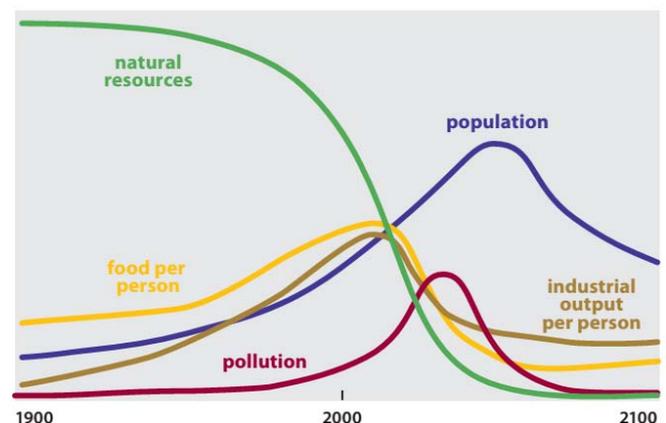
The parallelism of ideas, processes, and developments in different civilizations from the past suggests that, in the presence of certain general conditions, human societies tend to grow bigger, more complex and more environmentally demanding.

550. The price of progress (or the price of not collapsing)

"Each time history repeats itself, the price goes up" (Ronald Wright, 2011). Progress allows civilizations to become bigger. More people may indeed be needed to run a more complex civilization and make it more durable. But then, when it fails, more people is affected (the fall of the first civilization, Sumer, affected hundreds of thousands; the fall of Rome, millions; ours, billions).

551. Is science coming to an end?

Are there no new big discoveries possible? Have we already converge as much as we can on the truth? Is the apparent strength and potency of present day science not an indication of its near death? As in the chart on the right, a system crashes just before the system is runs at the greatest speed.



- Another sign of the end of science is that most published research is false (John P. A. Ioannidis, 2005, “Why most published research is false”, PLoS Medicine 2(8)); scientific research has become just a way of raising money and prestige; pursuing the truth is secondary.

Horgan, John (2015): *The end of science. Facing the limits of knowledge in the twilight of the scientific age*, Basic Books, New York.

552. Peter Frase’s four futures

The future world can end up dominated by either scarcity or abundance (reflecting ecological limits) and also by either hierarchy or equality (reflecting the political limits of a class society). Equality + abundance = communism (‘from each according to their ability, to each according to their need’: the Star Trek world). Hierarchy + abundance = rentism (‘the techniques to produce abundance are monopolized by a small elite’). Equality + scarcity = socialism (‘live within your means while providing everyone the best lives possible’). Hierarchy + scarcity = exterminism (‘communism for the few’, awaiting a ‘genocidal war of the rich against the poor’: Neill Blomkamp’s Elysium, 2013).

<i>Peter Frase’s scenario</i>	ABUNDANCE	SCARCITY
EQUALITY	Communism	Socialism
HIERARCHY	Rentism	Exterminism

553. Robert Costanza’s visions of the year 2100

The scenario matrix involves two dimensions: world views and policies (technological optimism vs skepticism) and the real state of the world (optimistics are right or skeptics are right). Technological optimism + optimistics right = Star Trek (resources are unlimited, technology can solve any problemability, economic competition is good). Technological skepticism + optimistics right = Big Government (resources are unlimited but governments regulate technological development to achieve social development). Technological optimism + skeptics right = Mad Max (resources are limited but free reign has been given to competition and technological expansion, so the world is ruled by powerful corporations). Technological skepticism + skeptics right = Ecotopia (with resources being limited, markets and consumerism have been disciplined to achieve sustainability).

<i>David Costanza’s scenario</i>	OPTIMISTS RIGHT	SKEPTICS RIGHT
TECHNOLOGICAL OPTIMISM	Star Trek	Mad Max
TECHNOLOGICAL SKEPTICISM	Big Government	Ecotopia

554. The five most important trends in the next 50 years (Watson, 2012)

- Ageing.
- Power (economic, political, military) shifting from West to East.
- Greater, global connectivity.
- Convergence of technologies (GRIN technologies = Genetics + Robotics + Internet + Nanotechnology).
- The environment (planetary conditions, resource exhaustion).

555. The five most important trends that will transform societies in the next 50 years (Watson, 2012)

- Globalization: everything to become hyperlinked.
- Localization: countertrend to globalization because not everyone will like globalization or homogenization.
- Polarization: middle classes will tend to disappear, either going up or down on the income scale (upwards to a new managerial elite or downwards to a enslaved working class or to the unemployed).
- Anxiety, resulting from greater uncertainty and vulnerability.
- Search for meaning: will science become the new religion or will traditional religions be reinforced?

556. The liberal, optimistic, convergent view of the future

Though the world is divided in peaceful and democratic regions and zones in conflict, the peaceful regions will remain prosperous and stable while the zones of turmoil will eventually develop and democratize to become members of the peaceful zone. It is just a matter that the poor economies emulate the rich ones. Economic convergence will gradually contract the turmoil zone.

