

# **Globalization in Crisis**

**Lessons from the Past Two Centuries with Some Thoughts on the Current Events**

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## **Abstract:**

Globalization is in its deepest crisis since World War II. The world has been deglobalizing for over a decade, starting with the end of the 2008-2009 Great Financial Crisis. Structural factors are partly to blame, including ageing and automation, but so are inward-looking protectionist policies supported by anti-globalizers around the world. Recent anti-globalization events, most notably Brexit and the U.S.-China trade war, expediated the trend. Above all, the Covid-19 pandemic, which already caused the largest economic contraction on record in many countries, has brought the global economy to its knees. Drawing insights from the two waves of globalization and deglobalization that have taken place since the mid-19<sup>th</sup> Century, this essay aims to shed light on the impact of the escalating U.S.-China tension and Covid-19 on globalization. It addresses both the short-run and long-run prospects of globalization, drawing on historical accounts and recent academic research.

In sum, the essay posits that globalization tends to progress fast under three necessary conditions. First, technological breakthroughs need to facilitate market integration. The steam engine and the Internet played this role as part of the first and second waves of globalization. Second, the leading power of the era—the U.K. during the first wave and the U.S. during the second—has to derive enough benefits from multilateralism to be motivated to support it. Third, globalization cannot generate too much within-country inequality. Unfortunately, all three conditions appear absent today.

Though globalization has not completely ebbed, it is unlikely to return the pre-2008 level. It will also (need to) take a different form after the pandemic. Because of rising geopolitical tensions, pandemic-triggered risk-aversion among corporations and individuals, and labor-saving technological progress in robotics and artificial intelligence, global trade will become more fragmented and regionalized. Supply chain diversification among firms will lower efficiency and hamper countries' economic growth prospects. The silver lining is that, as part of this reorganization, trade and capital flows to certain emerging markets will increase. That said, whether globalization can thrive again depends on whether inequality can be managed with the right policies and whether multilateralism can be rejuvenated after the pandemic.

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## 1. Introduction

Globalization is in crisis. Standard measures of globalization like global trade or cross-border capital flows as shares of global GDP have been falling for more than a decade, starting with the end of the 2008-2009 Great Financial Crisis (GFC). The 2010s also saw the rise of nationalism around the world, threatening multilateralism and the global liberal order. These trends have contributed to the rise of anti-globalization sentiments, which have empowered populist and nationalist parties and leaders and emboldened them as they enacted protectionist policies last seen in the interwar period. The convergence of these forces resulted in key anti-globalization events, such as the Brexit referendum in 2016 and the U.S.-China decoupling since 2018. Against this political backdrop, most countries somehow managed to avoid recessions for the longest period on record.<sup>1</sup>

Just when everyone was wondering about the arrival of the next global recession, the Covid-19 pandemic struck the world. This once-in-a-century global health crisis and governments' draconian public health responses have literally brought economies to standstill. The economic collapse most economies experienced in the first half of 2020 was the sharpest since the 1929-33 Great Depression, or even earlier. This time, however, is different. The world is much more interconnected through global supply chains and financial linkages than it was a century ago. This increased interdependence brings shared economic gains, but also greater economic risks, as countries are exposed to global volatility through complex trade and financial networks. The world has also become more interconnected through travel—and many have blamed jetsetters for spreading the coronavirus globally. The shortage of medical supplies and disruption of various global supply chains during the pandemic have also laid bare the fragility of the global economic system. Pandemic-triggered anxiety and anger will likely induce people to focus too much on the costs and risks of globalization while ignoring its benefits, at least for the foreseeable future.

At this historical crossroad, there are pressing questions to ponder: Will Covid-19 mark the beginning of the end of globalization; or will it make globalization more inclusive and resilient? How will the escalating U.S.-China trade war reshape or undermine globalization in the near future? How will deglobalization, if it continues, affect countries' long-run economic growth prospects and inequality levels? Is multilateralism obsolete? These are all challenging questions to answer as the pandemic continues to batter the world and as political landscapes change by the day. It is still too early to tell what the end game will look like, let alone to assess the medium- to long-run impacts of the pandemic. One thing that is certain: individual livelihoods and multinational corporations alike will be upended.

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<sup>1</sup> “For the first time in history, the US economy has started and ended a decade without a recession” (CNBC, Dec 2019) <https://www.cnbc.com/2019/12/19/us-economy-avoids-a-recession-for-the-longest-time-ever.html>; “World’s Longest Growth Streak Ends as Australia Enters Recession” (Bloomberg, June 2020) <https://www.bloombergquint.com/global-economics/australia-economy-contracts-as-end-to-recession-free-runs> ;

At this uncertain moment, a review of the causes and consequences of globalization and deglobalization in the past two centuries may offer some insights for forecasting the future of the global economy. This essay focuses on world trade and global supply chains, and has little to say about other equally important aspects of globalization, such as financial market integration or cross-country migration. It begins by analysing the historical background of the first waves of globalization and deglobalization that began in the 1820s and ended in 1950s, highlighting the key driving technological changes and political events.

It then examines in more detail the progress of multilateralism and the diffusion of liberal economic ideas around the world post World War II (WWII). Since the late 1950s, liberal economic policies have returned to the Trans-Atlantic trade bloc and spread to Asia's newly industrialized economies—Japan and the East Asian Tigers in particular. Their economic successes, together with the efforts of U.S.-led multilateral organizations, caused more developing countries in Latin America and Asia to adopt pro-market reforms. Globalization reached its zenith in the early 90s, when China and India, the two most populous countries, both embarked on a course of trade liberalization. The period of hyperglobalization that lasted from the 1990s to 2008 lifted billions out of poverty, helped bridge the income gap between the global north and south. That said, it also brought about unprecedented levels of income and wealth inequality to many countries. The unchecked rise in within-country inequality laid the economic foundation for the resurgence of populism and anti-globalization sentiments. This further fuelled the existing deglobalization brought about by other secular factors, such as ageing, which shifted consumption away from tradable goods to services, automation, which often took the place of offshoring, and China's move up the value chain and reduced reliance on foreign parts and components.

Both historical analysis and recent academic research reveal that globalization progressed fast under three conditions. First, technological breakthroughs (the steam engine in the first wave of globalization and the Internet in the second) need to facilitate market integration. Second, the leading power at the time (the U.K. in the first wave and the U.S. in the second) must derive enough benefits from multilateralism to be motivated to support it. Third, globalization needs to be inclusive; it must not generate too much inequality. Unfortunately, all three conditions appear absent today.

The essay will then examine in greater detail the causes and implications of the trade collapse brought about by the GFC and a subsequent decade of global trade slowdown. Deglobalization was recently expedited – first by the U.S.-China trade war, which quickly turned into a comprehensive economic decoupling between the two powers, and then by the Covid-19 pandemic. Historians may someday look back to the decade starting from 2018 as the structural break of globalization and the end of the U.S. engagement with China. In doing so, they will compare the decade with the interwar period, focusing on the political dynamics that drive inward-looking policies. They may argue that robots and artificial intelligence, unlike steam engine and the Internet, make the world smaller and flatter, and are substituting for, rather than complementing, global trade. They may also discuss the causes and consequences of the fragmentation of global supply chains and why productivity growth began to

decline faster in 2018, why people need to carry multiple mobile phones when traveling abroad as a result of countries blocking digital applications or adopting different telecommunication standards altogether. Finally, they may emphasize that even though globalization, in terms of trade, capital flows, or human movement never returned to its pre-pandemic levels, it did become more inclusive or resilient to geopolitical and natural disaster risks.

One of the biggest challenges facing the world now revolves around how inclusive globalization can be attained. Will the world get there peacefully through concerted multilateral efforts or will the road ahead be bumpy and laden with roadblocks in the form of conflict? History will tell, but for globalization to thrive again, inequality must be managed and multilateralism must once again be the norm. The final section of the essay lists some of my bold and rudimentary conjectures, which hopefully can stimulate more discussion.

## **2. The First Wave of Globalization (from 1820 to 1914)**

Since the early 19<sup>th</sup> century, the world has gone through two waves of globalization and two waves of deglobalization. While there is no absolute consensus about when exactly the first wave began, unlike the end of it, several seminal economic studies identified the middle of the 19<sup>th</sup> century as the beginning of the first wave (Baldwin and Martin, 1999; O'Rourke and Williamson, 1999; Findlay and O'Rourke, 2007). Obviously, for globalization to progress, the world needs to be relatively peaceful without any major disruption of the economies by wars. The first globalization started in a relatively peaceful period after the end of various wars between France and other European nations by 1815 and World War I (WWI) that broke out in 1914.<sup>2</sup>

The first wave of globalization was not without setbacks. Throughout the 19<sup>th</sup> century, industrialized countries diverged significantly in their economic policies and outcomes. A notable example is the continuous economic rivalry between Germany and Great Britain, which was really a clash between two systems as much as between two powers, similar to the U.S.-China economic conflicts since 2018 (Brunnermeier, Doshi, and James, 2018). Germany under Bismarck in the 1870s was suspicious about British *laissez faire* approach, and endorsed both mercantilist and protectionist policies. A major shift towards free trade by the British government, signified by the repeal of the Corn Laws in 1846, was more an exception than the norm in the 19<sup>th</sup> century. The U.S., for instance, still kept an average 40% tariff rate on dutiable imports by 1875 (Baldwin and Martin, 1999). Besides Great

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<sup>2</sup> In addition to the widespread anti-trade sentiment and the corresponding protectionist policy responses, wars diverted investments from infrastructures that are conducive to globalization to war-time financing and post-war reconstruction (Horn, Reinhart, and Trebesch, 2020). Significant expansion of government spending during war time and afterwards also imply less exports and larger trade deficits for countries involved in inter-state conflicts.

Britain, only a small number of countries embraced industrialization and globalization voluntarily (e.g., Denmark and Sweden), while some were forced or threatened by gunboats to do so, such as China (Keller and Shue, 2020) and Japan (Bernhofen and Brown, 2005).<sup>3</sup>

Many industrialized countries retreated from open trade policies by the end of the 19<sup>th</sup> century, largely due to the pressure from landlords. The distributional consequences of market integration also started to nurture anti-globalization sentiment among the losing new working class. Australia and Canada, for instance, turned to more protectionist towards the end of the 19<sup>th</sup> century, while the U.S. government raised the average tariff from about 20% to 60% to protect domestic businesses from foreign competition (Irwin, 2020). Globalization in the 19<sup>th</sup> century is best described as “Two Steps Forward, One Step Back” (Findlay and O’Rourke, 2003).

Despite the diverging views about free trade across countries, the first globalization progressed mainly under two strong forces. The first force is related to the prowess of Great Britain over its colonial empire and the associated trade and financial networks. There were obvious gains for Great Britain to trade with the rest of the world, in particular, with its unindustrialized colonies (e.g., India). In addition to the commodity trade networks, the global financial network centred in London facilitated capital flows between the U.K. and other countries (Baldwin and Martin, 1999).

The second force behind the first wave of globalization is related to the various technological progresses brought by the spillover of industrialization that began in Great Britain in the late 18<sup>th</sup> century. In particular, the widespread adoption of steam engines in both production and transportation throughout the 19<sup>th</sup> century had significantly increased production efficiency on the one hand, and expanded the market size for factories by slashing transportation costs on the other. Specifically, the rapid expansion of railroad networks within Europe and North America starting in the 1820s, followed by the widespread adoption of steam engines in ships used for sea and river routes in the 1840s (Hugill, 1993), had integrated markets both within and between nations. Besides, the establishment of telegraph enhanced information flows over long distance, facilitating cross-border banking and the first episode production fragmentation across countries (Réka and Steinwender, 2018). All these technologies gave rise to the first unbundling, as famously coined by Baldwin (2012), which describes a process of separating the locations of consumption from those of production.<sup>4</sup>

As a result, in the century before the outbreak of the WWI, trade within the European continent, across the Atlantic, within the British colonial empire, and between the industrialized North and the

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<sup>3</sup> The Treaty of Nanjing in 1842 that settled the Opium War between China and the Great Britain stipulated an indemnity and ceded Hong Kong Island to the Great Britain, opening of more treaty port, and reduction of trade duties to less than 5 percent on all goods. In the 200 years since 1639, the rulers of Japan imposed policies to isolate the country almost entirely from any economic and cultural exchanges with the rest of the world, as a response to the perceived threat posed by Christian converts and their supporters. In 1853, a powerful American naval squadron in Tokyo harbor compelled Japan to agree to sign a treaty that ended its autarky regime in 1859.

<sup>4</sup> By the late 1830s, it took up to 48 days to travel from Liverpool to New York by ship. and 36 days to return. By the 1840s, steam-driven ships reduced the voyage to only 14 days in either direction (Baldwin and Marin, 1999).

unindustrialized South, all flourished. World trade grew at around 3.5 percent per year since 1820 towards the end of the 19<sup>th</sup> century (Maddison 1995). The share of world trade in global GDP gradually increased from 9 percent to 16 percent, as shown in Figure 1. At the peak of the globalization in the beginning of the 20<sup>th</sup> century, as the famous economist John Maynard Keynes (1920) described, the inhabitants of London “could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep”. It is hard to believe that Keynes was describing a situation from a century ago. Simply crossing out “tele” from the word “telephone”, it is the exact same description of how one would survive staying home all-day during city lockdowns during the 2020 pandemic.

### **3. The First Wave of Deglobalization (1914 - 1945)**

The first wave of globalization was halted by the outbreak of WWI in 1914, which also marked the beginning of over three decades of deglobalization.<sup>5</sup> During the war, countries including Great Britain, the leader of the first globalization, shifted to protect domestic interests by imposing significant import tariffs. The Allied’s governments centralized production and imposed quotas to restrict exports of many defence-related goods, raw materials and food. Governments’ war-related expenditure rose significantly (Jones and Obstfeld, 1997), absorbing a much larger share of domestic output than normal times. Lower industrial output but higher domestic consumption and investment resulted in a significant drop in exports from countries involved in the war. The substantial increases in trade deficits among the industrialized European nations contributed to a considerable expansion of the newly industrializing economies (e.g., the U.S., China, India, and Japan). Such war-time reallocation of trade led to an oversupply of goods in the medium run, and had implications for the balance of power in the long run (Findlay and O’Rourke, 2007).

When the Allied countries returned to their normal production levels after the war, the oversupply of goods and the resulting domestic political pressure from workers, farmers and businesses led to a cascade of anti-trade sentiment and policies across the globe. The Old and New Worlds, together with the newly industrializing economies, such as Japan, India and Argentina, all raised tariffs and other trade barriers (Eichengreen, 1994).

Despite the Allies’ economic recovery in the decade following WWI, they failed to come up with a concrete plan to foster multilateral cooperation and the pre-war liberal order. As the new global leader, the U.S. deviated substantially from free trade, despite benefiting significantly from immigration from the Old World and global trade. The relatively slower recovery and high unemployment rates in

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<sup>5</sup> As discussed, rising anti-globalization sentiment was rising since the 1870s in certain advanced economies (e.g., in the U.S. and Australia).

Europe, further undermined any multilateral effort to restore the pre-war liberal order. Countries that pegged their currencies with gold enacted policies to reduce imports, in order to prevent the outflows of gold that may trigger deflation. High tariffs replaced war-time quantitative restrictions in many countries.<sup>6</sup>

The American Smoot-Hawley tariffs, which are still effective today for countries not being granted the Most-Favored Nation (MFN) treatment by the U.S. government were perhaps the most well-known example of protectionist policy in the post-WWI period. The tariffs originated from Herbert Hoover's presidential campaign in 1928, similar to Trump's campaign promises in 2016. With the U.S. approaching the Great Depression in 1929, Senator Smoot and Representative Hawley introduced an even stronger bill that proposed tariffs on over 20,000 imported products, from both industry and agriculture, in the name of protecting jobs. As a result of the Tariff Act of 1930, the average tariff rate on dutiable imports in the U.S. rose from 40% in 1929 to over 59% in 1932 (Irwin, 2020).<sup>7</sup>

Without a global leader to promote free trade, unlike the days before 1913 when the U.K. was playing such a role, globalization failed to return to the pre-WWI level. The League of Nations itself proclaimed the failure to revive the pre-war liberalism: "the international conferences unanimously recommended, and the great majority of governments repeatedly proclaimed their intention to pursue, policies designed to bring about conditions of freer and more equal trade; yet never before in history were trade barriers raised so rapidly or discrimination so widely practised" (League of Nations 1942).

The U.S. stock market crash in October 1929 marked the beginning of the 10-year Great Depression. Before the Covid-19 pandemic, it was the largest economic downturn in the industrialized world. GDP collapsed from 1929 to 1932-1933 in almost all major countries in Western Europe (9%), Latin America (14%), and North America (29%) (Findlay and O'Rourke, 2007). Economic hardship triggered protectionist and redistributive policies. The beggar-thy-neighbor protectionist policies became a new self-enforcing global equilibrium throughout the 1930s. Worsening terms of trade, particularly for farmers in Latin America and Africa, planted the seeds for import substitution policies and decolonization in the post-WWII world. In the interwar period, the measures to reduce trade flows employed became more restrictive, taking the form of export licencing, import prohibition, and exchange controls. The famous John Maynard Keynes, who championed the benefits of globalization before WWI, gave the celebrated "National Self-Sufficiency" lecture in Dublin in 1933, arguing that under an unprecedented global crisis, different nations might benefit from an environment that was shut out from the external turbulence of the times to try out their own policy experiments. These themes shared striking similarities with the recent right-wing populist governments' agendas.

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<sup>6</sup> Average tariff rates were generally higher after World War I than before among major economies, including France (26% in 1927 compared to 16% in 1913), Italy (28% in 1927 compared to 15% in 1913), and Germany (19% after the war compared to 10% before) (Irwin 1993).

<sup>7</sup> The U.S. tariffs triggered a wave of retaliatory tariffs and further tariff hikes in other countries, including Canada, France, Italy, Spain, Switzerland, and the U.K. (Kindleberger, 1989).



In such a depressed global economy in the 1930s, nationalism was on the rise in various European countries, similar to what the world has seen but at a more global scale since 2010 (Funke et al., 2020).<sup>8</sup> In the more extreme cases, far-right nationalism turned democratic rules to fascism in Germany, Greece, Italy, and Spain. It was widely perceived that the rise of nationalism and Hitler in Germany was partly caused by the German's resentment towards the significant territorial and economic losses resulted from the strong reparation terms of the peace treaties that settled WWI. It was also widely speculated that the Spanish virus in 1918 may have contributed to the Allies' signing of the Treaty of Versailles, which was retrospectively considered too harsh on Germany (Barro et al., 2020). Inward-looking economic policies and anti-globalization agendas across Europe provided some of the necessary conditions for another great war. Global trade-to-GDP ratio was a mere 5.5% just before the onset of WWII, compared to 13.5% the year before WWI (O'Rourke and Williamson, 1999).

The first wave of deglobalization continued throughout WWII, which finally ended in 1945. International trade and cross-border capital flows slumped during WWII, for similar reasons behind the trade collapse during WWI, but by a larger magnitude as WWII involved more countries and caused more casualties. By 1942, the world was split into three blocs with no economic linkages with each other – the German-controlled Europe, the Japanese-controlled Asia and the rest of the world (Findlay and O'Rourke, 2007). More importantly, the U.S.S.R's communist regime and its sphere of influence in Eastern Europe, including East Germany, Czechoslovakia, Hungary and Poland, together with Mao's victory in China and the split of Korea along the 38<sup>th</sup> parallel into Communist North Korea and liberal South Korea, gave rise to over three decades of clash between the Communist bloc under the leadership of the U.S.S.R and the liberal world under the leadership of the U.S. and its allies.

The political and economic tension between the U.S.S.R bloc and the U.S. bloc quickly evolved into the Cold War that ended only with the dissolution of the former in 1991.<sup>9</sup> The U.S. launched the Marshall Plan to financially support countries' post-war reconstruction and recovery, and more importantly, as a way to contain the U.S.S.R. In return to the assistance of the Marshall Plan, the recipient countries would be expected to implement market reforms that foster a stronger economic integration with North America. Trans-Atlantic trade recovered quickly after WWII, but the economic linkages between the Communist bloc and the "Free World" essentially collapsed after WWII until the late 1980s, under the influence of the two superpowers.

Another force that hindered an immediate recovery in trade after WWII was the wave of decolonization from the British and French empires. Many of the newly created countries in Asia and Africa that gained independence from the ex-colonial powers created their own currencies and

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<sup>8</sup> In a sample of 60 countries that cover over 90% of world GDP, 26% of the sample (16 countries) were run by populists in 2018.

<sup>9</sup> The Cold War lasted for almost four decades, starting with the Korean War (1950–53), and causing various events that could have led to a hot war, including the Suez Crisis in 1956, the Berlin Crisis in 1961 and the Cuban Missile Crisis in 1962.

implemented import substitution industrial policies.<sup>10</sup> Many of them suffered balance of payment crises, partly related to the decision to peg their own currencies with gold. The crises weakened their economy and strengthened their governments' beliefs that controls over trade and capital flows were the optimal policies.

Likewise, many Latin American countries, which encountered blockade of trade during WWII, were forced to develop their own industries, were inclined to protect their infant industries from foreign competition. They also lost faith in free-market ideology preached by the Allies, which mostly enacted trade barriers during the inter-war period. The U.S.S.R. state-led industrialization seemed to work effectively, encouraging other governments to follow suit. As such, unlike the first wave of globalization, most emerging markets raised trade barriers in the second globalization until the late 80s. Only about a quarter of the world population lived in open economies by early 1980s (Sachs and Warner, 1995).

#### **4. Second wave of globalization (1945 - 2008)**

##### **4.1 Multilateralism and the Diffusion of Liberal Ideas**

A notable difference between the two waves of globalization is that the second wave was supported by much more multilateral efforts. The Allied powers all wanted to avoid the mistakes of letting countries to enact beggar-thy-neighbor policies during the interwar period. As the world leading power, the U.S. saw the world trading system as an essential part to foster American prosperity. There was a consensus among the Allied Powers to develop multilateral systems right after WWII to prevent "Third World" nations from moving towards the Communist bloc. In Europe, the formation of the Common Market, which later offered optimism for the formation of the European Union, was often considered as economic means to achieve a greater political goal. Almost all countries around the world lowered their trade barriers to one another, partly as a commitment as members of new bilateral trade agreements, regional trade agreements, and later on the WTO.

Several multilateral organizations, in particular the International Monetary Fund (IMF) and the World Bank that were established in Bretton Woods in 1944, were created to foster post-war global liberal order and peace. In 1947, 23 countries signed the General Agreement on Tariffs and Trade (GATT), the predecessor of World Trade Organization (WTO), to support "reciprocal and mutually advantageous arrangements directed to the substantial reduction in tariffs and other barriers to trade." The decade immediately following WWII saw a gradual return to the pre-WWI liberal Atlantic

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<sup>10</sup> For instance, India, after gaining independence from the U.K. in 1947, had increased tariffs gradually. In 1960s, India's average tariff rate on manufactured imports stood at over 90%, compared to 16% in 1925 when it was part of the British colonial empire (Findlay and O'Rourke, 2008). Imports were heavily restricted by licences.

economy, while the developing world continued to stay out from globalization in the second wave until the late 1980s.

The developing world started to embark on market-oriented reforms since the late 1980s. There are several reasons. First, pro-market politicians in elections, in particular, the newly elected U.K. prime minister Margaret Thatcher and the newly elected U.S. president Ronald Reagan, spearheaded a global surge of neoliberalism. Second, the economic successes of the newly industrialized economies which had adopted export-oriented policies, specifically the East Asian Tigers - Hong Kong, Singapore, South Korea, Taiwan, inspired some emerging markets to reconsider trade liberalization. Pro-market policy ideas were also supported by academic research of Western scholars, who consensually showed the drawbacks of exchange controls, infant-industry protection, and state-driven industrial policies. The success of the U.S. government from controlling inflation and later on stagflation by the mid-1980s, together with the gradual decline of the U.S.S.R.'s economy, validated the claims of the liberal camp.<sup>11</sup> Third, the conditions the IMF attached to its financial support for debtor countries often reflected the dominant views in Washington. The common policy prescriptions, which were often summarized as the Washington Consensus (Williamson, 1990), endorse trade liberalization, market-determined interest rates, deregulation, privatization of state-owned firms, moderate tax, and protection of property rights as growth-enhancing policy prescriptions to developing countries.

The first few developing countries that started to adopt liberal policies in the 80s happened to be in Latin America. Mexico (1985), Bolivia (1985), Argentina (1988), Venezuela (1989), Brazil (1990) and Peru (1990) one after another lowered their barriers to imports. The so-called hyperglobalization began in the early 1990s, with China, India, and many Southeast Asian and Latin American economies started to embrace globalization (Rodrik, 2011).

The Chinese government decided to focus on economic rather than political reforms in 1992.<sup>12</sup> Starting from the mid-1990s, partly in preparation to join the WTO, the Chinese government has gradually cut import tariffs and restrictions to foreign direct investment (FDI). Tax incentives and favorable trade policies were offered to foreign firms and investors. As a result, FDI into China surged, especially from Taiwan, Hong Kong, and Macau. Foreign trade boomed, mostly driven by outsourcing of labor-intensive tasks from Hong Kong and Taiwan, and subsequently from other Asian countries. After years of negotiation with the U.S. government with the diplomatic effort of Chinese Premier Zhu Rongji, China was eventually assessed to the WTO in December, 2001. Between 1995 and 2007, the median tariff rate (across over 400 industries) dropped from over 25% to 7.5%, while the fraction of

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<sup>11</sup> Buera, Monge-Naranjo, and Primiceri (2011) empirically confirmed that liberal ideas started to spread in the late 1970s, after countries saw the economic successes in the liberal world and the newly industrialized economies. Interestingly, they also warned that a global economic shock as large as the Great Depression could easily turn the world back to the state-interventionist paradigm.

<sup>12</sup> Despite the hallmark radical market reforms that started in 1978 by then the de facto leader Deng Xiaoping, the Chinese economy remained relatively closed to trade outside a few special economic zones up to the early 1990s.

industries that were subject to some import licenses dropped from over 15% to 1.2% (Brandt et al., 2017).

India, on the other hand, tried to manage the balance of payment crisis in 1991. Its government turned to the IMF for financial support. IMF in return requested India to implement structural reforms. As part of an IMF adjustment program, India launched a dramatic liberalization of the economy. Tariffs and non-tariff barriers were substantially reduced - the average tariffs fell from more than 80% in 1990 to 39% by 1996, while non-tariff barriers (NTBs) dropped from 87% in 1987 to 45% in 1994 (Goldberg et al., 2010).

At the same time, changing political landscapes in Europe and North America also induced more regional trade. The signing of the North American Free Trade Agreement (NAFTA) between the U.S., Canada, and Mexico in 1994 led to a significant increase in regional trade. After the decline and the final dissolution of the U.S.S.R., ex-communist Eastern European countries started serving as the manufacturing base for Western Europe, permitting the development of the European regional supply chains. According to Sachs and Warner (1995), over half of the population lived in open economies by the end of the 1990s, even when China was considered as closed due to its communist regime.

#### **4.2 Two Key Innovations – Containerization and ICT**

There are lots of similarities and differences between the two waves of globalization. In both waves, ground-breaking technological changes were driving economic integration. In the first wave, the technology that helped integrate markets included the rapid expansion of transportation networks and the adoption of steam engines in both production and transportation. In the second wave, the major technological changes that accelerated globalization in the second half of the 20<sup>th</sup> century were the adoption of containerization and later the advancement in information and communication technology (ICT).<sup>13</sup>

Containerization revolutionized the transport sector and cargo shipping. By the mid 1960s, cargo handling at the port remained as labor-intensive as it was at the beginning of the 19<sup>th</sup> century (Bernhofen, El-Sahli, and Kneller, 2016; Levinson, 2016). Individual items were loaded and unloaded at the port in a highly unstandardized fashion, using barrels, sacks and wooden crates. Containerization since 1966 transformed the transport sector by increasing the capacity of cargo shipping and storage, substantially reducing the time of cargo handling at the ports, and streamlining the intermodal cargo movements of goods between ships, trains and trucks.<sup>14</sup>

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<sup>13</sup> The mild decline in the international transport costs since the 1950s was not the key driver. Hummels (2007) shows that the ocean shipping costs were not declining much since 1950s, despite a significant drop in the air shipping costs.

<sup>14</sup> Bernhofen, El-Sahli, and Kneller (2016) find that the cumulative average effect of containerization on total exports is about 900%, thanks to the expansion of both the geographic and product scopes of supply chains.

Another important innovation behind the second wave of globalization is the breakthroughs in ICT, which permitted the second unbundling, as coined in the influential work by Baldwin (2016). Thanks to the significant quality improvement and cost reduction of the Internet and long-distance calls, complex production of a good can now be broken down into many finer tasks completed in dispersed locations, in contrast to the first unbundling during the first globalization when production of a good was still mostly confined in a single location. Radical changes in ICT slashed barriers not only to the flows of goods but also idea. Complex production tasks could be coordinated across countries, exposing workers to more intense global competition. Another implication of the ICT revolution is that in the second globalization, trade was dominated by intermediate inputs rather than final goods - about two-third of global trade around 2000 was intermediate input trade (Johnson and Noguera, 2016).

The second unbundling had paramount impacts on individual countries' labor markets. The classical trade models predict that freer trade between countries with different factor endowments will increase income inequality between the more educated and the less educated in skilled-abundant countries (i.e., the advanced economies).<sup>15</sup> In the second globalization, job offshoring could create winners and losers within companies. Managers of firms that offshore jobs globally, due to a larger span of control over a more global workforce, can recoup a higher return to talent, while those at lower pay ranks in the same firms are now exposed to competition from foreign workers who have similar skill sets but cost much less in the developing world. More importantly, a person's job would become less secure in the second globalization as it became more substitutable, which ultimately depends on whether it requires face-to-face interaction or can be easily codified to be transferred through the Internet or replaced by robots, regardless of the job's skill content (Blinder, 2006)

### **4.3 Consequences of hyper-globalization**

Countries that adopted trade and other market liberalization policies tended to grow faster and succeeded in converging to the advanced economy status afterwards (Sachs and Warner, 1996).<sup>16</sup> The liberalizing countries, besides benefiting from specialization and hence economies of scale, gained from the transfer of technology from the advanced economies. Extensive research has unveiled significant technology spillover from foreign-invested companies to their affiliates as well as to local firms in emerging markets.<sup>17</sup> The four East Asian Tigers, for instance, benefited from the FDI from Japan and other advanced economies, which facilitated structural transformation from agriculture to

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<sup>15</sup> The other classic trade model is the Ricardian trade model, proposed conceptually in David Ricardo in his influential book *On the Principles of Political Economy and Taxation* in 1817.

<sup>16</sup> A follow-up study by Wacziarg and Welch (2008), using the same approach to identify open versus closed economies, find that countries after liberalization experienced on average a 1.5 percentage-point faster GDP growth, a roughly 5 percentage-point increase in the trade-to-GDP ratio, and a 1.5–2 percentage-point rise in the investment-to-GDP ratio.

<sup>17</sup> See, for instance, Javorcik (2004) and Harrison and Rodríguez-Clare (2010).

manufacturing. From 1966 to 1990, their annual GDP per capita growth rate on average ranged from 5.7% for Hong Kong to 6.7-6.8% for Singapore, South Korea, and Taiwan (Young, 1996). The fine division of labor in the production networks across Asian economies, which was often referred to as “Factory Asia”, offered practical lessons for the establishment of other regional supply chains at the turn of the 21<sup>st</sup> century. As a late participant in “Factory Asia”, China enjoyed a double-digit percentage income growth and substantial poverty reduction for almost two decades since the mid 1990s, thanks to its own domestic economic reforms but also liberalization to both trade and FDI.

The rapid convergence of the liberalizing countries and the offshoring of manufacturing production from advanced to emerging markets results in a structural change in the balance of (political and economic) power. As Baldwin (2016, on pp 3) effectively illustrates, G7 countries’ share in global manufacturing output has declined from 70% in 1970 to 50% in 2010.<sup>18</sup> Replacing their lost 20% was the emergence of the so-called industrializing 6 (I6), which includes China, Korea, India, Poland, Indonesia, and Thailand. Within the I6, China is an outlier, which accounted for almost 17 percentage-points of the 20% rise in the group’s share in global manufacturing output. The share of the rest of the world remained stable throughout the 40-year period.

#### **4.4 Global Value Chains in the 21<sup>st</sup> Century**

At the turn of in the 21<sup>st</sup> Century, international trade has definitely hit its all-time high, in both level and growth rate. This substantial change in the nature of global trade requires a revised thinking on trade policy, trade data, and countries’ gains from trade. The traditional “Made in” labels affiliated with manufactured goods have become increasingly less relevant, as most goods today are in fact “Made in the World.” For instance, the production of an Apple iPhone, which is composed of hundreds of components produced in 43 countries, uses some of the state-of-the-art patented technologies and most sophisticated intermediate inputs. The phrase “Designed by Apple in California, Assembled in China” engraved at the back of each iPhone overly simplifies the actual production process, as it only describes the first and the last stage of a long and complex global supply chain. In fact, to call it a chain is already misleading, as many activities take place simultaneously in different locations. Companies such as Toshiba in Japan, Samsung in South Korea, and Qualcomm in the U.S. are just some of the prominent multinationals that have invested for years in research and development before the next iPhone was even designed. They provided the key parts and components, including microprocessors, sim cards, and display modules, which have no available substitutes in the short run.

The fact that the nature of trade has changed dramatically – from mostly about final goods to intermediate inputs – has far-reaching implications for our understanding of trade statistics. First, there is severe double-counting in gross trade statistics reported by all customs departments around the world.

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<sup>18</sup> G7’s share in global GDP declined less dramatically, from over 70% in 1970 to less than 50% in 2010.

For instance, when the U.S. customs recorded an additional 500 USD trade deficit with China as a result of an additional iPhone exported from China to the U.S. after its final assembly stage at a Foxconn factory in China, much of the 500 USD was actually not value added from any Chinese entity, but from upstream suppliers located in other countries, in particular, Korea, Japan, and even the U.S. According to Kee and Tang (2016), only 53% of the exports of electronics from China in 2007 could be considered as value-added attributed to Chinese entities. Such value-added ratio of global aggregate exports was about 75% in 2008, down from about 85% in the 1970-1980s (Johnson, 2014). Bilateral trade value and imbalance have been miscalculated. For instance, Johnson and Noguera (2012) find that the U.S.-China imbalance in 2004 is 30-40% smaller when measured in value added terms, instead of gross terms as everyone mistakenly used.

Participation in global supply chains increase countries' shared gains from trade, as consumer prices drop not only because of cheaper final products, but also lower priced and higher quality intermediate inputs that reduce production costs.<sup>19</sup> Moreover, in the era of global supply chains, companies and workers specialized in tasks rather than products, as ICT permits a finer division of labor over much more dispersed locations. Production therefore becomes more efficient as advanced economies' knowhow can be combined with developed countries' labor. When firms can source inputs from an expanded set of countries and sectors to lower production costs, the resulting increase in firms' profits permit more global sourcing activities and investment in new technology. Finally, participation in global supply chains facilitates technology transfer from the buyers in advanced economy to the sellers in developing countries.

The establishment of many complex global supply chains in the past few decades has caused unprecedented reorganization of economic activities across regions, firms, and workers. Supply chain linkages imply increased interdependence between firms and hence nations, permitting greater sharing of economic benefits on the one hand, but raising macroeconomic uncertainty due to the propagation of shocks across production networks on the other (e.g., Acemoglu et al., 2016a; Carvalho et al., 2017). Restricting imports in the hope of moving jobs or profits back home is likely offset by the increased costs of imported inputs and hence production. Consumers and firms that are heavily dependent on imports, directly or indirectly through the global supply chains, can suffer significantly from import protection.

## **5. Second wave of deglobalization (2008 - )**

### **5.1 Trade Collapse in 2008-2009**

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<sup>19</sup> See Caliendo and Parro (2015) for a quantitative assessment of the contribution of input-output linkages using NAFTA as an example.

After almost two decades of hyper-globalization since the early 1990s, the world got into the second wave of deglobalization, which was triggered by the global finance crisis (GFC) in 2008-2009. Trade collapsed by 15% in real terms in the first quarter in 2009 on an annualized basis, almost four times the decline in global GDP over the same period (Bems, Johnson, and Yi, 2013). The contraction in exports was especially acute for small open economies, with several of them experiencing an export decline by 30% in the second half of 2008 on an annualized basis. Unemployment surged in all advanced economies. It took the U.S. almost a decade to return to the pre-crisis economic growth path, after years of jobless growth (Center On Budget and Policy Priorities, 2020). Some of the European nations were still trying to recover from the crisis before the current coronavirus pandemic hit the world. The GFC provided the perfect condition for further anti-trade sentiment and hence inward-looking policies.

There are several potential reasons for why global trade dropped much more than global GDP, which include a sudden decline in global demand, deteriorating financial conditions, and increased trade barriers. For starters, gross exports and GDP are not directly comparable, as the former was subject to double-counting of value-added exports, especially in complex supply chains, as discussed above. That said, during the crisis, when global real GDP declined by over 5% in the first quarter in 2009 compared to a year ago, global demand dropped sharply, especially for durable goods. According to Eaton et al. (2015), durable goods exports accounted for 60% of the decline in total merchandise exports in 2009. Inventory adjustment further amplified the impact of the decline in final-goods expenditure on trade.<sup>20</sup> The drop in global service trade was only a quarter of that of merchandise trade (Borchet and Mattoo, 2009).

Another reason is the worsened financial conditions during the GFC, which substantially reduced the supply of working capital for production, as well as trade credits that are essential for long-distance trade. According to Chor and Manova (2011), countries that experienced a larger increase in interbank rates and thus tightening financial constraints exported less to the U.S. during the crisis. Such effect was more pronounced for firms that are more financially dependent. It was widely speculated that countries might have enacted protectionist policies to deter trade, but research shows no evidence that trade policies were responsible for the trade collapse during the GFC.<sup>21</sup>

## 5.2 Global Trade Slowdown

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<sup>20</sup> The decline in trade was heterogeneous across sectors. The sharpest declines in imports into U.S., the epicentre of the GFC, were found in the automotive (-47%) and industrial supplies (-34%) (Bems, Johnson, and Yi, 2013).

<sup>21</sup> Specifically, Kee, Neagu and Nicita (2013) show that higher measured trade barriers contributed only 2% of the observed trade collapse.



After a strong recovery in 2010 from the Great Trade Collapse, world trade was only growing annually by less than 3% since 2011, compared to the pre-crisis average of 7.1% (1987-2007) (Constantinescu, Mattoo, and Ruta, 2020).<sup>22</sup> Various hypotheses have been proposed to explain global trade slowdown. Rising protectionist policies, coupled with the emergence of populism in advanced economies, are obviously a reason (Pavcnik, 2017).<sup>23</sup> Another reason is related to the changing consumption patterns globally (Lewis, 2018). Due to ageing population in advanced economies and the rising middle class in emerging markets in particular China, global demand has been gradually shifting from tradable goods to less tradable services.

Yet another reason is the diminishing returns to joining global supply chains and the resulting decline in production fragmentation across countries (Borin and Mancini, 2019). Using the World Input-Output Table constructed by the authors themselves, Timmer et al. (2016) found that the import intensity of 836 final goods has been increasing continuously until the onset of the crisis in 2008. The increase in the dependence on foreign inputs and goods before 2008 was half driven by the increasing production fragmentation and half coming from the changing composition of global demand. Since 2011 after a short rebound in global trade, the global intensity declined steadily due to both decreasing production fragmentation, especially in those supply chains shared by the U.S. and China, and the shifts in demand from goods to services.

One should be reminded that there is a limit of how far globalization can go. The benefits to join global supply chains will gradually diminish, with the rising cost of production in developing countries. When developing countries converge to the global technology frontier, large developing countries will be able to produce an increasing amount of parts and components that they used to rely on foreign suppliers. Kee and Tang (2016) show that China has been moving up the value chains, now producing some of the most sophisticated intermediate inputs that used to be imported from foreign countries. With more goods and inputs produced in China, there is naturally less trade transactions among other countries. If the share of trade in global GDP is declining because of more developing countries like China's moving up the value chains, the global trade slowdown is just an outcome of global economic convergence and should not be a concern. However, if the decline is due to protectionism, the resulting efficiency loss may warrant a more constructive multilateral cooperation. Luckily, until 2018, most research find that protectionist policies played much limited roles.

### **5.3 The Unchecked Rise of Inequality and Recent Resurgence of Populism**

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<sup>22</sup> The authors also find that the long-term elasticity of trade with respect to income was 1.3 between 1970 and 1985, which rose to 2.2 during the hyperglobalization period over 1986-2000. It reverted back to 1.3 in the 2000s.

<sup>23</sup> In particular, the US-China trade war so far has resulted in an over 30% decline in Chinese exports to the US, and around 10% decline in US exports to China due to retaliatory tariff (Fajgelbaum et al., 2020).

An outcome of hyperglobalization, besides global economic convergence across countries, was the unprecedented increase in within-country income and wealth inequalities. Such rises in inequalities fuelled the global rise of nationalism, populism, protectionism, similar to the first deglobalization triggered by WWI.

Since the GFC, economic growth has been sluggish in Europe, while productivity growth has been slow in both advanced and emerging markets. Despite slower economic and trade growth. Inequality continued to rise to an unprecedented level in many places. These trends will remain strong in shaping future economic and political landscapes, in addition to the short and long-term implications of the current pandemic.

Populism has been rising swiftly across the world. The rise of the Tea Party movement in the United States (US) in 2010 and later Trump's victory in the 2016 U.S. presidential election, based on his advocacy of "America First" ideology and policy, were some notable examples. Outside the U.S., right-wing populist parties, such as the French Front National and the U.K. Independence party, all won enough votes to dominate their countries' politics. Countries like Sweden and Germany, which have been immune from the populist movement, also saw the rise of nationalist parties recently. In the developing world, Hugo Chavez and Nicolás Maduro in Venezuela, Rafael Correa in Ecuador, and Evo Morales in Bolivia were some of the populist leaders who focused on redistribution policies. The more extreme cases include the surge of authoritarian far-right populism, symbolized by Jair Bolsonaro in Brazil and Rodrigo Duterte in the Philippines. The resulting global events such as the U.K.'s Brexit referendum in 2016 and the U.S.-China Trade War in 2018-2019 have undermined global cooperation and world stability.

Whereas the rise of populism across the world has its political, cultural, and psychological reasons, there is an extensive body of literature tracing its economic roots (Guriev and Papaioannou, 2020). Secular trends, such as international trade, ICT, and automation, as well as the recent economic crisis-related jobless recovery and austerity programs, all contribute to the rise of populist politicians and leaders.

It is perhaps easier to illustrate the increasing support for populist and nationalist ideas among the workers in advanced economies by summarizing the key messages from the celebrated elephant graph from Lakner and Milanovic (2013) (see Figure 3). The graph, built on data from 600 household surveys conducted in 120 countries, illustrates average income growth (in 2005 PPP-adjusted prices) from 1988 to 2008 for workers from different ranked initial income groups. Three points, labelled A, B, C in the graph, summarize the major changes in income distribution across the world.

The group that experienced the largest real income growth during that 20-year period was the global median group, around Point A. Nine out of ten people in this group were from Asia, mostly from China and India. Point B shows almost no real income growth for the group around the 80-85th percentile in the global income distribution. Seven out of ten people in this group were from the lower halves of the income distributions of rich countries, including the U.S., the U.K., Japan, Australia, and

Western European nations. Point C illustrates a significant real income growth for the top 1% of the global income distribution, who were mostly the top income earners from rich countries, with half of them coming from the U.S. In 2008, a household needed USD 300,000 (pre-tax) to be qualified as the global top 1%.

The rise of the global middle class is related to the familiar liberalization episodes of China and India. In the two decades since the late 80s, China's and India's real GDP per capita increased by around 6 and 2 times, respectively. The stellar economic growth of the two most populous nations was an outcome of years of bold pro-market reforms since the early 1990s. After years of negotiation with the U.S., China became the 143th member of the WTO. It was committed to reduce import tariffs and non-tariff barriers to imports. Its export markets also became much more stable, as the U.S. government granted the permanent normal trade relationship status, which eliminated the requirement for the U.S. Congress to annually renew China's Most Favored Nation status (Pierce and Schott, 2016; Handley and Schott, 2017). India, on the other hand, accepted the request of the IMF to implement structural reforms in 1991, as a condition to receive financial support to manage a balance-of-payment crisis.

Thanks to trade and FDI liberalizations in emerging markets along with the ICT revolution, firms in advanced economies could exploit the low labor costs in developing countries and outsource the most labor-intensive tasks. As a result, the income gap between rich and poor countries shrank, while within most countries, income and wealth inequalities have been both rising fast.

A seminal paper by Autor, Dorn, and Hanson (2013) and subsequent studies show that regions in the U.S. that were more exposed to import competition from China since the early 1990s experienced more manufacturing job losses, weaker wage growth, and depressed labor market participation. People who lived in the more affected regions became more ideologically polarized and were more likely to vote for the Republican candidate during presidential elections, including Trump in 2016.

However, it is unfair to attribute the rising inequality in advanced economies all to globalization. The ICT revolution since the late 1980s has facilitated the expansion of global supply chains, increasing the economies of scale of global production, which in turn increase both the returns to investment in capital and human capital. Managers in advanced economies can now hire equally if not more productive workers from emerging markets at much lower costs. Finer division of labor within multinational firms implies higher income inequality not only within countries but also within firms. In addition, the quantitative easing monetary policy by major central banks since 2008, which caused global asset prices to skyrocket, as well as the widespread adoption of robots and artificial intelligence in manufacturing in the past decade, are some of the other important drivers of the widening income distribution in most countries. That said, despite the more complex reasons, politicians often find it convenient to blame trade and immigration as the root causes of inequality.

Besides these secular trends, there are also short-term economic reasons that contribute to the rise of populism. Guriev and Papaioannou (2020) show growing evidence that adverse economic shocks, such as the GFC and the European periphery crisis of 2010-12, provided the perfect conditions

for the rise of populist leaders, similar to the rise of far-right nationalism that turned democratic rules to fascism in Germany, Italy, Spain, and Greece during the Great Depression in the 1930s.

## **6. The US-China Economic Tension since 2018**

The US-China trade war and other economic tension that lasted for more than two years originated from the Trump administration's issuance of the presidential memorandum on March 22, 2018. The memorandum, in reference to Section 301 of the Investigation of China's Laws, Policies, Practices, or Actions, proposed 25% tariffs on over \$50 billion worth of imports from China. The goal of such tariffs, according to the U.S. government, was to curb the allegedly illicit intellectual property transfer to China and close the wide and persistent U.S.-China trade deficit. The U.S. Trade Representative, Robert Lighthizer, based on a seven-month investigation, alleged that the Chinese theft of American intellectual properties costs the U.S. between \$225 billion and \$600 billion per year.<sup>24</sup> The Trump administration demanded that China cut its trade deficit with the U.S. by \$200 billion in two years.<sup>25</sup> This proposed tariff hike quickly got escalated into a trade war with both sides' retaliating. By the end of 2019, over 60% of U.S. imports from China (based on the 2017 trade statistics) were already covered by tariffs at a rate of 10% or above.

### **6.1 Some Important Events in the U.S.-China Conflict**

Trump's victory in the 2016 presidential election came as a surprise to many. With the campaign slogan "Make America Great Again", Trump has proposed on his campaign trail provocative policies to revive the U.S. economy by bringing back manufacturing jobs from abroad. Part of the plan was to tax imports, specifically those from China, to protect domestic businesses. As expected, Trump's economic policies have been overall anti-trade, with China often being the target. Trump's complaints about China's economic policies ranged from its currency manipulation to unfair practices against foreign businesses. There were elevating concerns about the continuous rise of China as an economic superpower, exemplified by its various outward-looking economic and foreign policies. Through its hallmark "Made in China 2025" initiative and "Thousand Talent" program, the Chinese government was committed to transform its economy from a manufacturing powerhouse to a leader in innovation and science and technology. These state-initiated economic reforms are not unfamiliar to the China watchers. After all, the Chinese government's use of the 5-year plans has been fairly effective in directing and supporting the countries' economic development. However, the sectors that the Chinese government recently focused on supporting, including artificial intelligence, biotech, 5G, and super

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<sup>24</sup> Source: <http://money.cnn.com/2018/03/23/technology/china-us-trump-tariffs-ip-theft/index.html>

<sup>25</sup> Source: <https://www.cnbc.com/2018/05/22/trumps-demand-that-china-cut-its-us-trade-deficit-is-impossible.html>

computing, are exactly the areas that continue to sustain America's economic leadership. The resulting tension is remarkably similar to the U.S.-Japan tension in the 80s. The U.S. also complained about the trade deficit it had with Japan, and demanded a strong Japanese Yen appreciation by signing the Plaza Accord. After Japan's surpassing the U.S. to become the world's largest chip supplier in the early 1980s, the Reagan administration accused Tokyo of intellectual property theft from American companies and state-sponsored industrial policies (Tasker, 2018). This and many other similar conflicts between the leading two economic powers in history have convinced many to believe that conflicts between an emerging power and an existing hegemon is inevitable. Graham Allison (2017), who coined the celebrated term "Thucydides's Trap" to summarize this broadly held view, offered suggestions to prevent the rising U.S.-China tension from escalating into a hot war. The pandemic unfortunately makes his proposed engagement conditions more difficult to satisfy.

The persistent trade imbalance between the U.S. and China and the alleged technology transfers by Chinese individuals and firms through both licit and illicit means were used as reasons to impose tariffs in March 2018. By imposing tariffs, the Trump administration hoped that the Chinese government will implement policies to improve the business environment for U.S. exports to and investment in China.

In response to the first wave of proposed tariffs by the Trump administration on March 22, 2018, the Chinese authorities immediately retaliated on March 23, proposing 15-25% tariff rates on a list of 128 products, should US-China trade negotiations fail.<sup>26</sup> On January 7-9, 2019: the trade negotiations between US and China were held in Beijing. The trade talks ended with some progress in identifying and narrowing the two sides' differences. But then on May 5, 2019, Trump announced on his tweeter account to increase the tariff list to over 200 billion dollar worth of Chinese goods from 10% to 25%, and threatened to impose 25% tariff on the remaining 325 billion dollar worth of untaxed Chinese goods. According to Bown (2020), the average U.S. tariff rate on Chinese goods has elevated to 19% by March 2020, while that of China on U.S. goods was raised to 20%. These levels of tariff protection against each other were the highest from both countries in the past three decades.

As of August 2020, the U.S.-China trade war continued, and with the pandemic-worsened U.S.-China relation, the trade and economic tension between the two superpowers is unlikely to improve in the foreseeable future. The trade war only marked the beginning of the escalating U.S.-China tension, which includes various targeted technology wars and diplomatic conflicts. Since March 2018, the U.S. government has started imposing export bans on American companies to supply parts and technologies to an increasing number of Chinese companies on the Department of Commerce's Bureau of Industry and Security's Entity List. The list includes most notably ZTE and Huawei. The most recent incident in

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<sup>26</sup> On April 3, 2018: the US Trade Representative published the provisional list of imports that would be subject to new duties covering about 1,300 Chinese products with approximately \$50 billion worth of US imports from China.

2020 was Trump's executive order to ban the use of and business transactions with Tiktok and Wechat by any U.S. company or individual.

Basic economics will show that trade wars create no winner. The official claim is that raising tariffs on imported goods can bring profits and jobs from a trade partner back home. However, as some of Trump's economic advisors should be aware of, various studies show that with the U.S. heavy reliance on imported intermediate inputs, tariffs will significantly raise firms' costs of imported inputs and hence production. If firms cannot alleviate the increased input costs by switching to suppliers from other countries, firms will inevitably lose profits. Moreover, imposing tariffs to protect domestic businesses may likely lead to retaliated tariffs from China, which already happened. These adverse effects may also be amplified through the interlocking supply chains.<sup>27</sup> Moreover, Trump faced virtually no protectionist pressure from major interest groups or workers. He inherited a very strong economy from Obama. In the first two years of Trump's presidency, the U.S. economy was at its stronger growth since the GFC. Its unemployment rate, as he often claimed, was among the lowest since WWII.

However, Trump had to keep his "America first" promises to his supporters. He and his policy advisors often claimed that trade is a zero-sum game. Countries were often treated as business partners – in a deal with a fixed return, one's gain must be at another party's loss. Many of his hawkish colleagues considered the rise of China as economic, political, and national security threats. The increased anxiety in the Washington D.C. policy circle about China is anticipated, given China's recent ambitious outward oriented policies like its Belt-and-Road Initiative, the establishment of a China-led Asian Infrastructure Investment Bank, and its active economic engagement in Africa and other developing nations. Nothing is comparable to an anti-China agenda in effectively uniting the Democrats and Republican politicians. The research community also started to reveal China's impatience about its disproportional share in foreign affairs (e.g., Pillsbury, 2015). There were also concerns that economic reforms in China have slowed, with state-owned enterprises regaining their dominance in the Chinese economy (Lardy, 2019).

## **6.2 The Impact of the U.S.-China Trade War on Globalization**

The decoupling between China and the U.S. or individual nations does not imply the end of globalization. Trade and other economic exchanges between China and the U.S. have been declining since 2018 and will likely continue to be the case. A silver lining is that new economic relationship will be created between China and non-U.S. markets; same for the U.S. Both superpowers will become more diversified in its economic portfolios, benefiting countries during the U.S.-China decoupling. It is even possible that trade as a share of GDP, a measure that economists often use to capture the degree of

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<sup>27</sup> Huang et al. (2020) study the financial implications of the 2018-2019 U.S.-China trade war for global supply chains. They find that around the dates when higher tariffs are announced, U.S. firms depending more on exports to and imports from China experience larger declines in market values. The negative impact spill over to the affected firms' suppliers and customers through production networks.

globalization, will surpass the pre-pandemic level in 2019, when parts of the global supply chains get spun off from China to other emerging markets.

A United Nations study shows that up to the first half of 2019, exports of tariffed products from China to the U.S. declined by 25% compared to the same time in 2018 (Nicita, 2019), which is translated to around US \$35 billion loss in trade. Of this loss in imports from China, \$21 billion has been replaced by imports from other countries, implying a net U.S. import loss of \$14 billion. The incomplete import replacement, or the so-called trade diversion, is due to either lower demand in the U.S. because of higher costs of production and hence living, and /or limited capacity of other economies to replaced Chinese products in the short run. Tang and Zhang (2020), using Chinese product-level data, show consistent and updated results that Chinese exports to the U.S. declined by about 20% year-to-year in the last quarter of 2019, with the decline for the tariff products ranging from 18% to 28% depending on the phases of the tariff increases – the more recent round of tariffs seemed to have a more negative effect (see Figure 4). The authors also identify significant trade diversion, particularly in labor-intensive, low-tech, footloose industries. The major beneficiaries from the U.S.-China trade war include the emerging markets in Asia, in particular Cambodia, India, Malaysia, Indonesia, and Vietnam; as well as those in Latin America, including Chile, Colombia, Panama, and Mexico.

The U.S. shift of import origins from China to other countries is largely based on their comparative advantage, with the relatively more labor-abundant countries like Vietnam receiving a larger portion of trade diversion in the labor-intensive segment of the supply chains from China, while the relatively more capital-abundant countries like Malaysia getting the capital-intensive part. Notably, Nicita (2019) shows that trade diversion is much less complete in the office machinery and communication equipment sectors. Tang and Zhang (2020), based on regression analysis, reveal more systematically that goods that are more skill- and research-and-development intensive, and intermediate inputs, especially those located at the relatively more upstream segment of the global supply chains, tend to be diverted by less.

In sum, some of the manufacturers have been moving out from China in the past decade, partly driven by the U.S. import tariffs, and partly because of the rising production costs. It is worth noting that China is a large economy with abundant resources. Its share exports in GDP has never been over 30%, and has been declining to only around 17% from its peak in 2006. Trade is still important for China but much less compared to its impact on many small open economies. Moreover, during the trade war, Chinese firms have been shifting their sales away from the U.S. to other destinations. Same for the U.S. buyers who have been searching for alternatives to replace some Chinese suppliers. Thus, the direct negative impact of the tariffs on China's economy still appears to be small. For sure, the U.S. and Chinese economies will become less dependent on each other. The reorganization of the global supply chains will continue, particularly in the labor-intensive, low-tech, and downstream segments. Various emerging markets like Cambodia, Mexico, Malaysia, Vietnam, and even some relatively more developed African countries like Nigeria will benefit during this restructuring process, thanks to the

U.S.-China decoupling. This restructuring is consistent with the Chinese government's overall game plan to move out from low-value-added labor-intensive production and be less reliant on trade. The trade war has expedited the transitions. Finally, the limited trade diversion in the upstream, high-tech, skilled-intensive sectors observed during the trade war implies that China has moved up to the rather upstream and sophisticated segments of the supply chains. Firms may need to incur significant efficiency losses to source from alternative suppliers of those sophisticated parts and components outside China. Excluding China completely from the global supply chains is not impossible.

The difficulty of excluding China entirely from the U.S. supply chains has been revealed in a survey conducted by the American Chamber of Commerce in 2019.<sup>28</sup> Among the member companies operating in China and responded to the survey, a vast majority (75%) perceived the trade war to be detrimental to their businesses. While one third of them adopted a “wait-and-see” approach by putting investment on hold or postponing it, about 35% planned to adopt an “In China, for China” strategy by increasing rather than decreasing their dependence on Chinese suppliers and customers. About 40% of them prepared to adjust their supply chains by seeking parts and components from suppliers outside China. These findings imply that many U.S. companies now see China as a consumer market with its rapidly growing middle class, which will soon surpass the entire U.S. population. Those companies that were attracted by the large Chinese consumer market will try to be even more dependent on China, while most of the other American firms, despite the obvious economic costs, tended to hold a “wait-and-see” approach. Those who decided to stay have done a cost-and-benefit analysis and may have already priced in the geopolitical risks. That said, the pandemic-induced escalating geopolitical tension between China and other countries add additional uncertainty to the already volatile Chinese economy, U.S.-China relation, and global economy.

## **7. The Covid-19 Pandemic in 2020 and Further Disruption of Global Trade**

### **7.1 The Economic Impact of the Pandemic**

Just when there were signs of optimism for a potential trade truce between the U.S. and China in January 2020, the Covid-19 pandemic broke out in Wuhan, China, ravaging the already deglobalizing world economy like a tornado since February. The pandemic is both a global health and economic crisis. A direct damage of the pandemic is obviously the infections and casualties it caused and the resulting stress on the countries' health systems. Governments' public health measures to control the spread of Covid-19 has further brought the economies to a complete stop, disrupting local and international travels and trade flows. Unlike the previous economic crises, which typically originated from an

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<sup>28</sup> Source: <https://www.amchamchina.org/about/press-center/amcham-statement/second-joint-survey-on-the-impact-of-tariffs>



unanticipated negative shock on either the supply or demand side of an economy, the pandemic depression arrested both supply and demand sides at once. A much more connected global economy through global supply and financial chains, compared to the times of the Great Depression in 1929, the Spanish Flu in 1918, or even the GFC in 2008 implies much stronger amplification and propagation of negative shocks across countries. Such realization offers additional support to the rising anti-globalization sentiment.

The World Bank forecasted that the global economy would drop by 5.2% in 2020, five times the output decline during the GFC. Most advanced economies already experienced the steepest economic contraction on record. For instance, the U.S. second quarter's GDP dropped by 33% compared to the previous year, the steepest decline since GDP data were first recorded, while the Eurozone economy shrank by 15% on an annualized basis. Likewise, the Bank of England predicted that the U.K. would experience its largest decline in output since 1706. The U.S. Bureau of Labor Statistics posted the worst monthly unemployment numbers in the 72 years on record. Developing countries, which mostly started getting hit by the pandemic since late March, reported the worst monthly growth in April on record.

What is perhaps more concerning is that the depression struck many countries when their economic fundamentals were already weakening. In part because many advanced economies, in particular those from continental Europe, were still recovering from their own economic crises and crisis-related fiscal problems. Many emerging markets have been dealing with sovereign debt problems, with their economic statuses downgraded by rating agencies. Corporates in many countries have already accumulated unprecedented levels of debt, which have grown further during the pandemic. With the pandemic still evolving and not yet coming down from its peak in many countries, the chance of another global financial crisis is looming fast.

China is the only large economy that is expected to have a positive GDP growth this year. According to the IMF's forecast, China GDP will grow at 1.2% in 2020. Despite being able to avoid a major recession, a 1.2% output growth will be China's slowest growth since 1976. In the second quarter of 2020, China's GDP grew by 3.2% relative to a year ago, after a temporary decline of 6.8% in the first quarter. These figures suggest a much smaller collapse and a much stronger rebound compared to advanced economies. There are various reasons for China's relatively fast and solid rebound. First, the timing of the Lunar New Year helps a bit – factories were supposed to be closed for two weeks anyways in late January, and that was the time when the coronavirus started to spread in different regions in China. The travel bans and city lockdowns seemed too draconian initially, but in retrospect appeared to be quite effective in reducing the spread and the chance of a second wave. China's more effective testing and tracing of the infected through its mobile phone network contribute to its relative success in controlling the pandemic. The Chinese governments were eager to restart the economy since the end of

February, after years of economic slowdown and the recent U.S.-China trade war.<sup>29</sup> Factories were gradually reopened since the end of February, under the strong guidance and incentives provided by both central and local governments.<sup>30</sup> Finally, compared to other countries, China has more levers to increase GDP by increasing investment or by stocking up inventories of raw materials, which are mostly produced by the state-dominated upstream sectors.

China's exports were recovering fast, after a temporary supply shortage that disrupted the global supply chains in February and part of March. After an export collapse in the first quarter by 13% compared to a year ago, it returned quickly to the same level of exports as in the second quarter of the previous year. Although its aggregate imports continued to decline by 9.5% year-to-year in the second quarter of 2020, its merchandise exports have been growing every month on an annualized basis from April to July.<sup>31</sup> Part of the unexpected export growth came from catching up the unfilled orders due to the earlier factory shutdown. Part of it was also driven by the sudden surge in foreign demand for medical supplies, equipment, and personal protective gears when the pandemic peaked in different countries at different time. This temporary export surge, however, should not be interpreted as a sign of a robust and sustainable trade recovery. There are obvious risks of further disruption of supply chains. Many economies have not reached the bottom of the recessions yet. The catching up of the unfilled orders will run out of steam at some point. The demand for medical equipment and personal protective gears would slow down when individual countries build their own capacity to produce them in the medium run. Even under the Chinese authorities' strong commitment to restart the country's export sectors when the pandemic appeared to be under control, the unexpected collapse in global trade networks can still feedback to China and disrupt its trade. According to the Geneva-based trade-monitoring group Global Trade Alert, 85 countries have imposed 186 new controls on exports of medical equipment and medicines since the start of this year, while 27 countries have imposed 37 new restrictions on food exports.

## **7.2 The Potential Impact of the Pandemic on Globalization**

Given the collapse of the global economy, global trade will likely collapse by more in percentage terms based on the experiences of GFC. In April 2020, the WTO forecasted a trade collapse of 32% in 2020 under the worst-case scenario, more than double the magnitude of the Great Trade Collapse in 2008-2009 (WTO, 2020). In June 2020, the WTO released a positive update asserting that

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<sup>29</sup> Source: South China Morning Post March 3, 2020 "China's return to work is good news for the economy – but it also risks unleashing a second wave of Covid-19 infections"  
<https://www.scmp.com/comment/opinion/article/3053019/chinas-return-work-good-news-economy-it-also-risks-unleashing>;

<sup>30</sup> Some local governments offered free transportation for workers to return from their home towns back to the factories after the lockdowns were lifted. Source: <https://www.scmp.com/economy/china-economy/article/3051445/coronavirus-chinas-east-coast-provinces-offer-chartered>

<sup>31</sup> Source: <http://english.customs.gov.cn/Statics/6e3ef08b-fb5c-4591-859b-2a5056d06947.html>

given a mere 3% decline in global exports observed in the first quarter, the worst-case scenario will unlikely materialize. However, the most updated data from the UN Comtrade's World Seaborne Trade in Real Time data reveal that global exports declined by more than 37% in the first half of 2020 compared to the same period in 2019.<sup>32</sup>

Initially when the pandemic mostly shut down China, some analysts were still hoping for a V-shaped recovery in the global economy and trade. After all, recent disruptions of supply chains caused by natural disasters, like the 2011 Tōhoku earthquake and tsunami (Boehm, Flaaen, and Pandalai-Nayar, 2019), the 2011 Thailand's floods (Chopra and Sodhi, 2014), or the 2003 SARS epidemic in Asia, were all associated with a sudden collapse in supply of certain intermediate inputs followed by very sharp rebounds back to the pre-disaster trends. It is nevertheless obvious that since March the Covid-19 pandemic was obviously a very different kind. The pandemic affected almost all countries in the world and was expected to last for a much longer time. The associated economic depression was characterized by both demand and supply shutdowns, and it was not only supply-driven. Besides, with international business travels reduced to essentially none in the second quarter of 2020 and most likely for the rest of the year, the pandemic could have a long-run impact on global trade. Recent research by Fernandes and Tang (2020), based on quarterly trade data of all Chinese firms, show that during the 2003 SARS epidemic, firms in regions with local transmission experienced significant declines in both import and export growth, relative to those in the unaffected regions. Though aggregate exports and imports started to recover by the fourth quarter of 2003, right after the end of the SARS epidemic, by the end of 2005 firms' average export and import growth in the affected regions were still 4 and 6 percentage-points below the pre-SARS trend, respectively, relative to those in the unaffected regions. In other words, SARS had a medium-term effect on Chinese trade, contrasting the conventional view. There are two reasons behind the medium-term effects. The first is that small-and-medium sized firms, which tend to grow faster on average conditional on survival, tended to exit during a crisis. The second reason is related to the temporary slump in international business travels, which have been shown to be highly correlated with the volume and composition of differentiated goods trade (Cristea, 2011).<sup>33</sup> The long halt of international travels will likely to have a much stronger impact on the volume and structural of global trade in the post-pandemic world.

It is important to emphasize how globalization, when it is most needed during the pandemic to share production across border, was often blamed as a scapegoat for the health crisis. Epistemological differences aside, by engaging in international trade and cross-border capital flow, firms and individuals can achieve some degree of risk sharing across countries at different stages of the pandemic. It is exactly because China was doing relatively better than most countries in the second quarter of 2020, therefore it could enjoy a positive export growth. At the beginning of the pandemic, China benefited from imports

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<sup>32</sup> Source: <https://comtrade.un.org/data/monitor>. The estimation method was proposed by Cerdeiro et al. (2020).

<sup>33</sup> International passenger arrivals in Hong Kong declined by 65% and 68% in April and May in 2003 respectively. The annual Canton Import and Export Fair was cancelled in 2003, and moved complete online in 2020.

supplied by countries that were not affected by the pandemic yet. Later on, when the pandemic appeared to be under control in China, its exports of medical products, equipment, and personal protective gears helped improve other countries' preparedness for the pandemic. As shown rigorously in a recent paper by Antras, Redding, and Rossi-Hansberg (2020), we should not forget the benefits of risk sharing brought about by trade integration, despite the fact that international commerce contributes to the rapid spread of the coronavirus due to increased international business travels.

Exploiting of the anxiety and the rapidly rising xenophobic sentiment during the pandemic, politicians in advanced economies, most notably Japan and the U.S., have proposed policies to further decouple from China. The Abe government in Japan, for instance, has embarked US \$2.2 billion to encourage Japanese companies to move out of China. American lawmakers have been drafting proposals of a US \$25 billion "reshoring fund" to offer tax breaks to companies that move production back to the U.S.<sup>34</sup> The extent of these policies on global supply chains remains uncertain, but compared to the escalated anti-globalization sentiment, these policies that dealt with the fixed but not the long-run variable costs of relocation seem minor. Besides, companies become more risk averse after the pandemic. Customers and businesses around the world have learned about how much they have become dependent on a single source of supplies of certain goods and inputs, oftentimes from China. For instance, during the pandemic, many governments realized that they have relied almost entirely on China for the supplies of masks, parts and components of ventilators, as well as drugs ranging from antibiotics, ibuprofen, and hydrocortisone (Huang, 2020).

Against this backdrop, the optimism arose from the phase one trade deal was largely washed out by the pandemic-triggered anger, though the U.S. government's still insisted China to keep its promise to purchase more agricultural and electronic goods. In the foreseeable future, the anti-China sentiment among the advanced economies remained a strong threat to the world.<sup>35</sup> The downward trend of the U.S.-China relationship, which started by the Trump administration in March 2018, may now gather more support from other countries, in particular the U.S. allies.

## **8. The Future of Globalization**

### **8.1 The Post-Pandemic Globalization**

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<sup>34</sup> Bloomberg (July 2020) "Japan Starts Paying Firms to Cut Reliance on Chinese Factories" <https://www.bloomberg.com/news/articles/2020-07-18/japan-to-pay-at-least-536-million-for-companies-to-leave-china?sref=ofpBPQRI>; Reuters (May 18, 2020) "U.S. mulls paying companies, tax breaks to pull supply chains from China" <https://www.reuters.com/article/us-usa-china-supply-chains/u-s-mulls-paying-companies-tax-breaks-to-pull-supply-chains-from-china-idUSKBN22U0FH>

<sup>35</sup> According to Devlin, Silver and Huang (2020), 66% of the surveyed Americans say they hold an unfavorable view of China, the most negative rating for the country since Pew began asking the question in 2005. About nine-in-ten American adults see the rise of China's power and influence as a threat, with 62% claim that it is a major threat to the U.S.

Given the uncertainty of the end game of the Covid-19 pandemic, it is hard to forecast how globalization will evolve in the post-pandemic world. Both the U.S.-China trade war and the Covid-19 pandemic will continue to expedite deglobalization. The pandemic will continue to deepen individual countries' economic recession before an effective vaccine will become available. Even after the pandemic is finally over, the extent of economic and financial globalization will unlikely return to the pre-2008 level.

When the world finally comes out from the pandemic, global trade will rebound strongly, but its pattern will likely change. There is a new realization across the world that global supply chains are more fragile than previously thought. Companies and governments realized that geopolitical risks will increase further, partly due to the intensified nationalist and populist movements, and partly to the escalating U.S.-China tension after the pandemic. They also realize that rare disasters are more frequent than previously thought. The "new normal" in globalization is that firms will be stressing more on diversification from risks and less on minimizing costs or maximizing profits. Sufficiently large firms, in particular multinationals, will produce the same products in multiple locations and source their inputs from different regions. Time and profits will be sacrificed. The new theme of global supply chains will be more about "just in case" rather than "just in time". Governments policies, such as the Japanese government's subsidies to move firms out of China and the U.S. Congress's proposed "reshoring fund", may speed up companies' reduction in global sourcing.

As such, global supply chains will likely become more "fragmented" across regions or "Balkanized". That is perhaps a counterintuitive reason for why globalization will appear to increase in the near future when substantial resources will be reallocated across countries. The pattern of globalization will change, hopefully to be more resilient to shocks. Obviously, when firms focus more on building resilient supply chains, they will enjoy less economies of scale and thus efficiency. The profitability of globalization will shrink, slowing down the post-pandemic economic recovery.

## **8.2 The U.S.-China Relationship**

Regarding the U.S.-China relation, the pandemic has fuelled anti-China sentiment in the U.S. and beyond. Decoupling from China will remain a key theme in the U.S. politics. Leading Republican senators, including Marco Rubio and Tom Cotton, have introduced bills in recent weeks to incentivize U.S. firms to leave China and limit Chinese companies to access the U.S. market. Anti-China policies appear to be one of the very few issues that can unite the Democrats and the Republicans together, or the traditional U.S. allies with the U.S., despite Trump's unconventional foreign policy.

That said, a complete decoupling between China and the U.S. is impossible. As discussed above, many American and foreign firms have invested tremendous resources and time in building relationships with Chinese companies. These relationship-specific investments are particularly important in enhancing production efficiency and product quality in increasingly sophisticated supply

chains. Switching to alternative suppliers outside China for a specific part or component is not easy. After years of development, China is no longer only a labor-abundant manufacturing powerhouse. It has moved up the value chains in the past two decades and commands many of the key upstream inputs in various sophisticated supply chains. Empirical and survey evidence have already shown that most of the relocation of manufacturers from China is concentrated in the footloose labor-intensive downstream segments of the supply chains. The fact that China has experienced a smaller disruption and a faster rebound in both exports and imports during the pandemic is consistent with such view. Furthermore, economies of scale are particularly important in supply chain relationships. Exiting from production in a country where a firm's suppliers and buyers have not moved out would entail significant costs. Finally, companies that were attracted by China's large consumer market will adopt an "In China, for China" strategy by increasing rather than decreasing investment in Chinese.

Multinational firms, which have benefited tremendously from participating in global supply chains and offshoring jobs to low-cost countries, will need to be prepared for larger losses. They will continue to face the new reality that both the U.S. and Chinese governments would expect them to take side on sensitive issues, especially when frontier technology like 5G and big data are involved. National security will often be evoked as a reason to restrict companies from doing business with another superpower. Policy uncertainty arising from the changing U.S.-China relationship will increase, discouraging investment from both sides. In sum, the U.S.-China interdependence will gradually decline in the foreseeable future. The most likely outcome is that many firms will adopt the "China-plus-one" strategy – keeping the primary manufacturing base in China, with a secondary back-up operation in another emerging market.

The U.S.-China decoupling will create opportunities for some emerging markets. The likely winners will be those that have the capacity to expand on the existing supply chains shared with the two superpowers. Those that have already gained from trade diversion arising from the U.S.-China trade tension, including those in Asia, such as Vietnam, India, Indonesia, Cambodia, Burma, as well as those in Latin America, such as Chile, Colombia, and Mexico, will continue to benefit from the deteriorating U.S.-China relationship. The relocation of resources from China may be a silver lining in the deglobalizing world. The reorganization of global supply chains will lead to new investments in both emerging markets and developed countries. Nevertheless, reshoring of tasks back to advanced economies may not necessarily create jobs, as some of the reshored tasks will be done by robots.

## **8.5 The Long-run Scenario**

When companies focus more on risk diversification and less on profit maximization, they will enjoy less economies of scale. In a fragmented global economy, countries' productivity growth will decline, slowing down their economic recovery from the pandemic. With the improvement in artificial intelligence and robotics, workers in advanced economies should not expect much from the reshoring

of tasks. The two waves of globalization in the last two centuries tell us that politics may not be necessary for globalization to happen, but technology is. Unlike steam and ICT, the new innovation in robotics and artificial intelligence do not appear to facilitate globalization. If anything, it may replace much of it.

Furthermore, the current pandemic has exacerbated the existing unequal distribution. Companies that can survive the coronavirus storm will eventually thrive as they will face less competition. The ultimate winners are the ones who are already cash-rich. A combination of slower economic growth and higher inequality will provide the best foundation for the continuing rise of populism or even more extreme political ideology.

However, the first deglobalization between the two World Wars tells us that deglobalization is not a stable global equilibrium. It will likely cause a decline in trust between countries and undermine multilateralism that is much needed to solve the pressing global issues, such as climate change and the next pandemic. When more but not less globalization is needed to foster international scientific collaboration on vaccine innovation, political tension between countries, especially with China, has risen to an all-time high level. Recent research uncovered that the Spanish Flu pandemic of 1918 contributed to mistrust between countries, and might have resulted in the harsh terms of the Treaty of Versailles, indirectly contributing to the rise of far-right nationalism in Germany after WWI, laying the ground for WWII.

Let's hope that politicians and leaders remember the importance of multilateralism from the lessons in the past two centuries, and work together towards an inclusive and resilient globalization.

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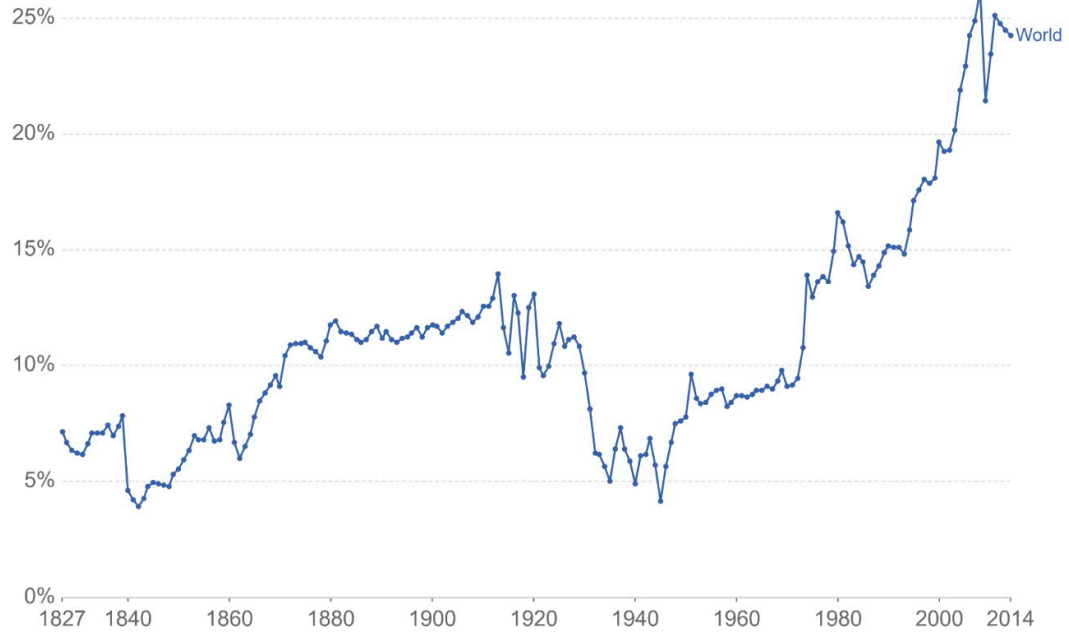
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Figure 1: Global Exports as a Share of Global GDP in the Last Two Centuries

### Value of exported goods as share of GDP

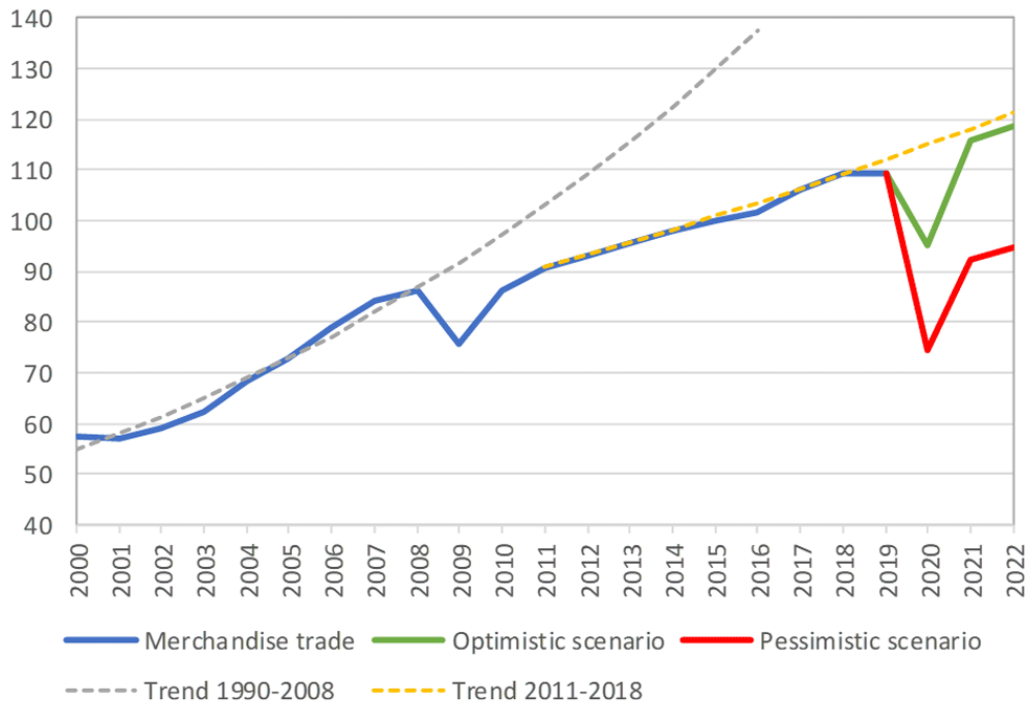
Estimates correspond to merchandise export-to-GDP ratios.



Source: Fouquin and Hugot (CEPII 2016)

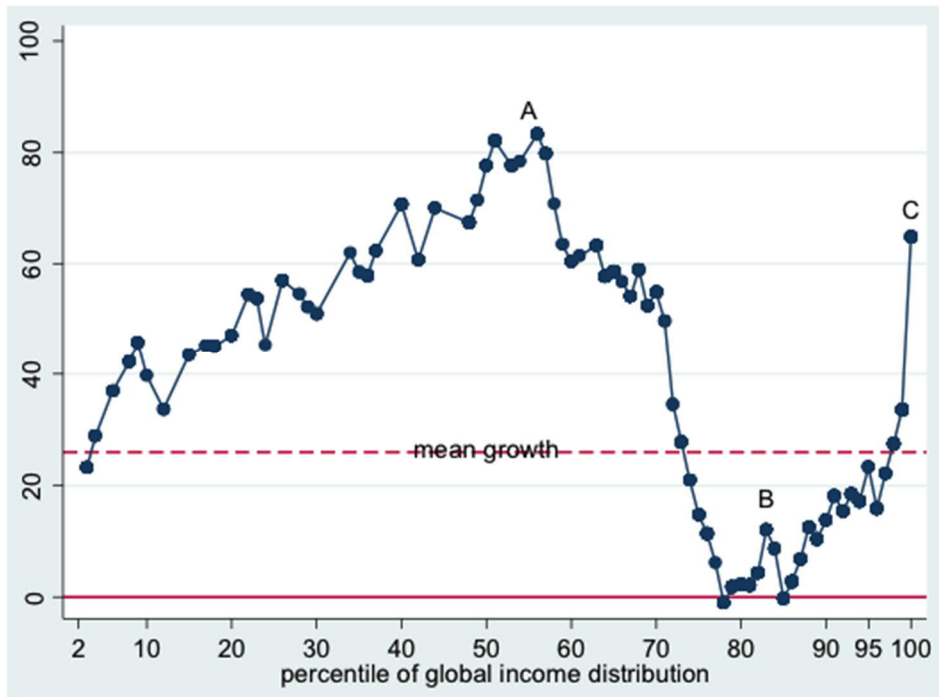
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Figure 2: Two Trade Collapses in Two Decades



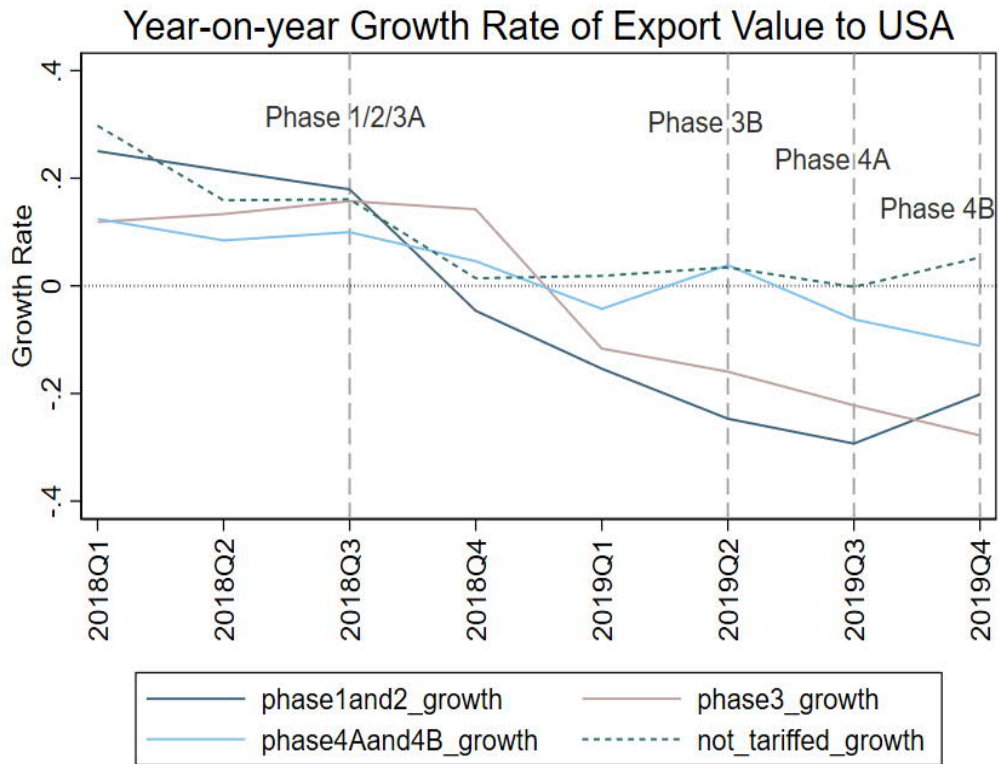
Source: World Trade Organization (April 2020)

Figure 3: The Elephant Chart



Source: Branko Milanovic (2016)

Figure 4: Growth of Chinese Exports to the World, to the U.S., and to non-U.S. markets



Source: Tang and Zhang (2016)