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Economic and Strategy Viewpoint

July 2019

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A gentle touch on the tiller from the Fed?

- Slower growth and ongoing trade tensions have caused interest rate expectations to move significantly and bonds have rallied hard.
- There is talk of the US Fed cutting rates as an "insurance" measure to keep the economy on track, an outcome it successfully achieved in 1995 and 1998.
- However, a turn in the capex cycle, low inflation and concerns about the efficacy of monetary policy are likely to keep the central bank easing into 2020.

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What is left in the central bank toolbox?

- Conventional monetary policy space is limited in developed markets, and alternative tools come with limitations. Quantitative easing is broadly speaking an option but will likely need to be supplemented with fiscal policy.
- There is some fiscal space available in most advanced economies, though debt sustainability remains a problem for some eurozone economies. Once you factor in political constraints, the eurozone may find the next downturn more challenging than the rest of DM.

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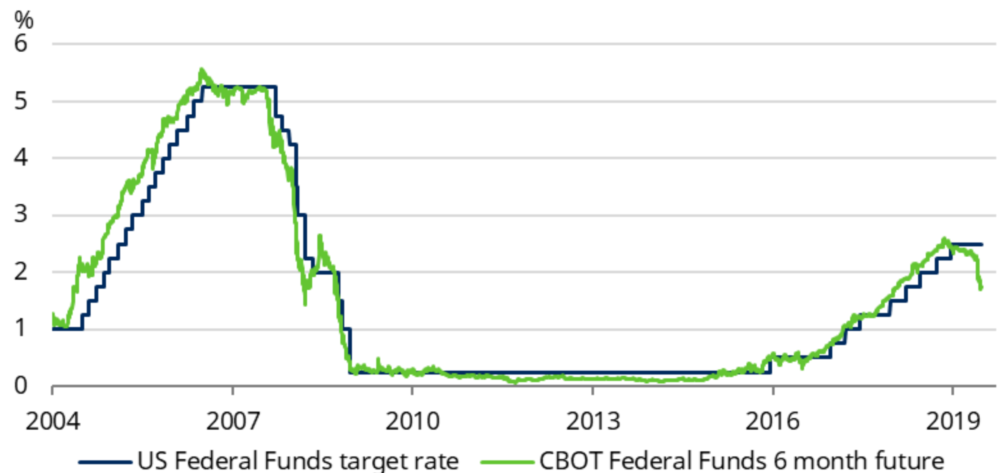
EM: Cushioning the blow

- Emerging markets have some advantages over their slower growing, low interest rate cousins in the developed world. Should a global slowdown arrive, they still have an arsenal of familiar weaponry to deploy.
- Monetary space is far greater than in DM, and fiscal policy – though constrained – seems more politically viable.

Chart: Significant shift in US rate expectations



Source: Thomson Reuters Datastream, Schroders Economics Group, 25 June 2019.

A gentle touch on the tiller from the Fed?

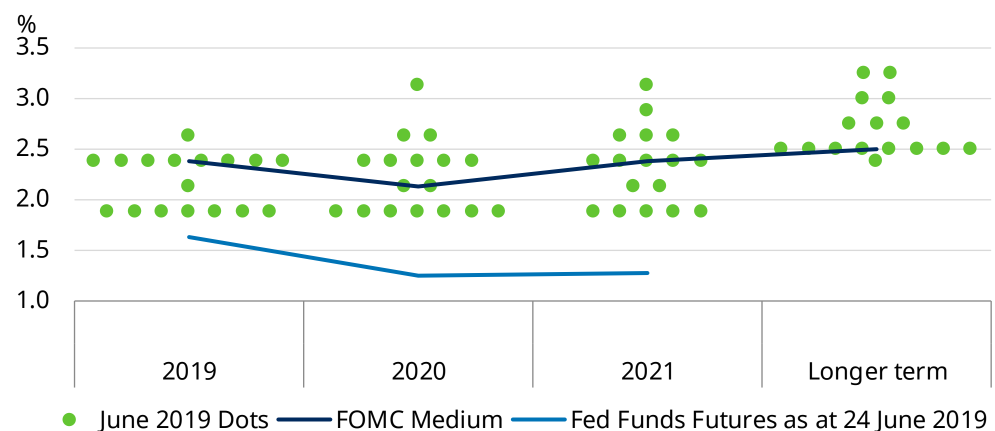
"The crosscurrents have re-emerged, with apparent progress on trade turning to greater uncertainty and with incoming data raising renewed concerns about the strength of the global economy."

Jerome H. Powell, Chair US Federal Reserve, speech 25 June 2019

Interest rate expectations have moved significantly as central banks turn dovish

The past month has seen a significant shift in interest expectations. Markets are now pricing in 75 basis points of rate cuts in the US by the end of 2019, compared with almost no move expected at the beginning of May (see chart front page). The change in expectations has been driven by concerns over global growth and trade tensions between the US and China. At the US Federal Reserve's (Fed) June rate setting meeting seven of the committee indicated that they saw a rate cut by the end of 2020. The median dot plot has a cut in rates in 2020, but the dots remain well above market expectations (chart 1).

Chart 1: The Fed dot plot and market expectations



Source: Thomson Reuters Datastream, Schroders Economics Group, 25 June 2019 (g0080).

Bond yields have declined around the world

Meanwhile, bond yields have tumbled with the 10 year US Treasury heading back to 2%, with much of the recent movement being driven by lower inflation expectations (chart 2).

Chart 2: US bond yields have fallen significantly

Source: Thomson Reuters Datastream, Schroders Economics Group, 25 June 2019 (GR9A).

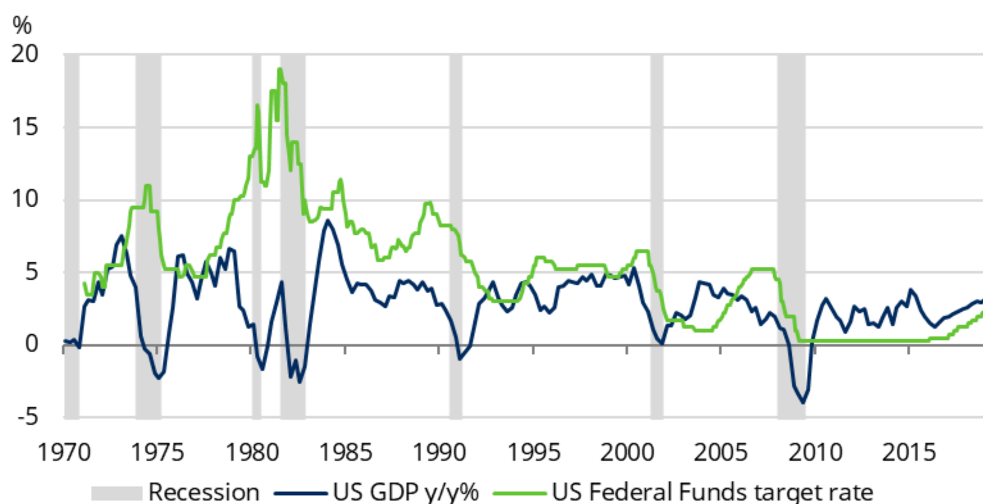
These moves have not been confined to the US, with yields falling sharply across developed sovereign bond markets. Comments from European Central Bank president Mario Draghi, that the central bank would be considering easing measures at its next meeting, proved to be particularly powerful. Subsequently, the market value of bonds trading at negative yields reached $12.5 trillion on 19 June according to Bloomberg, beating the last peak in 2016.

An insurance rate cut?

Fed looks to repeat the success of 1995

The question is whether the Fed can get away with just one or two rate cuts, similar to 1995 or 1998, or if this is the start of a major easing cycle, as in previous recessions (chart 3).

Chart 3: Fed rates and GDP growth



Source: Thomson Reuters Datastream, Schroders Economics Group, 25 June 2019.

Looking at the latest "dot plot", the Fed is clearly leaning toward the former: a gentle touch on the tiller that sets the economy back on course. The 1995 move which led to a soft landing in the economy has been seen as one of Alan Greenspan's greatest achievements as Fed chair.

The answer will in large part depend on the sort of slowdown we get in the US, and in the way the Fed chooses to react to growth and inflation.

Growth is slowing as fiscal stimulus fades and the budget deficit grows

In terms of the slowdown, we have argued for some time that US growth is likely to disappoint next year, largely as a consequence of the fading of fiscal stimulus and the disruption caused by trade tariffs. The benefit from tax cuts has now been largely felt and it would seem unlikely that Congress will approve further fiscal stimulus given that the budget deficit is running at $975bn (4.5% GDP).

Meanwhile, tariffs are disrupting supply chains and increasing company costs. The evidence suggests that China is not "paying the tariffs" as President Trump claims and instead the cost is being borne by US firms and consumers. The trade picture may improve following the meeting between Xi and Trump at the forthcoming G20 summit (after we publish). However, business surveys show little improvement in trade or export orders as yet, which suggests another three months of sluggish activity at best. While we are optimistic on an eventual agreement, the gap between the US and China on intellectual property and technology would seem too wide to lead to an immediate deal.

Trade alone is not sufficient to derail the US economy, which is 85% driven by domestic activity. In this respect the main drag from tariffs is through uncertainty about the business environment which is felt in the real economy as companies delay

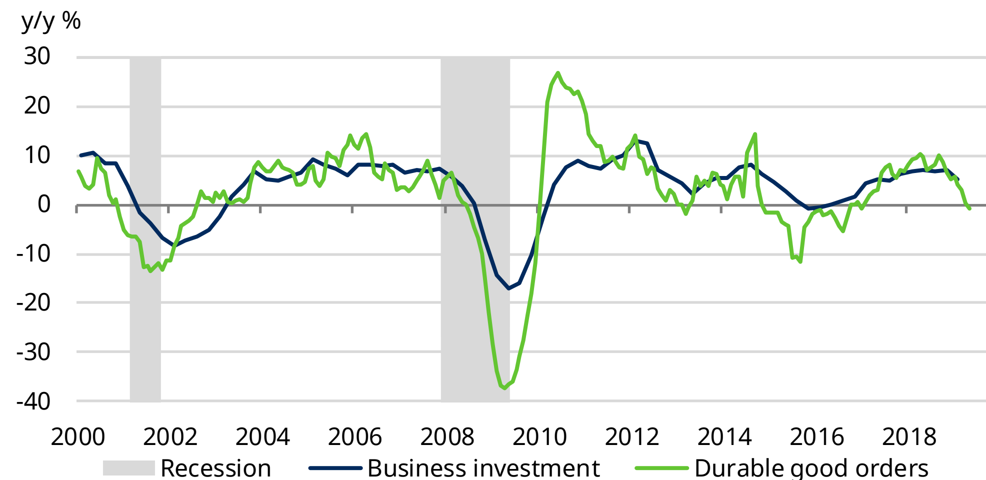
their spending plans. Capital spending (capex) and employment are the two most vulnerable areas.

Job cuts in the US have risen significantly this year with the Challenger survey reporting an increase of 39% in the first five months of 2019. Overall employment has held up relatively well so far, but non-farm payrolls grew only 75k in May and with downward revisions to past readings, the level of employment was well below expectations.

Uncertainty is weighing on capex...

On the capex side the signs of weakness have been clear for some time. From adding 1.1 percentage points (pp) to quarterly growth in the second quarter last year, fixed investment contributed only 0.4 pp in the first quarter this year. With residential investment flat, much of this was driven by business spending. The latest durable goods orders figures suggest there is more weakness to come (chart 4).

Chart 4: Durable goods orders signal weaker business capex ahead



Source: Thomson Reuters Datastream, Schroders Economics Group, 26 June 2019 (GQJO).

... one of the swing factors in a recession

The focus on capex is important as it is one of the swing factors in determining the depth of any downturn and whether an economy will experience a recession. Recessions can and have been caused by weaker consumer spending, but in the current environment where households have de-levered and the interest burden remains low the shock is more likely to come through a corporate sector retrenchment. This would eventually hit the consumer through weaker employment and income growth, but the cause would originate elsewhere.

The focus on capex and business spending highlights the importance of the political environment. Business needs clarity on the outlook to be able to commit to increased spending. In the UK, Brexit uncertainty has taken a significant toll on the economy by depressing investment and taking GDP growth down from 2% to 1%. As discussed above, the trade wars are having the same effect on the US, causing companies to rethink their investments due to uncertainty about the trade regime and who they can deal with.

More generally, geo-political risk as measured by the GPR index[1] remains elevated. Analysis shows that high levels of the index are associated with weaker economic activity and in the current environment this will weigh on capex.

Whilst this argues for a greater slowdown we would note that we would need to see more pressure on corporate profitability and cash flow to produce a major

[1]Source: "Measuring Geopolitical Risk" by Dario Caldara and Matteo Iacoviello at https://www2.bc.edu/matteo-iacoviello/gpr.htm.

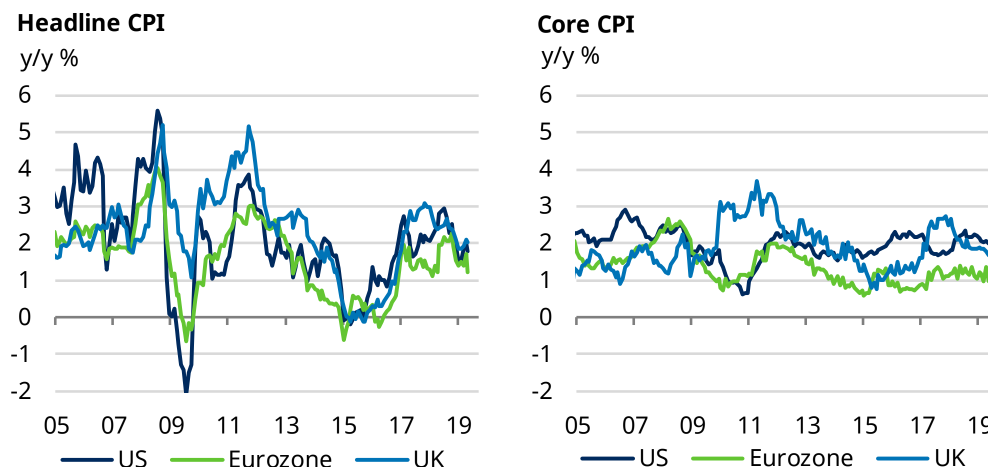
retrenchment. This will gradually come through, but will be primarily felt in 2020 when we expect US profits to decline by 4%. It is less of a problem today.

Inflation is no obstacle to easier policy

Any discussion on interest rates needs to take account of inflation which remains surprisingly quiescent and has allowed the fed to pivot toward a more dovish stance. Given the late stage of the US cycle, this has been a surprise and suggests that structural factors may be weighing on prices and preventing the normal cyclical pick-up. One such factor would be the intense competition in the retail sector as a result of the rise of internet shopping. On a more cyclical note, prices will be under downward pressure as firms run down inventory in coming months.

Low inflation is not just a US phenomenon, inflation has been weak in developed economies for the past six months, allowing other central banks to be more dovish without jeopardising their mandate (chart 5). Core inflation in the UK and eurozone is below 2%, and at just 1% in the latter is uncomfortably low.

Chart 5: Inflation remains subdued



Source: Thomson Reuters Datastream, Schroders Economics Group, 25 June 2019 (g0071).

It is quite possible that inflation will begin to move up again in the US given the effect of tariffs, higher oil prices and the tight labour market. But even if the core rate did move above 2%, it is questionable whether the Fed would react by tightening. Although the mandate remains to keep inflation at 2% the central bank is very aware that an overshoot at the end of the economic cycle could soon turn into an undershoot as growth slows. In this respect a modest overshoot is likely to be tolerated and would not prevent the Fed from easing further in 2020.

Pushing on a string?

Monetary policy likely to be less effective than in earlier cycles

This leads us to expect the Fed to cut rates at its next meeting at the end of July and to follow up with another move in September. These will probably be presented as insurance cuts to keep the expansion on track. However, the circumstances today are very different from 1995 when Alan Greenspan was at the helm. Back then the global economy and trade were more buoyant and the US consumer stronger. In our view, rate cuts at that time were more effective at stabilising growth as household borrowing responded to lower credit costs.

Today, in the wake of the financial crisis and the greater regulation of the banking system it is doubtful that the monetary transmission mechanism will be as effective. Rate cuts always take time to work and are often accompanied by claims that the central bank is "pushing on a string". This time though there will be genuine doubts, with the result that the Fed will still be cutting rates in 2020 in our view. Look out for calls for the Fed to restart quantitative easing and for a more active fiscal policy.

What is left in the central bank toolbox?

"It might be the case that central banks have less room to cut interest rates than before. But that doesn't mean central banks have no ammunition left"

Bank of Japan Governor Haruhiko Kuroda, 12 April 2019

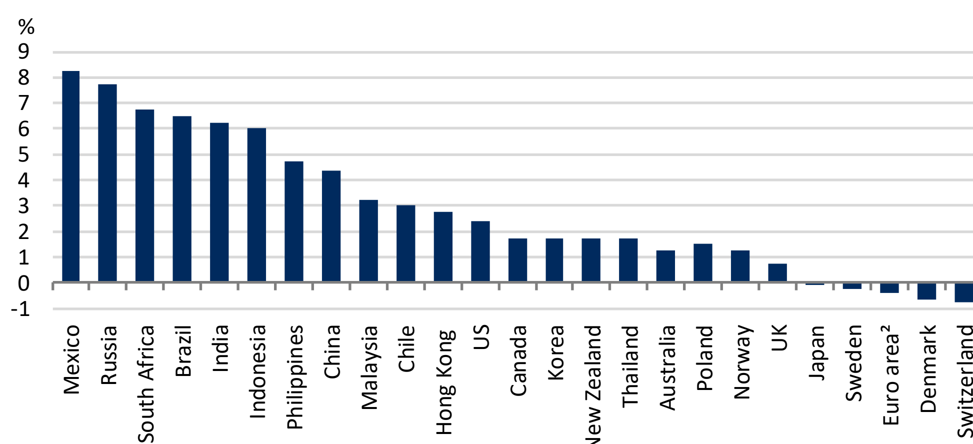
A long and shallow recovery has meant that interest rates still stand at record lows

With low interest rates across developed markets, we revisit the policy options for central banks.

Cutting interest rates

A long and shallow recovery from the Great Recession has meant that interest rates still stand at record lows for many developed markets (chart 6). From here, central banks have limited room to cut interest rates. The exception is the US, where the Federal Reserve has conducted a hiking cycle which, even then, has been cut short relative to expectations.

Chart 6: Global policy rates



Source: IMF, Schroders Economics Group, 20 June 2019. [2]Euro area policy rate is the deposit rate.

Contrary to the Fed, the ECB and BoJ have less scope to cut policy rates

In the previous downturn, central banks reached the lower bound of interest rates, which led them to turn to unconventional policy tools. To adequately support employment and inflation, it has been estimated using a Taylor rule that the Fed would have needed to cut rates to -5% in 2009[3].

At the detriment of bank profitability, some central banks, including the European Central Bank (ECB), and Bank of Japan (BoJ) have negative interest rates, charging commercial banks to keep deposits at the central bank. For these economies in particular, there is less scope to cut rates.

Restarting QE

Quickly becoming conventional, an option for central banks is to restart QE

Quickly becoming conventional, an option for central banks is restarting Quantitative Easing (QE). Large scale purchases of government bonds lowers bond yields as well as boosting the price of financial assets, generating a wealth effect. QE can also impact interest rate expectations through a signalling effect, by the commitment to easier monetary policy.

[3]Eberly, Stock and Wright, Conference on Monetary Policy Strategy, Tools and Communications Practices, Federal Reserve Bank of Chicago, June 2019.

At their peak, the Fed and ECB balance sheet were 25% of GDP and 40% of GDP, respectively. The BoJ and Swiss National Bank (SNB) show that central bank balance sheets can rise a lot further, exceeding 100% of GDP.

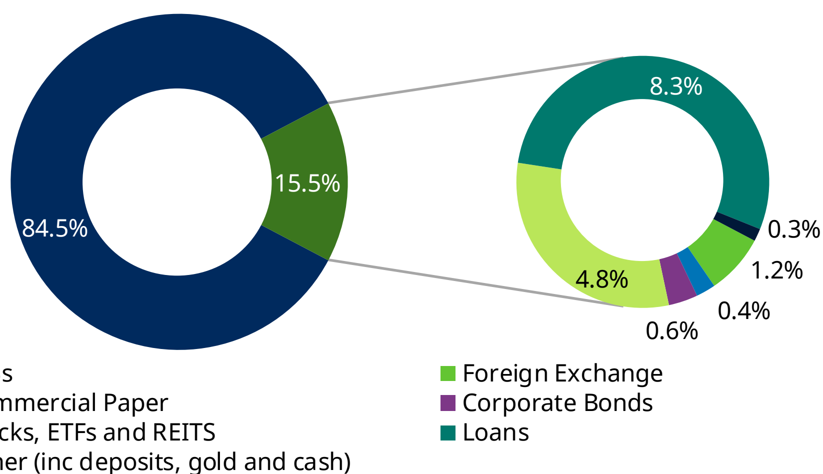
Bund scarcity is an issue for ECB QE, but the cap can be lifted

However, some central banks are beginning to run out of government bonds to buy. For example, the ECB has a public debt ownership limit of 33% of the market, making Bund scarcity in particular an issue. Of course, this limit is self-imposed and can be changed. Even then, with bond yields already very low, the impact of more QE may be limited.

Central banks could also expand the scope of QE. The Fed limited QE to government bonds and mortgage backed securities. The ECB also bought corporate bonds and securities debt, while the BoJ is also buying equities and real estate (chart 7).

Chart 7: Composition of Bank of Japan assets

Central banks could by equities but this raises governance concerns



Source: Bank of Japan, Schroders Economics Group, 14 June 2019.

The Fed is currently barred by law from buying corporate assets. However, the idea of buying credit and equities has been raised by the central bank, as these assets have a more direct link to spending. Meanwhile, it is legal for the ECB to buy equities. However, highlighted by the experience of the BoJ, buying these assets raises governance concerns, especially around exercising shareholder voting rights.

More forward guidance

More forward guidance can be used, but it also has limitations

After the introduction of QE, forward guidance – the signalling future policy intentions – helped central banks to steer interest rate expectations without changing the level of interest rates. What was also a hint that QE was coming, ECB Draghi's infamous "whatever it takes" (to preserve the euro) in 2012 was successful in easing financial conditions and helping to the end the sovereign debt crisis.

Forward guidance can continue to be used by central banks, but it also has limitations. Future rates have a lower bound and central banks tie their hands by committing to future policy. Meanwhile guidance with no follow through, particularly surrounding higher rates, can erode credibility. Prompting the "unreliable boyfriend" nickname, Bank of England Governor Mark Carney has faced criticism for changing his stance on rate rises.

Tiered interest rates

Increasing the sustainability of easy policy can ease financial conditions

Increasing the sustainability of negative rates allows the central bank to commit to keeping interest rates low for longer. Acting much like forward guidance, this can ease financial conditions. Negative interest rates are harmful to the profitability of the banking sector, due to the pressure on net interest income. This is particularly the case for those banks that are more reliant on deposit funding. Under consideration by the ECB, a tiered deposit rate reduces the balance that negative interest rates apply to. This limits negative rates only to excess deposits held at the central bank, thereby helping bank profitability allow easy monetary policy to be sustained for longer.

Revisiting the targeting framework

The Fed is considering average inflation targeting in a wider review of policy

With inflation remaining low, central banks can review their framework. For example, the Fed is considering average inflation targeting, where the central bank would aim to achieve the inflation target over a certain period. In theory, similar to price level targeting and nominal GDP targeting, this helps to keep inflation expectations at the target rate even if inflation undershoots. Simulations suggest that the magnitude of disinflation in the recession was such that it would take extreme policies to hit the temporary price target by 2019, and inflation would have to rise considerably above 2%[4].

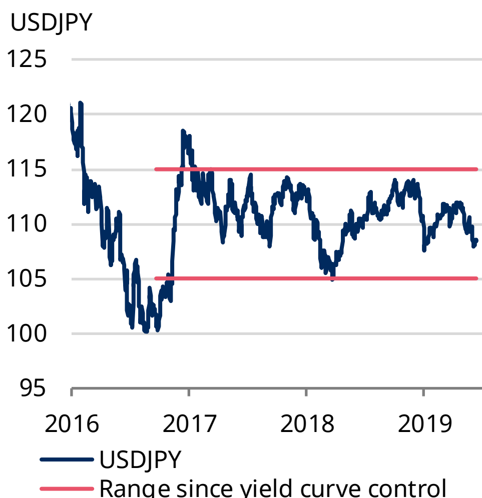
Introducing yield curve control

Yield curve control is a modification of QE

Yield curve control was introduced by the BoJ in 2016 as a modification to QE. By altering government bonds purchases, the 10-year government bond yield is targeted at 0%, allowing the central bank to shape the yield curve. This has allowed the BoJ to make fewer purchases of Japanese Government Bonds (JGBs) but keep yields low, making QE more sustainable. If implemented more widely, yield curve control would likely reduce interest rate and exchange rate currency volatility (charts 9 and 10). In the Japanese experience, it also led to reduced functioning of the bond market.

Chart 8: Yields under yield curve control

Chart 9: USDJPY under yield curve control



Source: Thomson Reuters Datastream, Schroders Economics Group, 17 June 2019.

[4]Eberly, Stock and Wright, Conference on Monetary Policy Strategy, Tools and Communications Practices, Federal Reserve Bank of Chicago, June 2019.

FOMC members have expressed interest in yield targeting. The Fed actually adopted yield curve control in 1942 to help the Treasury finance World War II, implicitly capping the long-term government bond yield at 2.5%. However, as inflation became a concern the policy became difficult to reverse due to the different objectives of the government and central bank.

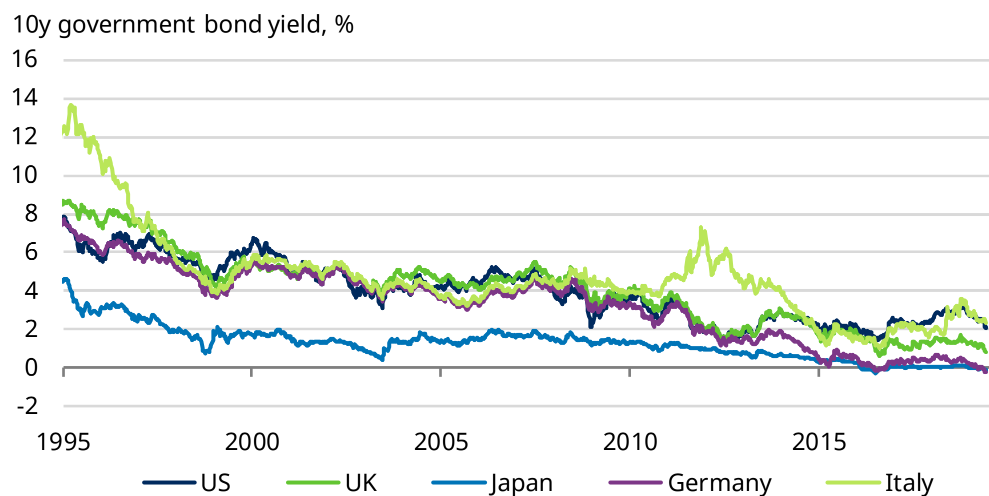
Helicopter money – a last resort?

Helicopter money introduces a serious threat to fiscal discipline

The central bank could print money and distribute it directly – known as helicopter money. Debt monetisation, where central banks finance the government directly, which is similar. Requiring monetary and fiscal co-ordination, it is currently illegal for most central banks. As well as raising inflationary concerns, helicopter money introduces a serious threat to fiscal discipline and in turn, central bank independence. In the 1930s, Finance Minister Takahasi rescued Japan from the Great Depression using a money-financed fiscal program but was later assassinated when he sought to rein in the deficit.

Chart 10: Borrowing costs for governments are low

Most advanced countries have at least some "fiscal space"



Source: Thomson Reuters Datastream, Schroders Economics Group, 20 June 2019.

In practice, easy monetary policy allows governments to borrow cheaply (chart 10). Insofar as central bank's balance sheets are permanently larger, QE is helping to finance government debt already.

Baton to be passed to fiscal policy

Those who co-ordinate a monetary and fiscal policy response should fare better

Ultimately, limited ammunition means that the baton should be passed to fiscal policy in the next downturn. But which countries have room to spend? The IMF found that despite elevated debt levels, most advanced countries have at least some "fiscal space" – room to use fiscal policy without endangering market access and debt sustainability[5]. In developed markets, Italy and Spain were found to have the least fiscal space due to concerns surrounding debt sustainability, despite reasonable access to financing.

In conclusion, central banks have proved that they can think creatively about monetary policy, no longer confining themselves to interest rates. Various tools remain available but come with limitations. The Federal Reserve and Bank of England can cut interest rates and restart QE. The ECB has limited scope to cut rates, but can still do so. The ECB can also restart QE, which would likely require raising the holding limits of government bonds. Longer term, QE could then be expanded to include more assets. The BoJ are clearly the most limited in terms of options but could still

[5]Assessing Fiscal Space, International Monetary Fund (IMF), June 2018.

cut rates. This would likely be accompanied by some sort of macro prudential policy, given the detrimental impact to the banking sector. Forward guidance can still be used across all central banks.

Ultimately, those who can co-ordinate a monetary and fiscal policy response should fare better in the next downturn. Given the political constraints and lower fiscal space, this could be particularly challenging for the eurozone.

EM: Cushioning the blow

"If only one person were perfectly informed there could never be a general crisis. But the only perfectly informed person is God, and he does not play the stock market."

Robert Skidelsky, Keynes: The Return of the Master

Emerging markets (EM) have some advantages over their slower growing, low interest rate cousins in the developed world. Should a global slowdown arrive, they still have an arsenal of familiar weaponry to deploy.

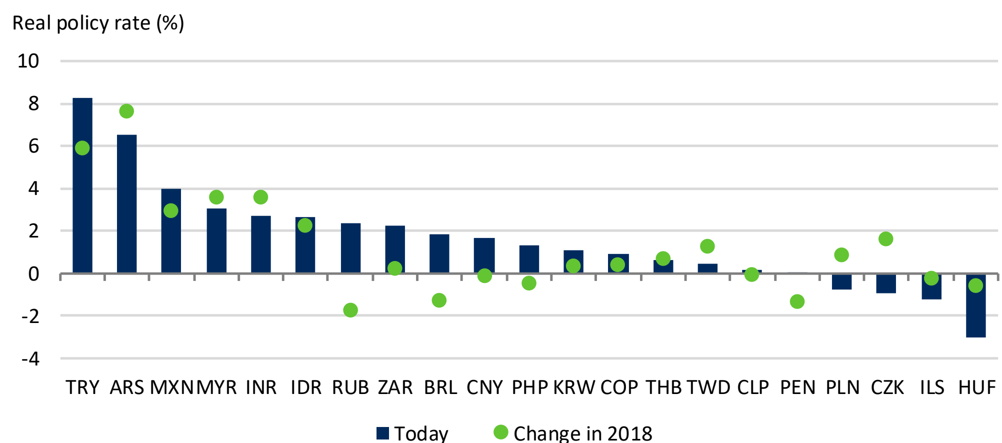
Central banks: fully loaded

Monetary policy space in EM is ample...

Happily for emerging markets, monetary policy is one area where convergence with their developed market (DM) counterparts is still some way off. DM central banks face serious challenges in responding to any future downturn, as discussed elsewhere in this Viewpoint, with rates in some cases already in negative territory. Quantitative easing (QE) and other non-orthodox tools are increasingly viewed as weapons of first resort, rather than last.

In EM, however, there is no need to deviate from the tried and tested playbook. Nominal rates are universally in positive territory and in most cases so are real rates (chart 11). Policymakers are not yet facing the constraint of the zero lower bound, which pushed DM central banks into the realms of QE. Furthermore, existing monetary conditions are not obviously already inflationary. Should the economy require support, there is nothing here to prevent central banks from acting.

Chart 11: Real rates are mostly positive in EM after a cautious 2018



Source: Thomson Reuters Datastream, Schroders Economics Group. 25 June 2019.

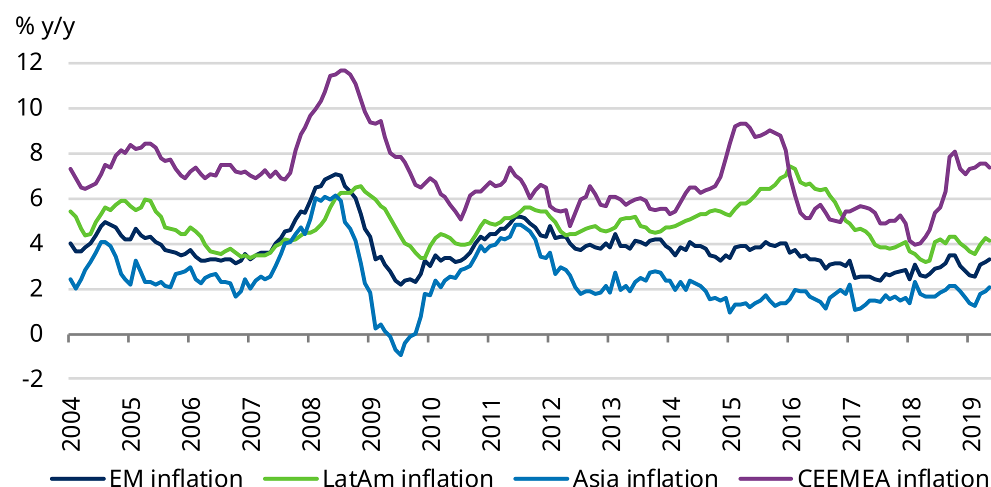
...thanks partly to pre-emptive hiking last year

Central banks across the emerging world are in this position in many cases because they took a very cautious stance in 2018. Against the backdrop of a hawkish Federal Reserve (Fed), which seemed set to continue hiking through 2019, many EM central banks oversaw a tightening of monetary conditions. Even in cases where easing occurred, it was typically modest and did not leave real rates in negative territory. Given the dovish turn from the Fed, this caution now looks excessive, providing greater comfort to central bankers who may want to ease in the face of softer global demand.

We also take confidence in this view when looking at the broader historical backdrop of EM inflation. One of the less remarked upon successes in EM is the structural decline in inflation (chart 12). Notwithstanding the recent surge in inflation in Turkey (which distorts the CEEMEA picture), the story of regional inflation in EM over the last couple of decades has been one of moderation and stability. Part of this reflects the

lower inflation global environment, but it is also associated with an improvement in policymaking and policy credibility in EM. This ultimately strengthens the hands of EM central banks, who can now ease for orthodox reasons (to support weak demand, or because inflation is low) without worrying that they will be accused of acting purely for political gain. They are also in a better position because with a long history of well managed inflation, expectations of future inflation also become more moderate among consumers and businesses. A rate cut therefore generates less fear of uncontrolled future price increases than it once did. Turkey unfortunately is an exception, and has considerable ground to make up in this regard.

Chart 12: Winning the inflation war (losing the occasional battle) in EM



Source: Thomson Reuters Datastream, Schroders Economics Group. 25 June 2019.

One potential constraint for EM central banks is the currency consideration. Aggressive easing could serve to undermine the domestic currency, with a depreciation feeding inflation and so forcing an easing cycle short. A key consideration here is the interest rate differential versus the US, which is what prompted many central banks to hike, or cut short easing, in 2018. However, with the Fed also likely to be easing in any global slowdown scenario, weaker growth generally exerting deflationary pressures, and EM currencies having already depreciated substantially in 2018 and so reducing the needed adjustment, easing should very much be on the table in EM in a slowdown.

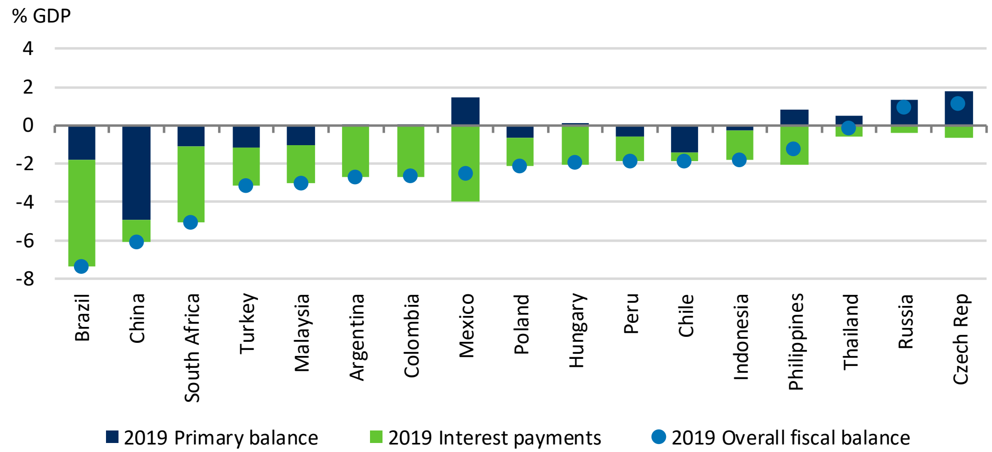
Fiscal firepower

Fiscal bullets are less plentiful but will still be part of any defence

While there is a clear case for monetary space in EM, fiscal space seems a lot tighter. Year end projections for fiscal balances across EM by the IMF (chart 13) show that most EM economies are running primary deficits (i.e. before interest payments are taken into account) already. This does not immediately rule out the use of fiscal stimulus in a downturn – it may be possible to run a larger deficit – but it is not an encouraging starting point.

A more complete analysis of the fiscal policy space available would also consider the availability of finance and the sustainability of debt. That is, could a government borrow additional funds for stimulus if required, and would doing so lead to a spiralling debt problem. The IMF has recently conducted such an analysis, and concluded that for most EM economies there is some space (as opposed to substantial space) for fiscal stimulus. However, in the case of South Africa, Argentina, and Brazil, fiscal manoeuvrability is seen as limited.

Chart 13: Fiscal space in some EM is limited



Source: IMF, Schroders Economics Group. 25 June 2019.

Brazil and South Africa are not a surprise, given what we see in chart 13. Argentina's problem is one of market access in a febrile political environment, as much as debt sustainability. But it may seem surprising that China is not flagged by the IMF. It has a considerable deficit already, after all. A saving grace for China is the still small interest burden, and the ease with which it can finance government debt; this is still primarily a domestically funded asset class. The government will also have far fewer qualms than, for example, the eurozone in deploying whatever firepower is apposite. We would agree that China would not hesitate to ramp up spending should the situation require it.

Schroders Economics Group: Views at a glance
Macro summary – July 2019

Key points

Baseline

– After expanding by 3.3% in 2018, global growth is expected to moderate to 2.8% in 2019 and 2.6% in 2020. Inflation is forecast to decline to 2.6% this year after 2.7% in 2018 and then rise to 2.7% in 2020. Meanwhile we expect the US and China to sign a trade deal in December, although the impact of actions so far will still be felt in 2019 and 2020.

– US growth is forecast to slow to 2.6% in 2019 and 1.5% in 2020. Following recent statements from the Fed we now expect two rate cuts this year in July and September. As US fiscal stimulus fades and the economy slows, the Fed is forecast to cut rates twice more in 2020 after ending quantitative tightening in September 2019.

– Eurozone growth is forecast to moderate from 2% in 2018 to 1.2% in 2019 as the full effects from the US-China trade war and Brexit hit European exporters. Inflation is expected to remain under 2%, with higher energy price inflation in 2018 replaced by higher core inflation in 2019. The ECB has ended QE and is expected to keep interest rates on hold through 2020.

– UK growth is likely to remain constant at 1.4% this year, unchanged from 2018. Assuming that a Brexit deal with the EU passes parliament in Q4 ahead of a transition period that preserves the status quo of single market and customs union membership, growth is expected to remain at 1.4% in 2020. Inflation is expected to fall to 2% in 2019 thanks to an expected rise in sterling, but stronger quarterly growth is expected to push inflation up to 2.3% in 2020. Meanwhile, the BoE is expected to hike once in 2020 (to 1.00%).

– Growth in Japan should fall to 0.9% in 2019 from 1.1% in 2018, however the path of activity should be volatile owing to the consumption tax hike in October this year. A slow recovery should follow resulting in 0.2% growth in 2020. We do not expect the BoJ to alter yield curve control as inflation remains well under 2% in our forecast horizon.

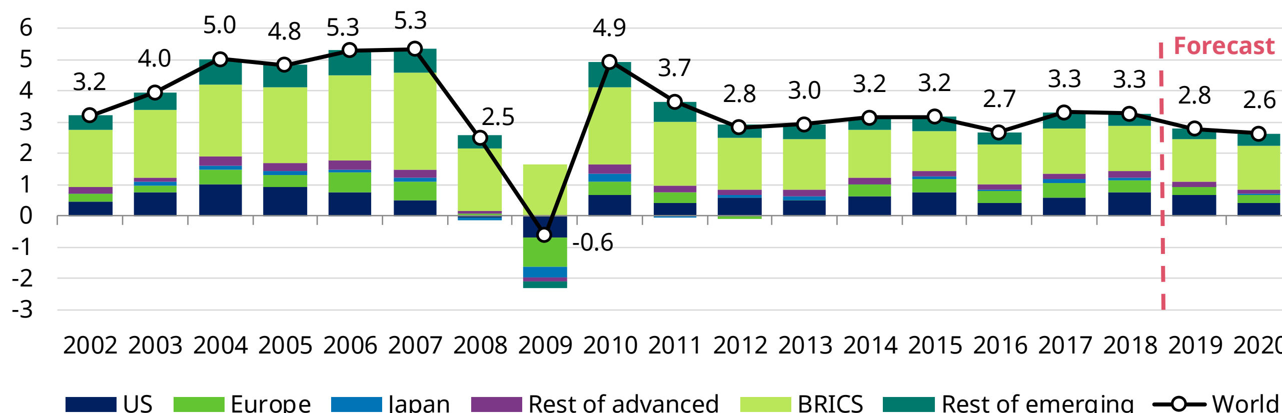
– Emerging market economies should slow to 4.4% in 2019 after 4.8% in 2018, but pick-up slightly to 4.6% in 2020. We are optimistic that for most of the BRIC economies' domestic factors can outweigh global problems in 2020. China benefits from an easing of trade tensions with the US, but against a backdrop of secular decline the PBoC should continue to ease.

Risks

– Risks are tilted toward deflation with the highest individual risk going on the US recession 2020 scenario where the economy proves more fragile than expected as fiscal stimulus is withdrawn. We also see a risk of an escalation in the US-China dispute with the US extending the trade war to Europe.

Chart: World GDP forecast

Contributions to World GDP growth (y/y)



Source: Schroders Economics Group, June 2019. Please note the forecast warning at the back of the document.

Schroders Baseline Forecast

Real GDP

y/y%	Wt (%)	2018	2019		Prev.	Consensus	2020		Prev.	Consensus
World	100	3.3	2.8		*(2.8)*	2.8	2.6	↓	*(2.7)*	2.8
Advanced*	61.4	2.3	1.8		*(1.8)*	1.8	1.4	↓	*(1.5)*	1.6
US	26.5	2.9	2.6	↑	*(2.4)*	2.6	1.5	↓	*(1.6)*	1.9
Eurozone	17.2	2.0	1.2	↓	*(1.3)*	1.1	1.4		*(1.4)*	1.3
Germany	5.0	1.9	0.9	↓	*(1.0)*	0.8	1.2	↓	*(1.4)*	1.5
UK	3.6	1.4	1.4	↑	*(1.1)*	1.4	1.4	↓	*(1.5)*	1.4
Japan	6.7	1.1	0.9	↑	*(0.7)*	0.6	0.2	↓	*(0.4)*	0.4
Total Emerging**	38.6	4.8	4.4	↓	*(4.5)*	4.4	4.6	↓	*(4.7)*	4.6
BRICs	25.3	5.7	5.5		*(5.5)*	5.5	5.5		*(5.5)*	5.5
China	16.7	6.6	6.3		*(6.3)*	6.3	6.0	↓	*(6.1)*	6.1

Inflation CPI

y/y%	Wt (%)	2018	2019		Prev.	Consensus	2020		Prev.	Consensus
World	100	2.7	2.6	↑	*(2.4)*	2.5	2.7	↑	*(2.5)*	2.5
Advanced*	61.4	2.0	1.8	↑	*(1.7)*	1.6	2.0	↑	*(1.9)*	1.8
US	26.5	2.4	2.3	↑	*(1.9)*	1.9	2.4	↑	*(2.3)*	2.1
Eurozone	17.2	1.7	1.7		*(1.7)*	1.4	1.6	↑	*(1.5)*	1.4
Germany	5.0	1.8	1.8		*(1.8)*	1.5	1.7		*(1.7)*	1.6
UK	3.6	2.5	2.0	↑	*(1.8)*	2.0	2.3	↓	*(2.4)*	2.0
Japan	6.7	1.2	0.3	↓	*(0.5)*	0.6	1.2	↑	*(1.0)*	0.9
Total Emerging**	38.6	3.8	4.0	↑	*(3.7)*	4.0	3.8	↑	*(3.5)*	3.7
BRICs	25.3	2.8	2.8	↑	*(2.6)*	2.9	3.1	↑	*(2.8)*	2.9
China	16.7	2.2	2.4	↑	*(2.0)*	2.3	2.7	↑	*(2.2)*	2.2

Interest rates

% (Month of Dec)	Current	2018	2019		Prev.	Market	2020		Prev.	Market
US	2.50	2.50	2.00	↓	*(2.75)*	2.35	1.50	↓	*(2.25)*	2.06
UK	0.75	0.75	0.75	↓	*(1.00)*	0.89	1.00	↓	*(1.50)*	0.99
Eurozone (Refi)	0.00	0.00	0.00	↓	*(0.25)*	-0.33	0.00	↓	*(0.75)*	-0.26
Eurozone (Depo)	-0.40	-0.40	-0.40	↓	*(-0.20)*		-0.40	↓	*(0.25)*	
Japan	-0.10	-0.10	-0.10		*(-0.10)*	0.03	-0.10	↓	*(0.00)*	0.02
China	4.35	4.35	4.00		*(4.00)*	-	3.50		*(3.50)*	-

Other monetary policy

(Over year or by Dec)	Current	2018	2019		Prev.	Y/Y(%)	2020		Prev.	Y/Y(%)
US QE ($Tn)	4.0	4.1	3.7	↑	*(3.5)*	-9.8%	3.7	↑	*(3.4)*	0.0%
EZ QE (€Tn)	2.4	2.4	2.4		*(2.4)*	0.0%	2.4		*(2.4)*	0.0%
UK QE (£Bn)	422	435	445		*(445)*	2.3%	445		*(445)*	0.0%
JP QE (¥Tn)	557	552	573	↓	*(575)*	3.8%	593	↓	*(595)*	3.5%
China RRR (%)	13.50	14.50	12.00		*12.00*	-	10.00		*10.00*	-

Key variables

FX (Month of Dec)	Current	2018	2019		Prev.	Y/Y(%)	2020		Prev.	Y/Y(%)
USD/GBP	1.27	1.27	1.34	↓	*(1.42)*	5.2	1.38		*(1.38)*	3.0
USD/EUR	1.12	1.14	1.14	↓	*(1.17)*	-0.3	1.18	↓	*(1.20)*	3.5
JPY/USD	109.5	109.7	110		*(110)*	0.3	108		*(108)*	-1.8
GBP/EUR	0.88	0.90	0.85	↑	*(0.82)*	-5.2	0.86	↓	*(0.87)*	0.5
RMB/USD	6.90	6.87	6.85		*(6.85)*	-0.2	7.00		*(7.00)*	2.2
Commodities (over year)										
Brent Crude	67.8	71.6	70.2	↑	*(62.7)*	-1.9	69.1	↑	*(62.3)*	-1.6

Source: Schroders, Thomson Datastream, Consensus Economics, June 2019
Consensus inflation numbers for Emerging Markets is for end of period, and is not directly comparable.
Market data as at 28/05/2019
Previous forecast refers to March 2019
* **Advanced markets:** Australia, Canada, Denmark, Euro area, Israel, Japan, New Zealand, Singapore, Sweden, Switzerland, United Kingdom, United States.
** **Emerging markets**: Argentina, Brazil, Chile, Colombia, Mexico, Peru, China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, South Africa, Russia, Czech Rep., Hungary, Poland, Romania, Turkey, Ukraine, Bulgaria, Croatia, Latvia, Lithuania.

Updated forecast charts – Consensus Economics

For the EM, EM Asia and Pacific ex Japan, growth and inflation forecasts are GDP weighted and calculated using Consensus Economics forecasts of individual countries.

Chart A: GDP consensus forecasts

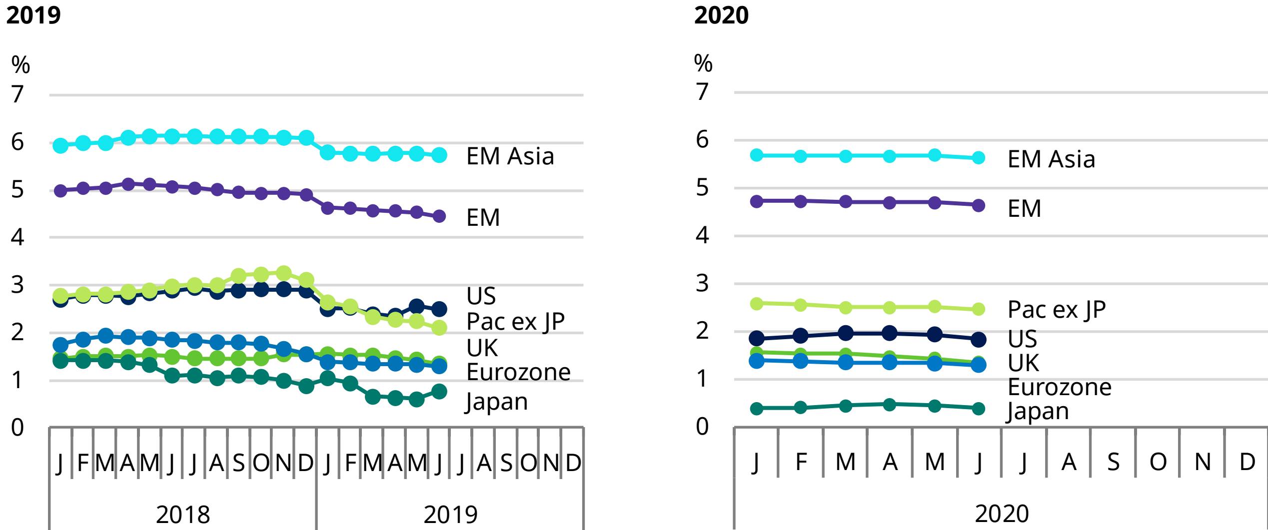
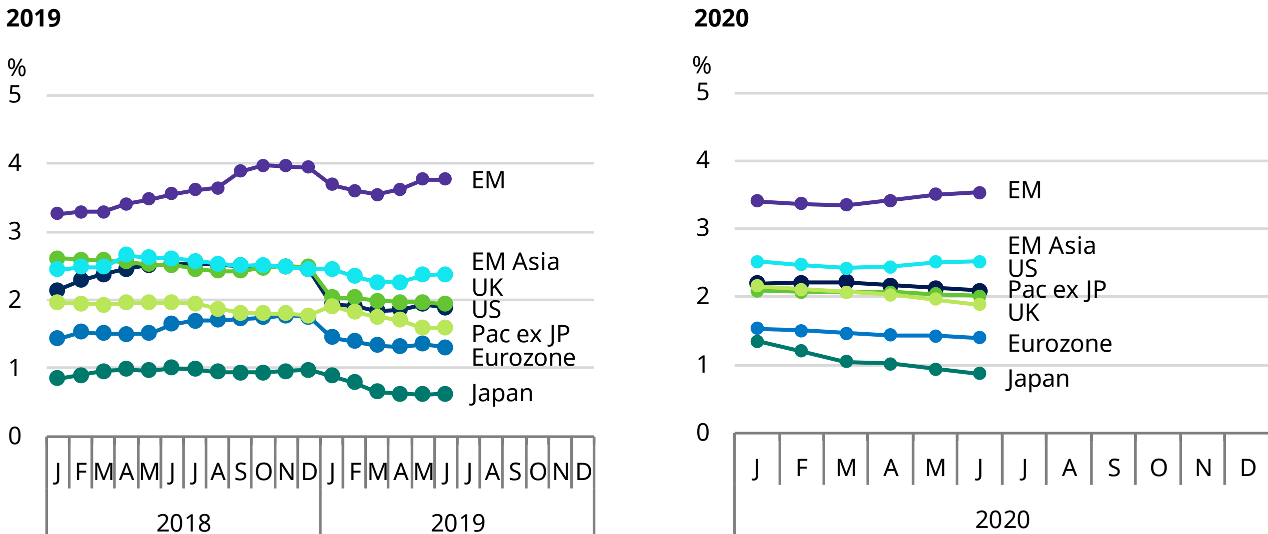


Chart B: Inflation consensus forecasts



Source: Consensus Economics (24 June 2019), Schroders.
Pacific ex. Japan: Australia, Hong Kong, New Zealand, Singapore.
Emerging Asia: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand.
Emerging markets: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, Argentina, Brazil, Colombia, Chile, Mexico, Peru, South Africa, Czech Republic, Hungary, Poland, Romania, Russia, Turkey, Ukraine, Bulgaria, Croatia, Estonia, Latvia, Lithuania.

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