

Globalization

- **Dual nature.** Globalization as outcome (integration of the countries of the world) and as process (the way in which this integration occurs).
- **Globalization 1.0, 2.0, 3.0 (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.
- **Inevitability.** Is globalization (increasing integration) inevitable, at least in the longest run? 'Globalization is one of the most complex and long-running phenomena in human history' (Suárez-Villa, 2012, p. 1)
- **Technology.** Are technological improvements (ability to communicate and transport people and cargo...) the ultimate cause (and the driver) of globalization?
- **Engines.** Economic globalization stimulated by: (i) gains from trade (based on comparative advantage); (ii) economies of scale (unit production cost decreases with production); (iii) economies of agglomeration (cost saving due to proximity to suppliers, customers, partners, competitors...).
- **Forms of trade integration.** Free trade zones (usually established in underdeveloped regions and port regions), preferential trade agreements (reduce but not remove trade restrictions completely), free trade areas (where all trade restrictions are eliminated: NAFTA), customs union (a free trade area where members agree on trade policies: Mercosur, Andean Community, East African Community), common market (allows the free movement of people, not only of goods and capital: South Asian Free Trade Area, SAFTA), economic union (common market plus a set of common economic policies to deal with non-members), monetary union (economic union plus some centralized institutions that manage common internal economic policies, with the possible exception of fiscal policy: European Union and CARICOM, the Caribbean Community).
- **North-South Gap (North-South Divide).** Fact that most rich and developed countries lie above the equator and most of the least developed and poor countries lie below.
- **The Earth at night.** Take any composite image showing simultaneously all the continents at night. Light will be a good estimate of wealth and prosperity: the illuminated areas tend to be the richest areas. Just compare North and South Korea.
- **'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.**

Organizations

- **Categories of firms:** domestic; international (headquartered in one country but operating in many); multinational (physical presence in many countries); global/transnational (lack a home country).

- **World Trade Organization (WTO, 1995).** After World War II, a series of treaties called the General Agreement on Tariffs and Trade (GATT) were adopted to remove trade restrictions, reduce tariffs, and stimulate free trade. The WTO originated in the 1986 round of GATT talks. Aims of the WTO: promote and facilitate the goals of GATT; be a forum for discussions of trade issues; enforce GATT and WTO rules; and resolve disputes.
- **WTO principles:** nondiscrimination (equal treatment of all its members), free trade, fair trade (reject predatory business practices), regulation (agreements are binding), catch-up (contribute to the development of the poorer members).
- **World Bank (1945).** It is a bank for countries consisting of five branches. Two lend to promote development, the *International Bank for Reconstruction and Development* (finances infrastructure construction) and the *International Development Association* (lends to very poor countries to finance the basics of life: schools, medical care...). The *Multilateral Investment Guarantee Agency* insures private investors for investments that contribute to the country's development. The *International Finance Corporation* specializes in financial advice and services. Lastly, there is the *International Centre for Settlement of Investment Disputes*, which provides arbitration services for the World Bank member states.
- **International Monetary Fund (IMF, 1944).** Monitors the economy of its members, collects economic information and data to help them to coordinate their economic policies and prevent economic crises, provides technical assistance, and provides loans to deal with short-term economic crises.
- **Organisation for Economic Co-operation and Development (OECD, 1948).** Reorganized in 1961 to promote free trade, economic development, and international cooperation. Cooperates with governments and private agents, makes policy recommendations, and publishes statistics and research studies over a wide range of topics.
- **Nongovernmental organizations (NGOs).** These are international organizations (they conduct global activities) that are not governments (and are autonomous from governments), groups of governments, or profit-seeking organizations (the operations of NGOs are not motivated by profit or revenue). Most of the NGOs are charities (Doctors Without Borders, Oxfam), concerned with specific professions or fields (World Wide Web Consortium) or aimed at influencing governments (Transparency International, Human Rights Watch).
- **G8 (G-8, Group of Eight).** A non-official organization consisting of 8 of the countries with largest GDP that meet annually (G8 summit) to discuss global issues and coordinate efforts and responses. Meeting location and office of president rotate. The G8 extended the G6 (Group of Six, 1975: US, UK, France, Germany, Italy, Japan) after incorporating Canada and Russia.
- **G20 (G-20, Group of Twenty).** Arguably the organization closest to a global government. Apparently, the G20 managed to avert a global economic crash in 2009, when G20 replaced G8 as the main economic council of the richest countries. The members of the G20 are 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, United States) plus the European Union, and represent more than 80% of world GDP and two-thirds of world population.

Impact of globalization

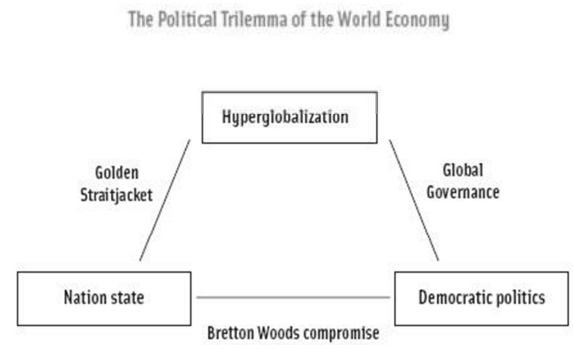
- **Threats to the world economy.** Threat of scarcity and threat of abundance: ecological catastrophe (how it affects the future of life on Earth) and automation (how it affects the future of work in economies).

- **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...
- **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?).
- **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.
- **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.
- **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...
- **'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.

Structural trilemmas

- **The Domar trilemma (Evsey Domar, 1970).** A premodern agricultural economy characterized by having free land, free peasants and non-working landlords is not sustainable. Sedentary farmers are threatened by mobile raiders. Protection is offered by non-working landlords. Hence, either free land (western Europe) or free peasants (eastern Europe) must be sacrificed.
- **Open economy (Robert Mundell's) trilemma.** Full access to global capital markets (free mobility of capital), facilitated access to global commodity markets by means of fixed exchange rates and domestic monetary stability achieved with an independent monetary policy cannot all be sustained.

- **Rodrik's trilemma: Clash between politics and hyperglobalization** (Dani Rodrik, 2011). '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.



- **Rodrik's central dilemma of the world economy** (Dani Rodrik, 2007, p. 8). 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).
- **Yates' dilemma** (Peter Yates, 2016, p. 47). "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."
- **Yunus' three zeroes** (Muhammad Yunus, 2017). The current capitalist economic system suffers from three big failures: persistence of poverty, unemployment, environmental degradation. The system must be redesigned by pursuing three goals: zero poverty, zero unemployment, zero net carbon emission.
- **Louis Brandeis (1856-1941)**. We can have wealth concentrated in a few hands or democracy, but not both.

What lies ahead?

- **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

- **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

- **The Malthusian view.** 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.
- **The modern Malthusian view.** All economies are ultimately constrained by the Earth's carrying capacity.
- **Jevons paradox (William Stanley Jevons, 1865).** 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.
- **The Boserupian view (Ester Boserup, 2015).** 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.
- **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.
- **Test.** Option 1: to have 50 when everybody else has 25. Option 2: to have 100 when everybody else has 200. Which option do you prefer? Apparently, most people prefer Option 1. This suggests that absolute wealth may be less important (or be perceived as less important) than relative wealth. The relative poor may be more encouraged to take risks and gamble than the absolute poor. What is more relevant is not to be poor but to become (relatively) poorer.
- **Bryan Turner's *enclave societies*.** Turner (2007) suggests that governments and other agencies try to regulate (bureaucratic barriers, legal restrictions) and, when necessary, stop economic flows (people, goods, capital), despite the idea that mobility necessarily increases with globalization.
- **Kishore Mahbubani's *Great Convergence*: 'everything that rises must converge'.** Mahbubani (2013, p. 1) 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. Yet currently the world economy is a boat without a captain: the institutions of global governance are too weak.
- **Thomas Friedman's *Flat World*.** Globalization 3.0 is making the world flat: most people are going to have access (as collaborators, innovators, predators, criminals...) to the technological tools that improve

productivity. In Friedman's view, globalization 3.0 challenges hierarchies from below: more people is individually empowered.

- **The Fermi paradox (Enrico Fermi).** The paradox is summarized by the question "Where is everybody?" and refers to the oddity of having ex-ante high probability estimates of the existence of extraterrestrial civilizations and lacking firm evidence of their existence. One explanation is that technologically advanced civilizations do not last much: they are self-destructive.
- **How many people have ever lived?** Humans (and near-humans) born: (i) since 1750, about 20 billion; (ii) between 10,000 years ago and 1750, around 50-100 billion; (iii) in the million years before 10,000 years ago, also 50-100 billion. Conclusion: of all the humans who have ever lived only 3–8% are alive today. <http://www.prb.org/Publications/Articles/2002/HowManyPeopleHaveEverLivedonEarth.aspx>
- **The Doomsday argument.** It is the argument that knowledge of one's rank in a sequence makes shorter survival times more likely than longer ones: past longevity rather supports short future longevity. The following example (Lewis, 2010, p. 27) illustrates the logic of the argument. Imagine destiny determines whether there is only one person (hypothesis H1) or there are one person first and next a second person (hypothesis H2). When the first person, XX, is created, she realizes she is the first person (evidence E). Suppose XX assigns the same probability to H1 and H2: $p(H1) = p(H2) = 1/2$. Suppose as well that $p(E | H2) = 1/2$: if two persons are going to be alive, XX regards as equally likely that she would be the first or the second to be created. Finally, $p(E | H1) = 1$: XX attributes probability 1 to the event that she is alive when only one person is going to be alive. Using Bayes' rule (and assuming that H1 and H2 define all the possibilities), it is possible for XX to calculate the probability $p(H1 | E)$ that destiny will allow only one person to live given the evidence that she knows that she is alive.

$$p(H1 | E) = \frac{p(E | H1) \cdot p(H1)}{p(E)} = \frac{p(E | H1) \cdot p(H1)}{p(E | H1) \cdot p(H1) + p(E | H2) \cdot p(H1)} = \frac{1 \cdot \frac{1}{2}}{1 \cdot \frac{1}{2} + \frac{1}{2} \cdot \frac{1}{2}} = \frac{2}{3}$$

The conclusion is then that posterior probability $p(H2 | E)$ of a long-lasting species given evidence E is 1/3: it is more likely that the species will disappear sooner ($2/3 = p(H1 | E)$) than later ($1/3 = p(H2 | E)$).

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