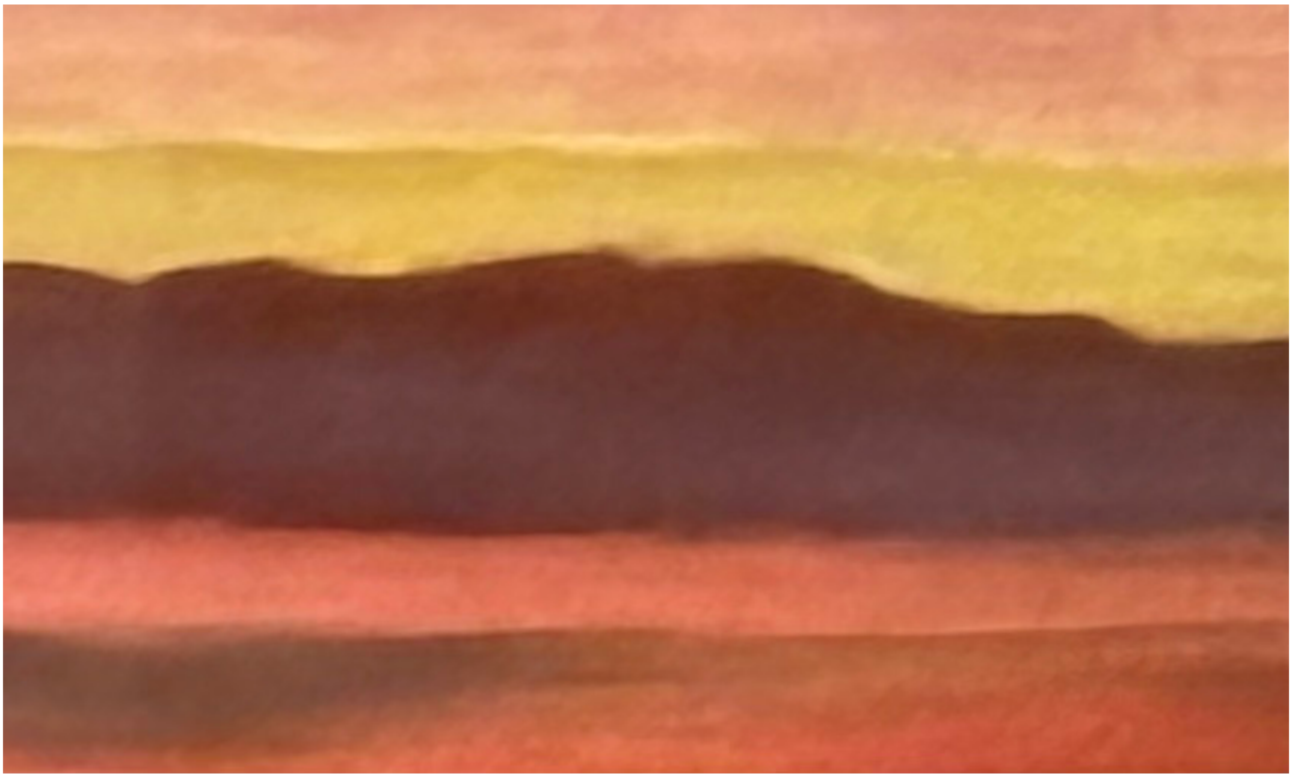

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Chapter 2. The fundamental economic changes in the 2000s

chapter of the book
EUROPE AND THE WORLD ECONOMY: THE YEARS 2000S

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EUROPE AND THE WORLD ECONOMY: THE YEARS 2000S

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Note: Every 2-3 months in 2026 a new chapter of this e- book will be published in open access mode. Chapter 1 has already been issued and regards *Global Economic Power*. Chapter 3 regards the *Economy of Europe*. Chapter 4 analyzes selected *Aspects of the world economy*.
All chapters are, or will be, freely available on the sites of OEET, AISSEC, Research Gate, Academia.

Chapter 2. The fundamental economic changes in the 2000s

2.1 The main world economic trends

In the 2000s, the world economy has so far experienced two distinct phases. The first, from 2000 to 2007, recorded a fair rate of economic development despite the impact on the American economy and other countries of the tragic attack of September 11, 2001 on the two twin towers in New York and the unhappy American invasion of Afghanistan in 2002.

Different, and much worse, was the situation from 2008 to early 2026.

Major shocks were the 2007-8 financial crisis originating in the US and the consequent Great Recession, the Covid-19 pandemic, the Russia-Ukraine war, those between Israel and Hamas in Gaza and Hezbollah in Lebanon; the war in Iran after the US-Israel attack and numerous local conflicts. There were also the progressive expansion of environmental and climate degradation and the erratic Trump's trade wars. All this has contributed to making the growth rate of the world economy more modest and fluctuating in the years 2008-2026. The overall real GDP, and even more so the real GDP per capita of the world, have recorded sharp negative changes in two years (2009 and 2020),[1] which were the worst annual contractions of these indicators since the 1950s. It should be noted that the economic consequences of the great financial crisis of 2008-9 were far greater in Western countries, which were financially and economically more connected to the US economy, than in much of the rest of the world. The economic consequences of the pandemic in 2020-21 and the war between Russia and Ukraine in 2022-26 have also been very different. As will be better seen in the following paragraphs, the former has mainly affected countries with greater spread of the pandemic or with less availability of vaccines, while the latter has generated large inflationary flare-ups, particularly affecting, in addition to Russia and Ukraine, the major European countries that imported Russian energy and Ukrainian grain and steel, as well as poor countries, which often are heavily dependent on foreign countries for both energy and cereals. The US-Israel attack on Iran contributed to determine an energy crisis and the rise of inflation.

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[1] The world's real GDP fell by 1.4% in 2009 and by 2.9% in 2020, while the world's real GDP per capita fell by 2.6% and 3.9% respectively in the two years. Sources: World Bank, (2024 a), data extracted on 12-10-2024.

In the 2000s as a whole, economic growth affected some emerging countries and some areas of the world with greater vigor. **Table 1.1,** relating to the world's largest economies**,** which we presented in section 1.2, **Figure 2.1** and **Table 2.1** give an overall picture of the trends in GDP and GDP per capita in PPP (i.e. purchasing power parity) in these countries. However, it should be remembered that these indicators provide a limited idea of economic evolution and should be accompanied by several other quantitative and qualitative indicators, such as those relating to economic and social inequalities, demography and migration, employment and wages, gender differences, quality of life and the proper functioning of the main economic, political and social institutions.

Figure **2.1** shows above all three significant trends in the 2000s with regard to total GDP at constant prices.

The first consists in the fact that since 2008 there has been a clear trend reduction in the growth rate of the world's GDP and, in particular since 2010, also in that of its largest and most powerful locomotive, China.

Figure 2.1 Developments in real GDP in selected countries and groups of countries

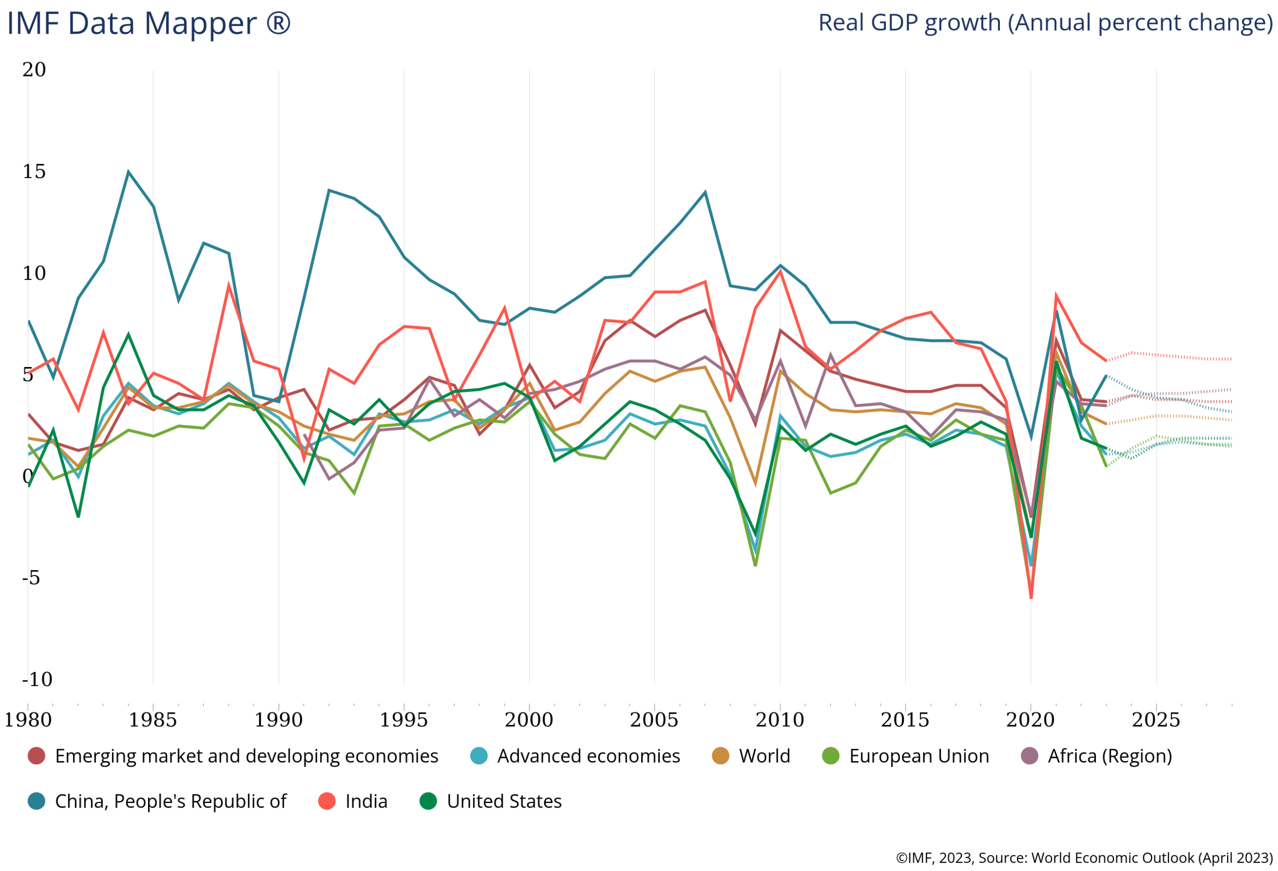

Table 2.1 GDP per capita in PPP in some countries and aggregates in the 2000s (constant international thousands of dollars 2021 as % of the US)

Countries ordered based on 2024 data	Countries and Aggregates (EU and world)	2000	2007	2010	2019	2020	2021	2022	2023	2024	2024 % of USA
1	USA	55.0	61.3	59.8	69.1	67.3	71.3	72.7	74.2	75.5	100.0
2	Sa. Arabia	56.0	53.3	54.9	62.6	57.4	62.7	67.2	64.5	62.8	83.2
3	Germany	49.9	54.9	54.7	62.8	60.2	62.5	63.7	63.0	62.6	82.9
4	Australia	45.1	51.7	52.7	57.7	57.3	58.3	60.0	60.7	60.3	79.9
5	Canada	48.4	53.8	52.6	57.3	54.1	57.0	58.3	57.5	56.7	75.1
6	S. Korea	25.1	34.5	37.6	46.8	46.4	48.4	49.8	54.4	55.1	73.0
7	France	45.9	50.2	49.1	53.4	49.4	52.5	53.7	54.3	54.8	72.2
8	Italy	50.4	52.7	49.3	49.7	45.5	49.8	52.3	52.9	53.3	70.3
9	U.K.	43.1	49.2	46.9	52.5	47.2	51.0	53.1	52.6	52.6	70.0
10	Spain	39.9	45.3	42.7	46.9	41,5	44.3	46.7	47.3	48.5	64.2
11	Japan	39.0	42.2	40.9	44.7	43.0	44.4	45.0	45.9	46.1	61.0
12	Poland	18.6	24.5	27.1	38.2	37.9	41.1	43.4	43.7	45.1	59.7
13	Russia	20.1	32,6	33.1	37.3	36.4	38.6	38.2	39.9	41.7	55.2
14	Turkey	14.9	19.9	19.9	28.7	29.0	32.1	33.5	35.1	36.1	47.8
15	China	4.1	8.0	10.5	18.8	19.2	20.8	21.5	22.7	23.8	31.5
16	Mexico	20.5	21.1	20.1	21.7	19.7	20.8	21.4	21.9	22.0	29.1
17	Thailand	11.6	15.7	16.7	21.3	20.0	20.2	20.8	21.2	21.7	28.7
18	Brazil	14.0	16.4	18.1	18.0	17.3	18.1	18.6	19.1	19.6	26.0
19	Iran	11.6	15.2	15.7	14.8	15.4	15.9	16.4	17.0	17.5	23.2
20	Egypt	10.0	11.8	13.1	15.0	15.3	15.6	16.4	16.7	16.8	22.3
21	Indonesia	6.1	7.8	8.8	12.8	12.4	12.8	13.3	13.9	14.5	19.2
22	Vietnam	4.3	6.4	7.3	11.6	11.8	12.0	13.0	13.5	14.4	19.1
23	India	3.1	4.4	5.1	7.9	7.4	8.0	8.6	9.3	9.8	13.0
24	Nigeria	4.9	6.9	8.0	8.4	7.7	7.6	7.7	7.8	8.0	10.6
25	Pakistan	3.5	4.3	4.2	5.3	5.1	5.4	5.5	5.4	5.5	7.3
	EU	*40.2*	*46.3*	*45.2*	*51.7*	*48.8*	*52.0*	*53.8*	*53.9*	*54.3*	*71.9*
	World	*12.8*	*15.5*	*16.0*	*19.5*	*18.8*	*19.9*	*20.4*	*20.9*	*21.4*	*28.3*

Source: World Bank (2026).

This can be partly explained by the possible advantages of *latecomer countries*, i.e. laggards in development,[2] compared to the countries of older industrialization, but also because of the large economies of scale possible in very populous emerging countries such as China, India and Indonesia as their per capita and total income rose and their domestic market rapidly expanded. However, the strategic choices of economic policy adopted by the governments and the characteristics of the political and social framework of the various countries have also been of decisive importance. For example, since the 1980s China's government policies supported much

[2] This concept is due to the economist and economic historian Gerschenkron (1962).

more than those in India the process of industrialization and technological upgrading as well as the rise of exports.
The second trend lies in the fact that the advanced countries, and in particular both the USA and, on average, the European Union, have grown significantly less than the world as a whole, but in particular than China, India and part of Africa.
Finally, there were the effects of the Russia-Ukraine war, the one between Israel, Hamas and Hezbollah and the US-Israel attacks to Iran. It should be noted that these shocks have on average affected the advanced countries the most, and among them those most interconnected with complex economic, financial and geo-political relationships.
The third general trend is that world growth has had two severe setbacks, especially in 2008-9, with the "Great Recession" and in 2020 with the COVID-19 pandemic, and a sharp slowdown in the years 2022-23.
The data in **Table 2.1**, relating to the trend of GDP per capita in constant PPPs of the 25 largest economies in the world, also show some important trend changes in the 2000s.
Among the major economies of the European Union, Italy is the one that stagnated the most, losing ground to numerous countries, especially since 2008. Its per capita GDP level is clearly distanced from Germany and France, which also had modest growth, and closer to Spain and Poland, the latter rising rapidly. Our country has also been surpassed by South Korea, which is making clear and continuous progress.
Among the emerging countries there was the continuation of the overwhelming rise of China and to a somewhat lesser extent of India, the good performance of Turkey, Indonesia and Vietnam, the uncertain and discontinuous path, particularly since 2010, of Mexico, Brazil and Iran. Egypt, Pakistan and Nigeria had a fair rise, starting, however, for Nigeria and Pakistan, from very low levels. From the late 1990s to the early 2010s, the Russian Federation had benefited from the vigorous economic recovery carried out after the severe transitional crisis suffered after the dissolution of the Soviet Union in 1991. Since 2013, the rise has become slower and more uncertain, and it slowed down in 2022-2025 due to the economic consequences of the invasion of Ukraine and the start of the Russian-Ukrainian war. It should be noted that since 2008 China, while continuing to grow more than the US and other Western countries, has also slowed down sharply in terms of the growth of GDP, per capita GDP and exports.

In recent years China's rate of real economic growth was even inferior to India's rate.

2.2 The great shocks of the 2000s

The 2000s saw the succession of several major shocks, which had important consequences on world economic evolution. Some of these shocks are due to the explosion of phenomena incubated over long periods of time and gradually worsening, such as the environmental and climate crisis and the migration crisis; others are associated with major financial crises, such as the one that originated in the US in 2007-8 and then spread to many other countries and culminated in the "Great Recession" of 2008-2013. A vast pandemic crisis such as that of Covid-19 has also led to over seven million deaths from 2020 to March 2024 and abruptly damaged in different ways the economy of many areas of the world.
Finally, there have been serious acts of terrorism (including the attack on the Twin Towers in New York on September 11, 2001, the Bataclan massacre in Paris on November 13, 2015 and the one in Moscow on March 22, 2024), as well as multiple brutal wars in Iraq, Afghanistan, Syria, Libya, South Sudan and in various other areas of the world, such as, recently, the Russian invasion of Ukraine, the Hamas-Israel war and the attack of the US and Israel against Iran and of Israel on a large part of Lebanon.
In his second presidential mandate Trump's erratic economic, geo-political and military policy widely contributed to world economic instability.
All these events have greatly affected the economic performance of a large part of the world, influencing and then fragmenting the process of globalization, weakening the ecological transition, leading to vast migratory phenomena and disrupting the global geo-political order and the delicate political, economic, financial and cultural relations between countries.

2.3 The environmental crisis and global warming

Let's start with the problem of the *environmental crisis*. An important aspect of this crisis is *global warming*, largely due to the emission of greenhouse gases. The latter is a long-term phenomenon that lasted for about two centuries, but has rapidly worsened as a result of human activities in recent decades, leading to major climate crises. This has led to increases in the temperature of the land and seas, cycles of droughts and heat waves at long periods of the year, often alternating with storms or other calamities and severe floods even in temperate areas of the world. The increase in periods of drought and other climatic disasters has particularly affected various areas of Africa, Asia and Latin America, leading to fires, water shortages and major famines that have contributed to determining, together with local conflicts and wars and the widespread spread of poverty, massive migratory flows to countries perceived as richer, or with more job opportunities, or safer.

Global warming, which also leads to the melting of mountain glaciers and polar ice and rising seas, is mainly attributable to the strong and increasing use of fossil fuels, as well as deforestation and various other forms of air pollution. Hence the need for drastic interventions at a global level, to prevent the progressive increase in temperature from exceeding pre-industrial levels by 1.5-2 C (degrees Celsius) between 2030 and 2050 with catastrophic consequences on the climate.

It should be remembered that in 2025 the global average temperature had already exceeded pre-industrial levels by over 1.4 C. despite the commitments made in the 2015 Paris Agreement and in the various COP (Conferences of the Parties) meetings [3]. In particular, the European Union had committed since 2019 to trying to achieve climate neutrality in the EU in 2050, through a drastic policy of reducing CO_2 emissions and other greenhouse gases and increasing their absorption with greater forestation and the capture of part of the CO_2.

The biggest problem is that the level of global fossils emissions is already extremely high, close to the critical level of 1.5 C. over the level of the pre-industrial period, despite the fact that the per capita level of emissions in poor countries is much lower than that of richer and more industrialized countries. If developing countries were to use the same development model as rich countries in the past, the levels of emissions in the world and global warming would reach such heights that they would overwhelm both the world economy, the environment and mankind itself. It would therefore be

[3] At COP28 in Dubai in December 2023, it was agreed to conduct an energy transition policy, "moving away from fossil fuels in energy systems", among other things by tripling renewable energy capacity by 2030. It was also decided to finance the countries most affected by the climate emergency with $188 million. These measures, although clearly inadequate, represented the result of a compromise between the interests of countries that produce or are heavy users of fossil fuels and those of countries that are more attentive to climate and environmental damage. The fact that COP 28 in Dubai and Cop 29 in Baku (Azerbaijan) were located in countries with high interests in the production and export of oil and gas, and that the oil, gas and coal lobbies are also very influential in the politics of many countries (USA, Russia and several countries in the Middle East included) might raise fears that decarbonization policies will still be strongly hindered in the future. and in any case softened and braked. COP 30, held in Belem (Brazil) in November 2025, saw some efforts to reduce the growth of global emissions, limit deforestation and slightly increase the financing of developing countries engaged in the climatic transition, but was seriously weakened by the absence of the United States. Incidentally, President Trump had already decided to abandon, for the second time, the Paris agreement on climate change, and later, in January 7, 2026, he has announced the exit from a number of international organizations, including UNFCCC (the organizers of COPs) and IPCC (the intergovernmental group on Climate Change), heavily damaging global climate policies.

necessary to strongly reduce the per capita emissions of the rich countries and at the same time slow down the growth of the emissions of the poorest countries without worsening their economic growth.
While it is true that from 2000-2007 to 2026 in the US and in several EU countries, per capita CO2 emissions have been somewhat reduced as a result of containment policies, in the meantime they have continued to increase in very populous emerging countries such as China, India and Indonesia and in most developing countries or economies rich in oil and gas or coal[4]. China, in particular, has reached and exceeded the levels of per capita CO2 emissions of several EU countries, although it is still far from the very high levels of Saudi Arabia and other oil countries in the Middle East, the USA, Canada, Australia, Russia, etc. Since 2000 the world's total emissions of CO2 and other greenhouse gases have thus continued to rise, except in the most acute years of the Great Recession (2009) and the pandemic (2020), also due to the continuous trend increase in world production and population. It is therefore necessary to implement a much faster and more intense decarbonization policy in the richest countries, and at the same time transfer adequate financial and technological resources to the poorest countries to allow a radical slowdown in the growth of their emissions. Finally, it is necessary to ensure an adequate increase in reparations for the damage caused by extreme weather events to the poorest countries and those most exposed to desertification, drought, famine and submersion of inhabited land, also because the greatest responsibility for emissions is in practice attributable to the richest and most powerful countries.
The worsening of climatic conditions and in general of the environment has led in recent decades to annual internal or foreign migrations of tens of millions of people as a result of extreme climatic events, water shortages, lower agricultural harvests, heat waves or desertification of vast territories in Africa, Asia and Latin America.
These climatic events have often caused extreme misery, violence, local conflicts and real wars, which have also strongly contributed to leading to unregulated mass migrations to other richer or safer countries, often poorly tolerated by a part of the population of the latter. The fear of having a large uncontrolled mass of illegal immigrants has led to the growth of the populist right in several economically advanced countries, even when net immigration made it possible to compensate at least in part for the reduction

[4] Of course, in terms of total emissions, China, due to its huge population, has clearly surpassed the USA, becoming the country with the highest total CO2 emissions in the world since 2005. (IEA, 2024).

and aging of the population, fill vacancies and reduce the deficits of social security systems.

2.4 The financial crisis and the Great Recession

In the years from 1982 to 2007, the United States seemed to be living in a financially happy period. Those were the years of the "Great Moderation" in which the volatility of real GDP and inflation seemed under control and were significantly lower than in the previous twenty years thanks also to a careful stabilizing monetary policy conducted under the leadership of Federal Reserve Presidents Volker and Bernanke.[5] The US financial system, however, harbored a sinuous two-headed snake within it.

The first, which concerned both the United States and the entire world finance, was the abnormal and poorly regulated *financialization of the economy*, the enormous growth of financial markets, their institutions and financial assets, and in particular derivatives, compared to real assets. Financialization has therefore shifted resources, income, employment and power from the real sector to the financial one, helping to raise capital income more than labor income and increase the already large gap between the wages of workers and employees and the incomes of top managers and holders of huge financial wealth.

The financialization of the economy has manifested itself in the United States especially since 1979. In particular, from 1979 to 2005, total credit as a percentage of GDP increased from 166.8% to 328.6% and debt related to housing loans as % of GDP increased from 51.9% to 97.5%,[6] and these trends continued until the outbreak of the *sub-prime crisis* in 2007[7]. The housing bubble had been strongly supported by the trend reduction in interest rates on mortgage loans from November 1981 to July 2005 and by measures aimed at facilitating the use of home loans by the poorest households or those with uncertain incomes. All this contributed to the strong growth in housing demand and house prices especially from the first quarter of 1993 to the first quarter of 2007. When mortgage interest rates began to rise from the summer of 2025, an increasing number of homes remained unsold and in 2027 house prices fell sharply.

[5] See Federal Reserve (2013)

[6] See Palley (2007), pp. 2-9.

[7] Sub-prime refers to mortgage loans provided by banks or other specialized financial institutions for the purchase of real estate to people or companies with low income and low assets and therefore no longer able to pay mortgage installments in times of widespread crisis or individual economic difficulties.

The second head of the snake within the financial system is the gradual *tendency to relax the regulation of the financial system*, culminating in the Clinton administration's decision in 1999 to abolish a major part of the Glass-Steagall Act of 1933 that had wisely separated the activities of commercial banks from those of investment banks. In addition, the great growth of derivatives added flammable fuel to various types of risky financial speculation in the US financial system, including the huge sale to banks and insurance companies and their customers in the US and many other countries of financial packages containing junk bonds such as those linked to sub-prime mortgages.

During 2007 in the USA there was therefore the explosion of the *sub-prime* crisis in the real estate loan market, which led in 2008 to a serious *financial crisis* that quickly spread to many other countries and especially to those most closely interconnected with the American financial market. Several American and European merchant or commercial banks broke down; others were barely saved by the public authorities. The prices of financial packages placed on savers around the world including junk bonds, due to the securitization of sub-prime mortgage loans, collapsed. Stock prices on the New York Stock Exchange and on the major European stock exchanges briskly fell especially after the collapse of Lehman Brothers on September 15, 2008.

As a result, business activities and the entire real economy were largely damaged, first in the US and then in much of the Western world. Thus, there was the "Great Recession" that lasted in the USA until 2010 and in some European countries, such as Greece, Italy, Spain and Portugal until 2013-14. Among the major economies, China and India were partially saved, and continued their path of economic growth, albeit with a sharp slowdown.

The mechanisms by which the financial crisis had such a violent impact on the real economy were to a large extent associated with stock-flow relationships[8].

It should be remembered that when the wealth (which is a stock concept) of companies and individuals grows, for a given income (which is a flow concept) there is an increase in consumption, but when the value of financial and real wealth is greatly reduced due to the collapse of the prices of financial assets and real estate, then consumption falls, as widely happened in 2008-9.

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[8] See Valli (2013 and 2017) on these aspects. See also on the financial crisis, Yellen (2009) and on the economic events following the "Great Recession" Marelli, Signorelli (2022).

In 2008-9, business investment also collapsed because banks in difficulty had less liquidity to provide, also due to the crisis in the inter-bank market. In addition, the guarantees (shares and mortgages on real estate) offered by companies to banks for the granting of loans were worth much less due to the fall in the prices of shares and real estate used as collateral, and the banks consequently drastically reduced their exposures. Finally, it should be remembered that, with declining consumption, it was not convenient for many companies to invest in order to increase production capacity and that several companies went bankrupt both because of the reduction of bank exposures and the consequent lack of liquidity, and because of the fall in their sales, both domestically and abroad.
While in 2010 the United States managed to get out of the crisis, thanks also to a vigorous recovery policy based on a rapid reduction in the US Central Bank's reference interest rate and an increase in public spending and sovereign debt, in the European Union three serious economic and financial policy errors aggravated and prolonged the crisis, especially in the countries most exposed to the financial markets due to the high initial level of public deficit and/or sovereign debt.
The first two mistakes were the *policy of austerity*, i.e. a substantially anti-Keynesian approach, followed in the European Union in 2008-9 [9] and *the lack of adequate common rescue tools* in the event of serious economic crises. The third mistake was *the abandonment in 2010 of solidarity with a eurozone country, Greece,* which undermined confidence in the euro, opened the way for financial speculation against the most indebted countries and thus led to the *sovereign debt crisis* in several EU countries in the years 2010-14.
With the advent of Mario Draghi, as president of the ECB, from November 2011 to October 2019, monetary policy changed radically. There was a gradual reduction in interest rates, the decisive defense of the euro[10], measures aimed at financing banks, companies and states in difficulty more easily until the *quantitative easing* of 2015-18[11], but also a more complete

[9] At that time, the policy of the EU and the ECB was greatly influenced by the German obsession with defending price stability and the fear of rising public debts, well analyzed in Nardozzi (2021). In her autobiographical book (Merkel, Baumann, 2021), the German chancellor shows her and the German government's inner turmoil in the years of the financial and sovereign debt crisis, but also her aversion at the G20 on 3-4 November 2011 to ask the ECB for a monetary "bazooka" to overcome the crisis proposed by Obama, Sarkozy, Berlusconi, Barroso (p. 429). Subsequently, Merkel partially changed her position by supporting Draghi's ECB and the EU Commission in an attempt to limit the damage of the euro crisis of 2011-12 and the Covid-19 pandemic of 2020-22.
[10] On July 26, 2012, Draghi delivered his famous speech in defense of the euro, arguing that the ECB would do everything possible, whatever it takes .." to safeguard the common currency.
[11] "Quantitative easing" refers to a highly expansionary monetary policy based essentially on the purchase by the central bank of government bonds.

and accurate supervision of the major European banks through a common supervisory body and the imposition of higher capital standards on them.

2.5 The Covid-19 pandemic crisis

During 2019, a serious epidemic began to spread in China. It was unidentified until the first days of January 2020, but then, named Covid-19, it spread in the city of Wuhan and from January-February 2020 into other areas of China. It also rapidly reached many countries around the world, becoming a very dangerous and partly lethal world pandemic. Worldwide, the number of deaths due to the various variants of the pandemic rose to over seven million at the end of March 2024, despite numerous interventions aimed at limiting the expansion of the pandemic and the introduction of several Covid-19 vaccines since December 2020.

The pandemic gradually eased in 2023-24 thanks mainly to the combined action of vaccines and the immune system response in people infected with the virus and then recovered. This response is essentially based on both the activation of B lymphocytes that produce antibodies, and on that of long-memory T lymphocytes.[12]

On May 5, 2023, the WHO officially declared the end of the pandemic, but even after that date, it continued to circulate to a limited extent in several countries. The twelve countries most affected for deaths from Covid-19 were, from the beginning of the pandemic to April 5, 2024, the United States (1 million and 219 thousand), Brazil (711 thousand), India (534 thousand), Russia (403 thousand), Mexico (335 thousand), the United Kingdom (232 thousand), Peru (222 thousand), Italy (196 thousand), Germany (183 thousand), France (168 thousand), Indonesia (162 thousand), Iran (147 thousand). China, which carried out a very rigorous, almost ferocious campaign of isolation of all people residing in areas where the virus was showing signs of spreading, had, as of April 5, 2024, far fewer infections and far fewer deaths (5272 in total, according to official Chinese estimates).[13] Even countries, such as Japan, South Korea and Taiwan, which in 2020-21 had a much stricter policy of isolating people affected by the virus than Western countries, had far fewer deaths than the United States more than China[14]. In addition to the many deaths, Covid-19 led to the need for a huge number of medical treatments and hospitalizations and to periods of severe crisis in the health systems and hospitals of many countries. There

[12] See, for example, Iannaccone et al. (2024).
[13] Data is taken from Worldometers, (2024).
[14] See Valli (2022).

was thus a serious weakening of prevention and treatment of patients with other diseases and therefore also further deaths not directly due to Covid-19. The pandemic also led to severe and prolonged consequences (long covid) on the health of many people, and lead also to several deaths or physical and psychological harms to many doctors and paramedics.
Finally, the pandemic led, especially in 2020-21, to a serious global economic crisis and a marked slowdown in globalization in many countries both due to the effects of the recession and of the restrictions and controls carried out by governments to try to slow down the spread of the virus.
Very affected by the economic crisis due to the pandemic were several service sectors and especially those associated with tourism, catering and transport. Many manufacturing activities were also severely damaged by the drop of consumption, the difficulties in obtaining supplies of raw materials and semi-finished products and the damages caused to global value chains.

2.6 Terrorism and wars

Several bloody *acts of terrorism and war* took place in the 2000s. **Table 2.2** shows some of the most important terrorist and war events of this period, which have profoundly affected the world's economic and geo-political evolution. Wars have led to death and destruction, millions of refugees, deep lacerations in the society and politics of the countries involved, embargoes and sanctions, distortions and difficulties in international trade and foreign investment. They have sown hatred among peoples that will last for generations. They have enriched arms manufacturers and traders and related sectors, while bringing instability and serious losses in civilian production in many countries directly or indirectly affected by the war.
In particular, the military interventions made by the United States and other Western countries in Afghanistan and Iraq have indeed removed terrorists and dictators from the scene, but have led after a certain time to regimes that are in some ways worse or to the creation of lethal organizations as ISIS. In the case of Libya, there has also been a dangerous political and territorial disintegration and a dissemination of weapons from Libyan arsenals to many militias and terrorist groups operating in the Sahel. Some interventions have also exacerbated the anti-Western hatred prevalent in several Islamic countries. In Syria and Iraq, the intervention of the US, Russia, the Kurds and several countries in the Middle East at last defeated ISIS. In Syria, in particular thanks to Russian and Iranian military support,

Table 2.2 Some wars and acts of terrorism of the 2000s

11-9-2001	Terrorist attack on the *Twin Towers* in New York and the Pentagon by Al Qaeda, led by Osama Bin Laden.
7-10-2001	*U.S. military invasion of Afghanistan* against the Taliban who protected Osama bin Laden. Bin Laden was killed in Pakistan by a US commando on May 2, 2011. The US and its allies withdraw from Afghanistan in 2021 and the Taliban returned to power in the entire country in the summer of 2021.
20-3-2003	*U.S. military invasion of Iraq* for alleged "weapons of mass destruction" of Saddam Hussein's regime. Killing of Saddam Hussein. Tensions in the country between Shiites, Sunnis and Kurds. *Birth of Al Qaeda in Iraq* which will then lead to the creation of the *Islamic State (ISIS).*
22-11-2004	Beginning of the *Orange Revolution* in Ukraine leading to new elections and the presidency of Viktor Yushchenko (2005-2010). Tensions in the country with a part of the Russian-speaking population.
17-12-2010	The beginning *of the Jasmine Revolution* in Tunisia and then the *Arab Spring* of 2011, which led to the fall of the presidents of Tunisia, Egypt, Libya and Yemen.
15-2-2011	*The civil war in Libya begins*, with subsequent interference by NATO, Egypt, Russia and several other countries. Military defeat of Muammar Gaddafi and his assassination on October 20, 2011. Fragmentation of power in different areas of the country.
15-3- 2011	*Beginning of the civil war in Syria* with forces opposed to President Assad. Large areas of Syria, Iraq and later Libya, were occupied by ISIS, which declared the establishment of a caliphate in 2014. ISIS was defeated since 2019 by a coalition including several Arab countries, the USA, Russia, Turkey and Kurdish forces, but maintains several terrorist activities in several countries and in particular in the Sahel. In Syria, Assad remained in power in a tormented and divided country, but on December 8, 2024, much of Syria was conquered by rebel militias and Assad was forced to flee to Russia.
21-11-2013	Political tensions associated with the Euromaidan movement in Kiev led to the fall of the Yanukovych government and the drafting of a new constitution in February 2014.
2014	Russian para-military forces infiltrate Donbass in Ukraine, and Russian military invade Crimea. Two pro-Russian autonomous regions are established in the Donbass, and Crimea is annexed to the Russian Federation. Heavy tensions and armed clashes with the Ukrainian army.
2015 -2018	Several ISIS terrorist attacks in Denmark, Libya, France (Charlie Hebdo and Bataclan in Paris, Nice, etc.), Belgium, USA, Turkey, United Kingdom, Sweden and other countries.
2022-	*On 24-2-2022, the Russian invasion of Ukraine begins*. The Ukrainians stop the Russian advance towards Kiev and counterattack, recovering large part of the territory occupied by the Russians. Russian forces are mainly stationed in the south-east of the country and in 2024-25 the war enters a phase of relative stalemate. Russian bombing of much of Ukraine continues. Russian troops recover some areas of Donbass, with Ukrainian responses, including a temporary penetration into limited areas of Russia and missile launches on Russian military positions or energy infrastructure.
7-10-2023 –	*The Hamas-Israel war* was unleashed by Hamas's bloody attack on Israel, with a killing of 1200 people and the kidnapping of 251 hostages. Israel's reacted with major bombings and the invasion of the Gaza Strip. This has led to a large number of deaths in Gaza, estimated at over 65,000 by the end of October 2025, massive destruction of homes and infrastructure, famine and extreme living conditions for a large part of Gaza's population. In 2024, the war also spread to Lebanon with the conflict between Israel and the Shiite Hezbollah, supported by Iran. In June 2025 Israel’s and US jets bombed Iranian nuclear facilities. In 2025 in Iran there were several demonstrations again the authoritian regime and a violent repression. In Gaza, there was a short-lived truce between Israel and Hamas, an exchange of hostages and prisoners since 19-1-2025 and finally a shaky truce mediated by the US and some Islamic countries since 10 October 2025. On 22/1/2026 president Trump established a Board of Peace composed at first by 24 member countries and permanently chaired by Trump, in order to try reaching the peace in the Gaza strip and in other war- devastated countries. Several countries have refused to enter the board since it seems to weaken the peace keeping mission of UN agencies.
3-1-2026	*Attack of US military forces in Venezuela* with the capture of president Maduro and his wife and their forced transfer to a New York jail. Agreement between Trump and the new Venezuela government on oil extraction and stricter measures against the traffic of drugs.
28-2-2026 -	*US and Israel attack Iran* with bombs and missiles killing the supreme guide Khamenei and other influential leaders and hitting nuclear facilities and military objectives, civilian buildings, aircrafts, ships, etc. Iran authorities choose Mojtaba, the second son of Khamenei, as the new supreme guide of the country. Moreover, Iran reacts hitting Israel, American bases and several Middle East cities with a great number of missiles and drones. Iran practically closes the strait of Hormuz thus determining an energy crisis. Israel bombs and invades also part of South Lebanon creating a large exodus of hezbollahs and civilians towards other zones of the country. On April 8, 2026 there is the beginning of meetings in Pakistan for a possible ceasefire between Iran and the US.

the oppressive Assad regime had temporarily survived, only to collapse on December 8, 2024 with the conquest of much of Syria including the capital Damascus by part of the opposition militias. Syria has nevertheless remained a partially destroyed country, marked by deep internal divisions, impoverished and greatly weakened by the victims of the civil war (over 600 thousand dead) and by massive internal and foreign migrations (about 5.5 million refugees abroad).
Several other wars have affected the Balkan countries (the Serbia-Kosovo question), Yemen, Sudan and large areas of Africa, Asia and Latin America.
Russia's invasion of Ukraine and the ensuing Russia-Ukraine war has led to a large number of deaths, military and civilian, and enormous destruction of homes and infrastructure. From an economic point of view, the war has led to a rupture between Russia and Western countries, gas and oil supply problems for Ukraine and many EU countries, higher inflation and sanctions against Russia. More generally, there has been a serious geo-political fracture that has contributed to slowing down and deeply cracking the process of globalization and to dilating fears and the risk of an even more extensive and lethal war.
The war between Israel and Hamas in 2023-early 2026 has also shaken the fragile world balance in a very sensitive area of the Middle East. Hamas' brutal attack on October 7, 2023, with about 1200 casualties, 250 hostages and severe violence, prompted Israel to lethally bomb and then invade the Gaza Strip. By the end of October 2025, however, the victims of the war in the Gaza Strip had, according to the Palestinian health authorities, already exceeded 65,000 people and Hamas's military network had only been partially disjointed. In many countries the reaction to an Israeli response that was perceived as grossly disproportionate and contrary to human rights towards the civilian population of Gaza was growing. The war was likely to extend to the Israel-Iran confrontation since Iran, by furnishing light weapons, drones and rockets to Hamas, Lebanon's Hezbollah and the Houthis, who control part of Yemen, has made it possible to attack both Israel's cities and Western ships transiting close to Yemen's waters. Israel reacted by killing members of Hamas and Shiite militias even outside the Gaza Strip and hitting Hezbollah in Lebanon and Syria. Iran retaliated with missile and drone strikes, and Israel retaliated further. Moreover, in June 2025, Israel and the US air force bombed Iranian nuclear facilities. We have thus entered a hellish circle of widening violence and hatred, despite the initial attempt of the USA, the EU, Egypt and some countries in the Middle

East to curb the spread of the conflict. The "ceasefire" of 19-1-2025 between Israel and Hamas, which provided for exchanges of Israeli hostages with Palestinian prisoners, has for a few weeks led to the hope of a cooling of the conflicts in the Middle East. The institution of a *Peace Board* by Donald Trump and several other countries on 22 January 2026 is a hazardous move by the American president to solve the Gaza case while risking to de-legitimize the peace- keeping mission of the United Nations.
On 28 February 2026, Israel and the United States illegally decided to attack Iran bombing the headquarters of Iran, killing the supreme leader Khamenei, destroying nuclear facilities and other military objectives, but also bombing schools and several civilian buildings.
Iran reacted with a vast number of missiles and drones launched against Israel, US embassies in the Middle East and elsewhere, but also airports, important buildings, infrastructures, oil refineries, de-salinization plants. Moreover, Iran blocked the strait of Hormuz which is a vital corridor for oil and gas exports towards Asia, Europe and several other countries, thus determining a serious energy crisis leading to a relevant rise of oil and gas prices all over the world.

2.7 Cyclone Donald

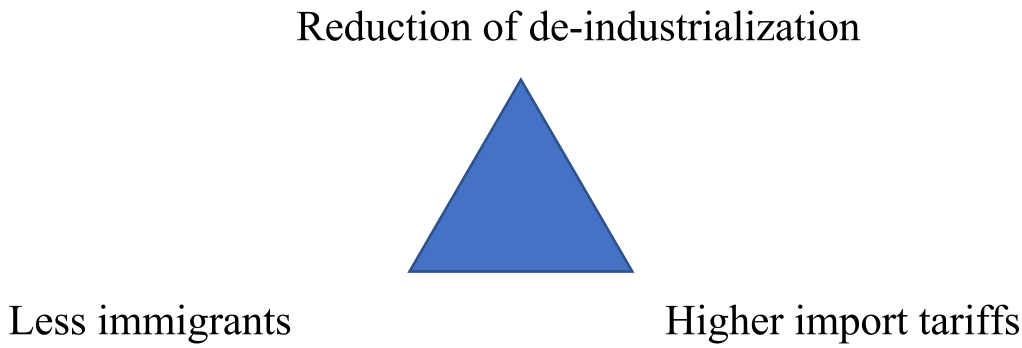
The advent of Donald Trump to his second mandate as US president, after the uncertain Biden administration, provoked a number of shocks in the world geo-political and economic order and bitter fractures and divisions within the American society.
Trump's economic policy is essentially founded on two basic political slogans: *America first* and *Make America Great Again*. These are at the same time nationalistic and populist concepts which were an effective tool for the victory in two presidential elections[15], but which are difficult, dangerous and extremely slippery to be applied in the real economic world. The economic rationale behind these two concepts can be visualized as a triangle (see Figure 2.2). It is based on three components. First of all, the idea that one of the main reasons of the relatively modest growth of the American economy was an excessive *de-industrialization*. In effect, in the 2000s there was the continuation of a long trend of reduction of the people employed in the US manufacturing sector, while employment in the services sector continued to rise. But the services sector is bipolar. It has modern,

[15] A critical analysis of Trump's economic policy in his first presidential mandate may be found in Valli (2018, Ch. 11).

technological advanced activities with good salaries, and a plethora of other ones with low productivity and a lot of badly paid and often precarious jobs. It was therefore considered necessary a *re-industrialization* or at least a drastic brake on the rate of reduction of domestic industrial activities. In part this loss had been due to an increasing trend of imports of manufactured goods and in part to the tendency of several American multinationals to off-shore part of the production abroad or to organize complex global value chains decentralizing in other countries the production of several components or of certain phases of the productive process.
Trump's drastic rise in import tariffs in 2025 was only marginally effective in reducing the de-industrialization trend. Actually, from January 2025 to January 2026, total employment in manufacturing has diminished by about 103,000 people[16]. It is true that, thanks to the higher tariffs, some US multinationals were induced to partially reshore and some foreign firms were induced to invest in the US in order to maintain their sales in the American market. However, robotization, the rapid growth of AI into manufacturing production and the continuous trend to substitute traditional labor-intensive manufacturing activities with less labor-intensive technological ones, largely contributed to reduce employment, so that overall manufacturing employment continued to decrease. Moreover, also several jobs in the services sectors were more and more endangered because of the rapid penetration of AI and of standardized internet services. Finally, the rise of costs of imported goods, due to higher import duties and to a nearly 8% devaluation of the US dollar in 2025, contributed to increase inflation for some basic products, so that also Trump's promise to substantially curb inflation was not accomplished. From January 2025 to January 2026 the US consumer price index increased more than in the preceding year, and the violent US-Israel attack on Iran begun on February 28, 2026 will probably considerably augment energy prices and overall inflation also in the US and even more in the EU and in several other regions, due to the Iranian blockage of the Strait of Hormuz.
The second component of the triangle is the policy of high import tariffs which Donald Trump brutally used as an economic weapon in order to attain three main objectives: a return of productive activities inside the country; more cash for the public Administration due to the rise in import duties; a powerful bargaining tool in international geo-political and economic relations.

[16] see FRED (2026). FRED data are based on BLS estimates.

Figure 2.2. Three main objectives of Trump's policies



The third component of the triangle is the fight against immigration. Less visa permits, tougher controls at the border, violent persecution of illegal immigrants, with even two American people killed in Minneapolis by ICE agents during their brutal raids, a widespread media campaign on the criminality associated to immigration, were all elements used to curb the number of immigrants. According to Pew's estimates the number of the country's foreign- born population was reduced by more than a million people from January to June 2025, the first decline since the 1960s[17].
The combination of these three policies tried to consolidate the appeal towards the decisive section of Trump's electorate, the mostly white, partially impoverished middle-class of the former industrial states of the "rust belt". However, the launch of new conflicts, such as the raid in Venezuela and the abduction of president Maduro and his wife and the cruel war against Iran, went sharply against the electoral promises of Trump.
Two other aspects are important features of Trump's economic policy.
One is the contemptuous disregard of green policies and the strong support to heavily polluting coal, oil and gas energy- sources. This is not only due to the rich financial contributions given by the big US firms of oil, gas and coal sectors to Trump's political campaigns, but also to the attempt to have important political gains by maintaining an abundant supply and relatively low prices of these fuels, which are extensively used by cars, trucks and tractors, electric power plants, heating and cooling devices; and, directly or indirectly, by several US productive activities and a number of voters

[17] In January 2025 the number of immigrants living in the USA was 53.3 million (15.8% of the total population), while in June 2025 it was 51.1 million (15.4% of the population), the highest absolute number in the world, but substantially lower as a percentage of total population if compared to Canada (22.2%) or Germany (19.8) in 2024; see PEW (2015), UN (2015).

scarcely sensitive to environmental problems. However, the war against Iran decided by Netanyahu and Trump, provoked deaths and destructions as well as a consistent increase of the price of oil and gas in many countries, partly including also the United States.
A second aspect regards the strong international pressure that Trump dispensed to several countries with a combination of tariff hikes and blunt or veiled menaces, together with sanctions and military interventions towards adverse countries, such as Venezuela and Iran. Trump maintained a strong economic pressure also towards NATO members states, such as EU countries and the United Kingdom, in order to obtain advantages in terms of more military spending of other NATO countries and of low taxation of US technological giants operating in foreign countries, or for coveted new territories, such as Greenland. Finally, Trump disrupted international order, substituting the use of force to international law, cutting international aids and contributions to several international agencies and destabilizing the UN, the NATO as well as the globalization process and the rules of international trade.
The American president was divisive in the international arena as well as inside his country. Up to the end of February 2026 his efforts as the leading peace- maker in the Russia-Ukraine war and in the Middle East merely led to a fragile truce in the Israel-Hamas conflict in Gaza and to the institution of a weak and hazardous "Peace Board". US's wide and violent attack with Israel against Iran has contributed to extend destruction and chaos in the whole Middle East and to generate a severe energy crisis and more inflation. Israel's bombing of Beirut and of a large part of Lebanon was not opposed by the US which is the major military furnisher of Israel.
There is an ancient saying "the person who sows wind obtains tempest".
In most cases wars and the exhibition of military strength create deaths, despair and long-standing hate between peoples and countries.

2.8 Globalization and its partial implosion

The early 2000s saw the greatest expansion of the globalization process. The latter had become more pronounced in the 1970s and had accelerated in the 1990s after the 1991 dissolution of the Soviet Union and the beginning of the dissolution of Yugoslavia. These events, of great historical significance, had favored the gradual inclusion in the 1990s and early 2000s of several countries of central-eastern and southern Europe in the European Union and strongly contributed to expanding intra-European economic relations and

those between Europe and the rest of the world. But above all, there was China's accession to the WTO (World Trade Organization) in 2001, which had powerfully facilitated the expansion of China's trade and FDIs exchange with the US, Europe, and after some years, also of Chinese portfolio capitals towards the United States and the rest of the world.
Although it is difficult to accurately measure the extent and dynamics of globalization, if we take its evolution since 1970, three major phases can be distinguished[18]. The first major phase runner from the early 1970s to 1990 and saw a gradual growth in the globalization process both in terms of foreign direct investment (FDI), which is the real engine of globalization, and in terms of international trade. The second phase, from the early 1990s to 2007, of true *hyper globalization*, saw a faster and more massive growth of FDI and international trade and the enormous expansion of global value chains. It also saw a rapid extension of financial globalization. A much more difficult and tormented third phase has followed, from the great financial crisis of 2008 to the pandemic of 2020-21 and the wars in Ukraine and Gaza. There is a partial implosion and fragmentation of globalization at this stage. There is a substantial halt in the growth of globalization, which nevertheless remains at a rather high level, and there are several attempts by the United States and other countries to introduce protectionist measures and the regionalization of international economic relations, partially in order to reduce geo-political risks and their impact on domestic employment, economic development and energy transition.
There is also an attempt by China, Russia, Iran and some other BRICS countries to extend and deepen their mutual international economic ties more quickly, also on the basis of growing geo-political tensions with the US and other Western countries.
However, there remain important, and difficult to untangle, consolidated links between multinationals and the different companies in various countries that make up the huge network of global value chains in which different stages of the processing of a product are carried out in more than one country.

[18] For example, in UNDP (2024) on page 15 a graph highlights the changes in the three phases of a partial indicator of globalization such as the sum of exports and imports in the world as a percentage of global GDP. Even more important, however, is the dynamics of foreign direct investment, the development of which contributes, among other things, to generating a growing share of global value chains and international trade and to fueling the growth of financial globalization. A lot has been written about globalization. See, for example, Stiglitz (2002) and (2007) on the expansion phase and Della Posta (2018), Sachs (2020), Deaglio (2024) on aspects of the slowdown and implosion phases of globalization.

There is, however, a decisive underlying reason why globalization has proceeded for a long time with force, and substantially without adequate rules and controls, and then has led to different political and social reactions in recent years.

Having advanced technology and organizational models and good financial strength allows several multinationals to set up subsidiaries in other countries or to negotiate sub-contracting agreements with local companies, thus being able to make use of a cheaper workforce and often less stringent environmental rules and labor legislation in the new places of production.

In this way, multinationals, largely from rich countries, but in the 2000s also from China, India and other emerging countries, can produce their goods and services at lower unit costs. In many cases they have easier access to the markets in which they have opened their subsidiaries and thus have lower costs and greater economies of scale or network. Finally, they can put more pressure on domestic unions by placing them in a difficult situation, faced with the choice of whether to accept lower wage increases or lose jobs following the opening of new production sites abroad[19]. In the United States and in several other countries of the European Union, productivity grew less in the 2000s than in the previous two decades, but the profits of companies and of those who control them grew more mainly due to the advantages deriving from lower labor costs per unit of output partly due to globalization and also sometimes from obtaining subsidies or lower taxes on profits from various governments.

In the 1990s and 2000s, moreover, the rapid expansion of companies related to the internet and E-commerce, the production of PCs, mobile phones and chips, the development of software and AI, led to the dominance on world markets of giant companies from the largest economies and the most technologically advanced ones, first those of the United States and Japan, then also the large companies of China and partly those of South Korea, Taiwan and India. The enormous economies of scale and network enjoyed by companies such as the American Apple, Alphabet, Meta, Microsoft, Nvidia, Intel, Amazon, Adobe, Oracle; China's Alibaba, Tencent, JD. Com, Byte Dance, Baidu; South Korea's Samsung; the Taiwanese TSMC and Foxconn; India's Tata Consulting Services and Infosys for software have

[19] In addition to the reasons mentioned here, the expansion of FDI can also depend on other factors, such as the acquisition of control of strategic raw materials or prestigious brands and advanced technological and organizational knowledge that allow it to more easily enter rich, but difficult, foreign markets, and to expand one's presence in the high niches of the international market. See, for example, for the latter reasons, the interesting analysis of the acquisition by the Chinese Geely of the Swedish Volvo in Wang, Balcet, Zhang (2021).

inflated the revenues, profits and stock market capitalization of these large oligopolies, effectively hindering the expansion of smaller companies such as those prevailing in much of Europe and other parts of the world into technology sectors.
In these new areas, Europe has badly lagged behind[20]. The chip industry, excluding the large Dutch chip machinery manufacturer ASML, is particularly weak. Britain's Arm Holdings, the Netherlands' NXP, Germany's Infineon, a subsidiary of Siemens, and Italy-French's ST Microelectronics have a relatively small share of the global chip market. In particular EU is very fragile in chips for AI. It is also rather weak in business software, although the German SAP, and for communication systems, the Swedish Ericson, maintain a fair position, while the Finnish Nokia, dominant for mobile phones until the early 2000s, entered then into a serious crisis. From 2008-10, in addition to Apple's IOS operating system, the Android operating system developed by Google and used extensively by Samsung, Motorola and the big Chinese manufacturers imposed itself in the world, signing, the decline of Nokia's operating system and of its products.
The impetuous rise of technological companies in the US and China from the 1990s to the present has led to the formation of large fortunes, contributing to widening income and wealth inequalities in the United States and China, and partly also in Japan, South Korea, Taiwan, India and some European countries.
Even in other sectors, associated with the energy and ecological transition, such as electric cars, batteries, solar panels, wind turbines, there has been the emergence of large Chinese companies and some American multinationals, such as Tesla, while Europe has often moved late and in any case much more slowly.
The share of FDI and international trade associated with technology sectors has increased strongly over the past three decades. In the traditional and mature sectors of the economy, such as agri-food, textiles and clothing, mechanics, chemicals, energy sources, tourism and so on, there was a good expansion of FDI and international trade until 2007, while the great

[20] The European Union is largely in the so-called "media technology trap", i.e. with a good presence in the medium or medium-high technology sectors, but deficient in the most innovative, most lucrative and future-oriented sectors. See Fuest, C., Gros, D., Mengel, P.-L., President, G., and Tirole, J., 'EconPol Policy Report (2024) and the Draghi Report (2024), especially in the section "closing the innovation gap". For a clear long-term view of the relationship between technology, economy and society, see also Frey C. B. (2020). For a useful review of the Draghi, Letta, Giovannini reports on crucial issues in EU policy, see Targetti Lenti (2024).

exogenous shocks of the following years slowed down, and made more unstable the trend of globalization.
For geo-political and strategic, as well as economic, reasons, an attempt was made to regionalize more, as far as possible, the relationships between companies in global value chains, to subsidize the opening of factories in one's own country or in other friendly countries, to put new duties or other limitations and sanctions in the way of the penetration of goods or services from rival countries.
Moreover, since the early 2000s, the too rapid expansion of unregulated and unbridled globalization and the consequent increase in inequalities in many economies had been opposed in several countries by movements and parties of both the left and the right and by various forms of populism and nationalism.
For all these reasons, plus the succession of wars, especially since 2008 the expansion of globalization has thus been compressed or slowed down, while remaining at high levels.
Greater fragmentation has contributed to reducing social and labor market tensions in the old industrialized countries, but also to leading to new rivalries or new alliances between groups of countries opposed to each other and to higher production costs and inflationary tensions in the world. Trump's 2025 statements on Greenland, Panama and Canada and sharp increases in tariffs on Canada, Mexico, China, the EU and other countries point to even more stormy times for global economic and financial relations.

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