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Growth in world trade, from hare to tortoise?

Special

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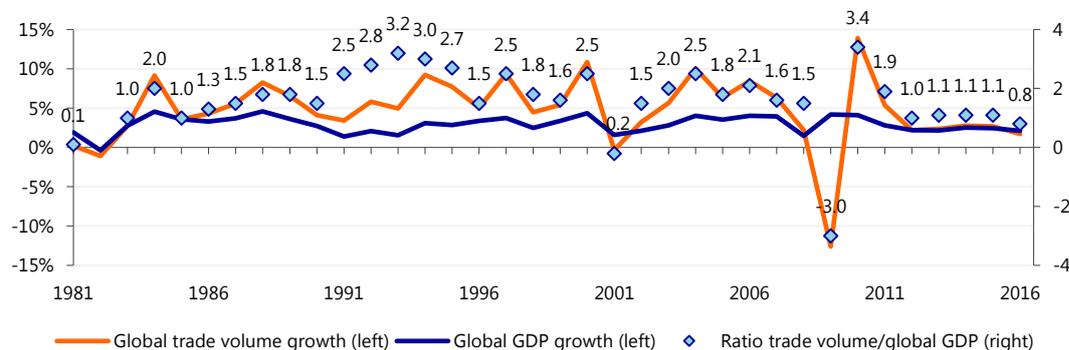
Summary

- World trade growth has halved compared to pre-crisis (2008) levels
- Weak economic activity, a slower pace of trade liberalisation and a slowdown in global value chain growth all play a role
- The future growth of world trade depends for a large part on structural and political developments, highly uncertain events to say the least...
- Yet one thing is certain, a return to pre-crisis growth rates is not on the horizon

World trade growth on a downward trend

The advent of trade liberalisation and the resulting increase in (financial) globalisation has led to rapid trade growth in the last few decades. During most of this period several unique events contributed to international trade. Highlights are China's re-integration into the world economy and subsequent joining of the World Trade Organization (WTO) in 2001, the reunification of Germany in 1990 and the collapse of the Soviet Union in 1991. However, since the global financial crisis world trade growth has slumped and is struggling to return to pre-crisis levels.

Figure 1: World trade growth slowed markedly after the financial crisis, both in absolute terms and relative to GDP growth



Source: WTO

This downward trend is illustrated in Figure 1. Before the financial crisis, world trade volumes have almost always grown faster than global GDP, with a ratio often between 1.5 and 2.5. However, since 2012 the ratio has barely exceeded 1 as growth in world trade dropped to 3%, less than half of the average 7% growth that was achieved in the previous three decades.¹

Rabobank forecasts global GDP growth of 3.1% in 2017, which is only marginally above the 3% growth in 2016. Furthermore, by historical standards, such levels of growth are quite low ([see our Outlook 2017](#)). Recently the WTO also decided to chip in and downgraded its forecasts for world trade as well as global GDP growth.² They called the numbers a “wake-up call” and warned against the impact that anti-globalisation sentiment and the Brexit vote will have on world trade.³

What is behind the slowdown in world trade and how will trade develop in the future? These are the questions that this special will take a closer look at.

Factors behind trade slowdown

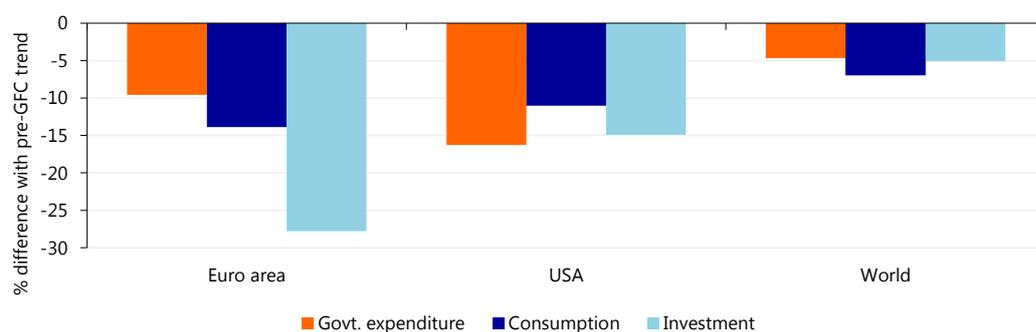
Commonly cited causes for the global trade slowdown are “China” (which is slowly transforming from an export driven economy to one that is driven by consumption), a reduction in trade liberalisation and, more recently, a rise in protectionism. In the IMF’s Economic Outlook October 2016, a chapter is also dedicated to the causes behind the slowdown in world trade.⁴ Based on empirical research the IMF believe the main causes to be weak economic activity (primarily in investment spending), a slower pace of trade liberalisation and finally, slower growth in global value chains. In the next paragraphs we will take a closer look at these factors.

Weak economic activity following the GFC

The global financial crisis and the economic collapse that ensued have wreaked havoc on world trade growth. The IMF estimates that approximately 75% of the drop in trade growth (as measured by import volumes) between 2003-2007 and 2012-2015 can be traced back to weak economic activity, most notably steep declines in investment spending.⁵

Subdued demand has been particularly problematic in the US and the Eurozone (less so for the world as a whole). Especially the Eurozone economy has in many respects failed to recover fully from the financial crisis. One area that has proven to be quite resilient though is consumer spending, which, unlike private investment spending, has been a key factor in shaping economic growth in the last couple of years. Yet world trade has suffered because these trade-intensive business investments have lagged behind relatively less trade-intensive consumer spending. Figure 2 clearly illustrates the large divergence between the two.

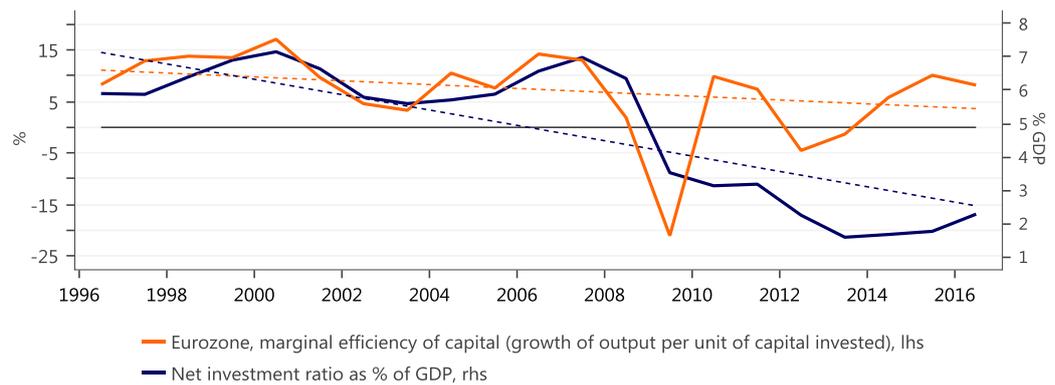
Figure 2: Mainly weak growth in investments after 2008: cumulative gap (in %) since 2008 compared to trend growth over the period 1980 - 2008



Source: Rabobank, to: World Bank, Global Economic Prospects, January 2015

Figure 3 shows the strong downward trend in investment spending (*net fixed investment*) for the Eurozone. More remarkable is the fact that investment spending remains at such historically low levels despite a positive marginal efficiency of capital, i.e. investments in new capital do still add value. This suggests that companies do not expect a strong rise in demand in the near future that would justify an increase in investment spending.

Figure 3: Low levels of investment in the Eurozone despite positive marginal efficiency of capital



Source: Macrobond, Rabobank

Markets remain drenched in uncertainty

Meanwhile, there is plenty of uncertainty to go around. There is the wildcard called Donald Trump, the consequences of Brexit for the future relationship between the UK and the EU and the (possible) end of expansionary monetary policy around the globe. This high degree of uncertainty leads companies to postpone their investment decisions, which weighs on economic activity and trade. A recent Bloomberg article puts a number on such postponements; UK firms have delayed or cancelled \$82 billion worth of investment spending as a result of the Brexit decision⁶.

China's transformation

A slowdown in demand, however, is not just limited to the West. Chinese demand has also slowed down since 2015. This is most pronounced for commodities and semi-finished goods which are both used for the production of export goods. For the most part this is due to China's ongoing transformation from an export to a consumption-driven economy. We will return to this later, **but the key takeaway is that China is not the main driver of the trade slowdown that started in 2012 but rather the main factor behind the more recent deterioration in global trade.**

From cyclical to structural

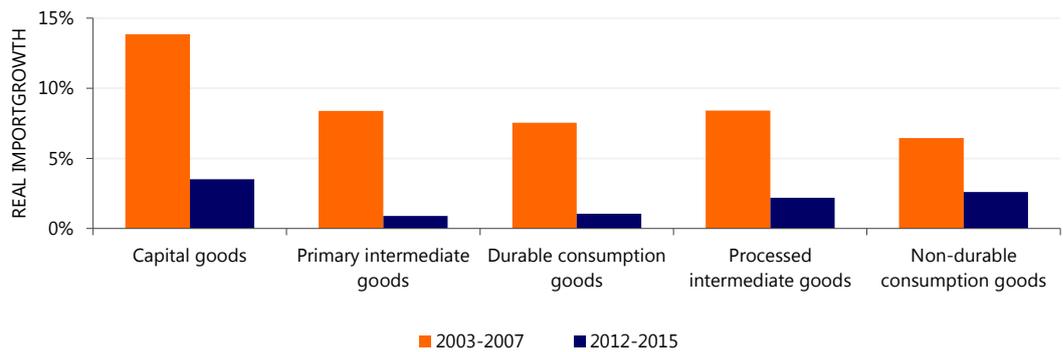
Despite the apparent turnaround in Chinese import and export growth since mid-2016, the underlying weakness is part of a host of structural factors, to which we turn now.

Changing demand composition of goods and services

The IMF argue that changes in the composition of demand account for 60% of the decline in the growth rate of trade relative to GDP between 2003-07 and 2012-15.⁷ The thinking here is that by looking at demand relative to GDP, the cyclical component is cancelled out. An example is the increased demand for non-tradable goods and services. To the extent that these cannot be imported, there may be substitution or crowding out effects, resulting in decreased trade flows. (Arguably, there is also the possibility that non-tradables are complimentary to tradables. For example, more sophisticated smartphone services that drive demand for smartphones higher.)

Besides the demand shift *between* different product groups, there has also been a shift *within* the tradable goods category. For example, demand for non-durable manufactured goods, primarily consumer goods like cosmetics, apparel and shoes, has increased relative to durable goods such as smartphones, refrigerators and cars. The former category is less trade-intensive since the production processes are relatively simple whereas the latter group features complex production processes involving many different commodities and semi manufactures as inputs, which are imported from all over the world.

Figure 4: Large slowdown in the growth of trade-intensive goods in the period 2012-2015 compared to 2003-2007



Source: IMF World Economic Outlook October 2016

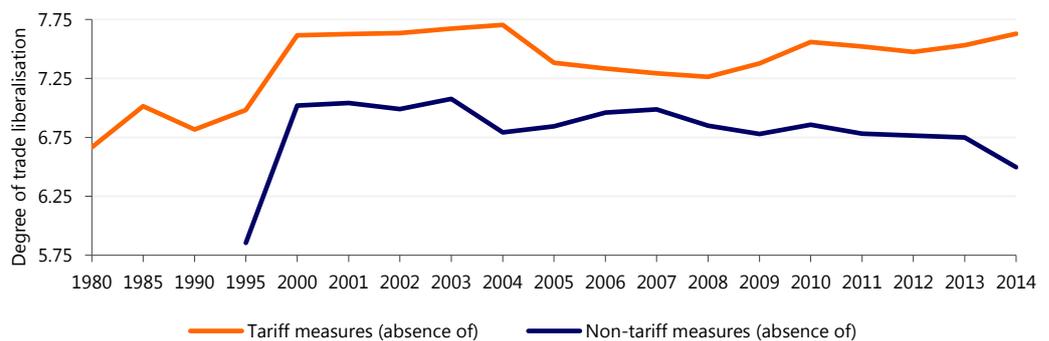
Figure 4 compares the growth rates of different product groups before and after the GFC. The growth in non-durable consumption goods has declined less than that in durable consumption goods. This shift *within* the composition of goods results in less trade in commodities, semi manufactures and final goods. Furthermore, the significant drop in capital goods further highlights the low levels of investment prevalent in developed economies (as highlighted earlier).

Hence, both the level and composition of demand play a role in the global trade slowdown.

Waning pace of trade liberalisation

A slowdown in the pace of trade liberalisation as well as a rise in protectionism are also often cited as reasons behind the slowdown in world trade. However, protectionism has only recently reared its head, making this less plausible. Point in case, traditional protectionist measures such as tariffs have not really increased much in recent years. The *pace* of trade liberalisation, however, has slowed down considerably, especially compared to the period before 2000 (see figure 5). While tariff measures have stayed largely flat in recent years, there has been a relatively large increase in non-tariff measures, think of export subsidies or import quotas, designed to protect domestic companies/industries.

Figure 5: Pace of trade liberalisation slowing due to increase in non-tariff measures



Source: Fraser Institute for Economic Freedom, Macrobond

However, these trade restrictions affect only a relatively small percentage of total world trade, thereby limiting their overall impact. A more serious threat is a further slowdown in trade liberalisation due to resistance against new (comprehensive) free trade agreements. Such agreements encompass much more than just physical trade in goods, which makes negotiations more complex and time consuming. It is thus no surprise that the WTO's Doha negotiations have been ongoing since 2001.

Resistance against trade agreements

Extensive trade agreements such as TPP (*Trans-Pacific Partnership, R.I.P.*) and CETA (*Comprehensive Economic and Trade Agreement*) are not just about plain vanilla tariff reductions. For instance, a dispute settlement provision was the main reason why the Belgian province of Wallonia initially blocked CETA. Yet the consequences for world trade extend beyond the squabble over CETA. If CETA has this much trouble getting ratified, what is to become of (the much more complex) Brexit negotiations? A post-Brexit trade agreement with the UK then also runs the risk of being delayed or even blocked, especially if populist parties rise to power in Europe and gain veto rights over agreements.

Nonetheless, there are also some positive developments for world trade. China is accelerating its efforts to set up its own regional trade agreement now that Trump has been elected as the next US president. The *Regional Comprehensive Economic Partnership* (RCEP) is basically an Asian version of TPP (from which China and India were excluded). RCEP also includes Australia and New Zealand, making the agreement a potentially important boost for free trade.

The 'Trump' factor and the shift away from trade liberalisation

Still, trade liberalisation is not all rainbows and sunshine. Besides the winners there are also often those who lose out; groups in society that end up with getting the 'short end of the stick'. And with "Trump" the protectionist and anti-globalisation genie seems to be out of the bottle. President Trump has torn up TPP on his first day in the White House. Additionally, he has suggested to rip up NAFTA and levy high tariffs on Chinese and Mexican imports (see our recent special on the [Trump Trade War Game](#)). As president, Trump has the authority to actually implement these kinds of policies, with congress having little power to stop him. Hence, a trade war with China and/or Mexico is a real possibility; the markets agree as the peso has taken a beating following the election of Trump, a move that has continued since.

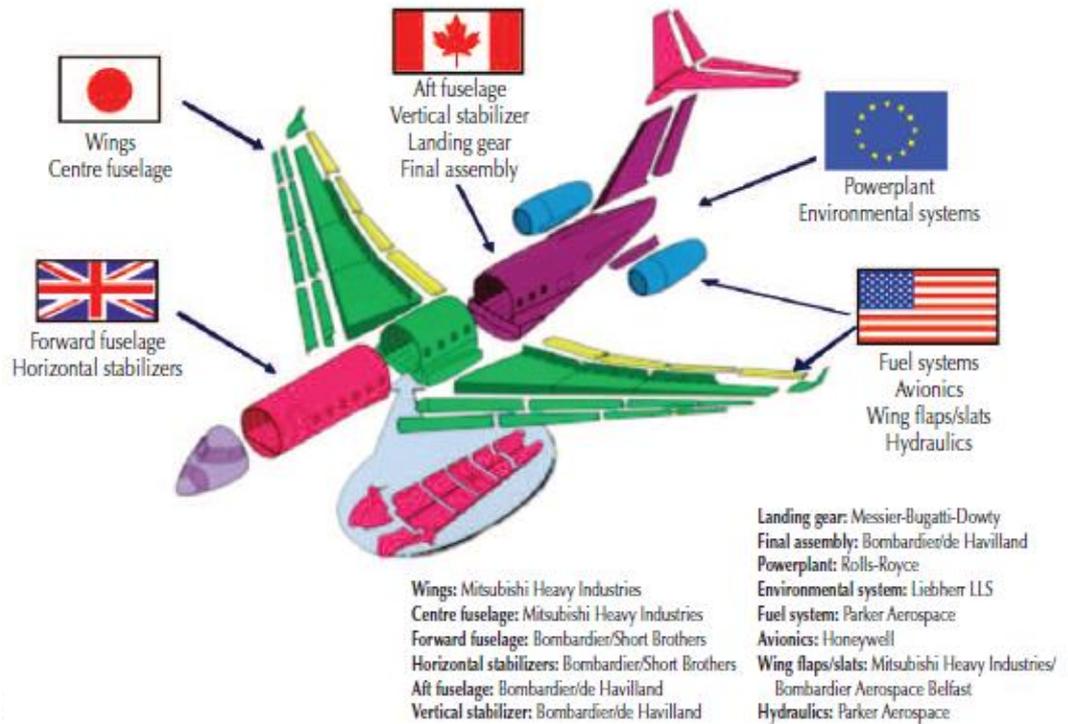
Overall, protectionism seems to be the new normal in the US, yet the worldwide consequences are still unclear.

The role of global value chains

Global production processes have grown explosively since the 90s, in part due to low trade costs resulting from the NAFTA/WTO trade agreements and a drastic reduction in transport costs. Furthermore, borders have faded due to the revolution in communication technology. These developments have led to a prominent role for *global value chains* in international trade. A value chain encompasses the entire process a product follows, from conception and design to customer delivery. It contains all the steps in the production process where value is added to the product/service, hence it includes more than the supply chain, which is predominantly focused on physical movement of the product, so logistics, production and final product delivery. In today's globalised economies, these value chains are often globally oriented, which means that for instance design takes place in the US while production and assembly is done in a Chinese factory. Furthermore, commodities and semi manufactures used as inputs can come from all over the world, making products truly global. Overall, the road to a finished product is no longer confined to one country or even one continent.

To illustrate, examine a truly global product, the *Bombardier Global Express* (see figure 6 on the next page). The main aircraft parts alone come from all over the world while final assembly takes place in Canada. Bombardier works with many suppliers, who also manage large value chains. The result is extensive trade flows in commodities, (processed) semi manufactures and final products from suppliers (such as the fuel systems) to be used in the aircraft.

Figure 6: Example global value (supply) chain of the Bombardier Global Express

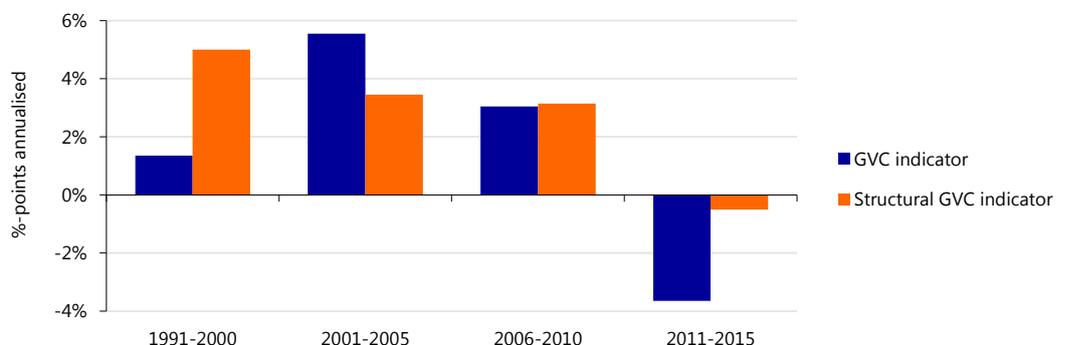


Source: Aerospace Review Report, Volume 1

Both a cyclical and structural slowdown in GVC growth

The era of rapid growth, however, seems to have passed, as figure 7 illustrates. Since the period 1991-2000 the growth in both the structural and cyclical Global Value Chain indicators of the OECD has steadily declined and moved into negative territory in 2011-2015. Moreover, another factor which has likely contributed to the slowdown in GVC growth is the fact that labour costs in previously (relatively) cheap emerging markets (BRIC countries) have risen. This is making it less attractive to move labour-intensive processes, such as assembly, to emerging markets.

Figure 7: Both cyclical and structural growth in GVC's has turned negative in recent years, marking a shift from periods of positive but declining growth

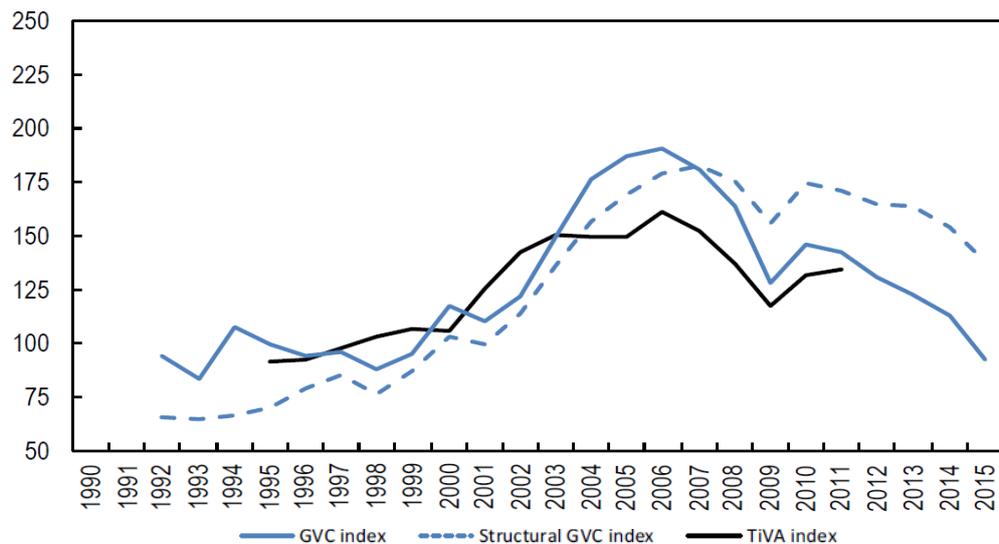


Source: Cardiac arrest or dizzy spell: Why is world trade so weak and what can policy do about it? OECD Economic Policy Paper, September 2016, No. 18

GVC's and China's role

China has been an important driver of the rapid growth in GVC's as cheap labour and low transport costs made it (relatively) attractive for companies to move labour-intensive production to China (see Figure 8). But over the past few years China has been slowly adding more value to products, a clear shift away from activities such as assembly. Figure 9 plots the domestic value added as a % of world value added. Since around 2000, China has been steadily generating more value added and is on course to reach the same percentage as the US. Knowledge development and technology spill-overs, which allow China to move to more advanced production processes, are a key explanation for this apparent shift to high value added activities.

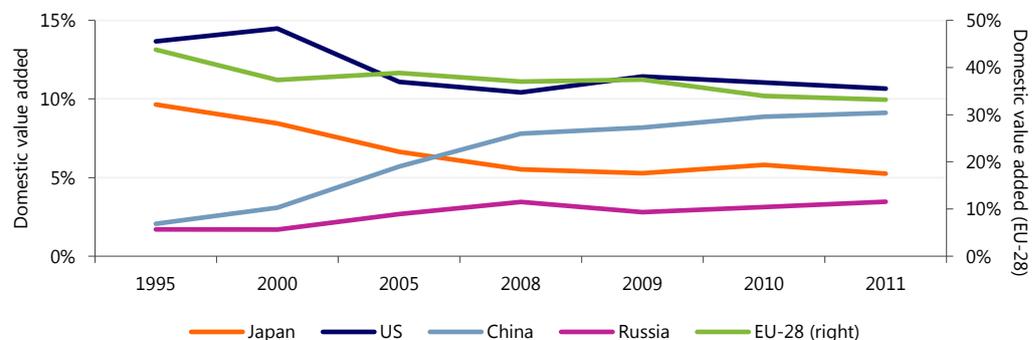
Figure 8: China's global value chain indicators have fallen in recent years following rapid growth in the 90s and early 00s



Source: Cardiac arrest or dizzy spell: Why is world trade so weak and what can policy do about it? OECD Economic Policy Paper, September 2016, No. 18

This change has resulted in China setting up its own regional value chains in Asia in order to produce for domestic consumption rather than for foreign consumption (exports). Countries like Japan and Korea seem to have (partly) benefitted from such regional value chains in recent years. But even they have not escaped the sharp decrease in trade with China in 2015 as their cyclical and structural GVC indicators also declined sharply. Interestingly, Japan's share of world value added has declined in recent years when looking at the domestically oriented economy. This is in line with an increase in GVC participation by Japan.

Figure 9: Percentage domestic value added of China has risen



Source: OECD TiVa

Hence, a shift seems to be taking place in both the composition and degree of global value chain participation. In some sense, this is a positive development for world trade as declining

participation in one country can to some extent be absorbed by increasing participation in another country (or, put differently, a simultaneous steep decline in GVC participation across a range of countries is pretty unlikely).

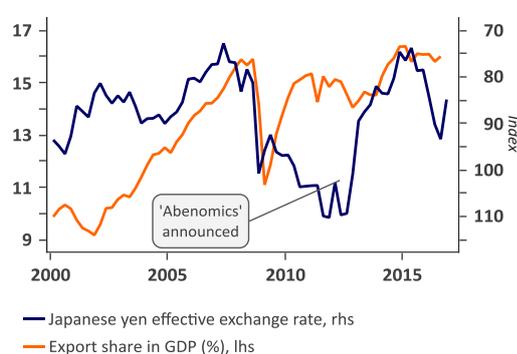
But one thing is certain, the spectacular growth in GVC's witnessed in the 90s and early 00s will not be making its return as the pace of trade liberalisation has waned and runs the risk of running into a wall of protectionism. Moreover, the unique success of China may prove very hard to replicate by other emerging countries.

Currency war, a negative sum game?

Over the years we have often argued in our publications that the currency war being waged among central banks, which has been basically ongoing since the start of the GFC, is a source of distortion for world trade. Since the end of 2008 there have been several central banks that embarked on Quantitative Easing (QE) programs and implemented very low or even negative policy rates. One of the reasons behind these policies was to weaken the domestic currency, which in turn would boost exports. It is evident that currencies did weaken due to these measures (as well as in the run-up to them).

However, recent evidence suggests that the dynamic between the exchange rate and export growth has weakened following the financial crisis. Take for instance Japan. Between the end of 2012 and the beginning of 2015 the yen index, a measure of its strength against other currencies, declined by more than 30%. Not surprisingly, exports (as a % of GDP) rose. However, the effect was relatively limited (compared to 2004-07) while there also seems to be a (partial) disconnect between the value of the yen and exports since 2016.

Figure 10: Relation yen and exports Japan



Source: Macrobond

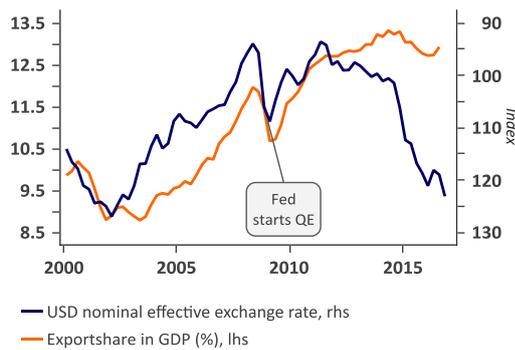
A similar disconnect is also visible in the US and the Eurozone (see figures 11-12). In the US there is a clear initial boost in exports right after QE weakened the dollar. This move continued until around 2012, at which point the dollar/export ratio relationship starts to diverge considerably. From the start of 2013, the export ratio has remained largely flat despite a significant strengthening in the dollar. The Eurozone follows a similar story, even though the initial QE-induced boost received by exports was less pronounced. Yet the Eurozone export ratio has been steadily

rising after the financial crisis. This is likely due to structural reforms and wage adjustments in the peripheral Eurozone countries, which have seen a relatively strong rebound in export volumes.

Value chains yet again

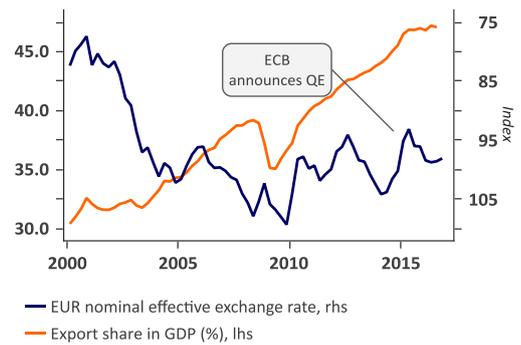
Recent research from the World Bank also argues that export volumes have become less sensitive to currency movements (as measured by their elasticity) than in previous years.⁸ This shift started *before* the financial crisis, which indicates it is by and large of a structural nature. Furthermore, the authors also find evidence that the rise of global value chains can account for approximately 40% of the decline in elasticity between currency movements and exports. Value chains have become much more globally integrated; commodities and semi manufactures are imported from all over the world in order to produce and export finalised products. A weaker currency makes these intermediate imports more expensive, thereby offsetting a part of the positive impact that a weaker currency has on exports. The net effect then partly depends on a country's degree of GVC participation as well as the volume of imports it needs in the production of export products.

Figure 11: Relation dollar and exports US



Source: Macrobond

Figure 12: Relation euro and exports Eurozone



Source: Macrobond

Hence, there are several factors that mitigate the supposed positive effect that a weaker currency has on exports. Additionally, the intentional weakening of a currency by a central bank often leads to retaliatory actions by other central banks. The result is large fluctuations in exchange rates and potentially increased uncertainty, of which we have plenty already...

In short, currency depreciations are no panacea (anymore) for raising exports and jumpstarting the economy.

Role of technology and sustainability

In the context of global value chains, technological innovations in automation and robotics are important developments. They lead to cost reductions which makes automation (relatively) cheap in comparison with labour. This can make it more attractive to move (mostly) labour-intensive production in low wage countries back to developed (high wage) countries, a process which is called *reshoring*. To the extent that this reduces the global reach of GVCs, trade flows will also suffer. Additionally, innovations such as 3D printers have the potential to boost the attractiveness of localised and possibly shorter production chains, yet again reducing trade in commodities and semi manufactures. In the last few years there have already been increasing incentives to *reshore* due to the rising wages in (previously) low wage countries. Hundreds of (US) companies have already taken initiatives to put *reshoring* into action⁹.

Another factor which is potentially important in the decision to *reshore* is *sustainability*. Currently, (mostly negative) externalities of production, such as the cost of pollution, have not been priced fully in the developing world. This makes their production there relatively cheap (especially when using polluting techniques). On the other hand, in developed countries there are strict regulations controlling the amount of pollution. Externalities are thus priced (relatively) well, raising the costs of production. Yet developing countries like China have been faced with the consequences (smog for instance) of environmentally unfriendly practices, which is spurring measures designed to limit pollution. Potential measures such as emission controls or a form of pollution taxes can reduce the comparative advantage of producing in these low wage developing countries.

Hence, (technological) innovations in the area of automation and the proper pricing of pollution externalities can both lead to *reshoring*. It is potentially a structural factor behind the lower growth in world trade as *reshoring* often comes with reduced trade flows between developing and developed countries.

When cyclical becomes structural

As a final note – and consistent with our strategic thinking re global growth – there is a very real danger that the cyclical part in the weakness in world trade growth that we have witnessed over the last decade is in fact also structural in nature. This, of course, would have huge implications for the future. It means that global value chains, which may already have been stretched as far as they can realistically go, will play second fiddle in shaping future world trade growth. And it would imply that, even if (and that's a big if!) global leaders were to succeed in reconciling the good elements of trade liberalisation with the need for a fairer share for those who have lost out on globalisation, world trade growth would continue to face a ceiling.

The debt ceiling

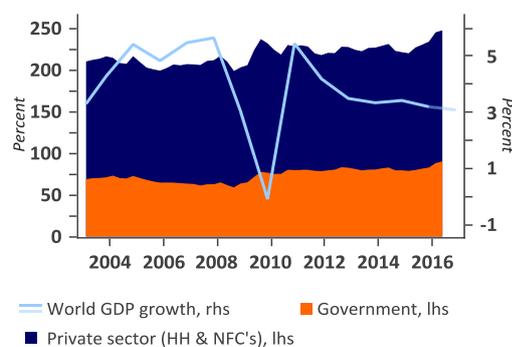
Basically, the argument here runs as follows. Debt levels around the world are (too) high to start with and can only be sustained by low (real) interest rates. Remember, however, that interest rates themselves are bound to some lower limit (even if that may be slightly negative) and so there is little to be gained here from trying to lower rates even further.

Meanwhile, growth over the past decades has existed merely by the grace of continued debt expansion. Total global non-financial sector debt (BIS data) has risen from around 190% of GDP in 2001 to 247% last year. Indeed, one could argue that, with diminishing returns to investment, ever-increasing debt *growth* is required just to keep economic growth stable. Japan is perhaps the best example of this phenomenon. Moreover, if it wasn't for emerging markets (China in particular) global growth would probably have slipped even further since 2010, given the sharp expansion of debt there.

But whilst high debt is a problem in itself, it is arguably the symptom of a deeper underlying issue (as explained [here](#)). In short, the reasoning here is that if corporate profits are not recycled into new productive investment or higher (real) wages, but end up in (unproductive) assets, such as real estate (perhaps *because* of low rates or wrong incentives created by distortionary monetary policy, such as QE) an economy gets poorer over time. If this happens on a global scale, we would end up with an exorable tendency for global growth to slow down.

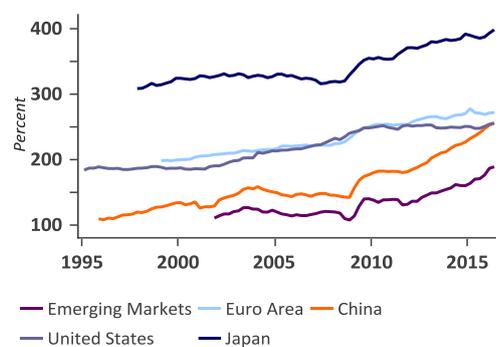
Hence, if one agrees that government debt is close to the limits of what is sustainable in most countries (which basically rules out significant fiscal stimulus in the future) and if one agrees that the private sector is facing a similar problem whilst struggling with slowing productivity growth, one must draw the conclusion that economic growth in large parts of the world cannot sustainably return to a higher level. And, unless structural problems are solved, this would also apply to world trade growth.

Figure 13: Global GDP growth and global non-financial debt



Source: Macrobond

Figure 14: 'Shift' in debt growth from US/Europe to Japan/China/EM since 2010



Source: Macrobond

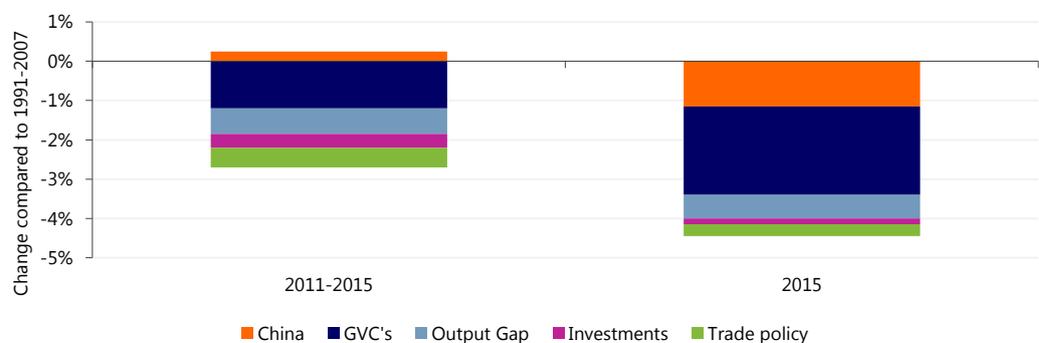
A short recap...

A multitude of factors is responsible for the relatively sharp slowdown in world trade witnessed in recent years. Recapping some of these factors, figure 15 shows their change in the contribution to world trade (compared to 1991-2007) as calculated by the OECD.

The mostly cyclical slowdown that was set in motion by the financial crisis has seemingly been overtaken in importance by structural factors. Especially China and the declining growth in global value chains have played a more dominant role since 2014/15.

China's contribution to world trade in the period 2011-2015 was slightly higher than in the period 1991-2007 (+0.2%) but the same is not true for 2015, where the change in contribution was -1.2%. Hence, a large part of the slowdown in world trade can be traced back to China and GVCs, especially in 2015. Both factors have undergone structural changes, most notably China, whose economy is transitioning from being driven by exports to one that is driven by domestic consumption.

Figure 15: China and GVC both contribute significantly to the slowdown in world trade, especially in 2015



Source: Slideshare Cardiac arrest or dizzy spell: Why is world trade so weak and what can policy do about it? OECD Economic Policy Paper, September 2016, No. 18

... and an uncertain future

Overall, 2015 was a terrible year for world trade and 2016 did not show much of an improvement. And even though recent data for world trade have been pointing at a (cyclical) recovery, the risk is that the underlying negative trend will continue in 2017 as the world's growth model has been stretched to its limits.

Meanwhile, uncertainty and political risk may continue to dampen investment spending by companies. In the US, president Trump is widely expected to implement protectionist policies whereas in Europe free trade might also become a contentious issue in the upcoming election season. In any case, a slower *pace* of trade liberalisation seems a given.

Hence, growth in world trade has transformed from hare to tortoise, leaving us with the question of how slow this tortoise will actually be...

¹ IMF World Economic Outlook 2016: <http://www.imf.org/external/pubs/ft/weo/2016/02/>

² They lowered their 2016 forecast to down from 2.8% to 1.7%, which is the slowest growth since the financial crisis. Furthermore, the WTO forecasts global GDP growth to hit 2.2%, again the lowest rate since the crisis. However, bear in mind that the WTO uses a different definition which causes fast growing economies (such as China) to receive lower weights, resulting in lower global GDP growth. Consequently, these forecasts are not comparable to the forecasts made by Rabobank.

³ WTO Trade Statistics and Outlook 27 September 2016:
https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

⁴ IMF World Economic Outlook October 2016: <http://www.imf.org/external/pubs/ft/weo/2016/02/>

⁵ IMF World Economic Outlook October 2016: <http://www.imf.org/external/pubs/ft/weo/2016/02/>

⁶ <https://www.bloomberg.com/news/articles/2016-11-14/brexit-costs-u-k-82-billion-in-lost-company-spending-study>

⁷ IMF World Economic Outlook October 2016: <http://www.imf.org/external/pubs/ft/weo/2016/02/>

⁸ Ahmed, Swarnali; Appendino, Maximiliano Andres; Ruta, Michele. 2015. Depreciations without exports? Global value chains and the exchange rate elasticity of exports. Policy Research working paper; no. WPS 7390. Washington, D.C., World Bank Group:

<http://documents.worldbank.org/curated/en/689841468189545684/Depreciations-without-exports-global-value-chains-and-the-exchange-rate-elasticity-of-exports>

⁹ According to www.reshorennow.org

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