From Hyper-Globalization to Global Value Chains Decoupling: Withering Global Trade Governance?

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Abstract:

While the 1990s and early 2000s were seen as a golden age for Global Value Chains, the 2010s have witnessed a series of crisis that shacked the political and institutional foundations of global trade. After years of neo-liberal trade policies, trend is now towards neo-realist mercantilism and trade politics.

The COVID-19 pandemics and the rise of geopolitical tensions are redefining and perhaps reversing what have been the drivers of world trade since the end of the Cold War in 1989. Geopolitical and institutional uncertainties increase the chance of unpredictable or unforeseen event disrupting entire international segments of the value chain, with potentially extreme consequences. When fat-tailed black-swans run around like headless chickens, disruptions are unpredictable. Yet, understanding the main changes affecting the geo-politics of trade and the possibilities of safeguarding a functional global trade governance is expected to reduce the risks and help future managers preparing for new business paradigms.

Keywords: international political economy; deglobalization; nearshoring; trade conflicts; WTO.

JEL Classification: D02; F13; F23; F53; P00.

Introduction

This essay falls at the intersection of three loosely related research disciplines: International Business (IB), International Economics (IE), and International Political Economy (IPE). These three strands remain separated from an academic perspective, not only because of differences in their main subject of research (the multinational corporation, the welfare effects of trade policy and the international cohabitation of interdependent national states, respectively) but also because they use different methodological approaches[2]. Yet, when it comes to discussing policy making, keeping them separate signifies missing important perspectives (Van Assche 2018, Lundan and Van Assche 2021).

The paper aims at better understanding changes in the global contexts in which internationalized firms do business. It mainly builds on the first and the last research approaches. The main observations that motivated the writing this essay where the following:

- from the invisible hand to the visible one. After decades of hyper-globalization where multinational firms and globalized consumer markets seemed to drive the world economy, the past decade saw the return of strong government interventions trying to limit or control trade and investment, and gear household consumption "socially acceptable patterns";
- from Just in Time to Just in Case. The shift affected principally global value chains. After years of optimizing supply chains in search for maximum efficiency and "Just in Time", managers began to think more in terms of risk mitigation and "Just in Case";
- the main pillar of global trade governance is being enfeebled. The WTO is going through an existential crisis which could break it. Global value chains, which closely mix trade and inversion from long term perspectives, would be the first victims of the withering of world trade governance.

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[2] The gap between IB and IE was substantially reduced when IE started studying trade through the perspective of firm heterogeneity. Melitz (2003) advanced that size and high productivity are necessary conditions for internationalization in order to surmount the fixed costs of exporting: only few firms are able to compete internationally. Today, empirical IE researchers look more and more into microdata for evidences. Input-output analysts, at mid-point between macro and micro approaches, are busy disaggregating their models by firm size and national/international ownership (Escaith 2015).

1. Market vs. Nation State, Neoliberalism vs Neorealism. Some Definitions

Albert Einstein [3] has a famous quote: "In theory, theory and practice are the same. In practice, they are not". Yet, it helps knowing the theory in order to understand the practice. Especially when practice depends on government policies that respond to ideological agendas.

Until the 18th century, trade practices responded mainly to a mercantilist approach of the social benefits of trade. For example, 15th century city-state of Venetia monopolized the spice trade from India, negotiating exclusive trade agreements along the route. Feudal lords put taxes at the city gates and tolls on the bridges. Similar situations could be found in ancient Asia, Africa or Latin America: a dominant power would use its supremacy to generate rents (monopolies, taxes on goods and travellers) and accumulate wealth and power.

Theory, if not practices, started changing in 18th century Europe. For physiocrat economists, gold was less important than economic activity. They called for the free circulation of goods and people (*Laissez faire les hommes, laissez passer les marchandises*). Montesquieu (1748) in his influential "Spirit of Law", theorized that trade is the building block for peace. Montesquieu spoke about the "*doux commerce*", believing that "Commerce is a cure for the most destructive prejudices" and is a vector for peace. Montesquieu's theory has been refined through the years to become what is called "capitalist peace", but the main idea remains the same - States with economic ties benefit from trade and economic interactions, promoting a peaceful resolution of conflicts without violence.

Some scholars have asked whether trade in certain "strategic" goods may diminish the pacifying effect of international exchange and even increase the potential for conflict. Coyne *et al*. (2022) refer to Hirschman's analysis of the Nazi's manipulation of trade to make Eastern Europe dependent on German industrial exports, which increased the Nazis' ability to pursue an aggressive foreign policy.

Two of the main strands of International Political Economy can be associated with this historical background: neo-liberalism on the Physiocrats' side; neo-realism on the Mercantilists' one. If we look at recent history, neo-liberalism dominated trade policy after the end of the Cold War, until 2010. Now, neo-realism is becoming the main driver of trade politics; politics understood here as just one instrument of a wider national political agenda.

1.1. The Neo-Liberal Decades (1990 – 2010)

Neo-liberalism, sometimes called commercial liberalism or neoliberal institutionalism, refers in political sciences to theories linking free trade and peace. They embrace (at least implicitly) two other dimensions: republican liberalism (democracy, rule of law) and sociological liberalism (international convergence and integration) (Baldwin 1993). Perhaps the most chemically pure example is today's federalist view of developing the European Union into a supra-national entity diluting the two main pillars of the Westphalia European peace treaty[4].

Diluting the normative and legislative functions of sovereign states, at least when international trade is concerned, called for the creation of a supra-national substitute. The institutional and normative core of that order is the set of liberal trade rules, what (Mavroidis and Sapir 2021) call the "liberal understanding" embodied in the creation in 1995 of the World Trade Organization[5].

The end of the Cold War (1991) marked the beginning of what became known as hyper-globalization. The conclusion of the Uruguay Round in 1994 and the creation of the World Trade Organization in 1995 provided the institutional setting. Progress in information and telecommunication technologies greatly facilitated international commerce. China had already joined the global economy and in 1980 the US Congress passed a trade agreement conferring Most Favoured Nation (MFN) status on China. But it is only in 2001, when China joined the WTO, that remaining uncertainties regarding trade with China were solved. Multinational firms took advantage of the new situation to outsource and offshore the most labour-intensive segments of their production to China. Global value chains (GVCs), which were already in place since the 1980s, became the dominant international business model for mass-market manufacture production. After winning the Cold War, the US looked at consolidating its status of leader and champion of an international order of democratic capitalist nations. On the trade front, it took the role of importer of last resort, absorbing a large share of world imports. In 1991, low-income countries accounted for just 9% of US manufacturing imports; by 2000, this share reached 15% and climbed to 28% by 2007. China claimed the lion's share of this market, accounting for 89% of this growth (Redding 2020).

[3] It seems that Benjamin Brewster, at Yale in 1882, should receive credit for the saying.

[4] The treaty of Westphalia (1648) put an end to the Thirty Years' War (1618–1648). The peaceful coexistence among sovereign states was based on two pillars: national self-determination; acceptance of principle of non-interference in the internal affairs of other sovereign states.

[5] Yet, the WTO never claimed a right to interfere with national policies, outside its core competency of building and maintaining international trade governance. Attempts at regulating domestic competition policy to guarantee "national treatment" to foreign firms were dismissed at the 2003 Cancun Ministerial conference.

The emergence of GVCs as main driver of trade put the WTO in a complex situation.[6]. The GATT had balanced the commitments to broadly liberal international trade rules with national policy space allowing countries to pursue their national goals with their own national instruments (Nelson 2021). But GVCs require more than low tariff duties at the border. The long term "trade-investment" nexus that characterises GVCs requires the kind of stable business environment that Lead Firms enjoy in their domestic market. That is, they necessitate predictability and transparent competition policies that many developing members at WTO were not ready to offer, as became evident at the 2003 WTO Ministerial Conference in Cancun.

Nature abhors a vacuum; this applies also to trade governance. One solution for filling the gap was to negotiate between nation-states preferential regional trade agreements (RTA). RTAs extended existing commitments or included topics not covered by WTO (the so-called "WTO +" and "WTO X"). These agreements, such as the Single European Act of 1993 or the North American Trade Agreement of 1994 led to deep regional integration. The discussion on whether RTAs represent a stumbling or a stepping stone for multilateral governance has been, and remains, a topic of dissent. The World Trade Organization devoted a special issue to this topic in 2011 (WTO 2011). Less covered by economists is the emergence of global private norms.

International supply chains can be very complex organizations, involving thousands of providers which must deliver their products "just in time" and with "zero default". This interdependency was made possible by progress in telecommunication technologies, which allowed to coordinate many actors in real-time and monitor traded goods in transit. But coordination came also through the adoption of common industrial standards and managerial procedures at all stages of the chain. Private norms regulate also the way importers and exporters are expected to behave. One example is the Incoterms 2020 rules defined by the International Chamber of Commerce. The seller and buyer can include them in their contract to identify who is responsible for every stage of the international supply chain, including customs clearance and insurance requirements. The rules also make it clear who pays for each different cost within the international supply chain.

Private norms increasingly deal with the social and environmental impacts. They are known as Corporate Social Responsibility (CSR) or Environment, Social and Governance Practices, or the Three Pillars of Corporate Sustainability. With the rising importance of social networks, the reputation of firm – especially in developed economies – is increasingly associated to its adherence to CSR. Enforcing CSR in a supply chain is the responsibility of the Lead Firm, often located in developed countries where official standards regarding labour and environment are usually demanding. Lead Firms' CSR norms percolate through the entire supply chain, spreading to suppliers in developing and least developed countries.

These private norms add a layer of hybridity in the global governance system. CSR includes topics such as labour standards, human rights and environment considerations that have been side-lined at WTO but return through the back door, much to the irritation of some governments. It creates a series of issues due to existing gaps between private and official norms in developing countries, or caused by deeper cultural differences. Actually, the self-organization dynamics of GVCs may drain official multilateral governance of part of its legitimacy and relevance. An example is human rights violations being considered as an element defining bilateral trade policy (Slawotsky 2022). The proliferation of private standards in GVC trade is often seen from the neo-realist perspective as trade barriers aimed at reducing the comparative advantages of developing countries.

1.2. The Return of the Visible Hand. From Trade Policy to Trade Politics

After decades of hyper-globalization, the 2008 Global Financial Crisis (GFC) triggered a popular movement against the economic neoliberal order. Meanwhile, most business and government circles remained favourable to free trade policies. A key reason for managers in high-cost countries to offshore part of the value chain is to outsource labour-intensive activities and re-import them while concentrating at home on their core high-value added activities. This is done at the expense of the blue-collar workers, who lose their jobs and cannot find similar employment opportunities.

Globalization became associated to deindustrialization, unemployment and income inequality: from a trade policy perspective, the interests of the managers of the firm and those of its workers started diverging, at least in developed countries. This was an explosive cocktail. The shattering of the traditional pre-GVC coalition of interest between workers and managers stirred the so-called populist movements against globalization. This drift challenged the established neo-liberal international trade order and strained inter-country relationships. While

[6] GVCs result from the geographical fragmentation across several countries of the production of a product. GVC management is based on formal linkages between a Lead Firm and its suppliers. Contractual arrangements include clauses ranging from industrial specifications to social and environmental standards applying also to second and third tiers suppliers.

international economists still focused on the productivity and welfare-enhancing benefits of GVCs, the focus of discussion in policy circles tended towards highlighting risks rather than rewards.

For "neo-realists", neo-liberals are too focused on the welfare gains and underestimate the importance of distribution. Neo-realists tend to see international relations as a competition: I am on the losing side if I gain less than my neighbours. In particular, nation-states worry more about the gains of their enemies than of their allies (Baldwin and Freeman 2021). The neorealist agent is a statesperson who decides that the national interests will be served more effectively though power-based bargaining than through international laws (Pollack 2022).

1.3. Export Restrictions and the Weaponization of Trade

Protectionism and discrimination have proliferated rapidly, adopting a more “us vs. them” geopolitical approach. Neorealism has morphed into confrontation as governments engaged in geopolitical conflicts. At the difference of traditional protectionism (protection of national market), the weaponization of trade looks at debilitating the productive potential of the adversary by embargoing the exports of critical inputs. GVC interdependence is now seen as a weakness or an instrument of coercion.

In a GVC trade network, the output of one firm in a country is used by another firm in another country to produce a more complex product. The various transformational steps that a product undertakes between its initial entry in the production process are also points of potential disruption. The rupture may be caused by natural events that prevent the production and delivery of parts and components; this was the case in 2011 with the earthquake and tsunami in Japan or the shutdown in 2019 of factories in countries affected by the COVID-19 pandemics. Leaving a deep trade agreement may also result in extensive losses from disrupting global value chains, as many observers supposed it would be the outcome of Brexit.

Yet the issue has recently acquired a new geo-political nature which is much more worrisome. Some governments realised that industrial interdependency could be used to promote strategic interests when they could control a key intermediate input. This strategy, employed in the 1970s with the oil embargo, has taken a new life with the spread of GVCs. An exporter having a quasi-monopoly on the production of some of these products can use them for leveraging its negotiation position. The threats are difficult to evade: GVCs transactions are usually based on long-term arrangements and often entail significant specific investments (the “trade and investment” nexus) as well as other sources of inflexibilities in the management of international supply chains. Modelling the impacts of trade conflicts on the WTO multilateral system when GVC trade is prevalent, (Beshkar and Lashkaripour 2020) conclude that the gains from non-cooperative trade taxation and the externality inflicted by these taxes on the rest of the world have doubled in the presence of GVCs.

In 2010, the threat of supply chain disruption was used in a dispute on maritime territory, when China banned rare earths exports to Japan during a diplomatic standoff after the Senkaku boat collision incident. At that time, this threat was not officially recognised as a retaliation by the Chinese authorities: business as usual under WTO rules remained the best international option. But maintaining the status quo ante was mainly wishful thinking; the global crisis of 2008-2009 had already changed the way the public opinion and many governments considered globalization and its cost/benefit balance.

The break was officially acted in 2018 with the bilateral trade war that arose between China and the USA. This conflict has been extensively analysed from the geo-political angle, in particular the hegemonic stability theory. According to this theory, the expectation is that shifts in the underlying balance of power will destabilize existing agreements, leading dissatisfied (rising or falling) powers to reform existing institutions and, failing that, to withdraw from or undermine them.

According to (Enderwick 2011), the main differences from traditional protectionism are:

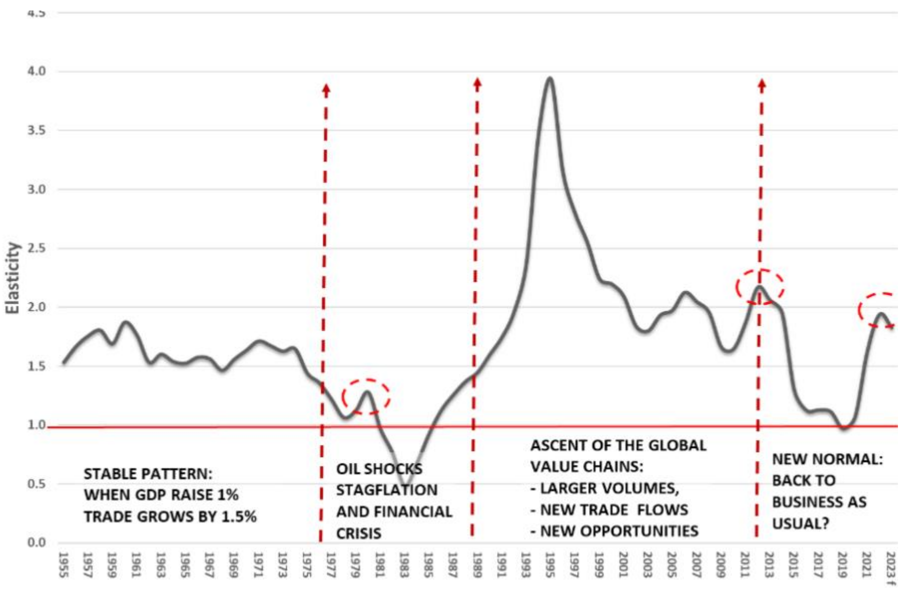
- the scope of protectionism is expanded beyond trade restrictions to include capital movement, FDI, offshore sourcing, migration;
- besides traditional trade barriers - tariffs, quotas, non-tariff measures, the instruments include subsidies, public procurement, industrial policies, the creation of national champions, the promotion of state-owned enterprises, finance measures;
- the instruments use economic strength and monopolies to include export restrictions in order to promote geopolitical gains and extract additional rents;
- the protectionist pressures do not come only from local industries, but includes other opinion and decision makers in the country (political leaders, NGOs, social networks);
- strategic approaches are devised to maximize the benefits of globalization, while avoiding perceived costs;
- protectionist policies are no more the instrument of choice of developing economies as in the 1950s but extend to all countries.

Although there are profound differences between today's globalized economy and its historical equivalents, learning from the past can help avoiding dangerous paths that could lead to universally undesired outcomes in the future. Even if history does not repeat itself, it remains a good exercise to learn from it, including the history of international political economy. As recalled by (Mariotti 2022), scholars find similarities between today's early twenty-first century economic and geopolitical situation and its late nineteenth century equivalent, whose endgame was World War I.

2. Looking at the Data. The Rise and Pausing of Global Trade (1995 - 2019)

The speed of trade globalization is often measured as the relationship between its growth rate (in volume) and the variation in World GDP. Note that it is only one of various possible measures, such as geographical diversification of trade partners or average distance travelled by traded goods. The globalization momentum is far from being stable over the long period (Figure 1).

Figure 1. World Trade/GDP elasticity, 1960 - 2023(f)



Note: Elasticity based on 5-year rolling periods. Trade in merchandises only.
Source: Author, based on WTO data and forecasts.

2.1. Hyperglobalization (1990 – 2008)

After the end of the Cold War and the formalization of world trade governance with the creation of WTO in 1995, world-wide GVCs started dominating business strategies. The extension and the higher complexity of international supply chains as well as the apparition of the "global consumer" intensified trade and investment exchanges.

The "golden" age of GVC participation contributed to corporate performance in terms of productivity, efficiency and economies of scale. It was one of the leading factors which contributed to a decade-long period of low inflation in developed countries, the reversal of the decreasing trend in the price of commodities relative to manufactures and the emergence of large developing countries as major world players.

This trend stalled after 2009 and reversed after 2013. International fragmentation of production has lost its momentum and GVCs seem to be stagnating in recent years (De Backer and Flaig 2017). 2008 was supposed to be a year of triumph for the New Global Order. At WTO, the Doha negotiations were almost concluded, staff and delegations were busy finalising their notes and analysing their tariff schedules before the summer break. The Beijing Olympics marked a new milestone in China's return as a major player in the world Top League. But it was also a year of US presidential election and Barack Obama, still a candidate, accused China of manipulating its currency to gain trade surplus, promising to closely monitor Chinese trade policy. After nine days of talks among a select group of trade ministers in July at WTO, the meeting ended with no deal and the Doha round collapsed.

Then came the Global Financial Crisis (GFC). It started with the US financial markets, then spread to the rest of the planet. Lehman Brother, the fourth-largest investment bank in the United States, filed for bankruptcy in September. When you are too big to fail yet you fail, you wake up "black swans" who, according to Statisticians, have non-normal "fat tails". Fat-tailed distribution of events can be traced to the 1950s, when Hurst was asked to studying the hydrological properties of the Nile basin. He concluded that the tendency of outliers to occur in groups is greater in natural events than in random events (Koutsoyiannis 2013). Unexpected pooled shocks ("black swans") are more frequent and intense than commonly perceived (as the saying goes: "when it rains, it pours").

The systemic nature of the melt-down of structured financial investment, supposably designed to optimize risk/benefit by spreading the theoretically uncorrelated risks, came as a surprise. Most stochastic business or financial models are based on a normal "thin tail" distribution of low-probability extreme shocks. They cannot cope with fat tails, when lots of bad news start to pile up and people run for shelter. What is true for finance is also true for international business in general, and for supply chain management in particular.

2.2. Deglobalization vs. Slowbalization

Trade collapsed during the global financial crisis and, since then, the pace of globalization has noticeably slowed (slowbalization). Yet, it is perhaps wrong (or too early) to speak about "deglobalization". Exports are slowing significantly in relation to economic growth (Table 1). Trade/GDP elasticity is now about 1.4, same as during the Cold War era (1950-1989).

Table 1. World Trade/GDP elasticity, 1950 - 2023

Period	Trade/GDP elasticity
1950 - 2023(f)	1.7
▪ 1950-1989	1.4
▪ 1990 – 2013	2.2
▪ 1995-2005	2.4
▪ 2014-2023(f)	1.4

Source: see Figure 1.

The slowdown in international production fragmentation is one of the reasons. World Bank (2020) looks at the evolution of the "trade-investment" nexus typical of GVCs and shows that total GVC participation, measured as the share of global exports crossing at least two national borders in the total world exports, has started decreasing in 2008-2009. Foreign direct investment (FDI) outflows from developed and developing countries also broke their upwards trend and are now stagnating. Based on GVC Report (2021), it is estimated that the participation rate in GVCs increased by 4.3% annually during the period of expansion before the crisis (2000-2008). This rate dropped by 14.9% during the crisis of 2009, before returning to its previous values in 2010-2011. After 2012, the average global rate of GVC participation fell by 1.6% annually.

My own calculations do not indicate a negative trend, but a slowing down of globalization after 2015. Figure 2 confirms that there is less appetite for procuring its imports from far-away countries. This may be due to several reasons. The pessimistic view is that global firms are anxious about the future and are reluctant to internationalise their business. The optimistic view is that hyper-globalization is now mature and has reached a plateau: thanks to the emergence of new industrial countries, procuring required imports is more geographically diversified, and many countries trade more regionally (Intra-EU trade, NAFTA, ASEAN+3).

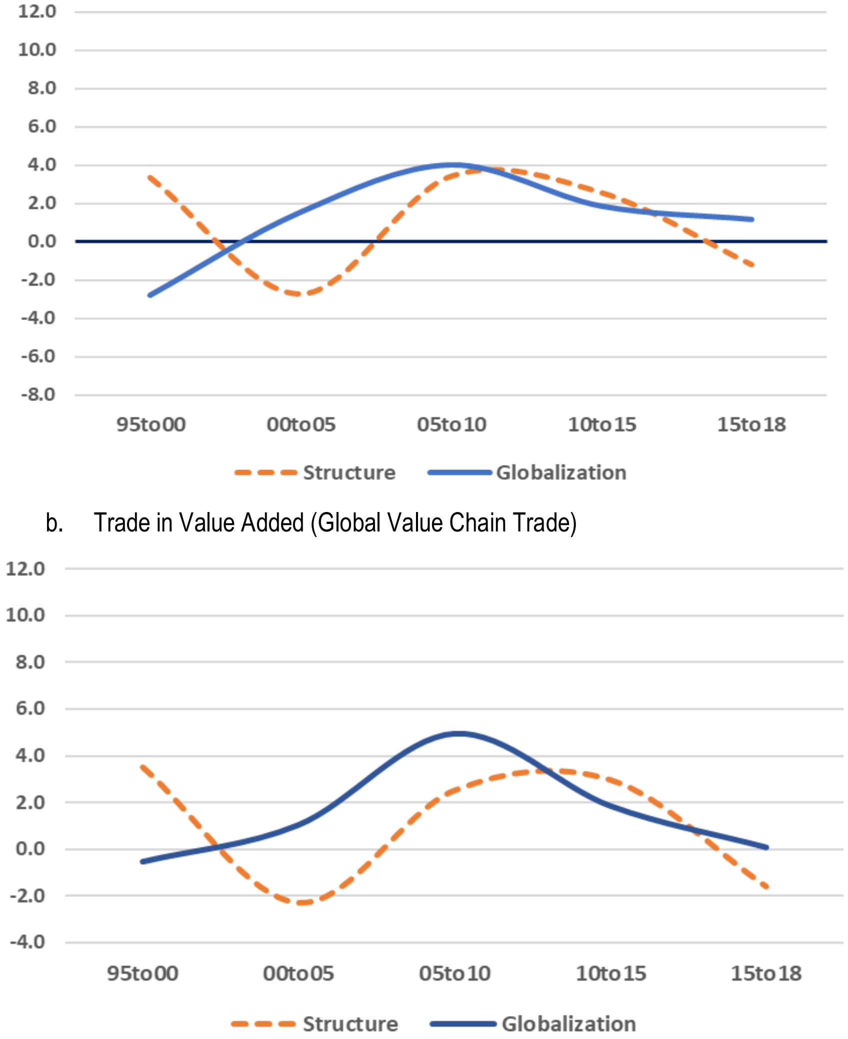
Controlling for this structural effect, we see that the appetite for looking for new opportunities in far-away countries has diminished, but is not regressing. The pausing effect seems stronger for trade in value added (Figure 2 panel b, a typical measure of GVC trade) than for traditional trade statistics.

More recent data on maritime shipping from UNCTAD (2022) shed important additional light on changes in the globalization component of distance travelled by traded goods. We observe a break in trend for containerships after 2009. From 2000 to 2008, average distance travelled by containerships fluctuated narrowly around an average of 5, 030 nautical miles; from 2009 to 2021 it decreased by 275 nautical miles (-5.5%). All other types of ships report an increase after 2009 (the average for all cargo ships rose 4.4% by 204 miles).

Figure 2. Decomposition of the average distance to imports, 1995-2018

a. Trade in Gross Products (Traditional trade)

b. Trade in Value Added (Global Value Chain Trade)



Note: The structural effect is due to changes in the geographical distribution of imports and exports; the globalization effect measures the appetite for travelling long distance. Trade in Value Added identifies the origin of value-added embodied in final goods and services at the country of final destination.
Source: Author, based on OECD TiVA database.

This confirms the break in trend for GVC trade, containerships being used by GVC trade to transport inputs (parts and components) as well as finished manufactured products. For UNCTAD (2022), this declining trend is due to higher growth rates recorded on intra-Asian routes serving intraregional supply chains. Implicitly, it can be inferred from this diagnostic that there was no absolute decrease on longer inter-regional routes. All that concur with Lamy and Köhler-Suzuki (2002); the evidences suggest that global economic integration continues, even if it is slowing and changing.

3. The 2020s: Decoupling and Antagonism?

The internationalization of the Russia-Ukraine war of 2022 complicates even more the geopolitical context. COVID-19 and NATO's trade embargoes have sharply exposed vulnerabilities in many supply chains. Economic protectionism and trade wars are escalating at a time when political backlash against globalization is well under way. The emergence of new economic superpowers (China, *in primis*) calls into question the market and geopolitical equilibria that have been consolidated in the "Long Peace" period since after the Cold War. Albeit there is nothing wrong with a multipolar world order, numerous scholars call our attention on the risks of military conflicts that may result from the transition. The danger is to fall into the so-called Thucydides' Trap of war accompanying the emergence of new international powers threatening to replace the previous hegemon[7].

Even if the military implications of the Thucydides' Trap are less than a guaranteed outcome in modern times, its economic consequences should not be underestimated. This is in particular true for GVCs, which must now consider "government resilience" in addition to other risk factors when designing their business strategies.

3.1. The Setting of a Trade War Trap

One major force of the changes in global supply chains is the US–China decoupling (Todo 2022). At the difference of previous systemic shocks (2008-2009 global financial crisis or COVID-19 pandemics) most of the perturbations were caused by governments "visible hand". In the neo-realist era, the cost/benefit balance of international trade is increasingly assessed from the perspective of national geopolitical strategy[8]. This "them vs. us" situation can be analysed in terms of the Thucydides' Trap developing as an economic and trade war, rather than a military one.

Albeit signs of bilateral tensions had appeared before, the Made in China 2025 (MIC25) plan issued in 2015 formalised the hegemony contest. The stated objective of MIC25 was to achieve independence from foreign suppliers, especially in high-tech products. At the difference of Germany's Industry 4.0 strategy, MIC25 was interpreted by other industrialised countries as "inimical", for economic reasons (MIC25 has a strong protectionist bias) and its supposed military implications. In a Tit for Tat strategic move, the US government restricted exports and technology transfer of high-tech products and technologies to some Chinese companies identified as being linked to the People's Liberation Army, most notably Huawei (other companies have been scrutinised as well because of national security concerns). Despite having signed a free-trade agreement with China in 2005, Australia banned Huawei from rolling out the country's 5G network on the basis of national security concerns. The Japanese government followed similar strategies, restricting exports of information and communication technologies.

The reactions were not only defensive, but looked at copying MIC25 by adopting voluntarist industrial policies, subsidizing "strategic" industries. In the afterwards of COVID-19, the objective is to build resilient supply chains for critical products. In 2021 and 2022, the US government announced programs to promote the local production ("onshoring" or "reshoring") of semiconductors, large capacity batteries, and pharmaceuticals. As before, the objective is to reinforce national security[9]. In its 2021 budget, Japan provided subsidies to companies producing essential products that locate their production plants in Japan, or set up their production facilities in ASEAN for supply chain diversification (in line with the "onshoring", "China-Plus" and "friend-shoring" GVC strategies). European countries followed a similar path. The UK devised the 5G Network Diversification Strategy with a budget of 250 million GBP in 2020 and the European Union ratified in 2022 the European Chips Act with 43 billion euros. The purpose of all these policies is to construct resilient supply chains of high-tech products that do not rely on Asia, particularly China.

As expected in a Tit-for-Tat strategy, China reacted to these policies by setting up its own export control law in 2020, aimed at restraining some exports and limiting the options for technology transfer. In addition, the Chinese government increased subsidies to high-tech sectors from 40 billion RMB (6 billion US dollars) in 2015 to 100 billion RMB (15 billion US dollars) in 2020 (Todo 2022). The succession of measures and counter measures has created a subsidy race. According to (Evenett 2022), in October 2022 subsidies to import-competing firms (other than duty taxes on imports) were estimated to be in products covering 41% of traded goods; export incentives - typically in the form of tax breaks - covered 64% of them.

Although the US and Japan have imposed a number of restrictions to decouple from the Chinese economy, bilateral trade flows did not decline in general. Analysing changes in the geographical distribution of trade, (Todo 2022) observes that US - China decoupling is occurring in limited industries and technology fields that are critical to national security. Japan's reliance on China has declined slightly, but the trend was already perceptible since 2012. Germany is increasing its reliance on China, but starting from a modest basis: most of Germany's supply chain partners are European countries.

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[7] The Harvard Thucydides' Trap Project (https://www.belfercenter.org/thucydides-trap/case-file) identified sixteen cases in which a major rising power has threatened to displace a major ruling power. Twelve of these sixteen rivalries ended in war.

[8] This has implications for modelling international economics: up to now, the instrument of choice to analyse trade policy was General Equilibrium theory in its computable form. Neo-realism calls for an analysis in terms of strategic game theory resulting in non-Pareto (dis)equilibria.

[9] The $280 billion CHIPS ("Creating Helpful Incentives to Produce Semiconductors") and Science Act, effective August 2022, aims at attracting productive investment from US and "friendly" foreign global leaders in the semiconductor industry. Another objective is promoting research and development activities in strategic industries.

3.2. Scenarios for the Global Value Chain (GVC) Future

According to UNCTAD (2020) estimates, the international production system is currently in a state of "perfect storm". After two decades of growth followed by one of stagnation, the forthcoming decade leading up to 2030 could be defined as a period of probable deep reconfiguration. In its diagnostic, UNCTAD is in-line with most other international organizations such as OECD or the World Bank. Since the COVID-19 pandemic, the GVC management leitmotiv has been "building resilience". "Resilience" is defined as the ability of supply chains to effectively respond to and recover from disruptions. Under the more generic concept of Business continuity disaster recovery (BCDR), resilience is usually associated with "robustness", which is the ability to maintain operations despite a disruptive shock. Robustness is often associated with building redundancy, either by accumulating buffer stocks or/and diversifying suppliers. Resilience has more to do with advance contingency planning to manage unpredictable supply chain disruptions. A mid-point between robustness and resilience would be negotiating contracts with potential backup suppliers, in order to give a company priority over others should a disruption with the primary supplier occur.

From a strategic management perspective, the objective is also to minimize the financial impact of disruption to optimize a company's "time to survive" when faced with a major shock. A standard tool is to calculate the Risk Exposure Index (REI) that characterizes supply chain operation (Simchi-Levi, Schmidt and Wei 2014). The REI enables prioritization of risk mitigation based on the most critical areas of the supply chain focus their mitigation efforts on the most important suppliers and risk areas. GVC manager may select suppliers with lowest REI to reduce the overall risk of disruption. From a national perspective, GVC indices based on trade in value-added indicators provide a measure of exposure (Baldwin and Freeman 2021).

BCDR, a management concept, became an agenda item for policy makers in the post-COVID19 era, when geo-political risks became the focus of interest of national policy makers. It has been reported that Germany's foreign ministry plans to tighten the rules for companies deeply exposed to China, making them disclose more information and possibly conduct stress tests for geopolitical risks[10]. When incorporating geo-political risks, international supply chain resilience and robustness strategies are usually developed according to several directions, as in Figure 3. The focus of attention is usually on supply chain (upstream linkages); much less analysed by scholars is the downstream risk of being prevented from selling to main markets, as occurred to the Huawei company (see Escaith 2021, for evaluating both upstream and downstream risks).

Figure 3 Strategies for building Global Value Chain resilience and robustness

[10] "Germany plans to tighten rules for firms highly dependent on China", Reuters, 19th of November, 2022.

UNCTAD (2020) identifies three possible trajectories of international production reconfiguration; all of them pointing to some degree of deglobalization. Two of the trajectories (re-shoring and regionalization) include smaller and more compact GVCs. Even the third alternative scenario of continued diversification and growth of value chains may result in more geographical concentration on some key players, either in developed or developing countries.

Strong deglobalization scenario envisages re-shoring to countries of origin, where domestic value chains would substitute international ones. New technologies, automation and robotization advances would play a key role in this scenario by lowering the cost of previously labour-intensive tasks. The current surge in subsidies for reshoring and attract high-technology may play a role in this trend. But most analysts predicts that the scope for re-shoring will remain limited, at least in the short term[11].

The second scenario calls for rethinking corporate strategies when launching new production activities, without sacrificing existing ones. This scenario is typical of the recent strand of GVC-resilience studies, promoting geographical diversification in order to cope for the risks entailed by relying on too few and far-away suppliers. This is a typical case of "Just in Case" strategy, where managers accept higher costs by including more locations and more suppliers into the supply chain in order to build robustness. Here again, digitalization technologies (AI, robotization, Internet of things) will play a key role in transferring know-how and monitoring new suppliers. Kearney's 2021 Reshoring Index report (Blaesser, Castaño, Serraneau and Van den Bossche 2021) reveals that many US companies consider a "China plus" strategy in an attempt to decrease their reliance on China, while maintaining a foothold in the Chinese market. In this perspective, the decoupling will only be partial. As a Nomura investment bank reckons, Vietnam is expected to be the largest beneficiary of trade diversion out of China and may gain the equivalent of about 8% of GDP (Loo, Subbaraman and Varma 2019).

The third GVC scenario is one of near-shoring, with the regionalization of value chain. This would entail more compact GVCs, organised in deep regional trade agreement sharing common trade policies (*e.g.,* ASEAN, Europe, North America). A new term was coined in April 2022, when the US Secretary of the Treasury spoke of "friend-shoring", privileging economic ties with countries that "have a strong adherence to a set of norms and values about how to operate in the global economy and about how to run the global economic system". Friend-shoring is a kind of "near-shoring" where the distance is not measured in geographical terms but in terms of political proximity.

This reminds us of the building of trade blocks along political alliances, like in 19th century Europe. Under this scenario, Western GVC will diversify away from China and towards countries perceived as "closer" in terms of common institutional and political systems as well as geo-political interests [12]. Meanwhile, from China's perspective, the Belt and Road initiative is aimed at creating its own economic backyard[13]. If this becomes a trend, world economies will gradually be separated along trading blocs fighting for hegemony in a multipolar world economy. Already, some companies may need to fence-off operations serving China from those that touch the US, adding to cost and complexity of their value-chain[14]. A risky scenario, if history is a guide…

An OECD study on the future of GVCs (De Backer and Flaig 2017) attempts at modelling a scenario involving new global manufacturers, growing demand in developing countries, larger labour costs and new disruptive technologies (artificial intelligence, production automation and digitalization). The report incorporates also future additional production and trade costs arising from policy instruments aimed at internalizing environmental considerations. The results indicate that the negative impact on GVCs is greater than their positive effects. World Trade/GDP ratio will fall by 4.1% in 2030. Due to near-shoring, the report predicts that North-North trade will gain relative importance.

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[11] Supply chain relocation is not a decision that managers take lightly. Many lead-firms have invested a lot in new offshore facilities producing at the frontier of technical efficiency. They have also spent time developing long-time relationship and protocols with first-tier suppliers. It takes years to write-down the associated sunk cost of investments already in place.

[12] For the European Centre of International Political Economy, the defensive measures designed by Brussels have also an offensive nature. Officially, they were created to retaliate against coercion and unfair trade practices by partner countries. But, "the objective is not just about creating an equal playing field but also ensuring that the rest of the world follows EU rules. Particularly, the EU aims at regulating non-EU companies directly and unilaterally through EU policies, which increases the risk of retaliation against the EU" (Erixon, Guinea, Lamprecht, Sharma and Zilli 2022).

[13] The Belt and Road Initiative was announced by President Xi Jinping in 2013 as a modern Silk Road, making clear, according to (Masina 2022), China's ambition to return to its historical role as a world superpower.

[14] Financial Times "Europe wakes up to collateral damage from US-China rivalry", Europe Express newsletter 29th of October, 2022.

Both OECD and UNCTAD scenarios paint a pessimistic, yet not apocalyptic, future for GVCs. Some will gain, as diversified supply chains should be expanded to countries with lower risks to national security, aiming at "friend-shoring" to reduce the risk of supply chain disruption for geo-political issues. China-Plus strategy will also benefit the labour abundant countries, especially in Asia, that have already built a reliable industrial basis (*e.g.*, Indonesia, Thailand, Vietnam). The main losers might be the new comers in Central Asia, Middle East and Africa, or the South American economies that need to balance their economic relationship with two of their increasingly antagonist trade partners: China and the USA.

4. Crisis at the World Trade Organisation (WTO)

Mercantilist competition between governments to stimulate industrialization or re-industrialization is growing. Such national policies may give rise to negative cross-border spillovers, either by design or inadvertently. In particular, they may limit the ability of foreign firms to sell goods and services and constrain the ability of firms to utilize new technologies (Hoekman, Tu and Wolfe 2022). These events develop while WTO, the institution that enacted and monitored global trade governance, is going through an existential crisis.

Reforming WTO: Mission Impossible?

Pressures to reform WTO reflect a growing dissatisfaction with the operation of the organization by some WTO members, especially its inability to adapt to a changing global economy. But not all members agree. This was evident during the Cancun Ministerial meeting in 2003 when the Singapore Agenda, especially the part dealing with the GVC related issues of competition policy or trade and investment, was abandoned. Negotiations on trade in services, the most dynamic component of world trade, was also put on the back-burner, falling hostage of the discussions on more traditional Agricultural and manufacture (NAMA) market access. This strategy to restrain Doha-round negotiation to pre-1990 issues reached a dead-end in 2008. It is revealing that the 23 WTO members who decided in 2012 to move the negotiations on an agreement on services outside the WTO identified themselves as the "Really Good Friends".

Yet, a major trigger of the crisis is the trade tensions between the US, EU and China. In recent years, the US has repeatedly expressed its grave concerns with China's non-market-oriented economy and associated policies and practices "that have resulted in damage to the world trading system …". China aimed at the US in its submission on WTO reform, with proposals on tightening disciplines on unilateral measures that are inconsistent with WTO rules. In other words, the WTO is stuck in a dialogue of the deaf that threatens its relevance.

A vital dimension of the global governance provided by WTO is independent, third-party adjudication of trade disputes reflected in the principle of de-politicized conflict resolution. An effective dispute settlement mechanism is critical for existing and future WTO agreements to remain meaningful. A failure to do so may coerce the WTO into irrelevance (Pollack 2022). Note that the "de-politicized" adjective reflects the neo-liberal approach to trade policies, where supra-national bodies are expected to be neutral referees. It is at odd with the post-2010 neo-realist emphasis on trade seen as a power struggle. Rather than engaging in lengthy legal discussions at the WTO on the minutiae of formal China's commitments when it joined the WTO, the US engaged in unilateral actions to block the dispute settlement mechanism. It also launched a trilateral process with the EU and Japan, to address "concern with the non-market-oriented policies of third countries and […] actions being taken and possible measures that could be undertaken in the near future". (Hillman 2022)

Concerned by this deadlock, many countries decided in 2017 to move away from multilateral negotiations by launching so-called "joint statement initiatives" (JSIs). JSIs addressed e-commerce, domestic regulation of services, investment facilitation, and measures to enhance the ability of micro and small and medium enterprises to seize trade opportunities. These joint initiatives involve a broad cross-section of the members. This kind of "Club of Clubs" approach is only a partial solution to the difficulty of concluding negotiations by consensus. Each negotiation can only be formally concluded if a critical mass of Members participates. Plurilateral are not a panacea. They may, nevertheless, be considered as stepping stones where deals are struck as waypoints towards the ultimate objective of reaching the consensus. At the very least, they have the merit of keeping the WTO negotiation bicycle moving.

Is it 'deglobalisation' or 'reshaped globalisation'?

There is no consensus on the definition of 'deglobalisation'. It is clear, however, from what we have seen from the data, that the process of international economic integration has been slowing down after the Global Financial Crisis. Among possible scenarios, reshoring (deglobalization) is probably the least certain and can only materialize for specific sectors receiving substantial government subsidies (high-technology, pharmaceutical). The megatrends of increasing international political tensions favours the scenario of regionalization. The literature usually converges on a scenario of "regional value chains" as a result of both pre-pandemic and post pandemic factors. Yet, at the difference of traditional supply chain management, geo-political resilience should include both upstream (where you get your inputs) and downstream aspects (where you sell your output), because embargoes may affect both segments of the value chain.

The risk. A return to 19th century trade and military alliances

From an historical perspective, the situation is preoccupying. Even if history does not repeat itself, the precedent of the League of Nations, an attempt to build peace after the first World War, makes preserving a functional WTO a priority.

The world trade economy is slowly being segmented in three large blocks. In Asia, China has successfully challenged the existing geopolitical frameworks, developing strong links with East and Southeast Asia economy through, inter alia, the Belt and Road Initiative (BRI). At the 47th G7 Summit in June 2021, the USA announced a Tit for Tat multilateral plan named "Build Back Better World", implicitly aimed at countering China's BRI. On December 2021 the European Union launched its own response with a 300-billion-euro project called Global Gateway. The war in Ukraine added a new dimension to this conflict for economic influence, when NATO members formally asked at the UN General Assembly in September 2022 third-world countries to "stop being complicit by remaining silent" and side with them against Russia.

It is between the extremes of neoliberal globalization and the "toxic blend of nationalism, militarism and imperialism" (Mariotti 2022) that we need to find a new normal. In light of the recent changes in global governance and international political economy, neo-realist policies adopted to strengthen the national competitiveness of domestic industries should be designed according to a win–win approach to avoid (trade) wars, *i.e.*, assuming the co-competitive synergies associated with inter-country economic interdependence as a fundamental driver. Easier said than done, win-win strategies not being the most expected outcome of neo-realist (non-cooperative) strategic games.

Business and Global Economic Uncertainty: Waiting for another Fat-Tailed Black Swan?

When policy shocks are driven by Tif-for-Tat strategic games, adverse events will tend to happen in clusters rather than randomly. From a modelling perspective, it means that the future states are much more uncertain and unpredictable on long time horizons than implied by standard probabilistic approaches based on a normal distribution of events. This is particularly relevant for international business, usually conducted by large firms over long-term trade and investment horizons. Businesses should internalize this and adjust for the new reality. This can be done by closely tracking global events, paying for flexibility, and considering contingency plans.

In uncertain times, monitoring and market intelligence (including geo-political situation) is key, but may point to very different scenarios. Implementing choice under uncertainty is definitely a challenge; it has been investigated by theoreticians, following (Raiffa 1968). The French "futuribles" school of decision analysis developed also methods for business and policy choice under uncertainty in the 1960s (Godet and Durance 2011). Pragmatic rules, such as the Sarewitz-Nelson rules (Almudi and Fatas-Villafranca 2022) are also used to help decision-makers. Most of these long-term strategic planning tools under uncertainty follow some kind of "Delphi method" of structural analysis for pooling different opinions produced by domain-specific experts[15].

Conclusions

During many years trade policy lived on a nice narrative based on economic theories and rationality. Geopolitics and trade politics are back. "After Rationality and Illusions, this is the time of Reality and Passions" declared Brazilian representative Alexander Parola at the 2022 WTO Public Forum. On the other hand, today's Nation States cannot live in isolation and can prosper only through trade: they need to remain globalised. Similarly, for large international business, looking for resilience is not turning its back on trade. Trade is beneficial but should be managed to be sustainable. With the "visible hand" trumping the market, firms must now include "government resilience" in the traditional three pillars of resilience (social, economic and environmental).

[15] Basically, it is an iterative process of asking individual experts regarding the degree to which each specific disruptive event (technology; government regulation, NGO and geo-political risks) verifies a probability of null-fulfilment or full fulfilment; then processing the results.

Misery loves company; traditional business modelling, based on a normal (thin-tailed) distribution of risks may not be sufficient when fat-tailed black-swans run around like head-less chickens. COVID-19 Pandemic has proven the precarious condition of the global supply chains and the disastrous impact of any systemic disruption, even occurring in remote parts of the world. The deafening sound of sabre rattling in Eastern Europe or Eastern Asia does not send optimistic signals. On the environment side, UN continued reporting that "countries' efforts are still not enough to avoid catastrophic global warming" will add pressure for more regulatory interventions. Some of them may offer business opportunities (*e.g.,* subsidies on solar panels or for electrical vehicles), other will add to production and trade costs. All of them will increase uncertainty, because rules can change at the stroke of a pen and subsidies may suddenly disappear.

Business organizations should anticipate increasing regulatory and social pressures to make sure the supply chains are government resilient to handle such shocks. First, by paying more attention to global economics and politics. In calm times it makes sense for firms to focus on markets, following the old saying that "the business of business is business". But in turbulent times there is value in monitoring current geo-political events to avoid being caught by surprise by global shocks. Second, greater uncertainty makes flexibility more valuable.

Therefore, firms must be willing to spend more to keep their options open. This involves anything from signing shorter leases, leasing rather than buying property, hiring contractors rather than permanent staff, and renting rather than buying equipment. Finally, they must prepare contingency plans. When major shocks happen, there is huge value to making rapid decisions. Firms that have contingency plans in place can act faster and reduce the risk of being transmuted in lame ducks by black swans.

But international business cannot develop in an institutional void, and global governance matters. The business community lost interest in the WTO in the early 2000s, after the Cancun ministerial. Yet a functional WTO is necessary to create a global governance made up of rules and constraints that apply to all. This does not preclude the possibility for governments to implement national policies, as long as they are not predatory and remain in accordance with reciprocal commitments. Neo-realist strategic competition is now a fact, but nation-states must also preserve a multilateral room for strategic cooperation.

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