Schroders

Global market perspective

Economic and asset allocation views

Q2 2018

For professional investors or advisers only

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Contents

Editors:

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Introduction

After a record-breaking 15 consecutive months of gains the S&P 500 became reacquainted with volatility in February and March to end the first quarter with a loss of 0.8%. More generally, developed market equities struggled as the key European and Japanese bourses also fell into the red during the period. Emerging market equities performed better with Russia and Brazil making healthy gains alongside rising commodity prices. The picture in bonds was more mixed with US Treasuries making losses, but European and emerging market sovereign bonds recording positive returns.

In many ways the return of equity market volatility is welcome after such a period of abnormal calm and in our view reflects the recognition that the world economy and hence monetary policy are normalising. The regional pattern of returns also owes something to the desynchronised nature of economic cycles and monetary policy, with Europe, Asia and emerging markets all lagging behind the US.

Having said that, all investors have been unsettled by the increasingly protectionist stance from President Trump and the risk that a trade war breaks out between the US and China. In this respect, we take a closer look at the likely response of China to US tariffs with all options, ranging from tariffs of their own to financial measures, on the table. Ultimately, we expect common sense to prevail and a trade war to be avoided, but the world has entered a difficult period where trade negotiations and hence politics will drive volatility (see Strategy note).

Coming back to normalisation, the other key question for investors is where are interest rates headed? Our research note looks at this from the perspective of US Treasury yields and considers the factors likely to influence yields over the next two years. In addition to these issues, we include the usual update on asset allocation and our positioning across asset classes and within regions.

Keith Wade

Chief Economist and Strategist, 6th April 2018

Asset allocation views: Multi-Asset Group

Global overview

Economic overview

We are upgrading our global growth forecasts to 3.5% for 2018 and 3.3% in 2019, from 3.3% and 3.0% respectively. The increase reflects the continued strength in leading indicators and the announcement of further fiscal expansion in the US. Stronger demand in the US feeds through into stronger trade and better growth elsewhere. Beside growth upgrades in the US, there are also upward revisions to growth forecasts for the eurozone, UK and emerging markets. In contrast, we have downgraded Japan, which largely reflects the base effect from a disappointing Q4.

Meanwhile, the global inflation forecast is increased to 2.5% this year driven by the US, UK and Japan. However, the CPI forecast for the eurozone is revised down to reflect the stronger euro. Relative to consensus our forecasts are for stronger growth and higher inflation at the US and global level.

In terms of our scenarios, the balance of risks is tilted toward stagflation, which contains higher inflation but lower growth compared to the baseline. This would reflect the increased probability of the "Rise in global protectionism" scenario, which is the greatest risk to our central view.

Central bank policy

For the US, the Federal Reserve (Fed) is expected to raise rates another three times this year and twice in 2019 to take the policy rate to 3%. The Bank of England (BoE) is assumed to hike once in 2018 and the European Central Bank (ECB) is likely to end QE before the end of the year. In Japan, we are also incorporating a modification in yield curve control with the Bank of Japan (BoJ) raising the target for 10-year government bond yields to 10 basis points from zero in the final quarter of 2018.

Implications for markets

Looking at our asset class views, we believe that the earnings story will remain a positive for equities. This is supported by solid growth in the global economy along with higher but moderate inflation this year. However, we recognise that the tailwinds from accommodative global liquidity conditions are increasingly being challenged as key central banks tighten monetary policy.

Within equities, we expect pro-cyclical markets like Japan and emerging markets to offer marginally higher upside potential than the global index. Stronger global growth and trade should benefit the emerging world. This market also offers a valuation discount versus their developed peers. Furthermore, a relatively benign dollar environment provides an opportunity for the region to outperform.

We have kept our upbeat outlook on Japanese equities based on the recognition of solid earnings growth. This market also has one of the strongest earnings revisions ratios globally. However, we acknowledge that the strength of the yen remains a near-term headwind for the market.

On the US, Europe ex UK and Pacific ex Japan, we expect these markets to perform in-line with global equities. Despite elevated valuations historically and relative to other markets, US equities remain competitive due to strong earnings momentum supported by the strength in the economy and fiscal stimulus package. Across the Atlantic, Europe ex UK equities still offer reasonable value compared to other developed markets. However, the currency remains a headwind to earnings growth, particularly with the ECB ending QE this year.

Meanwhile, we have stayed neutral on UK equities given uninspiring earnings growth. At the same time, uncertainty over the Brexit negotiations has also led to swings in the currency. Without a strong tailwind from currency weakness, the market is lacking the catalyst to drive outperformance.

With regard to the duration view, we remain negative on government bonds. Bond valuations have turned less rich but are still unattractive at current levels. Importantly, economic data remains robust along with rising inflationary pressures. Among the bond markets, we are negative on US Treasuries and German Bunds but neutral on UK gilts and Japanese government bonds (JGBs). We are also neutral on emerging market debt (EMD) bonds denominated in USD. Instead, we prefer EMD local currency bonds where there remains sufficient carry in the EMD curve to be positive on this market.

Turning to credit markets, we have retained our overweight stance on high yield (HY) but remain negative on investment grade (IG) bonds. For high yield, solid earnings growth supports interest coverage and provides some buffer for the low rates of default to persist. In comparison, valuations are richer amongst investment grade bonds along with a lower carry cushion compared to high yield.

On the broad commodity complex, we remain positive given the stronger cyclical environment and ongoing supply-side discipline amongst certain commodity segments. On the energy sector, we have retained our overweight stance as we expect the carry from a backwardated curve to deliver positive returns. In contrast, we have remained negative on gold as it is looking expensive compared to real rates and our multi-factor model based on measures such as inflation, volatility and the US dollar. Meanwhile, we have upgraded industrial metals given supportive Chinese growth and strong supply-side discipline. On agriculture, we have turned positive as the complex should be driven by strong fundamentals. In particular, for the first time in over five years, the fall in the stock-to-use ratio for major grain sectors.

Table 1: Asset allocation grid – summary

Equity	+	Bonds	-			Alternatives	+	Cash	0
Region		Region		Sector		Sector			
US	+	US Treasury	-	Government	-	UK property EU property	- +		
Europe ex UK	+	UK gilts	0	Index-Linked	+	Commodities	+		
UK	0	Eurozone Bunds	-	Investment grade corporate	-	Gold	-		
Pacific ex Japan	+	Emerging market debt (USD)	0	High yield	+				
Japan	++	Emerging market debt (local currency)	+						
Emerging Markets	++								

Key: +/- market expected to outperform/underperform (maximum ++ to minimum- -) 0 indicates a neutral position.
Note: The above asset allocation is for illustrative purposes only. Actual client portfolios will vary according to mandate, benchmark, risk profile and the availability and riskiness of individual asset classes in different regions. For alternatives, due to the illiquid nature of the asset class, there will be limitations in implementing these views in client portfolios. The views for equities, government bonds and commodities are based on return relative to cash in local currency. The views for corporate bonds and high yield are based on credit spreads (i.e. duration-hedged). Source: Schroders, April 2018.

Regional equity views

Key points

+	Equities	
+	US	Despite elevated valuations historically and relative to other markets, US equities remain competitive due to strong earnings momentum supported by the strength in the economy and fiscal stimulus package. Nevertheless, the normalisation of monetary policy by the Fed is likely to put a squeeze on corporate margins and profitability. Overall, we expect US equities to deliver a similar return to global equities.
0	UK	We remain neutral on UK equities against a backdrop where the domestic economy is faced with a challenging growth and inflation trade-off. The latter has led to higher input costs for UK corporates, which has put pressure on profit margins and led to uninspiring earnings growth. Importantly, uncertainty over the Brexit negotiations has led to swings in the currency. Without a strong tailwind from currency weakness, the market is lacking the catalyst to drive outperformance particularly given that UK multinationals dominate the FTSE 100 index.
+	Europe ex UK	European equities are expected to perform in-line with the global market. From a valuation perspective, the region still offers reasonable value compared to other developed markets. Furthermore, the strength in the domestic economy has led us to upgrade the region's growth prospects. However, the currency remains a headwind to earnings growth, particularly with the ECB ending QE this year.
++	Japan	We have kept our upbeat outlook on Japanese equities based on the recognition of solid earnings growth. This market also has one of the strongest earnings revisions ratios globally. However, we acknowledge that the strength of the yen remains a near-term headwind for the market. Nonetheless, we still expect the BoJ to retain an accommodative monetary policy, particularly when compared to other developed central banks.
+	Pacific ex Japan (Australia, New Zealand, Hong Kong and Singapore)	We expect Pacific ex Japan equities, specifically the Australian and Hong Kong markets, to perform in-line with global equities. Australian equity valuations appear reasonable but earnings momentum has eased along with the softer outturn in the economic data. For Hong Kong equities, the strong price momentum behind the market has been overshadowed by less compelling valuations. In comparison, we expect Singapore equities to outperform the global index given attractive valuations and stronger earnings.
++	Emerging Markets	Emerging equities continue to offer a valuation discount versus their developed peers. Moreover, emerging markets provide exposure to cyclical growth against a backdrop of stronger global activity and trade. Furthermore, a relatively benign dollar environment provides an opportunity for the region to outperform.

Note: The scores for equities this quarter have been adjusted upwards to reflect the revised scoring framework which uses returns relative to cash, making scoring consistent across different markets. These do not reflect upgrades in our outlook.
Key: +/- market expected to outperform/underperform (maximum ++ minimum - -) 0 indicates a neutral position.

Fixed income views

Key points

-	**Bonds**	
-	Government	We remain negative on government bonds. Bond valuations have turned less rich but are still unattractive at current levels. Importantly, economic data remains robust along with rising inflationary pressures. Our cyclical indicators also continue to point towards a macro environment where government bonds could perform poorly. On US Treasuries, we have retained an underweight position. Treasuries continue to look rich on valuation grounds through a combination of negative term premium, large supply increase and arguably low expectations on inflation, fiscal stimulus and Fed tapering. Similarly, we are negative on German Bunds as the strong domestic growth picture continues to put pressure on the ECB to reduce policy accommodation. Moreover, we expect the ECB to end QE by the end of September. Meanwhile, we have stayed neutral on UK gilts. Despite hawkish rhetoric from the BoE, the economic data has been mixed and there remains uncertainty over Brexit negotiations. Hence, we prefer to remain on the side-lines with regards to UK gilts. On JGBs, we have kept our neutral positioning as the BoJ is expected to keep rates on hold and yields at the long-end well-anchored.
-	Investment Grade (IG) Corporate	We remain negative on US IG bonds given uncompelling valuations and deteriorating fundamentals. European IG spreads are highly correlated with the US such that we are also negative on this segment. Moreover, we continue to hold a cautious view due to unattractive valuations and the prospect of further reduction of asset purchases by the ECB this year.
+	High yield (HY)	Despite unattractive valuations, US high yield remains our favoured credit sector for capturing carry. Moreover, solid earnings growth supports interest coverage and provides some buffer for the low rates of default to persist. While corporate fundamentals and earnings have improved in Europe, valuations remain stretched historically. Hence, we have stayed neutral on the European high yield sector.
0 +	EMD USD-denominated EMD local currency-denominated	We have maintained our neutral positioning on emerging market debt bonds denominated in USD. While the cyclical tailwinds of lower inflation and further central bank easing are fading within the region, emerging market fundamentals have been improving with the synchronised recovery in global growth and trade. Overall, we prefer EMD local currency bonds where there remains sufficient carry in the EMD curve to be positive on this market.
+	Index-linked	In the US, underlying inflation trends should remain supported by strong growth and the prospect of higher wages. Meanwhile, valuations continue to look attractive for breakeven inflation rates.

Note: The views for government bonds are based on return relative to cash in local currency. The views for corporate bonds and high yield are based on credit spreads (i.e. duration-hedged). Key: +/- market expected to outperform/underperform (maximum ++ minimum - -) 0 indicates a neutral position.

Alternatives views

Key points

+	Alternatives	
+	Commodities	On the broad commodity complex, we remain positive given the supportive cyclical environment and on-going supply-side discipline among certain commodity segments. On the energy sector, we have retained our overweight stance. The continued OPEC production cuts should push the crude market into a small deficit this year even accounting for the increase in shale oil production. With the energy curve in backwardation, we expect positive total returns mostly due to carry as spot prices could remain broadly range bound. On agriculture, we have turned positive. For the first time in over five years, the stock-to-use ratio for corn, soybean and wheat has started to fall. Importantly, in the absence of major weather moves, the complex should be driven by strong fundamentals. Meanwhile, we have upgraded industrial metals over the quarter. We expect Chinese growth to remain supportive and strong supply discipline has meant that the sector is broadly balanced to a small deficit going forward. On gold, we have remained negative as we are concerned that there is a disconnect between the pricing of gold and real rates. Unless real rates fall, this asset class is looking expensive. At the same time, our multi-factor model based on measures such as inflation, volatility and the US dollar suggests that gold is trading at a premium.
-	UK Property	While the all property initial yield is likely to rise over the next couple of years, we expect the pace of increase to be smaller. Firstly, the current valuation gap between the all property initial yield and 10-year gilts is well above its long-term average of 2%. Secondly, yields are influenced by investors' rental growth expectations. While we expect retail rents and office rents in central London to fall over the next couple of years, we assume that office rents across the rest of the country and industrial rents to be stable, or even rise slightly. Thirdly, there is a large amount of international capital which is targeting UK and European real estate. After a good performance in 2017, we expect all property total returns this year to be lower with capital value falls in parts of the market including retail and City offices. Both of these areas account for almost half of the index by value.
+	European Property	In the investment market, the favourable outlook for rental growth and the still sizeable gap between real estate and 10-year government bond yields means that there remains a large amount of capital trying to invest in continental Europe. Eurozone REITs have raised fresh capital and even German open-ended funds are enjoying a revival. In addition, Brexit means that some investors have switched their attention to continental Europe. Despite the large amount of capital waiting to be deployed, prime yields appear close to their floor, assuming that investors will start to factor in higher bond yields over the medium term. Similarly, although secondary real estate yields are likely to fall a little further over the next 6 to 12 months, the cautious attitude of banks towards lending is likely to act as a brake. We forecast total returns of 5 to 6% per annum on average for investment grade European real estate over next few years, assuming the eurozone economy continues to grow. The mainstay will be an income return while capital values will be driven primarily by a steady increase in rents.

Note: Property views based on comments from the Schroders Real Estate Research team. The views for commodities are based on return relative to cash in local currency. The views for corporate bonds and high yield are based on credit spreads (i.e. duration-hedged).
Key: +/- market expected to outperform/underperform (maximum ++ minimum - -) 0 indicates a neutral position.

Economic views

Central view

Trump pours fuel on the fire

We are upgrading our global growth forecasts to 3.5% for 2018 and 3.3% in 2019, from 3.3% and 3.0% respectively. The increase reflects the continued buoyancy of near term indicators such as the business and consumer confidence surveys alongside further fiscal stimulus in the US.

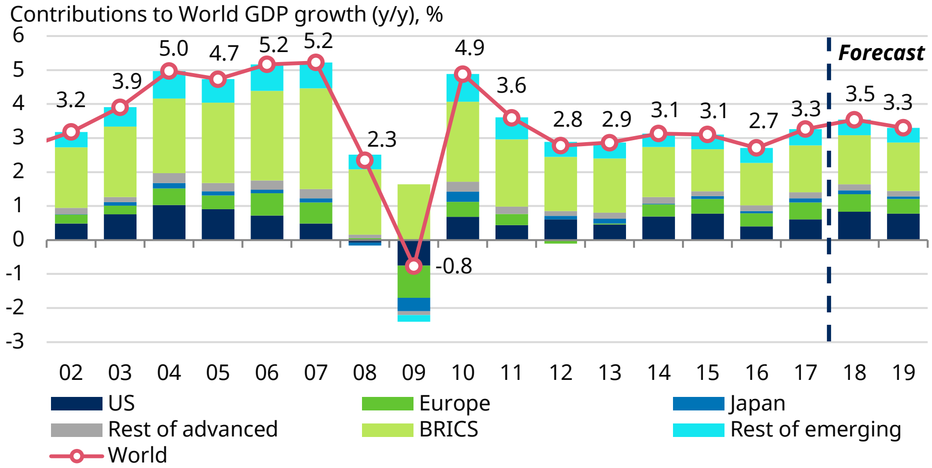
Stronger demand in the US feeds through into stronger trade and better growth elsewhere. Hence, our forecast for the US increases to 3.1% this year and to 2.9% next year (previously 2.5% and 2.2%). In addition, eurozone growth is upgraded to 2.6% (previously 2.3%) and China to 6.6% (previously 6.4%). The emerging markets are forecast at 5.1% and even the UK is upgraded to 1.7%. However, we have downgraded Japan to 1.5% from 1.8%, which largely reflects the base effect from a disappointing Q4.

The global inflation forecast is increased to 2.4% from 2.3% this year. However, this hides a mixed picture. Given the late stage of the US cycle, stronger growth is expected to increase inflationary pressure. We have revised up our forecast for US inflation to 2.5% this year (from 2.1%) and to 2.6% (from 2.4%) in 2019. Meanwhile, inflation is revised up in the UK to 2.5% following higher than expected outcomes in recent months, whereas the forecast for the eurozone is revised down to reflect the stronger euro. Relative to consensus our forecasts are for stronger growth and higher inflation at the US and global level.

In terms of monetary policy, the Fed is expected to raise rates another three times this year and twice in 2019 to take the policy rate to 3% (previously 2.5%). We are also factoring in greater policy tightening in the UK and the eurozone where we have brought forward rate rises. In Japan, we are also incorporating a modification in yield curve control with the Bank of Japan raising the target for 10-year government bond yields to 10 basis points from zero in the final quarter of 2018.

Although monetary policy tightening is likely to lead to a moderation in US growth in 2019, inflation is likely to continue to rise given the lags between activity and prices. This is the point at which reflation is expected to turn to stagflation as the Fed seeks to bring inflation under control by deliberately slowing growth. The market reaction to this is likely to be very different to the recent tightening where higher rates were seen as confirmation of stronger activity.

Chart 1: Global growth and forecast for 2018 and 2019



Source: Thomson Datastream, Schroders Economics Group. 22 February 2018.

Macro risks: Rising risk of trade war

Full details of the scenarios can be found on page 12.

Scenario analysis

For this quarter we are only making one change on the scenario side. Following the conclusion of the budget process in the US we have broadened the **"US fiscal reflation"** scenario to a "global" scenario. Although there is still some uncertainty over the impact of US fiscal policy on activity in terms of the multiplier effect from different measures, there is no longer any doubt on the scale of stimulus. Looking more broadly though, a number of countries have debated easier fiscal measures and this scenario assumes a global expansion of fiscal policy including China, Japan and Europe. As might be expected, the impact is very similar to the previous US based scenario, with a boost to global growth and inflation resulting in a tighter monetary policy (chart 2).

In addition to **"global fiscal expansion"** we also see reflationary risks to the world economy in our **"global trade boom"** scenario where the pickup in trade volumes continues to accelerate, pushing growth and inflation higher. This would be largely driven by an increase in the trade multiplier helping to drive exports with spillovers into higher employment and capex.

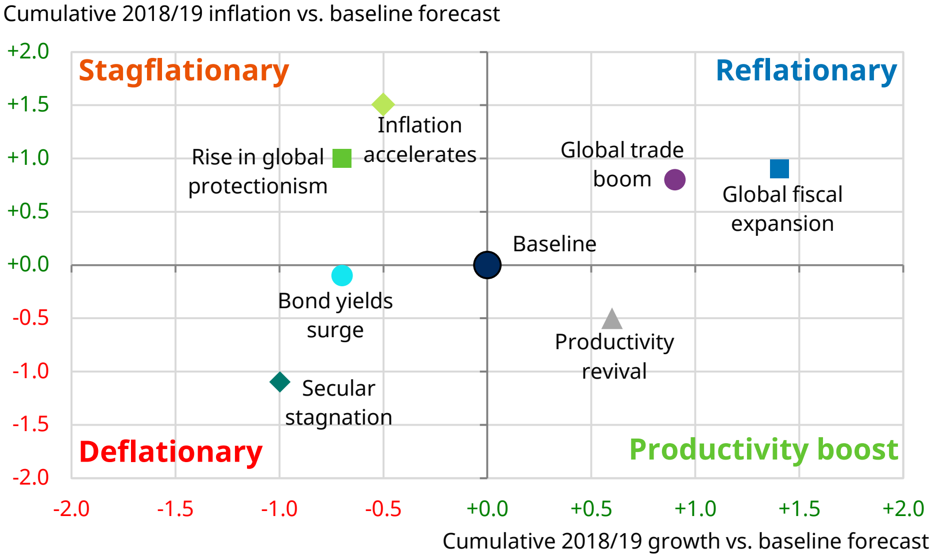
In terms of downside risks for activity, we continue to include a **"secular stagnation"** scenario, whereby the current cyclical upswing peters out and the world economy falls back into a weak deflationary trend. Whilst looking less likely at present, there are still significant structural headwinds such as the high level of debt and adverse demographics for global growth to contend with.

More immediately, the world economy could turn in a deflationary direction as a result of a sharp tightening in financial conditions. Rising bond yields have been a feature of 2018 to date. To a large extent much of the increase reflects the pick-up in global activity. Our **"bond yields surge"** scenario, however, sees bond yields being driven even higher as a result of an adverse market reaction to the unwinding of QE by the Fed and ECB. The latest fiscal expansion will only exacerbate the swing in the supply-demand balance in the US as the supply of Treasuries rises.

On the stagflationary side, we continue to include our **"inflation accelerates"** scenario, which captures the risk of a more upward sloping Phillips curve such that wages rise more rapidly as unemployment declines, thus pushing up prices. Although higher wages provide an initial boost to consumer spending, as inflation rises central banks are likely to tighten monetary policy more aggressively thus creating a period of economic weakness. The result is a spell of stagflation before inflation comes under control.

Staying on the stagflationary side, we have also retained **our "protectionism rises"** scenario, which includes a breakdown of the North American Free Trade Agreement (NAFTA) as well as a trade war between China and the US which spreads more widely. The increase in tariffs results in weaker activity and higher inflation as trade contracts and import prices rise. Finally, we have also retained our **"productivity revival"** scenario which captures a phase of stronger growth with lower inflation as output per head rises in the world economy. There have been encouraging signs of late that productivity is improving in the US and the scenario assumes this continues over the forecast period.

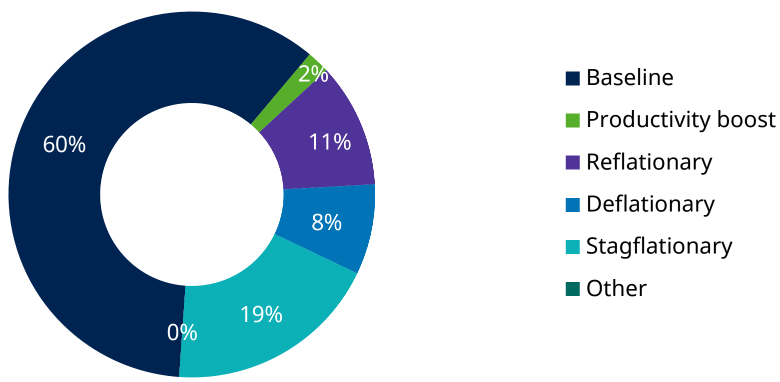
Chart 2: Scenario analysis – global growth and inflation impact



Source: Schroders Economics Group, 22 February 2018.

Chart 2 summarises the impact each scenario has on global growth and inflation relative to the baseline. In terms of scenario probabilities, after the significant swing from deflation towards reflation last quarter, the balance of risks is tilted toward stagflation (chart 3). This would reflect the increased probability of the **"Rise in global protectionism"** scenario.

Chart 3: Scenario probabilities



Source: Schroders Economics Group, 22 February 2018.

Table 2: Scenario summary

Scenario	Summary	Macro impact
1. Secular stagnation	Weak demand weighs on global growth as households and corporates are reluctant to spend. Animal spirits remain subdued and capex and innovation depressed. Households prefer to de-lever rather than borrow. Adjustment is slow with over capacity persisting around the world, particularly in China, with the result that commodity prices and inflation are also depressed.	**Deflationary:** Weaker growth and inflation versus the baseline. The world economy experiences a slow grind lower in activity. As the effect from secular stagnation is more of a chronic than acute condition it takes policy makers time to identify the trend. However, as economic activity fails to accelerate, more stimulus is added. The US reverses its interest rate hikes, while the ECB and BoJ prolong their QE programmes.
2. Global fiscal expansion	Following the populist expansion in fiscal policy in the US, other countries decide to follow its lead either due to changes in governments, or in response to populist movements. Germany, France, Italy, UK, China, Russia, Brazil, India and Japan all loosen fiscal policy significantly through a combination of tax cuts and spending increases in 2019.	**Reflationary:** Fiscal loosening against a backdrop of above trend growth boosts confidence further, along with GDP growth. Some economies with low rates of unemployment see wage pressures rise, causing domestically generated inflation, while other with slack remaining, still see higher inflation through commodities and higher import prices. Central banks respond by tightening monetary policy more quickly, which eventually cools activity.
3. Rise in global protectionism	NAFTA talks breakdown, and the US loses patience with Chinese protectionism policy. The US applies 40% tariffs on all Chinese goods in 2018 Q1. China retaliates, but starts to divert and dump its now uncompetitive goods in Europe. By the middle of 2018, Europe applies selective anti-dumping tariffs of 20%, which China reciprocates.	**Stagflationary:** It takes time for US and Chinese consumers to substitute away from the traded goods facing tariffs. Existing supply chains also take time to break-down, which means both profitability is hit, and prices rise at the same time. In Europe, dumping initially causes lower inflation, but the new tariffs cause inflation to quickly rise. Monetary policy is tightened faster to halt second round effects, causing the USD to rise against most currencies. However, the RMB falls 10%, while JPY also appreciates as growth is hit. World trade growth starts to contract and productivity weakens.
4. Bond yields surge	Bond markets react badly as the Fed starts to reduce its balance sheet, with yields rising significantly in response to the arrival of a major seller of duration. US 10-year yields spike to 4.5% with a knock-on effect to global bond markets. Yields then settle back to 4%, but have the effect of tightening monetary conditions as mortgage rates and the cost of credit increase and equity markets weaken.	**Deflationary:** The tightening of monetary conditions results in a sharp slowdown in consumer and corporate borrowing. Demand is also hit by an adverse wealth effect as equity markets fall, thus further slowing consumption. Weaker demand results in lower commodity prices and inflation.
5. Global trade boom	After years where global trade lagged behind global GDP, renewed global confidence and a desire to rebuild inventories leads to a global trade boom, which re-enforces momentum in activity. Stronger domestic demand in big importing countries like the US drive this scenario, helping to disproportionately lift growth in economies running trade surpluses.	**Reflationary:** The additional activity due to global trade boosts productivity and income, but with spare capacity in short supply, the extra demand generates inflation too. Global growth rises to 3.8% and 3.9% in 2018 and 2019, with global inflation rising to 3.1% by 2019. Global monetary policy is tightened by more than in the baseline, but not by enough to slow growth.
6. Productivity revival	Facing rising demand but limited spare capacity and a dwindling supply of skilled workers, companies begin to increase investment in productivity boosting machinery/technology. This helps reduce unit labour costs, boosting profitability. As capital helps fill the gap in the shortage of labour, demand for labour is lower in this scenario than the baseline, assuming similar levels of aggregate demand. Increased productivity leads to higher output growth, with competition reducing price inflation.	**Productivity boost:** Higher growth but lower inflation frustrates central banks that have already started to tighten policy. As productivity rises, policy makers conclude that output gaps may be larger than previously thought, and move to cut interest rates to help stimulate inflation, which remains below target for many.
7. Inflation accelerates	After a considerable period where wages have been unresponsive to tightening labour markets, pay begins to accelerate in response to skill shortages. Wages accelerate around the world and economists revise their estimates of spare capacity considerably lower. Some economies such as Japan welcome the move as they seek to raise inflation expectations, others find they are facing stagflation as they effectively run out of capacity forcing the central bank to tighten policy.	**Stagflationary:** US inflation rises to 3.6% by the end of 2019 on both headline and core measures. The Fed responds by tightening more aggressively taking its target rate to 3.75% by end 2019. Interest rates also rise more rapidly in the Eurozone and UK whilst Japan returns rates into positive territory. Currency changes provide some cushion to the emerging markets which see a modest boost to growth alongside higher inflation in this scenario. Overall, global growth is slightly weaker and inflation considerably higher.

Source: Schroders Economics Group, 22 February 2018.

Global strategy: The impact of trade wars

Craig Botham
Emerging Markets Economist

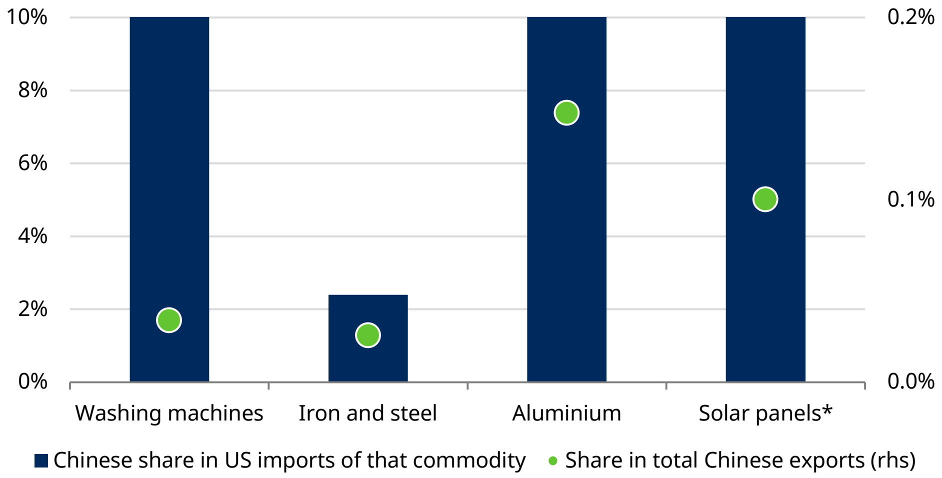
Keith Wade
Chief Economist and Strategist

The latest shots in an escalating trade dispute were fired on April 4th, as China announced potential retaliation to US measures. Tensions are certainly higher than they have been for years, but we think it is important to remain objectively focused on how damaging the current measures are likely to be.

Early skirmishes dealt little real damage

As a reminder, the US has already taken a few pot shots at China, targeting tariffs against washing machines and solar panels first, and then steel and aluminium. However, while China may account for a significant share of US imports of these goods, the combined total is still very minor in macroeconomic terms, and it seems unlikely to be a particularly painful blow to Chinese trade (chart 4).

Chart 4: The relative (un)importance of early tariffs



*Note: Figures are for diodes inc photovoltaics, which includes solar panels. Source: UN Comtrade, Schroders Economics Group. 23 March 2018.

In general, the dominant exporters to the US in steel and aluminium are developed market trade partners. Canada easily outstrips China in aluminium, while eleven countries rank ahead of China when it comes to combined iron and steel exports. The US has since exempted most of these countries from the new tariffs, limiting their already questionable impact on the US trade balance. Perhaps the strategy of a shrewd negotiator, but not a set of policies which will make much of a dent in global trade.

First blood to the US?

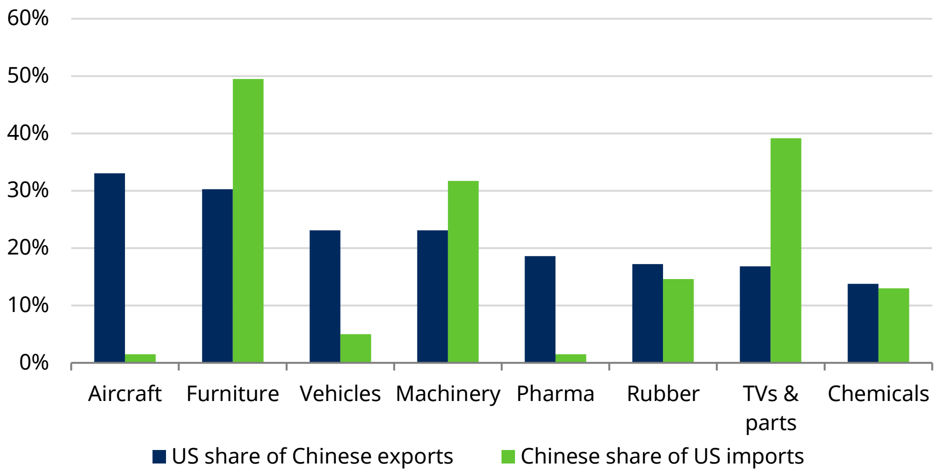
The US has announced wide ranging tariffs on Chinese goods

The latest tariffs are unquestionably more significant, applied as they are to $50 billion of Chinese trade with the US. The *casus belli* here was the finding of the US Treasury Section 301 investigation, which claims Chinese intellectual property practices cause $50 billion of harm to the US economy every year. The tariffs are aimed at clawing back some of these losses, and will be set at a level of 25% on higher value added imports from China, particularly those laid out in the recently announced "Made in China 2025" plan. This strikes directly at Chinese industrial policy and looks to hinder the economy's transition up the value chain.

The full list of tariffs covers over 1300 goods. While it is entertaining to focus on line items like flamethrowers, the main weight falls chiefly on industrial products like machinery and parts, as well as pharmaceuticals. The document detailing the tariffs spelt out the methodology: "Trade analysts from several U.S. Government agencies identified products that benefit from Chinese industrial policies, including Made in China 2025. The list was refined by removing specific products identified by analysts as likely to cause disruptions to the U.S. economy, and tariff lines that are subject to legal or administrative constraints. The remaining products were ranked according to the likely impact on U.S. consumers". This is borne out by the absence of consumer goods from the list. Still, it is not totally painless for the US, as chart 5 shows that producers of general machinery, furniture, and televisions are all among those likely to feel the most squeezed.

Tariffs aim, in part, to overturn Chinese industrial policy

Chart 5: Bringing the pain – selected commodities subject to US tariffs



Source: UN Comtrade, Schroders Economics Group. 4 April 2018.

Meanwhile, though the press reports that China has retaliated against US tariffs, there is some confusion. China announced tariffs on imports of US pork, aluminium, steel pipes, fruit, and wine (targeting $3 billion of goods in total), but this was a response to the steel and aluminium tariffs, and not the Section 301 policies. As a separate response to the latest 25% US tariffs, China announced its own reciprocal tariff; 25% on $50 billion of US trade, to commence simultaneously with US tariffs.

Despite the headlines, the macro impact is still small

As to whether these new tariffs have macroeconomic significance, we would note that even $50 billion is a relatively small part of the US' overall import bill of $2,900 billion, around 2% of Chinese exports or 2% of US goods imports (chart 6b). The overall impact will depend on how producers react to the tariff, and how consumers react to any price change. Producers may be able to absorb some of the tariff into profit margins, rather than pass the entirety on to consumers. The consumer response will then depend on the availability of substitutes and other factors, though consensus seems to estimate it will amount to 0.1–0.2% slower growth for China at most; even then, only if the tariffs are applied to a broader range of Chinese goods accounting for $200 billion, or 40% of China's exports to the US.

All in all, the reduction in bilateral trade as a direct result of the tariff is going to fall far short of the $100 billion adjustment President Trump ultimately wants to see in the bilateral trade balance.

Chart 6a: Chinese exports

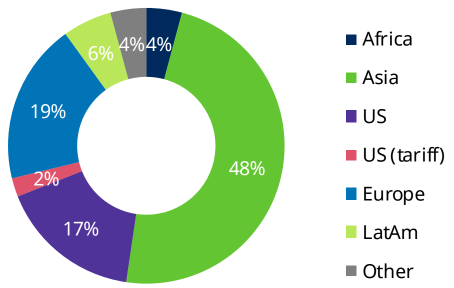
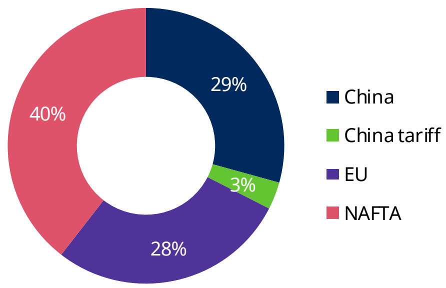


Chart 6b: US goods imports



Source: UN Comtrade, Schroders Economics Group. 23 March 2018.

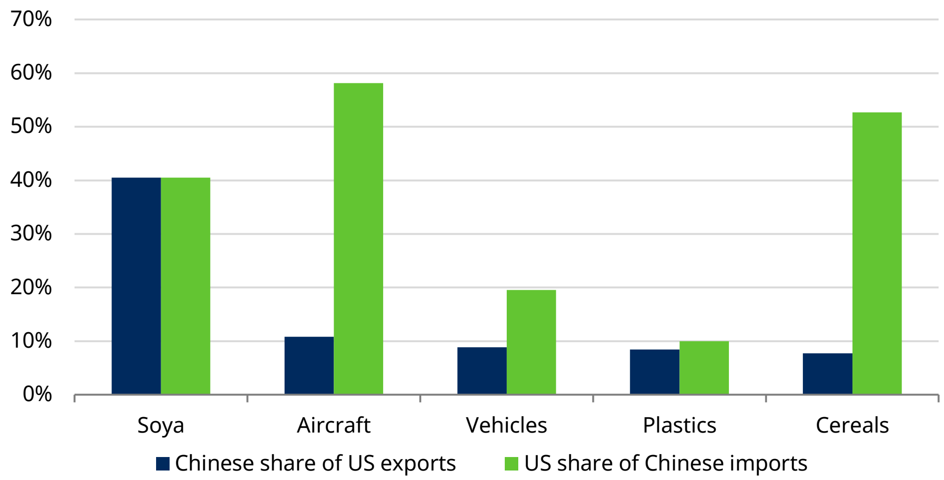
The pain will not be borne entirely by Chinese producers and American consumers. A good share of international trade is classified as "processing trade", with each country plugged into a longer global supply chain, taking inputs from other economies and exporting them after some assembling or refining. If tariffs are focused on high tech exports, suppliers linked to China, likely to be Korea and Taiwan will also suffer.

China strikes back

China's tariffs will be painful for both sides…

As noted, China has announced its own reciprocal tariff; 25% on $50 billion of US trade, to commence simultaneously with US tariffs. These seem more precisely targeted than US tariffs, and would seem likely to inflict more pain on the Chinese consumer. The most significant commodities are soya beans, cereals, vehicles and aircraft (chart 7). Soya beans especially are going to prove a painful subject for both countries, but in many cases it looks like China will suffer more than the US given the sizeable replacements it will need to find.

Chart 7: The key goods facing Chinese tariffs



Source: UN Comtrade, Schroders Economics Group. 4 April 2018.

…but with mid terms looming could the pain be too much for Trump?

While potentially painful for the US, and especially President Trump's support base – most major soybean growing states voted for Trump in 2016 – these tariffs also seem likely to cause significant difficulties for China. Soybeans, for example, are a significant input into animal feed as well as human foodstuffs, and tariffs here would result in pressure on farmers and households. China consumers/ importers can seek alternative sources but would inevitably need to pay more given that much of this year's harvest will have been contracted for already. Aircraft, though a big ticket item and so potentially painful for the US (or Boeing, specifically) is another area where sourcing replacements will be tricky, given the limited capacity of competitors. Replacing Boeing with Airbus would not be straightforward, and for Europe might raise the threat of trade action from the US for assisting Chinese measures against the US.

What other cards can China play?

If China chooses to escalate matters further, options range from additional reciprocal tariffs, or making life more difficult for US firms operating in China, to broad tariffs, selling Treasuries, or devaluing the yuan.

Total US exports to China in 2017 were around $130 billion, with soybeans, aircraft, vehicles, and machinery particularly significant categories. This gives China some options for tariffs but it evidently has less leverage here than the US, which imported over $500 billion of goods from China in the same year, especially with many of those key areas already targeted.

China has a few cards left to play, but ultimately has less leverage than the US

However, the trade balance does not give the full picture of economic ties between the world's largest economies. For example, General Motors sold more cars in China than in the US last year, but this is not reflected in trade numbers because those cars were also manufactured in China. This may not be of comfort to President Trump, but it does open up opportunities for Chinese retaliation against US tariffs. American firms with substantial Chinese revenues could suddenly find themselves facing an inordinate number of fire safety inspections, as did Lotte, a South Korean conglomerate with extensive retail interests in China, during the dispute around the installation of the THAAD missile defence system[1].

Other forms of harassment are also possible, alongside direct taxation of US owned corporates. But to take the Lotte example, while this weighed on the firm's share price, it also resulted in Lotte's Chinese employees losing their jobs. Avoiding higher unemployment is typically a high priority for the Chinese authorities. It is also difficult to see such a policy encouraging the foreign direct investment China championed in its latest National People's Congress. The scope for using these measures is then somewhat limited; it may be enough to persuade US corporates to lobby for a more lenient stance in Washington, but it seems unlikely to directly impact most Trump voters and so the political cost for the US president would seem to be limited. One possibility is that the impact on the stockmarket, to which President Trump seems to attach a lot of value, could compel some restraint.

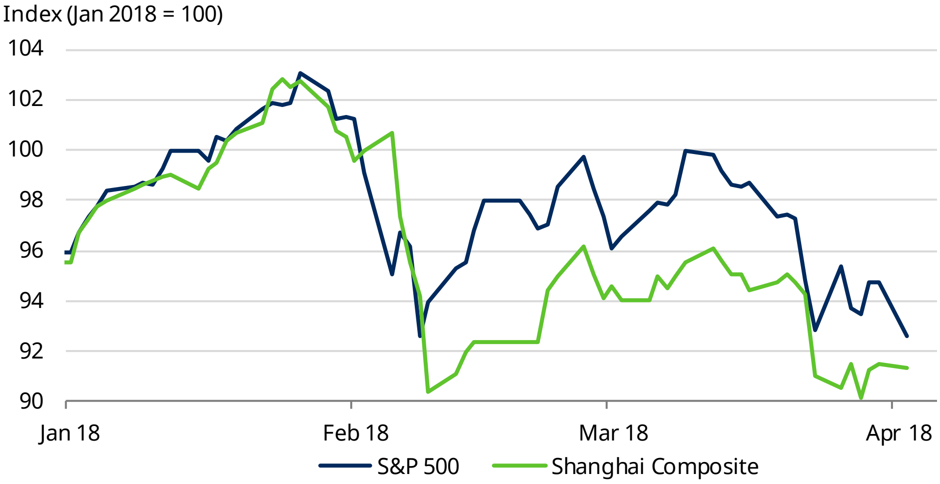
As to the option of selling Treasuries, or devaluing the renminbi to offset tariffs, both of these come with significant negatives for China. While China's total holdings of US Treasuries are unreported, if we assume it to be in line with other central bank holdings (around 60% of reserves) this would put the number at about $1.8 trillion. If we assume that dumping these achieves the Chinese aim of forcing bond yields higher, this would have a contractionary effect on US and global economic demand. Yields high enough to punish the US for its trade measures would by definition have to be high enough to reduce US demand. Given the role exports play in Chinese growth, this immediately seems something of a double-edged sword.

It also seems likely that this would put pressure on Chinese capital flows. Yield differentials are typically a key driver of international flows and so financial stability risks within China would rise. Chinese financial markets also seem unlikely to be unaffected, based on their performance in recent days (chart 8 on next page), so this creates another headache for Beijing. As for the currency, China's last experience of even a small devaluation in 2015 was

[1]Lotte Group, under pressure from the South Korean government, agreed to a land swap deal to provide the space needed for the installation of a US missile defence system referred to as THAAD. Nearly all of Lotte's 112 stores in China were shut for most of 2017 over supposed fire safety issues. The group is selling its Chinese business this year.

destabilising enough – sparking outflows, market panic, and a drop in investment – that it will not be undertaken lightly.

Chart 8: Chinese equities are not immune to global market conditions



Source: Thomson Datastream, Schroders Economics Group. 4 April 2018.

China may count on a greater capacity for discomfort

Evidently then, each retaliatory option comes with its own costs for China. We are conscious of the arguments for economic pragmatism, it has become clear though that, governments globally are less and less under the sway of technocrats. Nationalist sentiment can be a powerful policy driver, and it is as strong in China as in the US. US trade policy, if perceived as an insult to China, will not be simply ignored. We think the recent, reciprocal tariffs demonstrate this. We are also of the belief that China has a greater threshold for pain, given its lack of democracy.

Dumping Treasuries or devaluing the currency are probably extreme, last ditch measures, to be undertaken only if US actions are so extreme that they prompt a hard landing or financial crisis. A reciprocal approach is more likely – the Chinese response to US steel and aluminium tariffs, applying tariffs to around 2% of US exports to China, probably sets the tone. If the US does proceed with tariffs, China will levy some of its own, augmented by measures against US firms operating in China. Fiscal and monetary policy will be used if necessary to mitigate some of the pain this inflicts on Chinese firms and consumers.

Politics driving tariffs: art of the deal writ large?

At this stage we are not making significant adjustments to our global forecasts as there is a strong likelihood that the situation will not escalate. It is no coincidence that 2018 is the year of the mid-term elections in the US with all seats in the House of Representatives and a number of seats in the Senate up for election. The timing of the announcement on steel tariffs, for example, coincided with a particularly close Congressional vote in Pennsylvania (which incidentally the Republicans subsequently lost).

Tariffs likely a bargaining tactic, but it could blow up

Judging from the targeted nature of the announcements so far, the US administration's plan would seem to be to achieve concessions from China in opening up its markets which can be heralded as a "victory" ahead of the mid-term elections. President Trump can claim that his "robust" approach to trade has been vindicated. Whether this will bring an increase in votes and shore up support for the Republican party remains to be seen. Most Republicans are opposed to tariffs (Democrats are probably more supportive) so the party may have trouble translating the president's policy into Congressional seats.

Should we be wrong and the situation escalates into a full trade war between the US and China, the implications are clearly bad for the world economy with global growth likely to be weaker and inflation higher (as captured by our global protectionism scenario). Markets reacted to the danger of such a stagflationary outcome with gold strengthening and safe havens such as the Japanese yen and Swiss franc rallying, whilst growth assets such as equities sold off. For a broader understanding of the impact on markets, we look back at recent history.

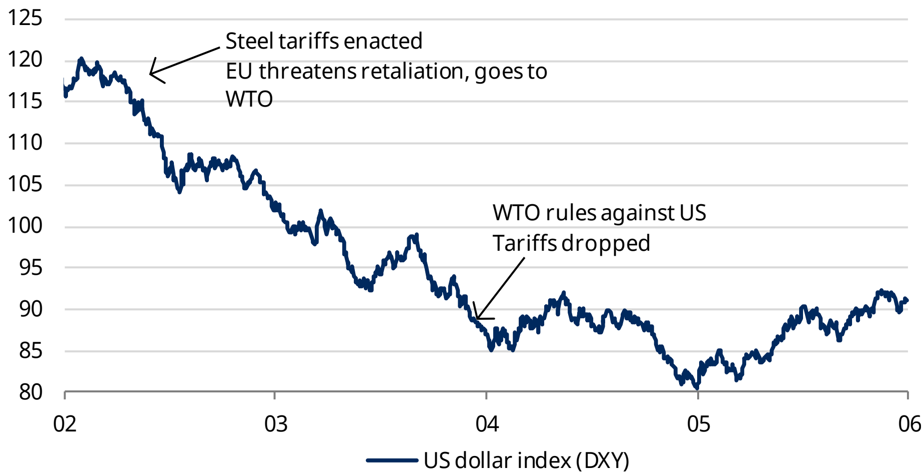
Market impact of tariffs: History lesson

The standard historical comparison for assessing the impact of trade wars is 1930, beginning with the famous Smoot-Hawley tariff often blamed (erroneously) for triggering the Great Depression. However, this is a fairly extreme case, and it is hard to disentangle the impacts of trade policy on the markets at that time from the effects of the global recession and financial crisis.

History does not put trade disputes in a favourable light

A more modest example can be found more recently, with the steel tariffs announced by President Bush in March 2002. Tariffs of between 8 to 30% were scheduled to remain in effect until 2005. Canada and Mexico were exempt. The EU immediately threatened (but did not enact) retaliatory measures, and went to the WTO (World Trade Organisation). The WTO ruled against the US in December 2003 and the US dropped its tariffs rather than face retaliation from the EU. As today, the markets took the initial news poorly, though the dollar was hit harder than we are currently seeing (chart 9). The absence of a weaker dollar is quite notable this time round, but likely reflects the (for now) very targeted nature of the trade restrictions. If the US tariffs also hit Europe, we expect the currency picture would look rather different.

Chart 9: US Dollar impact doesn't seem to have been positive

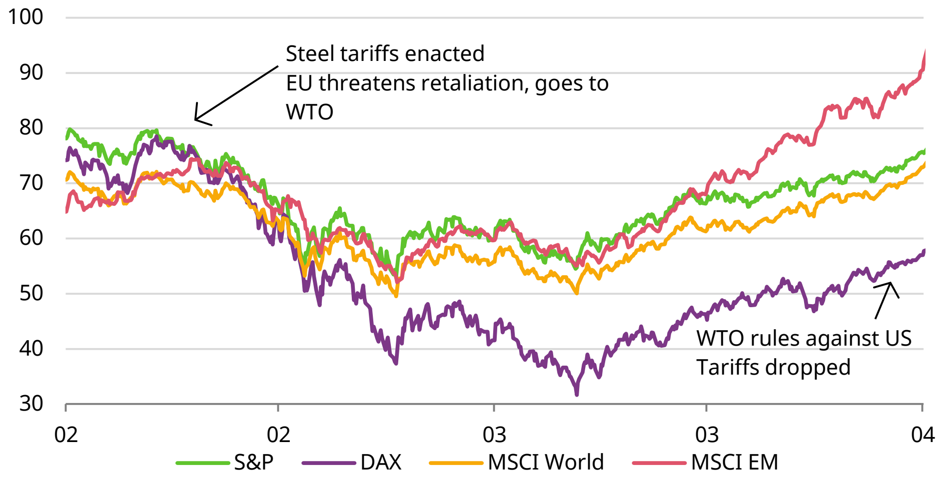


Source: Thomson Datastream, Schroders Economics Group. 23 March 2018.

Meanwhile, global equities entered a protracted period of decline. Most markets bottomed around five months later, but the DAX, reflecting one of the harder hit economies with a sizeable steel industry and exporter focused equity index continued to weaken until roughly twelve months after the announcement.

We should note, of course, that the dotcom bubble burst in March 2000, triggering a decline in US and other markets. While the peak in the dollar index actually came in 2002, the decline in equities is harder to extricate from the bursting bubble.

Chart 10: Global equities took fright and did not calm for months



Source: Thomson Datastream, Schroders Economics Group. 23 March 2018.

Research note: What is driving US Treasury yields higher?

Azad Zangana
Senior European Economist and Strategist

"...our programme for reducing our [Fed's] balance sheet, which began in October, is proceeding smoothly. Barring a very significant and unexpected weakening in the outlook, we do not intend to alter this programme."

Jerome Powell, Chairman of the Federal Reserve, 21 March 2018.

The global economy is decisively moving from the recovery phase of the economic cycle to the expansion phase. The transition occurs as most countries start to experience shortages in spare capacity, causing firms to bid-up input prices including wages, which in turn drive demand higher. As a result, inflation is typically higher, prompting central banks to tighten monetary policy. Bond yields tend to rise during this phase of the cycle as investors demand additional compensation not only for rising inflation, but also the higher potential returns on equities, driven by stronger economic growth.

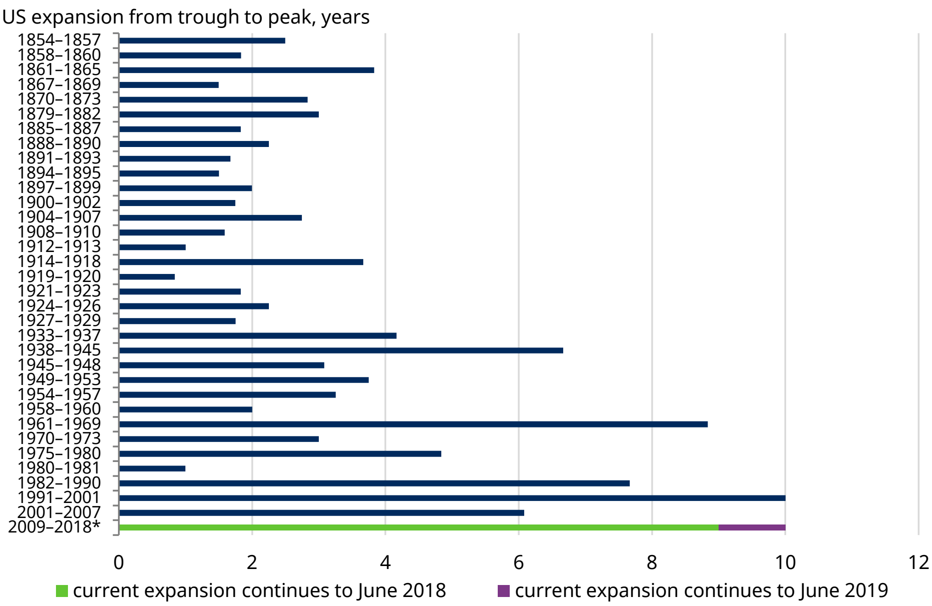
US equity markets have struggled so far this year, partly due to fears of protectionism, but also due to rising bond yields

Recent jitters in equity markets are partly explained by fears of protectionism, but also the recent rise in bond yields. As yields rise, so does the discount rate applied to forecasts of future income growth for equities, therefore reducing the present value and making equity valuations less attractive. Higher bond yields also increase the opportunity cost of owning risk-assets compared to holding a "risk-free" government bond.

The S&P 500 equity index is down almost 7.5% since its peak on 26 January, and is down overall year-to-date. Meanwhile, the yield to maturity on the benchmark US 10-year Treasuries closed on 21 February at 2.94% – the highest level since January 2014, and more than double the yield seen as recently as July 2016. Yet, a nominal yield below 3% is still very low compared to past cycles. However, the current economic cycle is arguably like no other seen before.

The prolific use of quantitative easing has distorted asset prices, while the cycle itself may be set to be one of the longest in history (chart 11). How far should yields rise going forward? What are the key drivers?

Chart 11: This cycle is one of the longest in history



*Note: currently in expansion. Source: National Bureau of Economic Research (NBER), Schroders Economics Group, 27 March 2018.

The Schroders US Real Yield Model

To gain a better understanding of the rise in Treasury yields, we turn to the Schroders US Real Yield Model. The model was originally developed in the 1990s, but has evolved over time to incorporate new explanatory factors. We recently re-estimated the model to bring our analysis up to date, and the rest of this note explores the results and conclusions.

The Schroders US Real Yield model helps us understand the key drivers of real yields

Before we delve into the results, a brief description of how the model works is required. First, the real yield is taken as the yield to maturity on the benchmark 10-year Treasury minus year-on-year core CPI inflation. It is important to note that we use core inflation and not headline CPI inflation, as additional volatility in the latter caused by energy and food price inflation would generate too much noise. By not taking the headline rate of CPI inflation, the model's results are more stable, but the results are not comparable with inflation linked bonds.

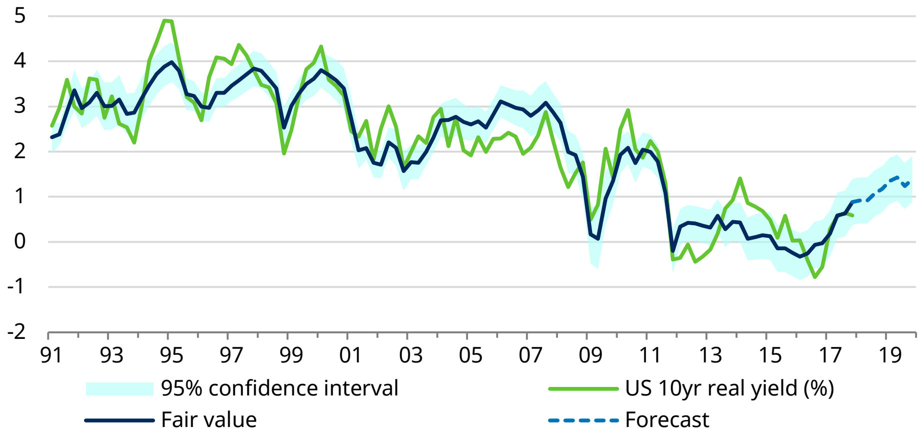
The model[2] finds a fair value of the real yield using the following variables:

– real Fed Funds rate (to capture the impact of rising short-term interest rates)
– manufacturing ISM survey (as a proxy for GDP growth)
– overseas official holdings of Treasuries as % of total issuance (important to capture the expansion of reserves in emerging markets, and their holdings of Treasuries)
– Fed purchases of Treasury bonds as % of GDP (to estimate the impact of QE)
– two VIX dummy variables[3] (to capture safe haven demand during market panic)

Chart 12 shows the model's estimate of the real yield versus the actual real yield as defined previously. The key feature of the model is that it allows the actual real yield to fluctuate around the model's estimate, which we deem as being the fair value. The light blue swath around "fair value" line is the 95% confidence interval of the model. This suggests that when the actual real yield (green line) moves outside of the swathe, the bond market is either too cheap or too expensive. Indeed, the model has a good track record of identifying these periods when bond yields move too far away from where they should be based on fundamentals.

The model suggests that the current real yield is within fair value territory

Chart 12: Estimating the US real yield



Source: Schroders Economics Group. 27 March 2018. Please note the forecast warning at the back of the document.

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[2]The model is estimated using quarterly data, with an OLS regression, using a Cochrane-Orcutt transformation to correct for serial correlation in the error terms. The model is estimated using data from Q1 1990 to Q4 2017.
[3]The first VIX dummy variable is triggered when the VIX index rises more than one standard deviation above its long-run average. However, VIX 2 is triggered when the rise is more than two standard deviations.

The last observation of the actual US real yield (Q4 2017) is below the model's fair value estimate, but within the 95% confidence interval. However, what the model allows us to do is to forecast where the real yield is heading. Using our baseline forecast for the US economy (featured in last month's viewpoint), we forecast the path of our estimated fair value real yield, as shown in the above chart. The real yield is estimated to rise by 51 basis points by the end of 2019 to 1.39%

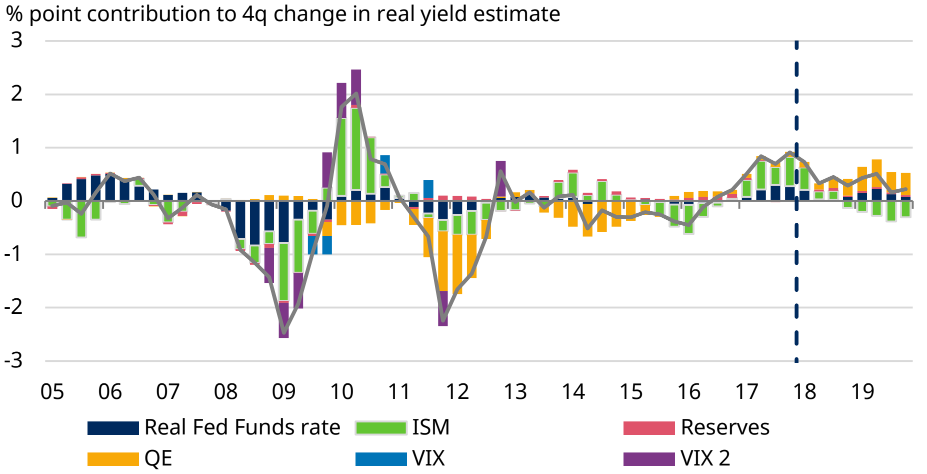
Structural versus cyclical factors

To better understand the recent rise in yields, we can look at how much of the change in yields is attributed to each independent variable by the model.

Over the past year, the model's fair value estimate has risen by 91 basis points (bps) (chart 13). 56bps of which was caused by the rise in the manufacturing ISM survey. This was the most important factor, followed by the rise in the real Fed funds rate (+27bps) and the reduction in quantitative easing (QE) as a share of GDP (+9bps). The VIX volatility index remained subdued and therefore had no impact; however, the overseas official holdings of Treasuries as reserves made a small negative contribution.

The recent rise in yields has been driven by stronger growth and rising real interest rates…

Chart 13: Drivers of the Schroders US Real Yield Model



Source: Schroders Economics Group. 27 March 2018. Please note the forecast warning at the back of the document.

…however going forward, our forecast suggests that the unwind of QE will become the dominant factor

Given that growth (as captured by the ISM survey) and the Fed funds rate are estimated to have had the largest impact, we conclude that cyclical factors have so far been the key drivers of the rise in yields. Looking ahead, our forecast assumes that growth, and therefore the ISM survey, will peak in 2018 and begin to moderate over most of 2019. While nominal interest rates are forecast to rise further, the real rate is only forecast to rise a little further in 2019 given our forecast of rising inflation. The main driver of higher yields over 2018 and 2019 is forecast to be the reduction of the Fed's balance sheet, which is set to accelerate over 2019.

In our view, the Fed's policy of unwinding QE is likely to be more of a structural headwind for the bond market in the coming years, rather than policy driven by cyclical factors. The Fed has communicated a path for the policy, which the new chair is happy to stick to (see quote earlier). Balance sheet deduction is set to accelerate from $20 billion per month to $50 billion per month by the end of the year. Unless there is a significant downturn in the economy, the Fed is unlikely to waver from its path of allowing its balance sheet to shrink.

What about inflation?

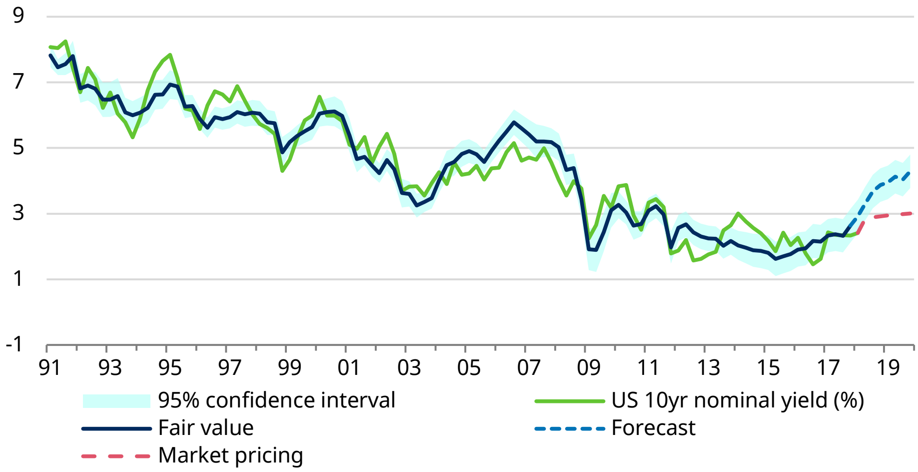
As mentioned earlier, the rise in inflation during the expansion phase of the economic cycle is a critical factor behind tighter monetary policy. The model presented above is estimated in real terms using core inflation, but in order to make its output comparable with the market, we need to return to nominal yields.

Chart 14 takes the real yield model as presented in chart 12, but adds historic core inflation and our baseline forecast for core inflation. In doing this, the estimated fair value of the 10-year nominal yield is forecast to rise by 166bps to 4.29%. This is made up of the 51bps increase in the real yield and 115bps rise in core CPI inflation.

A forecast of a rise to 4.29% for the nominal 10-year US Treasury yield would be considered as aggressive today, despite historic yields being much higher in the past. Compared to market pricing, taken from forward contracts of the US 10-year, we see that the market barely expects the 10-year yield to breakthrough the 3% level by the end of 2019. Moreover, the profile priced by markets is well below the lower confidence interval of 3.78% at the end of 2019. This suggests that not only is there considerable upside risk to Treasury yields over the forecast horizon, but also to market pricing of the future path of yields.

Factoring in core inflation, the model suggests the nominal 10yr yield is heading to 4.29% by end 2019

Chart 14: Taking inflation into account



Source: Bloomberg, Schroders Economics Group. 27 March 2018. Please note the forecast warning at the back of the document.

Conclusions

The Schroders US Real Yield Model suggests that the real yield in the US is within fair value, and the recent rise has largely been driven by stronger growth, and the rise in real Fed funds rate. However, combining the model with our baseline forecast to look ahead, we conclude that these cyclical factors are likely to moderate, though structural factors in the form of the unwind of QE will drive real yields higher.

Once higher inflation is also factored in, the model's 95% confidence interval suggests that the nominal 10-year Treasury yield could rise to between 3.78% and 4.80% by the end of 2019. Meanwhile, markets expect the 10-year yield to barely breakthrough 3% over the same time horizon. If yields do rise in line with the Real Yield Model's forecast, or even by more, then equities could struggle to make gains, especially where earnings growth is weak or hard to identify.

Market returns

	Total returns	Currency	March	Q1	YTD
Equity	US S&P 500	USD	-2.5	-0.8	-0.8
	UK FTSE 100	GBP	-2.0	-7.2	-7.2
	EURO STOXX 50	EUR	-2.1	-3.7	-3.7
	German DAX	EUR	-2.7	-6.4	-6.4
	Spain IBEX	EUR	-2.3	-3.9	-3.9
	Italy FTSE MIB	EUR	-0.9	2.8	2.8
	Japan TOPIX	JPY	-2.0	-4.7	-4.7
	Australia S&P/ ASX 200	AUD	-3.8	-3.9	-3.9
	HK HANG SENG	HKD	-2.3	0.9	0.9
EM equity	MSCI EM	LOCAL	-1.8	0.8	0.8
	MSCI China	CNY	-3.1	2.1	2.1
	MSCI Russia	RUB	-2.0	9.3	9.3
	MSCI India	INR	-3.5	-4.9	-4.9
	MSCI Brazil	BRL	0.4	12.7	12.7
Governments (10-year)	US Treasuries	USD	1.2	-2.4	-2.4
	UK Gilts	GBP	1.4	-1.1	-1.1
	German Bunds	EUR	1.6	0.0	0.0
	Japan JGBs	JPY	0.1	0.1	0.1
	Australia bonds	AUD	2.3	1.7	1.7
	Canada bonds	CAD	2.5	1.3	1.3
Commodity	GSCI Commodity	USD	2.2	2.2	2.2
	GSCI Precious metals	USD	0.3	0.3	0.3
	GSCI Industrial metals	USD	-4.5	-7.2	-7.2
	GSCI Agriculture	USD	-2.8	3.3	3.3
	GSCI Energy	USD	6.0	5.1	5.1
	Oil (Brent)	USD	6.7	5.2	5.2
	Gold	USD	0.3	1.5	1.5
Credit	Bank of America/Merrill Lynch US high yield master	USD	-0.6	-0.9	-0.9
	Bank of America/Merrill Lynch US corporate master	USD	0.2	-2.2	-2.2
EMD	JP Morgan Global EMBI	USD	0.4	-1.8	-1.8
	JP Morgan EMBI+	USD	0.7	-2.0	-2.0
	JP Morgan ELMI+	LOCAL	0.4	0.9	0.9
Currencies	EUR/ USD		0.7	2.1	2.1
	EUR/JPY		0.5	-3.2	-3.2
	JPY/ USD		0.2	5.5	5.5
	GBP/USD		1.5	3.4	3.4
	AUD/USD		-1.5	-1.7	-1.7
	CAD/USD		-0.7	-2.6	-2.6

Source: Thomson Datastream, Bloomberg, 30 March 2018.
Note: Blue to red shading represents highest to lowest performance in each time period.

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