

Challenges of globalization III

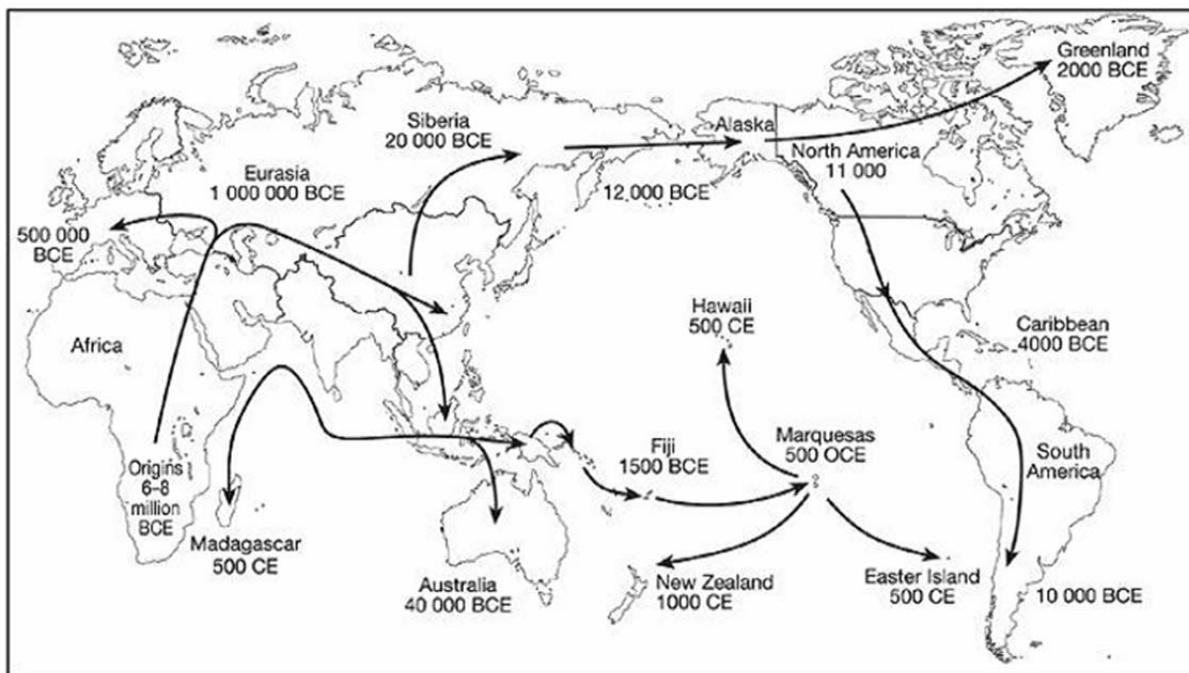
1. How old is the globalization process? Globalization 1.0, 2.0, 3.0 (Thomas Friedman, 2007)

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.

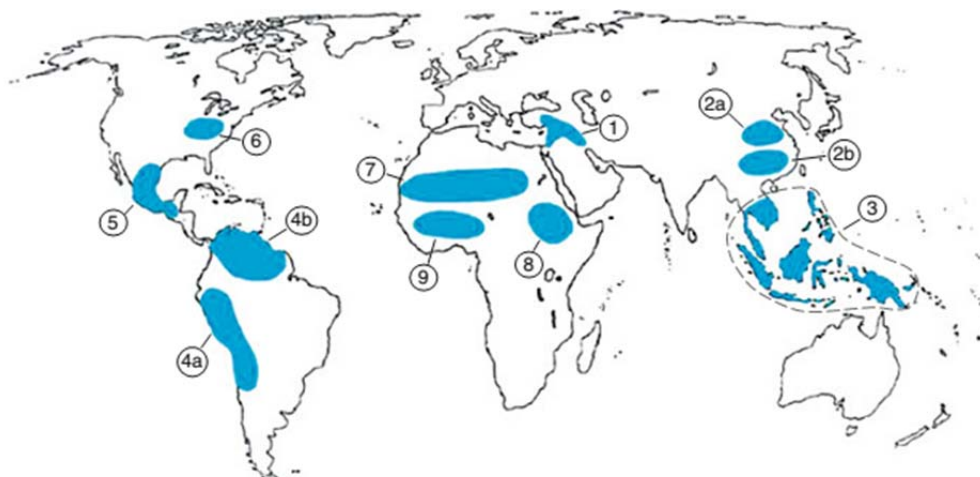
2. A longer view of the globalization process (as a process of intensification of global interdependence)

- 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.



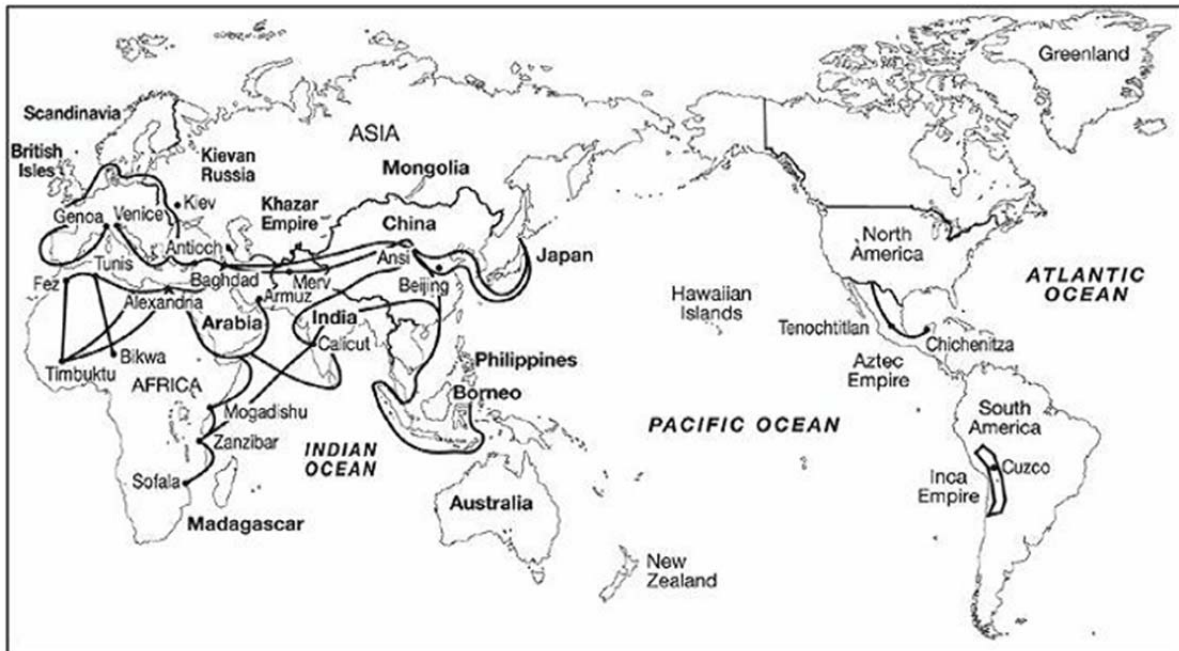
Early human migrations, Steger (2013, p. 39)

- 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.

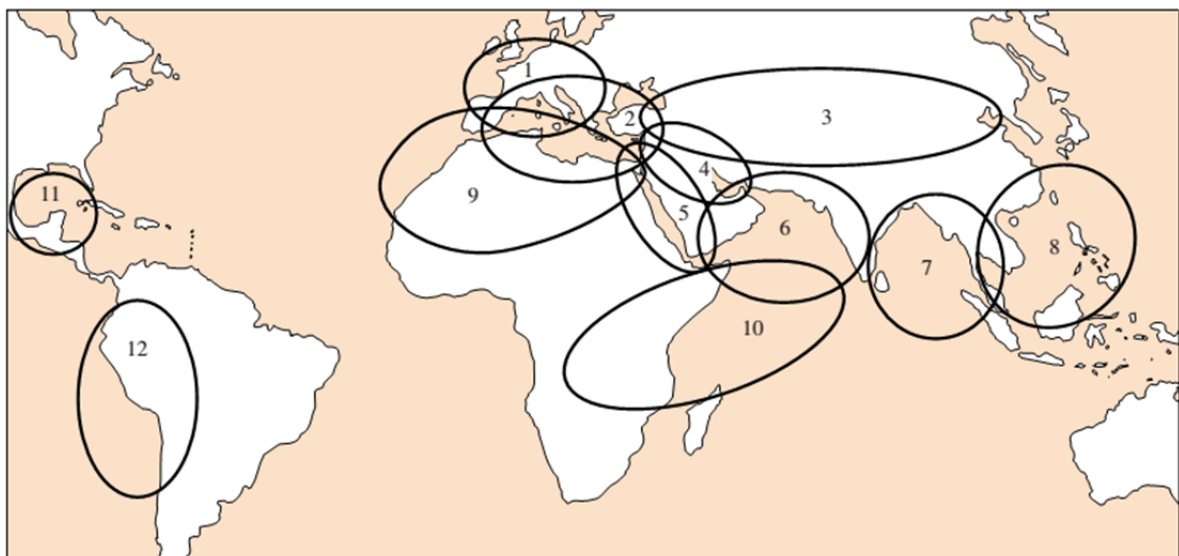


*Centres of origin of agriculture. 1 Middle East; 2a northern China; 2b southern China; 3 Southeast Asia; 4a South American highlands; 4b South American lowlands; 5 Central America, 6 arid savannas of northern Africa; 7 eastern North America; 8 highlands of Ethiopia; 9 humid savannas of West Africa (K. 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 hegemons. Emergent capitalism. Global economy recurrently shaken by booms and busts.



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



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

- 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 millenia. 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.
- 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?

- 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.

3. 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.

4. Steingart's (2008) seven fallacies of the globalization debate

- (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.

5. The world is broken

Globalization is not flattening the world, but mismanaging it.

- The world is for sure 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 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 economies which are significantly different (the West and the Rest). Globalization avoided those features when it involved more similar economies (Europe and North America during the Golden Age, 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.

6. 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.

7. **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).

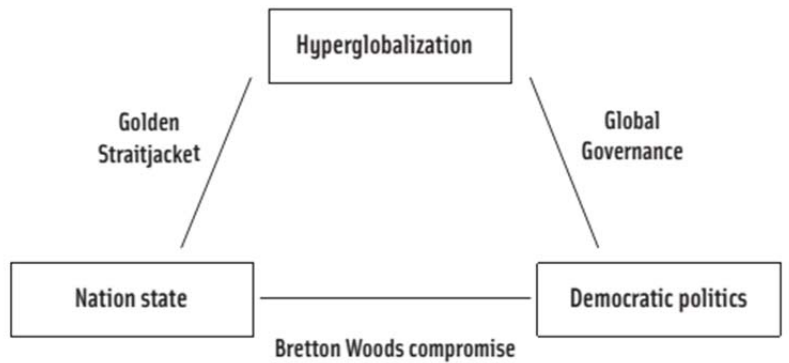
Rodrik, Dani (2007): *One economics, many recipes: Globalization, institutions, and economic growth*, Princeton University Press, Princeton, NJ.

8. **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.

Rodrik, Dani (2011): *The globalization paradox: Democracy and the future of the world economy*, W. W. Norton, London.



The political trilemma of the world economy, Rodrik (2011, p. 201)

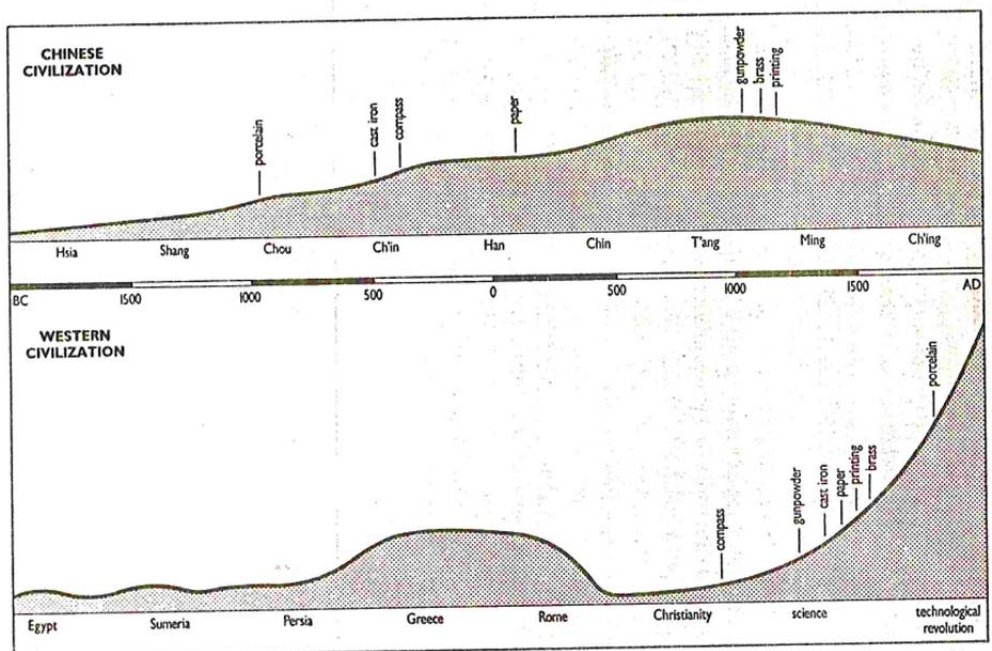
9. **Yates' (2016, p. 47) dilemma**

“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.

10. **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.

11. 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)

12. 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.

13. 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.

14. 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.

15. '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.

16. The paradox of development (Morris, 2010)

"Rising social development generates the very forces that undermine further social development." An unintended consequence of success is new 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.

Morris, Ian (2010): *Why the West rules —for now. The patterns of history and what they reveal about the future*, Profile Books, London.

17. Mukherjee's (2015) Law 2

“ ‘Normals’ teach us rules; ‘outliers’ teach us laws.”

Siddhartha Mukherjee (2015): *The laws of Medicine*

18. 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*.

19. Streeck's (2016) apocalyptic horsemen of contemporary capitalism

Stagnation, debt and inequality are Streeck's (2016) apocalyptic horsemen of contemporary capitalism that are devastating the economic and political landscape. Is a capitalist economy compatible with a democratic polity? Is capitalism socially dysfunctional?

Streeck, Wolfgang (2016): *How will capitalism end: Essays on a failing system*, Verso, London.

20. The greatest risk to humanity in coming decades (Diamond, 2000)

“The greatest risk to humanity in coming decades is the risk that we may continue to damage our environment to a degree incompatible with our current standard of living, or even incompatible with our existence.”

Diamond, Jared (2000): *Ecological collapses of pre-industrial societies*, The Tanner Lectures on Human Values.

21. 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.

22. 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”.

The above 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.

Bartlett, Albert A. (1994): “Reflections on sustainability, population growth, and the environment,” *Population & Environment* 16(1), 5-35.

23. Herman Daly's Impossibility Theorem

“It is impossible for the world economy to grow its way out of poverty and environmental degradation. In other words, sustainable growth is impossible.”

24. Magdoff and Foster (2011, p. 7) corollary to Herman Daly's Impossibility Theorem

Magdoff and Foster (2011, p. 7) corollary to Herman Daly's Impossibility Theorem of unlimited economic growth in a limited environment: "The continuation for any length of time of capitalism, as a grow-or-die system dedicated to unlimited capital accumulation, is itself a flat impossibility". "We are constantly being told by the vested interests (...) that capitalism offers the solution to the environmental problem: as if the further growth of capital markets, green consumption, and new technology provide us with miraculous ways out of our global ecological dilemma. Such views are rooted in an absolute denial of reality."

Magdoff, Fred; John Bellamy Foster (2011): *What every environmentalist needs to know about capitalism: A citizen's guide to capitalism and the environment*, Monthly Review Press, New York.

25. Kenneth Boulding's theorems on population

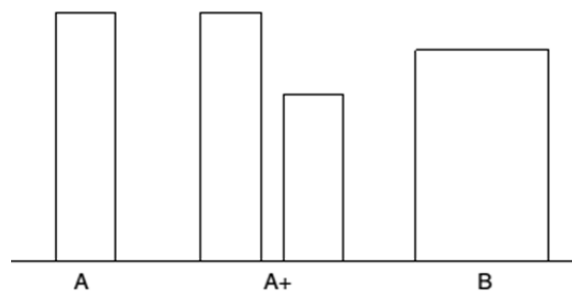
- The Dismal Theorem. If the only ultimate check on the growth of population is misery, then the population will grow until it is miserable enough to stop its growth.
- The Utterly Dismal Theorem. Technical improvements can only relieve misery temporarily: since, by the Dismal Theorem, misery will ultimately 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.

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.

26. Derek Parfit's (1984) repugnant conclusion on population ethics

"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.

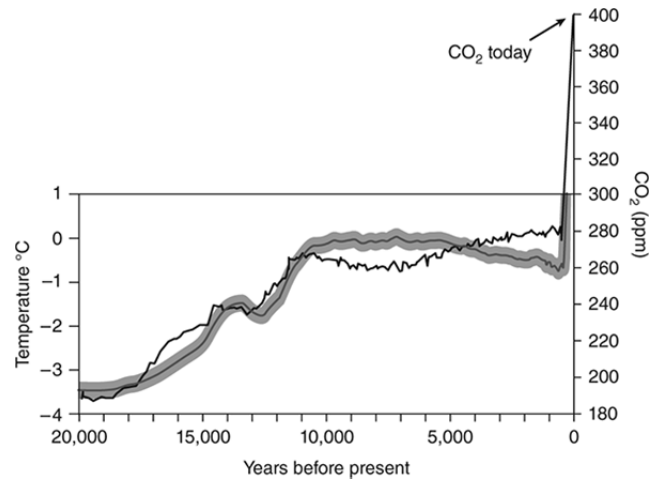
27. Intergenerational comparisons

Human societies face a severe constraint: future generations are affected by the decisions made by past generations but cannot express their preferences to past generations so that they could be taken into account. This seems to create a moral obligation of past towards future generations; for instance, regarding making decisions that could endanger the existence of future generations. A basic dilemma in this context: is it preferable to save one life today at the expense of two lives in the future or to sacrifice one life today to make two lives possible in the future? In terms of people alive today and tomorrow, is the distribution (1, 0) preferable to (0, 2)?

28. The hockey stick curve and CO₂ emissions

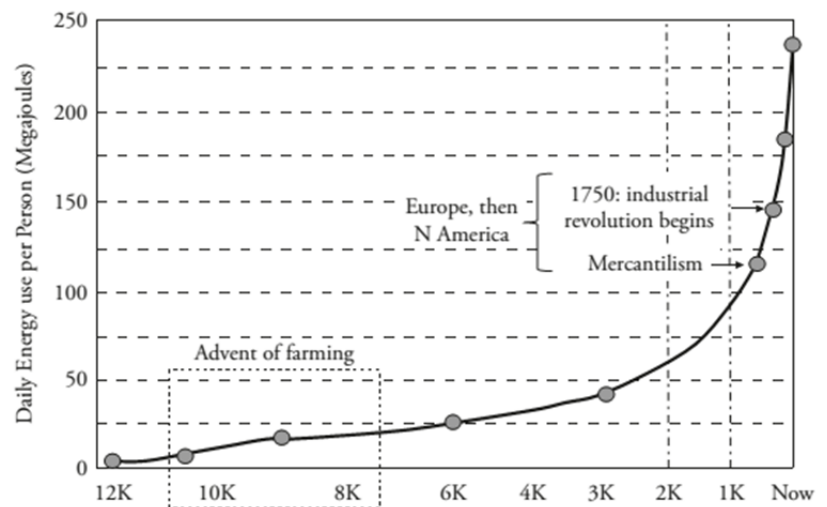
The hockey stick curve is a graph depicting temperature trends in the last millennium and its correlation to atmospheric CO₂ levels. It shows the unprecedented nature of modern global warming. The scientific community has reached a general consensus that climate change is real (it is actually occurring), caused by the activity of human beings and already a problem.

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: the annual weight of CO₂ emissions is some 60 times the total number of people on the Earth.



29. Ecological footprint and energy use

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.



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.

30. 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 differed by some 1.5°C. Since the agricultural revolution the world economy has been blessed by a 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.

31. 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.

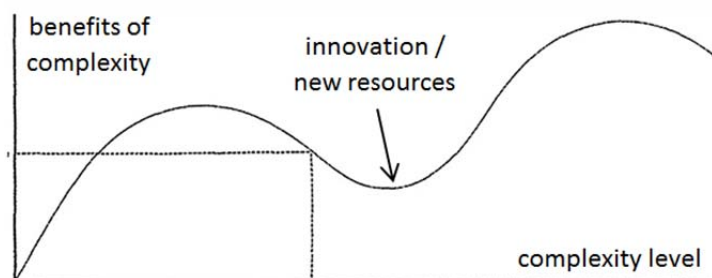
32. **Diamond's (2000) explanation of pre-industrial collapses: Societies tend to approach the margin of what the environment can support**

"... 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."

33. **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.

34. **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.

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