GENERALI INVESTMENTS

Core Matters

Has globalisation peaked?

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- Globalisation has been widely perceived as boon and bane: It is credited with a rise in productivity, higher growth, rising standards of living in EM economies and wider choices for consumers, but also blamed for de-industrialisation in the Western world and rising inequality.
- Economically, globalisation may have hit a "natural limit" as *technology* makes wage differentials a less important driver of production off-shoring. Politically, rising *inequality* has become a ramp for protectionism. Both forces let us to believe that globalisation has peaked. The COVID-19 outbreak will only accelerate the *slowbalisation* already underway.
- Protectionism and trade frictions tend to increase political uncertainty, thus enhancing the volatility embedded in the equity risk premium and valuations. Future earnings growth and total returns are expected to be lower than in the last 20 years.
- Countries with higher participation to the global value chain – EU and EMs – are more exposed to these tectonic shifts. Investors will cherish high growth, patent-protected and technology-oriented stocks.

1. Introduction

Globalisation has always been a matter of controversy. In economic terms, it has been widely credited with a rise in productivity by exploiting gains of trade. It has also led to lower prices and more product variety for consumers. However, it is also seen as a driving force of de-industrialisation and rising inequality in Advanced Economies (AEs), while fostering a catch-up process in Emerging Markets (EMs). Most recently, the corona crisis has highlighted the pervasiveness of long and complex supply chains. It has also exposed their vulnerability to breaks, as major suppliers could no longer deliver. This has led to a renewed focus on supply safety and independence from imports for vital good.

In this paper, we explore trends regarding the future of globalisation. We thereby analyse the drivers of the changing global order and infer what sectors and value chains could thrive or shrink. This in turn may have a profound impact on portfolios. We look into the political and economic dimensions of these changes which also closely intertwine with technological advances. The Covid-19 crisis has added a "health" dimension to the discussion. Apart from supply safety considerations, we see the pandemic predominantly as adding stronger momentum to changes already underway in the political and economic spheres.

The politics. In the political arena, we consider the ongoing backlash to multilateralism as the preferred international order the most important development. We interpret this development to a large extent as a result of unresolved distributional problems of the past wave of globalisation. To motivate this claim, please examine the following quote from US President Trump's "America first" inaugural speech:

> *"For many decades, we've enriched foreign industry at the expense of American industry; …and spent trillions of dollars overseas while America's infrastructure has fallen into disrepair and decay. We've made other countries rich while the wealth, strength, and confidence of our country has (sic!) disappeared over the horizon. One by one, the factories shuttered and left our shores, with not even a thought about the millions upon millions of American workers left behind. The wealth of our middle class has been ripped from their homes and then redistributed across the entire world."*[1]

Clearly, such speech intends to resonate with an audience that has economically suffered from globalisation (notwithstanding the contribution to lower inflation), either via job losses or downward pressures on wages. It can be shown that Trump's political appeal is highest in regions where previous industrial centres have undergone a strong structural change. Thus, leaving aside the question of style, President Trump does not appear to be a passing "enfant terrible" of politics. The split in the American society will continue to influence the political debate. In other words, Trump has surfed on his electoral base's fears of losing out from globalisation. Expectations prior to Trump's election that he would moderate once in office did not materialise. China has been the prime target, but others have been in the line of firing. If this interpretation is correct, the risk of populist politics will remain high – independently from

[1] Quote taken from Uri Dadush, The future of globalization, OCP Policy Center Brief, May 2017

Trump's re-election – as long as the strong split in US society cannot be overcome. The US-China clash would not end with the election of a Democratic President.

Moreover, as the US is often setting trends, it may prove only to be the frontrunner of similar politics elsewhere. Populism is also on the rise in Europe including: Front National in France, Lega in Italy, AFD in Germany and other parties with strong nationalist policies in Hungary, Poland, Netherlands and Austria, or Brazil. Brexit is another form of political disruption to multilateralism. Migration of course was an important factor, but fears of being left behind (realised or perceived risk) are an important force in the background. Thus, the threat to multilateralism is not limited to the US but broad based around the globe.

Natural limit? Winners and losers. While distributional issues may result in a backlash against globalisation on political grounds, the economic discussion is much broader. Several economic indicators of globalisation, which we will discuss in detail later, have started to stall. Some see it as a sign that globalisation has peaked; others describe a new, digital phase. The judgement has much to do with different views on technical progress and whether wage differentials will play as big a role in the future. A widely shared proposal is that globalisation has hit a "natural limit". We will discuss these arguments in some depth and provide quantified evidence. We will also discuss the winners and losers of changing global supply chains. We will close with financial investment implications.

Will the Global Covid Crisis (GCC) be an accelerator? Much will depend on when a vaccine will be available as this is an important determinant of permanent changes in consumer behaviour. Certain sectors like air travel may be hit lastingly. Supply chains suffered temporary disruptions before but survived tsunamis and earthquakes. As long as the chains were economically viable, they were quickly resurrected. Thus, the pandemic on its own will probably not lead firms to reconfigure production lines. But politics may interfere and change incentives in case supply safety is concerned. The crisis may also be used to promote themes rather independent from the virus outbreak.

In the context of globalisation, we see the pandemic as an accelerator of changes that were in the pipeline anyway. Politically, national safety reasons with regard to technology have been invoked by Trump already in the past. Recently, he seized the moment to ask firms to readjust their supply chains and "bring home" production lines. While these arguments are more long-term, in the short run the firms' financial stress due to the COVID-19 crisis may also well delay investment.

2. The background of globalisation

What is globalisation? According to a widely used definition, economic globalisation is the increasing interdependence of national economies, via a strong increase in the exchange of goods, services, technology, and capital. Scholars typically distinguish economic from cultural or political globalisation. Considering the historical importance of the diffusion of religions (e.g. Christianism), it is by no means clear which dimension is the most relevant. Moreover, proponents of globalisation typically stress that this trend is long-term. Any discussion of an end of globalisation may be premature in this historical perspective.

We agree, but will limit ourselves to the most recent history of economic globalisation. Discussions often start by reviewing the last 150 years and distinguish three main waves (see table). Each period differs, but from a broad perspective three forces have been at play: markets, technology and governments. Typically some technological progress reduces transport/ communication costs, providing the basis for cheaper supply of goods or services. For example, in the late 19th century the increasing use of steam power on transatlantic vessels and on railways greatly reduced transport costs. The telegraph slashed communicating hurdles between Europe and the US from weeks to minutes. More recently, containerisation of trade, dropping air freights and most importantly, the quick exchange of information through the internet revolutionised transaction costs again.[2]

However, **technical innovation alone does not suffice**. Politics set the stage for both markets to thrive and the expansion to end. Governments do not just stand back; they need to support markets by promoting peace and security, guaranteeing the freedom of movement (goods, services, capital and people), agreeing on rules and regulations or providing the infrastructure. Occasionally they act in reverse, by challenging multilateralism. Trump has spectacularly shaken the multilateral order, but history is full of other setbacks. Notwithstanding the global wars, an often cited example refers to the US Congress raising tariffs under the Smoot-Hawley Act amid the Great Depression. The protectionist measures aggravated the global demand slump and US trade subsequently declined severely.

The last wave of globalisation: The most recent phase started in 1989, with the profound integration of EMs – and China, in particular – into the world economy. Political elements played a dominant role, e.g. the end of the Cold War and the fall of communist-led governments. 1989 was the year of "revolutions", particularly so in the Soviet bloc. The Soviet Union itself dissolved in December 1991, resulting in fifteen new countries. By contrast, in China protests were stopped at the Tiananmen Square with a high death toll in 1989. It is only twelve years later that China was allowed in the WTO (after applying for 15 years). In sum, the break-down of communism opened up a new world order by integrating the EMs of Asia, Latin America and Eastern Europe into the US-led global economy.[3]

Globalization Periods

Globalization Era	Age of Discovery	Globalization 1.0 (19th century -1914)	Globalization 2.0 (1945 - 1989)	Globalization 3.0 (1989 - 2008)	Globalization 4.0 (?)
Leading Exports	Raw Materials / Basic Goods	Textiles / Industrial Goods	Factories	Global Supply Chains	Digital Goods
Leading Nation	Spain, Portugal, UK, France	UK	USA	USA	USA, China
Exports as % World GDP	<5%	6-14%	5-15%	15-30%	?
Enabling Era	Scientific Revolution (15th - 17th century)	1st Industrial Revolution (1780 - mid 19th century)	2nd Industrial Revolution (1870 - 1910s)	3rd Industrial Revolution (1960 - 1990s)	4th Industrial Revolution (2000s - ?)
Innovation	Ocean Sailing, Navigation	Railway, Steam Vessels	Trucks, Aircraft	Computer, Internet	Cloud, AI

Adopted from: World Economic Forum, A brief history of globalization, Jan 17, 2019

[2] World Economic Forum: A brief history of globalization. Jan. 17, 2019
[3] Capital Economics: Lessons from the history of globalisation, Oct 2019.

The economics of globalisation: Economic theory can help to tie different phenomena together. Here it is essential to see the strong connection between international trade and structural change. Of course, economics acknowledge various reasons for trade (see Appendix). But one line of thinking is particularly geared toward explaining AE-EM trade. In a nutshell, the model is based on comparative cost advantages. AE and EM differ in terms of their factor resources. Typically EMs like China enjoy a large labour supply and relatively lower labour costs. By contrast, AEs are much more capital rich and thus enjoy advantages in production that need more machinery. By opening up trade, countries can import goods they have a comparative disadvantage in at cheaper prices. Typically, AEs import relatively cheaper labour-intensive goods while EMs import (human) capital intensive ones. Thus, both sides can consume beyond the output they could produce on their own – a win-win. In general, consumers benefit from an increased choice of goods and lower prices.[4]

But opening up trade also unavoidably implies a structural change as different sectors expand or decline according to their relative advantages. Producers in exporting sectors see their demand boosted while workers and capital owners subject to lower price imports come under pressure. These distributional effects are not positive for everyone[5]. In the model world, the winners can compensate the losers, and trade is beneficial for the whole economy.

Shifting from theory to practise, qualified labour often struggle to move from one sector to another, at least in the short run. Adjustments may end "lifetime" careers and lead to long-term unemployment. "Reality" may be less easy than theory. Middle class blue or white collar manufacturing employment has been exposed. Either people advance to high-skill jobs or they face low paid, rather unqualified, often service sector employment (not tradable).

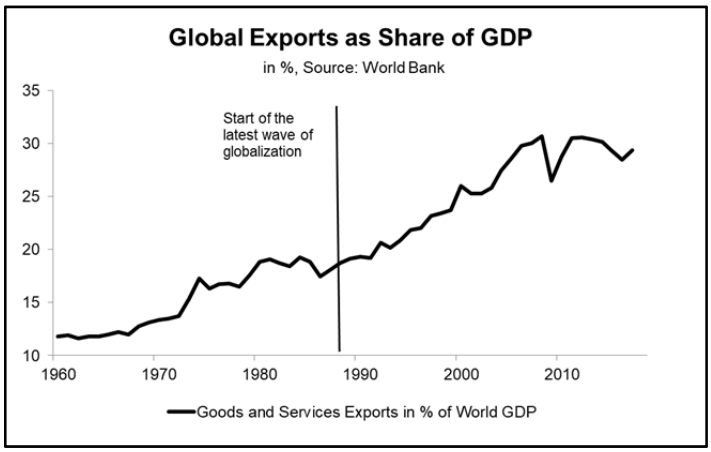
Referring back to Tump's inaugural speech, his appeal most obviously goes out to those systematically disadvantaged by globalisation. However, the discussion is easily misunderstood. Protectionism also destroys the gains from trade (and thus reduces real income). The substantial challenge is to reintegrate the globalisation "victims" back into the production process and to mitigate distributional effects.

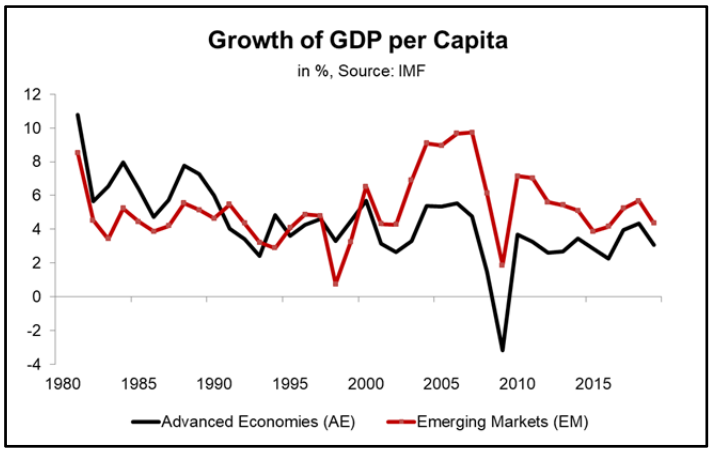
Of course **globalisation is not the only force of disruption**. Technological progress, especially data processing and the internet have caused structural change as well. Demographics are also an important force in some countries, especially in Japan. On top, consumers change their preferences. Thus it is misleading to attribute all structural changes solely to globalisation.

3. The impact of globalisation

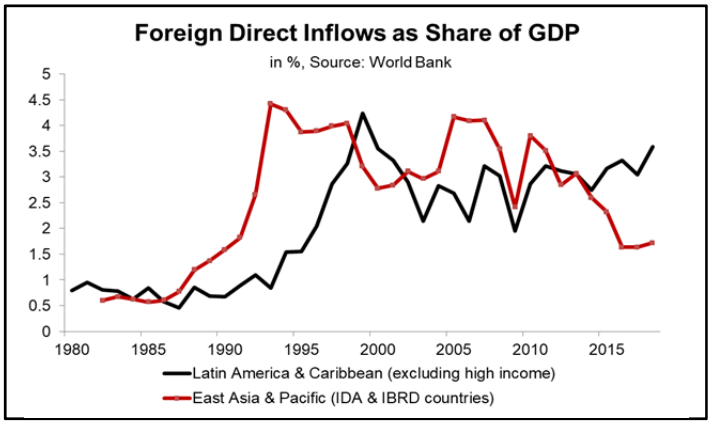
What is the evidence from globalisation indicators?

Trade intensity: The dynamics of globalisation is typically measured by global exports or the global trade intensity (the sum of global exports and imports) as percent of GDP.[6] The global export share rose rapidly from about 15% in 1990 to around 30% before the Great Financial Crisis (GFC) of 2008-2009. Subsequently, the share stalled (see next chapter).





GDP per capita: Rising trade intensity coincides with a strong rise of world per capita GDP growth, advancing to about 2.5% in the 2000s. While a positive impact from globalisation is generally acknowledged, a direct link is hard to establish as other factors such as technological progress, liberalisation and policy reforms also contributed. EMs benefited outstandingly, while in AEs the per capita income effect has not been felt much.



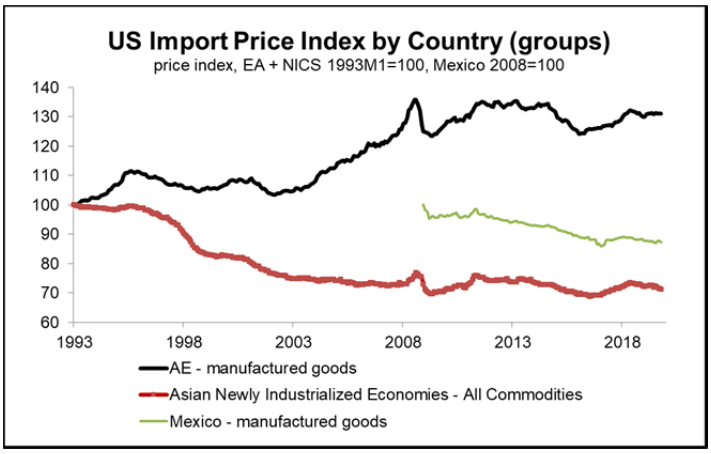
[4] We limit ourselves to the most basic traditional neoclassical Heckscher-Ohlin-Samuelson theorem for simplicity reasons. Of course, we acknowledge the variants with human capital or other immobile factors. Compare Ricardo Viner model.

[5] In economics talk, they are not Pareto-optimal.

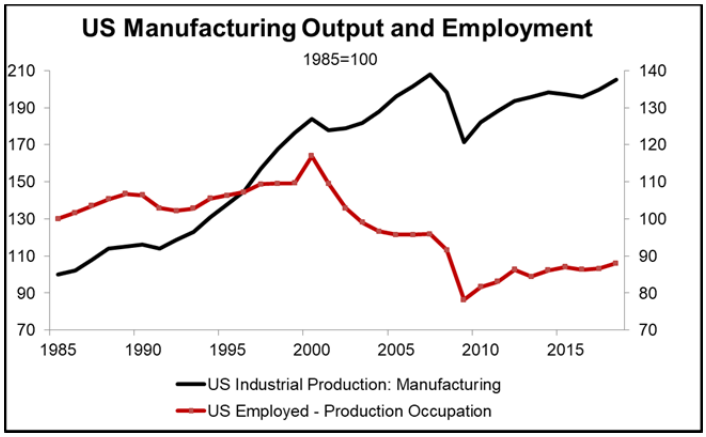
[6] On a global level, the sum of exports and imports must theoretically be identical and thus the trade intensity is only double the size of exports or imports. However, empirically they differ due to the different handling of fob/cif and statistical errors.

FDI: EMs increased their labour productivity substantially, especially in the manufacturing sector, thanks to the integration into global supply chains and easier technology adoption. Western producers, looking for cheap labour, started to break up their domestic value chains and distributed them around the globe. Wage differentials were a key driving force. The needed (standard) technology and machinery was transferred via foreign direct investment (FDI), and accordingly EM FDI as a share of GDP went up in the 90s.

Disinflation: AEs' consumers benefited as import prices from EMs receded, decoupling from the general price trend. This has had a positive impact on real incomes and living standards. US price data show that since 1991 import prices from AEs rose by about 40%, whereas from EMs they fell by 30%. Of course, like productivity price data are also subject to other factors.

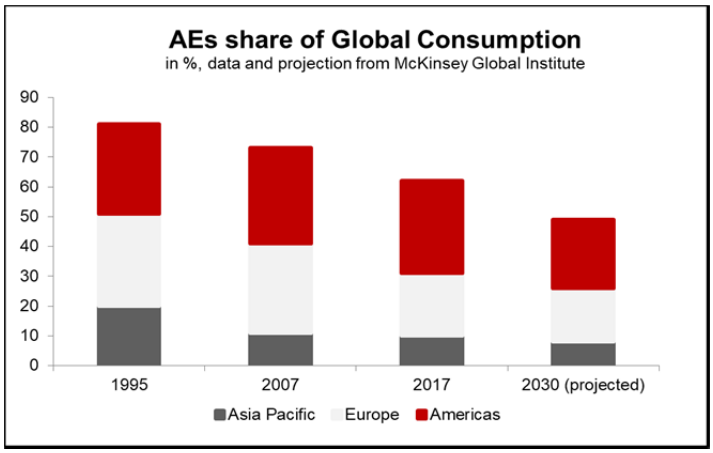


Output and employment: At the same time, US manufacturing – considered among the front-runners in globalisation – underwent a large structural change. Beginning in 2001, when China joined the WTO, US manufacturing output growth started to flatten out (see graph below). This has become even more visible since the GFC. Despite some recovery after the crash, manufacturing has not surpassed its previous peak. By contrast, manufacturing employment diminished visibly during the 2000s, even before the GFC. Rising output combined with diminishing employment implies that during this period labour productivity increased, indicating a shift from lower to higher value adding sectors. Again, more economic and technological forces (esp. computerisation) were at work, not just changing trade flows, but the result broadly fits the above discussed trade model.



Structural change: A typical example of a low productivity sector was the textile industry which to a large extent moved out of the US. Shifts happened not only between sectors but also within. Here, the car sector is mostly cited. It underwent a profound outsourcing of intermediate parts from the US to Mexico, from Germany to Eastern Europe or from Japan to China. The employment effects from China's rising imports since 1999 are estimated to have reduced US manufacturing employment directly by 560,000; or, including the indirect effects on upstream sectors, by 985,000 (compare discussion in the China shock[7]). As US employment losses have been concentrated in the mid-West and Appalachians, they contributed to the demise of these regions. The support for Trump in these regions has been particularly strong.

Labour share and corporate taxation: Not only employment, but also the labour share in national income[8] has been affected. For example, a recent paper by the US Richmond Fed stated: "*By most measures, workers' share of U.S. national income has declined substantially in recent years.]…]. During 1947-1999, […] labour's share ranged between a low of 61 percent and a high of 66 percent. […] During the past decade, in contrast, it averaged only 57 percent.*"[9] This may appear surprising, as the shares of labour and capital have long considered a near constant in economics. Again, globalisation is only one part of possible explanations alongside automation, firms' increased power in product markets, and workers' weakened bargaining power. However, the Richmond Fed author concludes that the timely coincidence of China's WTO entry supports the view that globalisation had a substantial impact. Of course, the flip side of a decreasing labour share in national income is a higher capital share. This is often seen as having provided the basis for tremendously rising share prices. Increased competition for investments among countries has led to a reduction of the corporate tax rate from 30.8% in 2003 to 23.4% in 2019 on an OECD average[10], which again benefited capital owners.



Shift in demand: On a global level, the (partly) successful integration of EMs into international production had also a profound effect on the regional distribution of aggregate

[7] David Autor, David Dorn, Gordon Hanson: The China Shock, NBER Working Paper 21906, 2016.
[8] Gross Domestic Income (GDI) = Wages + Profits + Interest Income + Rental Income + Taxes − Subsidies on Production and Imports + Statistical Adjustments.
[9] John Mullin, Workers' shrinking share of the pie, Econ Focus 2019.
[10] OECD, Corporate Tax Statistics, Corporate Tax Statistics Database.

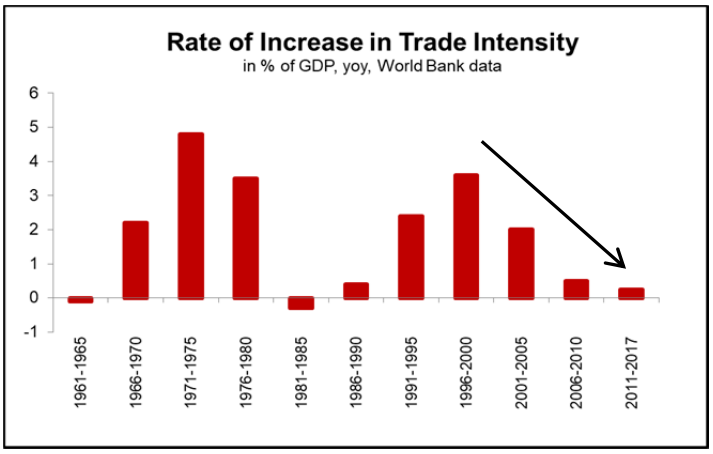
demand. While global demand was once tilted towards AEs, its share is falling while that of EMs is rising. By 2030, EMs are expected (see graph) to account for about half of global consumption, up from less than 20% in 1995.

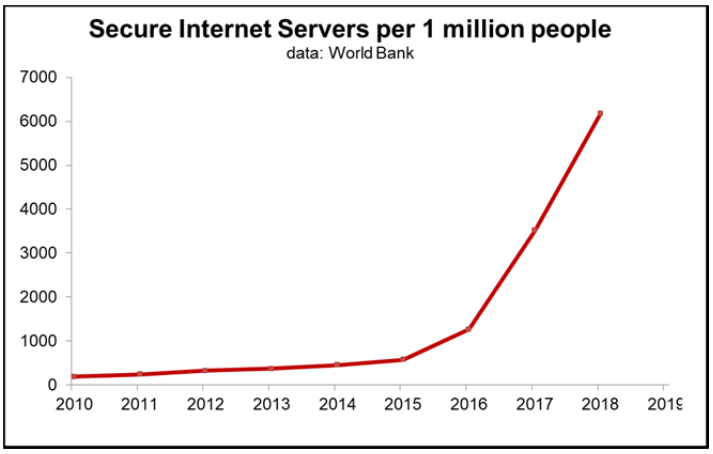
➔ **In sum, the recent wave of globalisation has mostly benefited EMs and AE capital owners.** By contrast, in AEs income per capita did not advance much, though consumers gained from imported lower inflation. The structural change in AEs has benefited knowledge- and capital-intensive sectors at the expense of labour-intensive ones. Manufacturing employment has shrunk and the labour share of income has receded. Globalisation is not the only force at work (IT revolution). Still, these results explain to some extent the political mood in the US and elsewhere. Globalisation is much more easily blamed for negative developments than domestic politics.

4. A game changer: the GFC

What has changed after the last wave of globalisation?

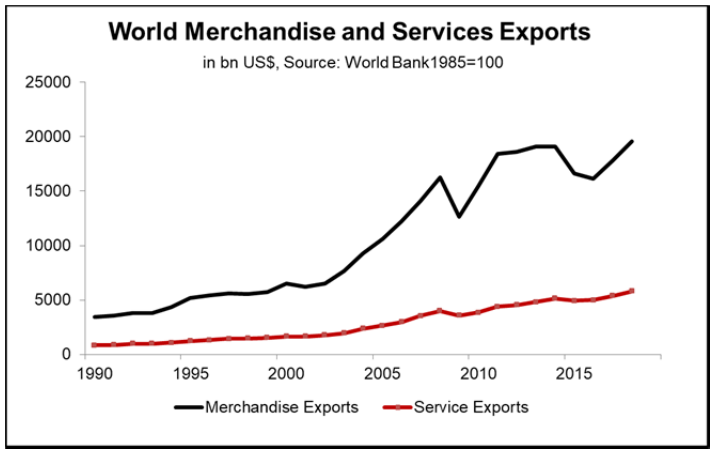
Trade intensity: After describing the "fundamentals", we now look in more detail into the post-GFC period. On many metrics, the dynamics of global integration has slowed down or even stalled. First, this is true for the trade intensity in terms of GDP (see graph), even as economies have recovered from the impact of the GFC.



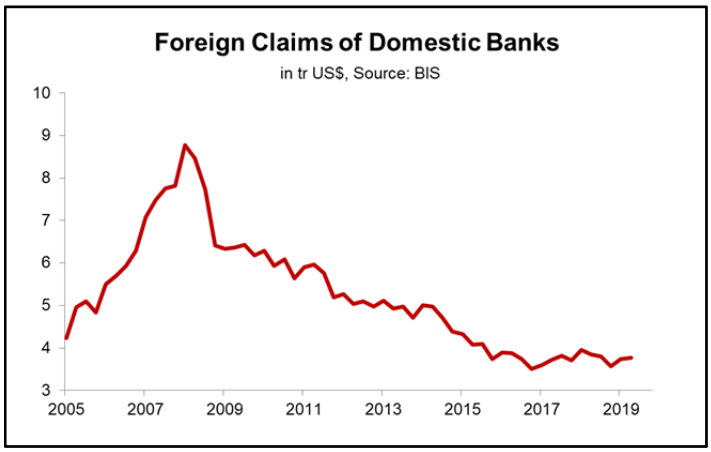


Services: In contrast to goods, trade in services is much harder to handle statistically. A much noticed indicator in this regard is digital flows, which are still accelerating. One reason for these exploding data flows is the rising part of the world population using the internet, now estimated at about 50%. But there are more problems. According to the McKinsey Global Institute[11], trade in services has grown much faster than in goods over the last ten years. This looks especially true for telecom and IT services, business services, and intellectual property fees.

Officially, world gross trade in services totalled US$ 5.1 tr in 2017, much less than the US$ 17.3 tr value of trade in goods. But service trade figures are likely to be underreported. Services like R&D, engineering, sales and marketing (sales platforms like Amazon or Alibaba), finance, and human resources enable goods to be sold. It is estimated that services amount to roughly one-third of the goods value. Moreover, cross-border digital services often come free of direct charge like email, real-time mapping, video conferencing, and social media (e.g. YouTube, Facebook). They are not captured in official data. In addition, intangible assets like branding or design have become ever more important. In sum, in contrast to goods services have likely kept expanding.

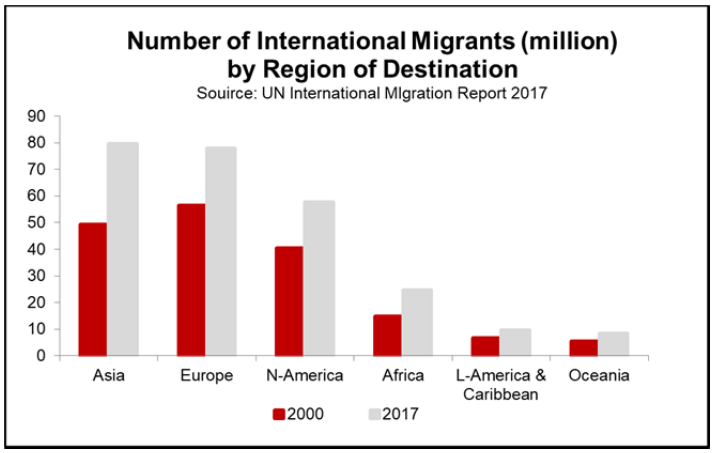


Financial integration as a special international service has passed its peak. This is true for international interbank lending, likely caused by tighter regulations in the wake of the GFC. It is also true for FDI as well as for short-term portfolio flows which levelled off as a share of GDP. The consequences of the tighter regulation after the GFC are not considered entirely negative, as they also close a transmission channel of economic crisis. However, as FDI have been an indirect indicator of technology transfer, this transfer may have also diminished.



[11] Globalisation in Transition: The Future of Trade and Value Chains, January 2019.

Migration and tourism: Finally, globalisation did not stop in terms of migration and tourism. High-income countries host almost two thirds of all international migrants. As of 2017, 64 per cent (165 millions) of all international migrants worldwide lived in high-income countries. 36% - or 92 million - of the world's migrants lived in middle- or low-income countries.[12] The share of migrants in the total population increased from 2.8% in 2000 to 3.4% in 2017.



While migration is evidence of regions offering opportunities for a better living, tourism expresses rising income of countries of origin. International tourism from Asian-Pacific countries has been increasing, while the number of tourists from North-America and the EU has remained rather unchanged. "*International travel and tourism accounts for some 10% of all global activity, about 10% of global employment, and is responsible for 20% of all jobs created in the world in the last 5 years*."[13] [14]

➔ **In sum, while goods producing value chains have retreated somewhat, the picture is much less clear for services.** Here the digital integration opened up new opportunities, which involved more intangible assets such as brands, software as well as R&D. Value chains building on these technologies have grown much more knowledge-based and less labour-cost based. Likewise, the globalisation of people movement continued – before the Global Covid Crisis caused a crash in travelling.

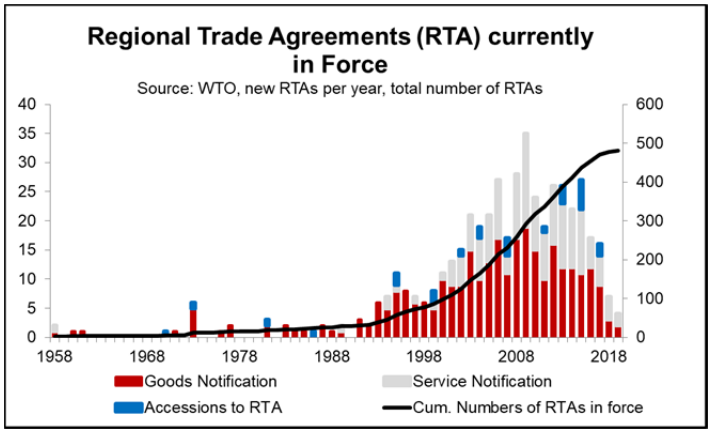
5. Has globalisation peaked?

While it may be tempting to attribute the pre-Covid slowing in globalisation to the rise of protectionism, it should be clear from the discussion above that the stalling had begun earlier, around the GFC. There are competing views how this development has come about:

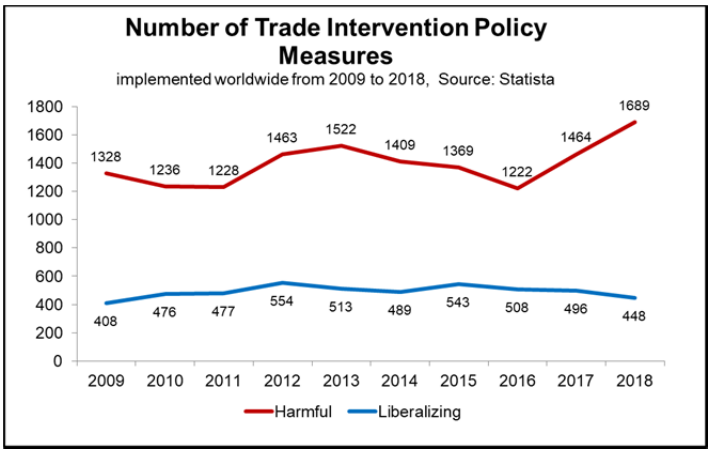
- In one view, retreating trade integration and protectionism has mainly to be blamed.
- In another, globalisation has reached a natural limit, driven by new technical and economic trends.

5.1 Multilateral trade integration has decreased

Stalled progress on trade liberalisation: Trade liberalisation can take on different forms: multilateral (WTO), plurilateral/regional (e.g. EU) or bilateral. After the World War II, the General Agreement on Tariffs and Trade (GATT, becoming the WTO later) was established with the clear aim of a broad based reduction of tariffs. However the Uruguay Round, ending in 1994 after eight years of negotiations, was the last successful multilateral trade round. The Doha Round, the ninth round which started in 2001, broke down in 2008. Instead regional and bilateral trade agreements flourished. Nevertheless, their number also decreased in recent years. In part, this is due to the fact that tariffs for manufacturing goods have already become rather low and the focus shifted to services. Agreements on the latter are much harder to reach. Recently, US President Trump strongly reverted to bilateralism. This prompted especially Asian countries to foster their regional ties.[15] Nevertheless the overall pace of free trade impulses has slowed, as the graph below shows.



Protectionism: At the same time, trade protectionism has gained in importance. The US-China trade war is the obvious case in point. Trade protectionism is a broader trend, with negative trade measures shifting away from tariffs to non-tariffs (subsidies and contingents). Different technological standards may also elicit a strongly negative lock-in effect and hamper trade. In 2018, governments around the world made 1,689 policy interventions that were harmful to trade.[16]



[12] UN Department of Economic and Social Affairs: International Migration Report 2017
[13] CityResearch: For Better or Worse, Has Globalization Peaked?
[14] The high carbon footprint of tourism could limit further expansion.
[15] In Asia, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) came into force earlier this year, although only a part of the countries involved already ratified the pact. Another trade agreement within Asia is the Regional Comprehensive Economic Partnership (RCEP), a trade agreement that would comprise almost all major economies within the region.
[16] Number of trade intervention policy measures implemented worldwide from 2009 to 2018, by influence on trade liberalisation.

Limits to liberalisation: That said, while there is clearly a trend to regionalism and bilateralism, it is likely that the scope for fresh measures has diminished. Liberalisation measures face a "natural" limit as fewer regions are left to be integrated. About 93% of the world's population currently live in member countries of the WTO. The share of world goods traded by WTO members is as high as 98%. Africa or India, which some see to have the potential to be the next driver of global integration, are already WTO members. Given that the capacity for goods tariff reductions looks limited, action might still shift to services and non-tariff barriers which the WTO tackled with the trade facilitation agreement. The General Agreement on Trade in Services (GATS) entered into force in January 1995 (Uruguay Round). It includes the most favoured nation principle[17] into its rules, but member states have much influence on sectors they choose to liberalise. And governments can withdraw their commitments.

5.2 New technical and economic trends

A second, much more fundamental reason for slowing globalisation are new technical and economic trends. While the latest wave of globalisation was driven by the search for cheap labour, new advanced manufacturing techniques (especially automation, industrial internet) have already and will render labour costs less relevant. Thus, firms refocus on other factors like proximity to customers, increasing risks to complex supply chains (e.g. trade wars or viral diseases), demand distribution, etc. In other words, globalisation may have hit a limit because the importance of its main driver has diminished. The corona crisis has brought the risks aspects of long and complex supply chains to the fore again. Thus, we expect the crisis to add momentum to changes already in the pipeline.

Is this argument generally true? While we consider this argument to be valid, it looks much too rough an outline of

- the complexity of global value chains (GVC),
- the expected shifts in global demand,
- and the ongoing technological trends.

We look deeper into those forces, then combine them.

5.2.1 Dissecting value chains

Value chains differ significantly with regard to their main features. Thus, global trade will not be affected uniformly, but in a highly differentiated way. We refer to a classification of value chains as used by the McKinsey Global Institute (MGI).[18] This will show that their distinctive features will be decisive for their future. It will allow differentiating which kind of goods will likely thrive and which will suffer given the expected changes in technology and global demand. These value chains are:

1. Knowledge-intensive goods (global innovations): These industries encompass inter alia (i.a.), transport equipment (cars/aircraft), computers and electronics, electrical machinery and chemicals. About a third of employees are highly trained. The sectors' gross output is 13% of total output but its employment share only 4%. Trade intensity is very high.
2. Labour-intensive goods: The value chains include i.a. textiles and apparel, toys, shoes and furniture. These industries were the typical "globalisation sectors", when production shifted to EMs. Accordingly, labour costs play a large role. More than two-thirds of income goes to mostly lower-skilled labour. Output/employment is only 3% of global gross output resp. 3% of the global workforce (100m of 3.2bn people). China is the largest producer.
3. Regional processing: These industries cover fabricated metals; rubber and plastics; glass, cement and ceramics; and food and beverage. The industries mainly belong to early stages in the production of intermediate goods. Due to their weight, bulk, or perishability, their tradability is rather limited. Hence they tend to be processed regionally. Accordingly, production takes place around the globe. Output amounts to 9% of global gross output, employment to 5% of global labour.
4. Resource-intensive goods. This archetype mainly consists of agriculture, mining, energy, and basic metals. Gross output amounts to 12% global output but employment stands at 28%. Here, the agricultural sector is dominant, being responsible for 20% of world employment alone. Production locations are largely defined by resp. natural resources or climate.
5. Labour-intensive services consist of mainly retail and wholesale, transportation and storage as well as healthcare. These services are rather local, yet they are growing strongly due to rising tourism and business travel as well as expanding global retailers. The sectors are the largest job providers after agriculture, accounting for 23% (half of it in wholesale and retail) of total employment. Its share in total output is 17%, the highest of all covered value chains.
6. Knowledge-intensive services include i.a. professional services, financial intermediation, and IT services. The sector is driven by highly skilled labour and intangible assets. However, knowledge intensive services have a low trade intensity due to regulatory barriers. Gross output covers 13% of total output. Company headquarters are typically in AEs. Employment is 5% of total. The US is the leading exporter of knowledge-intensive services, followed by the UK, Ireland, Germany, and France.

As a first result, it is immediately clear that **resource intensive goods as well as regional processing have been and will likely be least affected by globalisation** due to the non-tradable features of their production. Consequently, we exclude them from the further discussion. We move on to the changes in global demand and technology, which we will then confront with the value chains describe above.

5.2.2 How will global demand distribution affect globalisation?

There is an ongoing shift of global demand to EMs, especially China/Asia. This fits those countries' strategy to climb up the value chains in the global flow of goods, services, finance, people, data etc. Thus, on the one hand, these countries will produce and consume more of their own production, thereby reducing the global exchange of goods. On the other hand, they will buy more of what they do not yet produce (or cannot produce, e.g. tourism). As a

[17] This means that any concession or privilege granted by one party will be unconditionally granted to all GATT members.
[18] McKinsey Global Institute, Globalization in Transition, January 2019.

consequence, value chains will likely become more regional (or local in case of China) for "ordinary" goods and services. By contrast, demand will accelerate for knowledge-driven, high-end products which the countries cannot yet produce. China has moved beyond its status of the "cheap-labour-global-assembly-line". We see this also in the OECD TiVA data, where the imported value-added of exports in China has fallen most pronouncedly among the covered countries (compare discussion of TIVA data in annex). The process of raising vertical integration will continue in order to capture more value-added within the country. As a "side effect", this implies that the global trade intensity will likely continue to decline.

5.2.3 How will new technology affect the supply chains?

New technologies have in common the advanced use of data processing. They are forecast to have a profound impact on global value chains. However, its impact is by no means clear-cut. Broadly, three different aspects can be separated:

- alteration of the economics of production,
- reduction of transaction costs,
- creation of new product lines.

Altering the economics of production:

Smart Manufacturing: The future of manufacturing is at the core of many national initiatives: "Smart Manufacturing" or "Industrial Internet" (US), "Industry 4.0" (Germany) or China 2025 (which we discussed in more detail here). The "Smart Manufacturing" revolution is predicted to reshape the whole industrial production process over the next decades. Its core features are so-called Cyber-Physical Systems, in which intelligent machines and production processes interact via advanced internet and communication technologies. This is meant to increase the flexibility of production to a production lot size (batch size) of one. This implies reaching a full degree of customisation (mass customisation). Traditional manufacturing labour shall be reduced to a minimum, but highly-specialised experts for controlling and maintenance will still be needed.

Reducing transaction costs: New technologies can also reduce transaction costs, which may foster international trade. One example is E-commerce platforms, which have contributed to significant cross-border flows and enable consumers to make pricing comparisons more easily. China's Alibaba has already become a huge competitor to Amazon. Developments in logistics (automated document processing, internet of things, autonomous navigation, etc.) will generally reduce transaction costs. In the data sphere, cloud computing and block chain technologies will continue to accelerate. This line of argumentation supports the view that knowledge-intensive services will benefit. Moreover, sophisticated services can also reduce transaction costs for ordinary goods, helping trade to improve.

Creating new product lines: In recent history, new or altered product lines were mostly connected to increasing internet and data processing capacities. This ranges from music and video streaming services to automated navigating cars and telemedicine. This suggests that **highly skilled goods and services value chains will benefit**.

5.2.4 Preliminary Conclusions

The outlook for globalisation brings complexity. For a better overview, we summarise the main features in this table:

Likely Impact of Global Trends on internat. Value Chains	Knowledge-intensive goods	Labor-intensive goods	Labor-intensive services	Knowledge-intensive services
Rising share of EM consumption	+	-	+	+
Tech. Catch-up of EMs	-			-
New technologies				
Altering the economics of production:				
- Advanced robotics		-		+
- 3-D printing		-		+
- Artificial Intelligence			-	-
Reducing Transaction costs				
- E-commerce	+	+	+	+
- Logistics technologies	+	+	+	+
Data processing technologies				
- Streaming	+	-		+
- Renewable Energy				
- Electric Vehicles	+	-		+
- Telemedicine				+

➔ We see the following main features:

- The higher share of EM economies in global demand will give way to more **regionalisation**.
- The **EM technological catch-up** will increasingly challenge standard technologies in AEs and reduce the exchange of goods and standard services.
- **AE's relative advantages** will increasingly concentrate on (non-standard) knowledge-intensive goods and services.
- Advanced robotics will focus on **mass customisation** and reduce the need for "cheap" labour. Thus, the importance of a major driver of the last wave of globalisation will diminish.
- Further **automation** will benefit high-knowledge services for maintenance.
- New product lines will likely concentrate on **knowledge-intensive services**.
- **AI** will impact not only labour-intensive but also knowledge-intensive services.
- **Reduced transaction costs** will generally foster trade.
- Regional processing and resource-intensive global product chains might only be affected by better logistics but seem, otherwise, to be less at risk.

From an AE's perspective the **need to import labour-intensive goods will soften**. At the same time, trade in knowledge-intensive services is likely to flourish. Given the relative weight of goods and services in international trade, it looks likely that the trends already seen over the last ten years (less goods, more services) will continue while global trade as a share of GDP growth will keep stagnating or retreating ("slowbalisation").

6. The Future of Globalisation

We now look at the future of globalisation though two lenses, political and economic:

First, the political arguments: The latest wave of globalisation has created winners and losers. The unequal distribution of the gains of trade has contributed to the rise of populism, bringing the US government into power that resorts to a trade war. In many European countries, populist parties are on the rise but have not (yet) gained majorities.[19] While the underlying psychology is beyond our competence, feared competition for jobs might be a hidden, underlying cause for xenophobia. Against this background, governments could come under rising political pressure to act against the negative side effects of globalisation, or globalisation itself. Action could take basically two (not mutually exclusive) forms: anti-free trade policies, which would diminish the gains from trade, or redistributive policies in order to increase acceptance from globalisation losers.

Second, the economic arguments: Globalisation looks to have hit a kind of "natural limit". Basically, advanced (IT-) technology and high labour skills are becoming ever more important in AEs. This is true for both goods and services (except for international tourism, a sector nevertheless gravely exposed to the pandemic). Meanwhile, the potential for services to drive a new wave of globalisation looks limited. It also remains debatable how far service internationalisation might go, given the strong influence of local standards, qualifications, customs, data protection, etc. Moreover, service trade liberalisation will be harder to achieve and short-term changes in government regulations can hit specific services profoundly.

However, as long as all these developments reflect the firms' strategic views production efficiency, any implied loss in globalisation would be economically unproblematic. They simply reflect an efficient reorganisation of production. This does not mean that it would come without problems. Rising automation could deal another blow to lower skilled labour, which could thereby reinforce already existing distributional issues.

Scenario analysis: As these factors can play out in very different ways, we consider three scenarios:

New wave of globalisation: To start with the least likely one, developments could break free of above limitations. Surprise fresh progress on trade liberalisation or a new (service) technology could drive the next wave of globalisation. Politically, this would need not only a complete roll back of the recent trade war, but a new consensus for liberalisation. Economically, the currently anticipated, technological progress could render many services more tradable. However, due to the arguments listed above, we consider such a development rather out of reach for the time being.

"Slowbalisation": We consider a second scenario called "slowbalisation" much more likely. To the extent that it would be driven by firms' efficient, economic decisions, there should be not much to worry. The gains from labour arbitrage would be replaced by gains from mass customisation at least in AEs. Technical progress on transaction costs could still be realised and new product lines introduced. Only a part of the value chains described above would be affected. Implied reshoring nevertheless could pose problems for those countries still very much dependent on (cheap labour) exports. In Asia, China would likely become a new pole of demand and to some extent replace traditional AEs. For regions which have not integrated into the last wage-differential-driven globalisation, progress on development could become even more complicated if their comparative advantages (cheap labour) were to become less relevant. Politically, this scenario would call for the US and China to broadly agree on topics like property rights, technology transfer, subsidies, as well as opening up the China's capital markets. Thus, tariffs could be partially rolled back - supporting free competition.

Hostile trade strategies: The third scenario sees politics dominate economics. It would include a continuum of more or less hostile trade strategies. In a mild version, there could be a continued trade truce between the US and China but no further escalation. On a short-horizon, trade flows would just stay distorted on current levels. It is much discussed whether such a trade truce can be stable over the medium-term. Given the tariff freeze, supply chains would adjust, benefiting suppliers outside China. This comes with two inherent risks. First, goods from China diverted from the US would tend to flood third countries. In turn, this would prompt these countries to issue trade limits (as already happened). Secondly, the blame for China's high goods trade surplus with the US lies not only with China itself but also with low US savings. Consequently, the US trade deficit may then switch to other supplier countries. Given an unchanged US policy approach, the trade sanctions need then to be widened to these fresh surplus countries, spreading the trade war to new shores. Independently, other product lines/countries are still at risk come into focus (e.g. EU due to German car exports). Even worse, China may at some point come to the view that there is limited value in trade negotiations with the US. Retaliation could then spread to "special" regulatory measures aimed at hitting US business in China. On top, the COVID-19 crisis has already widely used to add fresh momentum to protectionist measures. Clearly, there is a blame-gem involved. But obviously, Trump also indents to increase uncertainty in the stability of global supply chains to foster reshoring. In the long run, cutting trade ties could well end in separate trade blocs, with at least a China-led bloc separated from a US-led bloc, possibly complemented by an EU bloc. In such a scenario, gains from trade would drop massively and the damage to world growth would be substantial.

A completely different source of rising tariffs could be a carbon tax. However, its basic motivation is not protectionism but to maintain a level playing field between different nations. If one country tries to internalise the damages done by carbon emission while another does not, the first

[19] Migration itself seems often much more in focus than jobs, despite the fact that the countries most verbal against migrants have the lowest share of foreign-born populations. This is also true for East-German states where the AFD gains its highest support.

one suffers from a cost disadvantage. In order to neutralise such effects, a carbon tariff is currently under intensive discussion in the EU. China already protested.

➔ **Our outlook:** For the time being, we see "slowbalisation" as the most likely outcome. Apart from the technological outlook already discussed, the US and China agreed on first steps to settle their dispute (round one). But the Covid-19 crisis also highlighted the risk to question the results again and to put blame on one party. Medium-term the path for China to develop into a high-income country is by competing in high-technology sectors. Thus, it will continue to challenge the US dominance. In the light of the recent tariff experience, China will probably tend to limit its dependency on the US. Instead, it will focus even more on domestic development.

Even without further trade war escalation, slowbalisation will also be driven technologically. Reshoring would come with additional automation. This will result in pressures on "lower"-skilled jobs and could result in a higher unemployment which needs to be funded. As there are only fewer people left into work and capital owners who do pay taxes, the income distribution would become more skewed and high incomes more concentrated. While productivity of those employed would grow and lead to higher tax income, the economy-wide productivity (including the unemployed) would rise much less, stagnate or even fall. To finance transfers, a higher taxation of capital as well as highly qualified labour could well be necessary. Alternatively, the government could resort to higher debt. The split of the society could increase and more populism a possible consequence. Traditional trade theory has separated the efficiency gains from the distributional effects. This contributed to the political tensions we currently witness. Consequently, we expect politics to re-shift, aiming at a new balance between efficiency and distribution.

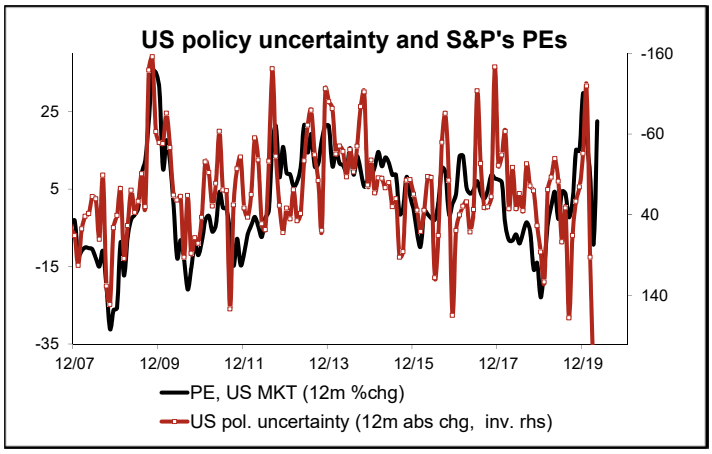
Regarding inflation, as described above, the disinflationary trend in AEs was largely due to imported deflation. Thus, "slowbalisation" would also reduce this advantage. If "slowbalisation" were predominantly politically driven, inflation in AEs would likely rise due to protectionist import hurdles. If the "slowbalisation" is economically driven, reshoring will also come with higher productivity. Thus, there is some compensating effect. However, we also see **mass customisation as a firm's strategy to gain some monopolistic powers**. In all, the disinflation pressure associated with globalisation is likely to diminish, but heightened competition and tech-led productivity gains should help keep inflation contained.

7. Investment implications

In a recent article, Reuters asked the question: "*Which markets did best from Berlin Wall's collapse? Wall Street and the BRICs, of course*". This answer in fact summarises the macroeconomic developments discussed above:

- the rise in global growth mainly benefiting the EMs,
- the shift in the income share across AEs from labour to capital, with the US as frontrunner,
- the decline in inflation which enabled AE's central banks to lower their interest rates.

Those trends generally supported strong asset price performance. Equities have benefited the most from increased economic and financial integration over the past decades, through a decline in both labour costs and effective tax rates (from 40% in the 1990s to below 25% globally). The effects from globalisation were indeed amplified as international corporate tax competition boosted after-tax profits for capital owners. Efficiency and productivity gains via advanced technology, international value chains and mass customisation also impacted stock markets positively.

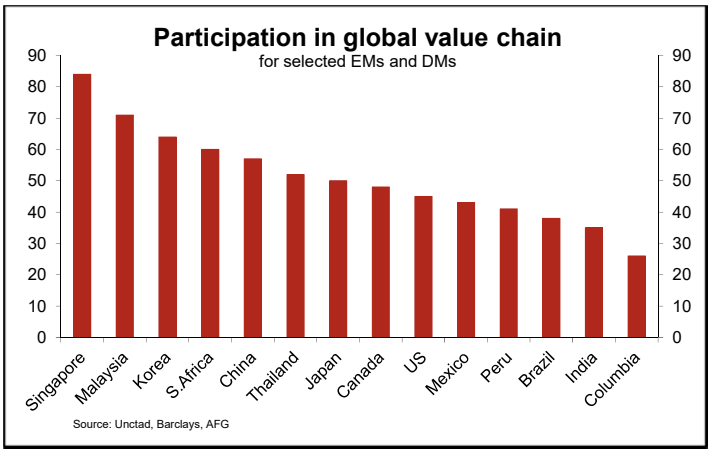


Globalisation also contributed to high profit margins through the rise of **oligopolies** across many industries. At the same time, **declining inflation and interest rates** lowered the equity cost of capital, contributing to higher market multiples (PEs).

A regime shift towards slowbalization would remove these structural tailwinds to corporate earnings. A return to outright hostile trade strategy would turn them into reverse. Since 2018, the above-mentioned protectionism and trade frictions (see 5.1) have increased political uncertainty which ultimately triggered a higher volatility, raising the equity risk premium and lowering market valuations (prior to Covid-19). As the chart above shows, the link between political uncertainty and equity valuation over the last decade has been rather strong in the US (same is true for Europe). Trade frictions have a larger impact on sectors at the core of the disputes, for example Auto, Technology and Agriculture.

Lower equity returns ahead. May the foreseen slowbalisation, characterised by trade frictions and policies focused on internal redistribution, now work in reverse for global equities? Yes, such developments should contribute among others to lower future earnings growth and stock market total returns compared to the last 20 years. Other factors contributing to a drop in future total returns are structurally low nominal GDP growth, increasing wage costs, US technology firms likely being pressured by antitrust measures, diminishing tax arbitrage and higher political sensitivity towards inequality. All these factors are expected to weigh on corporate margins.

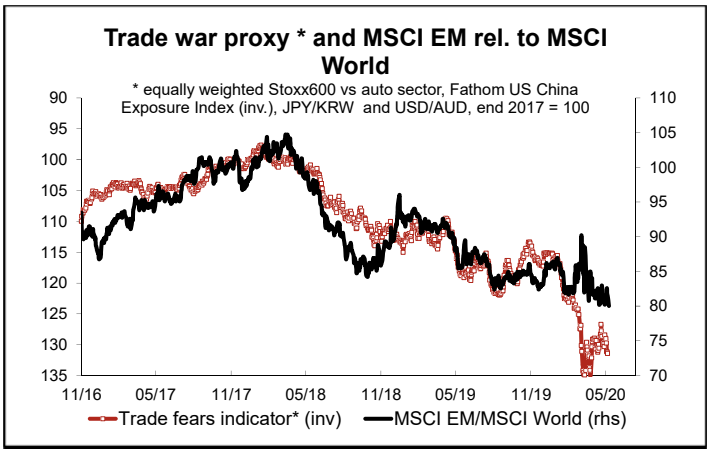
The impacts from our base case of a slowbalisation on sectors and regions, however, will be very heterogenous. Simulations studies exploring the impact of deglobalisation on equities (countries and sectors) contain lots of caveats; their results are associated with high uncertainty as many interrelated factors are involved. Ultimately, how each country deals with 'slowbalisation' would matter most: regional agreements, productivity enhancing investments, etc. Still, some conclusions from recent economic literature can be drawn. In principle, **the most domestic-oriented sectors in large - or fast growing - economies should be less affected by slowbalisation**. International sectors like pharma, industrials or tech should be resilient thanks to their **strong patents and goodwill, which result from years of extensive spending in technology, marketing and quality.**



As for countries, while EM stocks are characterised by the highest domestic sales exposure (70% for the MSCI EM, so in principle less exposed to deglobalisation), the index is also heavy in Financials (35%, vs. 24%, 19%, and 18% for the EA, US, and Japan, respectively). Financials tend to be more volatile and react badly to risk premium spikes. The sector is also under pressure from lower rates and Fintech competition. Furthermore, foreign direct investments (FDI) have been the major driver of EM growth and development, covering greenfield investments, subsequent capital and skill transfers and the direct purchase of domestic firms by foreign companies. These factors are likely to fade due to reshoring in developed countries.

In all, **EM and European economic growth may be relatively more exposed to slowbalisation**.

- EM ROEs, falling from 17% in 2007 to 10.5% currently, will remain under pressure. The negative performance of emerging markets in the third quarter of 2019 was rather illustrative: investors seemed to be losing confidence about globalisation - a major driver of emerging markets development over the past decades. That said, selected EM countries can still benefit; as corporations experiment a "China+1" strategy: keeping existing supply chains, but adding programs in alternative locations before the decision to move is taken. The planned destinations are in **South East Asia, India and North America**.
- Europe is characterised by a very low domestic sales exposure, at least for companies contained in the MSCI Europe index (45% of sales are local). It also has the highest regional share of global merchandise export together with Asia (nearly 35%). Such percentage is much higher than those of the US (15%) and South America (lower than 5%). Irrespective of their place of origin, the global companies tightly linked with EM economies and thus depending on EM demand for their earnings growth could come under pressure unless their competitive advantage, continuously renewed through superior spending on immaterial assets, will keep on protecting them from competitors (big tech, pharma, food producers and luxury firms).



Similarly, countries with higher participation in global value chain show a higher negative correlation between their equity indices and our proprietary **"trade fear" indicator**. The indicator is an equally weighted average of the relative performance of the Stoxx 600 index vs the Auto sector, the index of US companies most exposed to China (Fathom US CEI index), the JPY/KRW and USD/AUD exchange rates. **Other than UK and EMU (both highly exposed to international trade), the following Asian equity indices are more at risk due to trade tensions: Malaysia, China, Korea and Japan.**

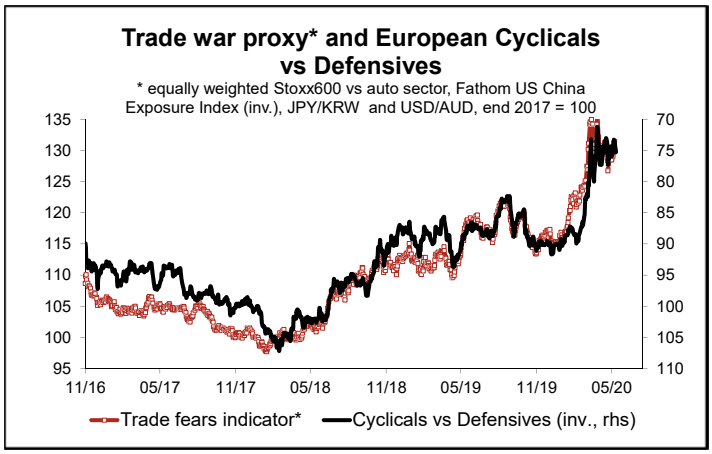
On the other side, countries less exposed to global value chain - Russia, Brazil, India and the US - have a positive correlation with our trade fear barometer, so that their stock markets' performance tends to outperform in relative terms when trade frictions spike up. Of course, in order to accomplish a complete investment assessment, such countries should then be analysed using additional trade

tional metrics like macro perspectives, credit worthiness, valuations of their assets, to mention a few.

Markets *	correl with trade fears	slope**
Russia	62%	1.15
Switzerland	50%	0.43
US	49%	0.60
Brazil	47%	1.00
World	22%	0.20
Taiwan	21%	0.18
Hungary	19%	0.24
India	12%	0.13
Vietnam	3%	0.05
Colombia	2%	0.03
China	-19%	-0.24
Hong Kong	-24%	-0.22
Turkey	-31%	-0.32
Peru	-31%	-0.47
Indonesia	-36%	-0.34
EMU	-45%	-0.35
EM	-49%	-0.47
Thailand	-54%	-0.56
Japan	-57%	-0.44
Philippines	-59%	-0.56
Czech Rep.	-59%	-0.53
Shanghai	-61%	-0.53
Shanghai Comp	-61%	-0.54
UK	-61%	-0.43
South Korea	-62%	-0.58
South Africa	-63%	-0.49
Poland	-71%	-0.81
Chile	-82%	-0.98
Argentina	-89%	-2.45
Mexico	-89%	-0.88
Malaysia	-91%	-0.75
Bulgaria	-91%	-1.46

** All the markets are represented by MSCI indices, except for developed markets (main indices taken) and Shanghai.
* regressing market's performance on trade fear indicator.

Within the European Union (EU), when the trade fear barometer increases, markets become more volatile and defensive and growth sectors like pharma, utilities, durables, Tech and staples outperform while more cyclical sectors like banks, autos, telecom, real estate, transportation and materials tend to underperform.



In essence, 'slowbalisation' to localisation is propelled by both financial (higher tariffs) and non-financial factors (policy restrictions, national security concerns and stricter environmental norms). Both would foster supply chains shift while increasing the use of automation. Furthermore, competition between great powers will likely boost the defence industry.

As manufacturing companies in advanced economies (AE) start reshoring, EM neighbours should benefit from higher FDI (such as Mexico, Eastern European countries and potentially North Africa). Similarly, while China will remain a key target for foreign direct investment thanks to its huge market, attractive demographics and competitive logistics, global corporations will seek to diversify to alternative EM locations. Countries from South East Asia could become substitutes of China (especially light industrial goods) in relationship to the US and EU thanks to better political relationship and cost advantage (Vietnam, Cambodia, Bangladesh, etc.).

In the end, deglobalisation, pressures on international value chain and frequent trade frictions will challenge investors in the next quarters and years. High growth sectors and strong goodwill companies (characterised also by higher margins due to strong brand) will help to mitigate future risks, especially when filtered through the lens of the ESG scores. Such sectors grow at a higher rate than the GDP and in many cases also benefit from an ageing population. They can be found, among others, in: tech hardware and software, pharma & biotech, Medtech, healthcare equipment & services, personal care, consumer health, pension & savings, food, luxury. Presence in big domestic economies (US, China, India) and fast growing Asian ones will also help.

8. Conclusion

Globalisation increased economic and financial integration among AE and EM countries with a positive impact on global growth. It has bolstered the diffusion of knowledge and technology with the beneficial effects in terms of production and employment in EMs and lower prices in AEs. Stock markets have benefited from rising production efficiency while imported disinflation boosted the households' real income and consumption in AEs.

However, the distributional consequences have contributed to splits in societies, providing a fertile ground for populist politics. Here, the US is seen as a frontrunner, but similar politics are also visible around the globe. This in turn provides the basis for the recent protectionist backlash and the decline of multilateralism. The COVID-19 pandemic will likely contribute to further taming multilateralism. While economically viable global supply chains are likely to survive, the political interference is meant to add uncertainties and trade frictions. This will accelerate tendencies to reconfigure global supply chains. Or to express it with Trump's words "to bring home production".

However, a reconfiguration of supply chains will not only happen on political but also on economic grounds. Advanced digitalisation and automation will likely render the driver of the last wave of globalisation, namely wage differentials, less important. Instead, mass customisation as well as green and value-oriented production will support reshoring. At the same time, advanced services will potentially benefit from global digitalisation. Accordingly, EM economies will potentially be negatively affected while high-technology countries with a focus on services will like-

ly benefit most. Against this background (a minus in production, a plus in services), we expect slowbalisation as the most likely future outcome.

However, more negative outcomes cannot be excluded. Reshoring, driven by advance automation, will hardly resuscitate lost employment. If anything, traditional employment will be highly jeopardised, fanning tensions in societies. If our hypothesis is right that unsolved distributional issues provide the basis for populism and the break-down of multilateralism, advanced automation could make the problem worse. In such a case, we see the current world order dissolve at least in a US-led and China-led bloc, while Europe could meander between the two or form its own. Re-integrating societies will (should) rank high on political agendas. Apart from supporting job qualifications, this will likely also imply more redistributive policies in order to increase acceptance of those disadvantaged by these developments.

Slowbalisation and the fight back against inequalities should contribute to lower future earnings growth and stock market total returns compared to the last 20 years, as corporate margins come under pressure and multiples have less room to expand. Economic growth in both EM and Europe looks particularly at risk. Countries with higher participation in global value chain would likely suffer more while defensive sectors will perform better than cyclicals during trade fear spikes. Irrespective of their place of origin, the global companies tightly linked with EM economies and whose earnings growth depend on EM demand could come under pressure, unless they maintain their competitive advantage through continuous superior spending on immaterial assets (big tech, pharma, food producers and luxury firms). **Within EM equities we recommend to focus on South East Asia, India, CEE countries** and to a lower extent more developed and highly educated countries in North Africa: those could benefit from moving supply chains (better political relationship, lower labour costs, spillover effects from China). Big domestic economies (US, China, India) and fast growing Asian ones should fare well. Protectionism and both US-China and US-EA trade frictions tend to increase political uncertainty which ultimately triggers a higher volatility in the equity risk premium and market valuations. The pandemic adds momentum to the deglobalisation trend and will foster consolidation of some industries. **Sector wise, high growth, patent-protected and technology-oriented stocks will represent opportunities for investors**.

Appendix

Other important reasons of trade

The model described above (called the neoclassical standard model) is not the only way to explain trade. At least two other lines of research should be mentioned, i.e. economies of scale and consumers' love of variety. Both models are more geared towards explaining trade between developed countries where different factor endowments do not play a large role. In the first theory, special features of the production process, i.e. increasing returns to scale, or high initial capital costs cause unit cost to decrease with higher output. Therefore, opening up trade increases the customer base which results in decreasing costs per piece. Consequently, the basic argument for trade is still a more efficient production. In theory, with ever increasing returns of scale, countries will fully specialise and the market completely monopolises. In practice, economies of scale are seen to be strongest in early stages of the production process. In addition, consumer preferences (love for variety) are a cause that results in international trade independent of production technologies

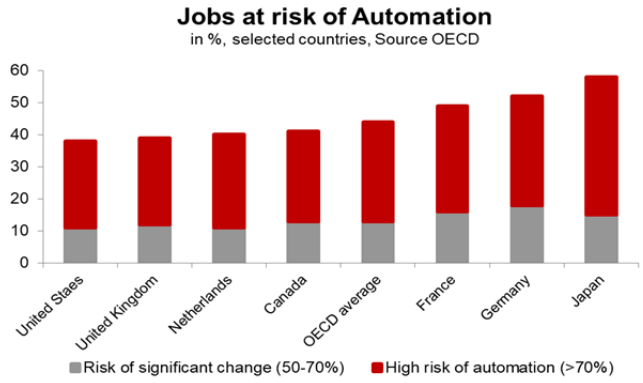
Additional aspects of new technology

While Smart Manufacturing captures the interconnectedness of machines, another development comes un-der the header of additive manufacturing, also known as 3D printing. The technology is seen as transforming industrial production via lighter, stronger parts and systems. However, up to now the technology is still limited by precision problems.

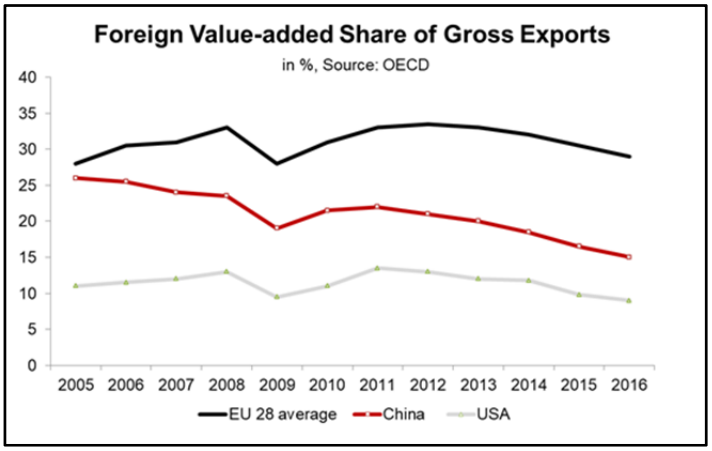
In addition, automation is not limited to goods' production. Services are already coming under pressure by partly automated calling lines. Artificial intelligence (AI) and virtual agents will be able to perform a growing range of tasks, not restricted to "simple" duties but also encompassing highly specialised knowledge (recently the press reported about the identification of lung cancer by AI, performing better than doctors).

Employment impact of new technology

The OECD estimates the jobs at risk to partial or substantial automation between 30% and 65%. Not only AEs are at risk of being affected but also EMs. The value chain most exposed is labour-intensive goods production. However, as AI advances, knowledge intensive goods and services will be affected as well. The new technologies imply a higher capital intensive production. Thus, capital rich AEs should have a relative advantage, leading to less international trade. Nevertheless, de-facto reshoring has been limited so far to some instances. The threat of reshoring labour-intensive production from EMs to AEs could also lead to more capital intensive production in EMs them-selves, which would reduce the loss to trade. The China 2025 initiative has also made clear, that the country aims to participate in these developments. MGI estimates a potential loss of trade of about 10% by 2030.



TiVA: In cross-country production networks it may be misleading to look into gross trade data. During the assembly of goods, intermediate components may cross borders several times. To diminish this effect, the OECD provides a statistical method which is based on the value that is added by each country in the production of goods and services ("Trade in Value Added", TiVA).[20] This eliminates the double counting problem of traditional trade statistics. Broadly, the TiVA data confirm the diagnosis of the trade statistics. In the 2018 update on TiVA indicators, the OECD states that "*this [globalisation] trend has slowed in recent years. For example, since around 2011, the foreign value-added content of exports […] has gradually fallen for many major economies. This decline has been most pronounced in China and to a lesser extent in the US*".[21]



[20] OECD, Trade in Value Added, 2018 edition
[21] OECD: The changing nature of international production, Insights from Trade in Value Added and related indicators, OECD 2018

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