Goldman Sachs | Economics Research

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Global Economics Analyst

Landing the Plane

- The global economy looks poised to slow moderately from 3.8% in 2018 to 3.5% in 2019, led by deceleration in the US and further softening in China. But with growth still above potential in most DM economies, we look for continued labor market tightening, gradually rising core inflation, and in many cases higher policy rates.
- Our Fed call remains hawkish relative to the market, with five more 25bp hikes to a terminal 3¼-3½% funds rate at the end of 2019. While higher rates and tighter financial conditions should help slow growth to its potential rate over the next year, we expect a decline in the unemployment rate to 3% and a rise in core inflation to 2¼% by early 2020.
- We think concerns about the global impact of tighter Fed policy are overdone. Spillovers to EM are real, but the market has already priced 11 of the 13 hikes we expect for this cycle, so most of the adjustment to more normal US interest rates is probably behind us. The main risk to this view is a more substantial US overheating that eventually forces steeper rate hikes.
- China has slowed quite sharply in 2018, on the back of slower credit growth and fears about a more damaging trade war. With monetary and fiscal policy now in easing mode, we expect only a modest further deceleration. The macro impact of increasing tariffs is also likely to remain manageable, even under our call for some further escalation in early 2019.
- Although growth in Europe and Japan has decelerated in the course of 2018, it remains above trend. This should put further downward pressure on the unemployment rate and keep the recent upward trend in wage growth intact. However, with core inflation still far below the target, the Italian budget crisis unresolved, and Brexit negotiations ongoing, the risks to our forecasts of a first hike in the ECB deposit rate in Q4 2019 are tilted to the later side.
- Beyond 2019, the risk of a global recession is likely to rise as more and more DM economies move beyond full employment. However, even in subsequent years recession is not our base case. Financial imbalances still look very limited, and the flatter and more anchored Phillips curve has reduced the need for central banks to reverse an overshooting of full employment quickly.

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Landing the Plane

When the books are closed on 2018, it should look like a pretty good year for the global economy. Real GDP growth is on track for 3.8%, which is above potential if not quite as firm as suggested by the high-frequency indicators early in the year. The laggard economies in Europe and Japan saw further progress in the labor market, with ongoing strength in employment and declines in the unemployment rate. And the renewed "lowflation" concerns of 2017 have subsided on the back of stronger wage growth across the advanced economies and a rebound in US core inflation.

But the high-water mark on growth is probably behind us. As shown in Exhibit 1, we now expect global GDP to grow by 3.5% in 2019, with softer numbers across most DM economies as well as China. In most places where we have reliable supply-side estimates, our forecasts remain above potential, although the annual average numbers overstate the strength in cases such as the US where we see growth slowing through the year.

Exhibit 1: Our Global Growth Outlook

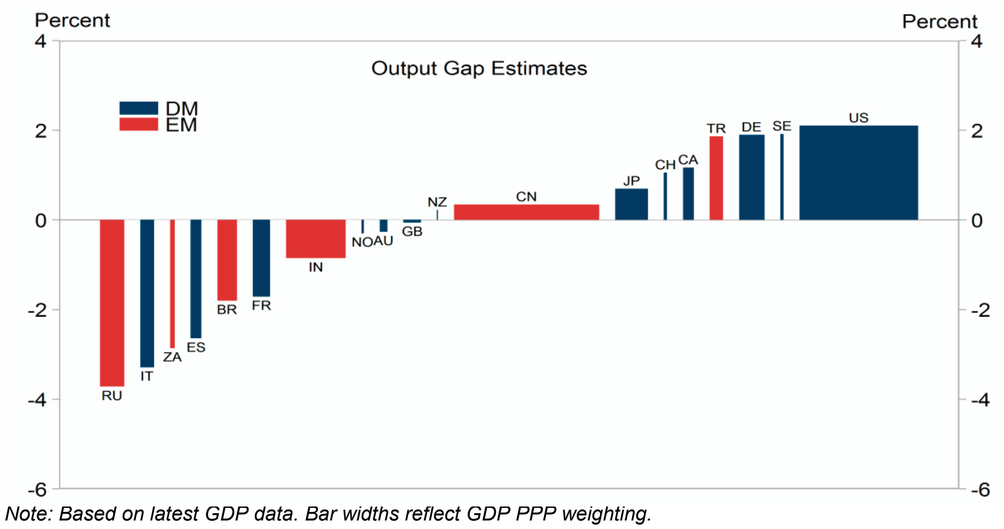
Real GDP Growth Percent Change yoy	2016	2017	2018 (f)		2019 (f)		2020 (f)	
			GS	Cons*	GS	Cons*	GS	Cons*
US	1.6	2.2	2.9	2.9	2.5	2.6	1.6	1.9
Japan	1.0	1.7	0.9	1.1	1.0	1.1	0.6	0.6
Euro Area	1.9	2.5	1.9	2.0	1.6	1.7	1.6	1.5
Germany	2.2	2.5	1.7	1.8	1.9	1.7	1.6	1.5
France	1.1	2.3	1.6	1.6	1.7	1.7	1.6	1.6
Italy	1.0	1.6	1.0	1.1	0.4	1.0	1.1	0.9
Spain	3.3	3.0	2.5	2.6	2.3	2.3	2.1	1.9
UK	1.8	1.7	1.3	1.3	1.5	1.5	1.4	1.6
China	6.7	6.9	6.6	6.6	6.2	6.2	6.1	6.0
India**	7.9	6.3	7.5	7.4	7.3	7.5	7.9	-
Russia	-0.2	1.5	1.7	1.8	1.8	1.5	2.8	1.7
Brazil	-3.5	1.0	1.2	1.4	2.6	2.3	3.0	2.6
Developed Markets	1.7	2.4	2.4	2.4	2.1	2.1	1.7	1.7
Emerging Markets	4.5	5.1	5.1	5.1	4.7	4.9	5.3	5.1
World	3.1	3.8	3.8	3.9	3.5	3.6	3.6	3.6

* Bloomberg consensus forecasts as of November.
** Bloomberg consensus fiscal year basis

Source: Bloomberg, Goldman Sachs Global Investment Research

Part of the reason for slower growth is that a number of economies, especially in DM, are hitting capacity constraints. The estimates in Exhibit 2 imply that actual GDP is now 0.1% above potential at the global level, mainly because of early signs of overheating in the US, Germany, and a range of smaller DM economies.

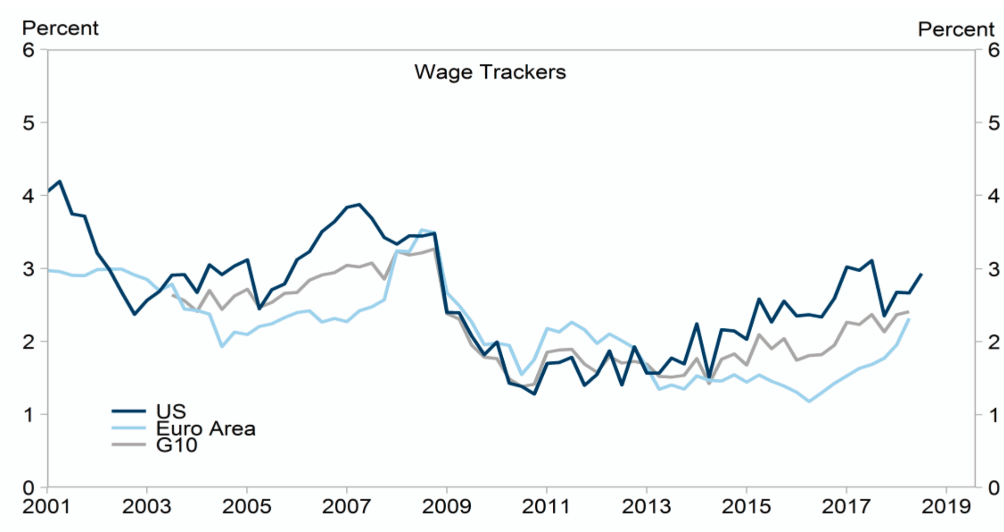
Exhibit 2: A Number of DMs Are Running Hot



Source: Goldman Sachs Global Investment Research

One of the most notable recent developments has been the pickup in wage growth across most DM economies, illustrated in Exhibit 3. This is unsurprising in countries such as the US or Germany, where unemployment is already at historically low levels. But even the broader Euro area, as well as many of the smaller G10 economies, have seen a pickup of late.

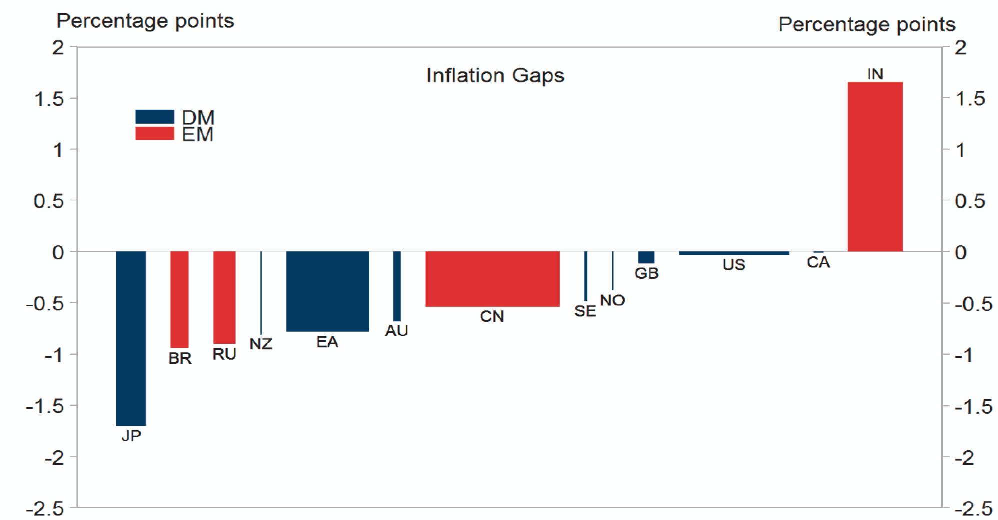
Exhibit 3: A Notable Pickup in DM Wage Growth



Source: Goldman Sachs Global Investment Research

Core price inflation remains more disparate. Exhibit 4 shows that the US and a range of smaller DM economies are close to 2%, but both the Euro area and Japan are still quite far away from central bank goals—indicative of remaining slack (in Europe) and still-depressed inflation expectations (especially in Japan).

Exhibit 4: Divergence in Inflation Pressures

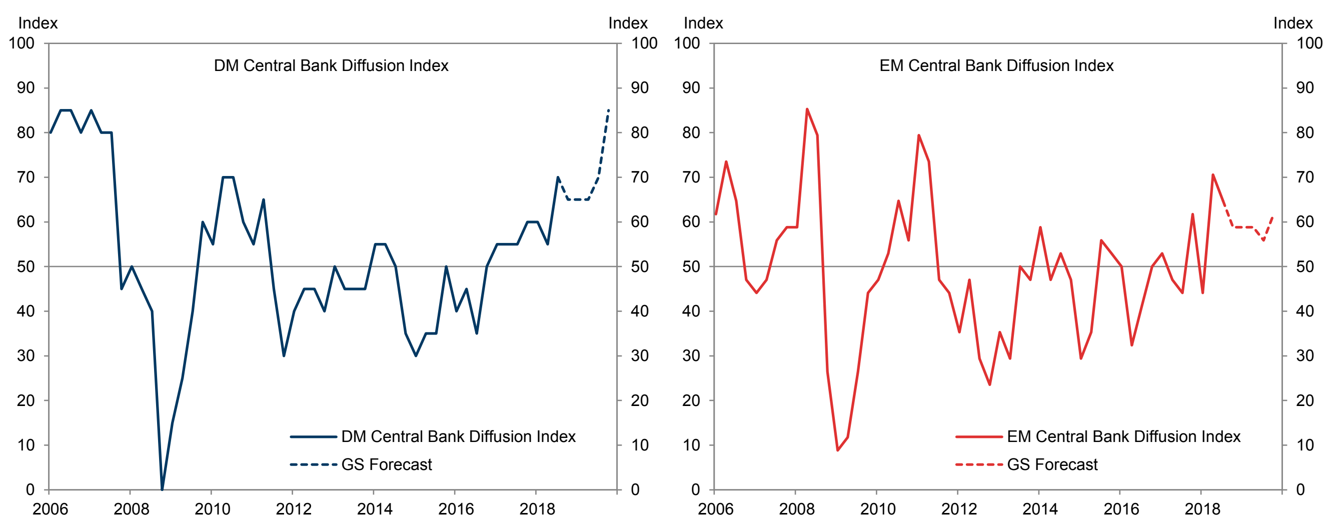


Note: Bar widths reflect GDP PPP weighting. We assume a 2% inflation target everywhere except in the Euro Area (1.9%), Switzerland (1.9%), Australia (2.5%), China (2.25%), India (4%), Brazil (4.5%), and Russia (4%).

Source: Haver Analytics

The upturn in resource utilization and inflation has persuaded a number of central banks to start exiting from the very easy stance of monetary policy. As illustrated in Exhibit 5, our forecasts imply a fairly broad-based turn to higher rates across most DM economies, with Sweden, Australia, New Zealand, and (in our baseline forecast) the Euro area joining the US, UK, Canada, and Norway in lifting their policy rates. The EM monetary policy picture is likely to remain a bit more mixed. We expect hikes in countries such as India and Brazil but see cuts in countries such as Russia and South Africa.

Exhibit 5: A Broader Turn to Interest Rate Normalization in DM



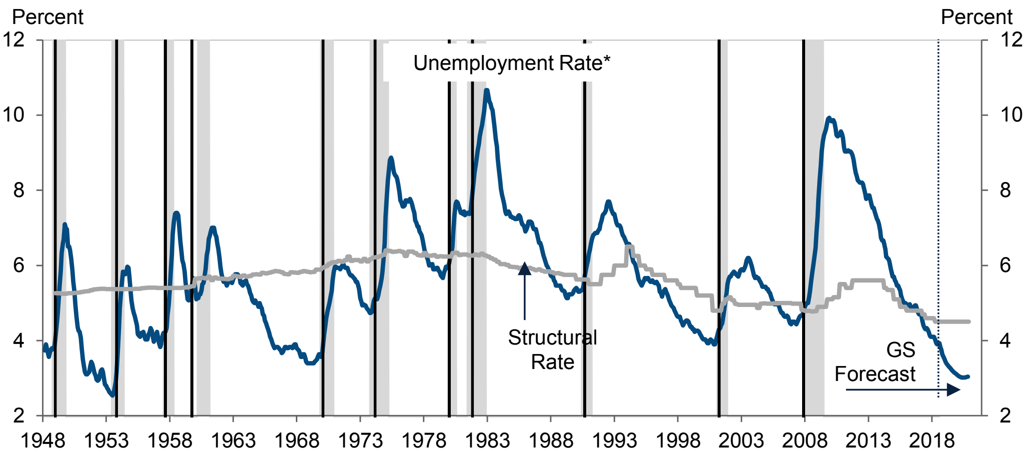
Note: Diffusion Index = 1 x percent of central banks hiking + 0.5 x percent of central banks on hold.

Source: Goldman Sachs Global Investment Research

Completing the Fed's Job

The United States is much further advanced in the cycle than most other DM economies. This is most clearly visible in the labor market, where Exhibit 6 shows that the unemployment rate now stands 0.8 percentage point (pp) below the Fed's (and our) estimate of its full-employment level. This is a sizable gap by historical standards, comparable to that seen in 2000 and bigger than those seen at labor market peaks such as 2007 and 1989 (though not as extreme as in the Korean War boom of the early 1950s and the Vietnam War boom of the late 1960s). Moreover, Exhibit 7 shows that other labor market indicators—e.g., job openings, quits, reported skill shortages, and household labor market perceptions—show a similar message of near-record tightness.

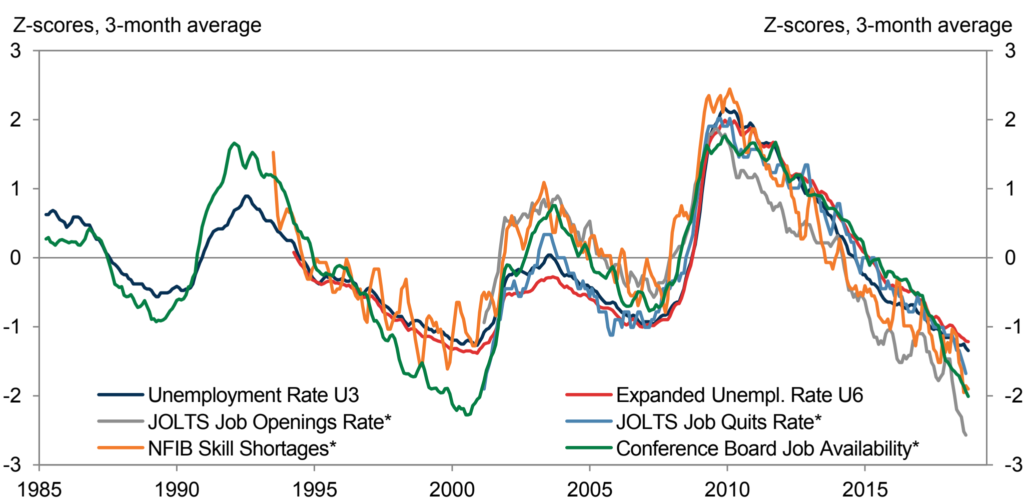
Exhibit 6: The US Labor Market Has Started to Overheat…



* 3-month moving average. Vertical lines denote months in which jobless rate rose more than 0.35 percentage points above the preceding low. Gray shading indicates NBER recession.
** We use estimates of the structural rate from the Fed since 1960 and the CBO before 1960.

Source: Department of Labor, NBER

Exhibit 7: ...Across a Broad Range of Measures



*Z-scores were inverted. Higher values denote more slack.

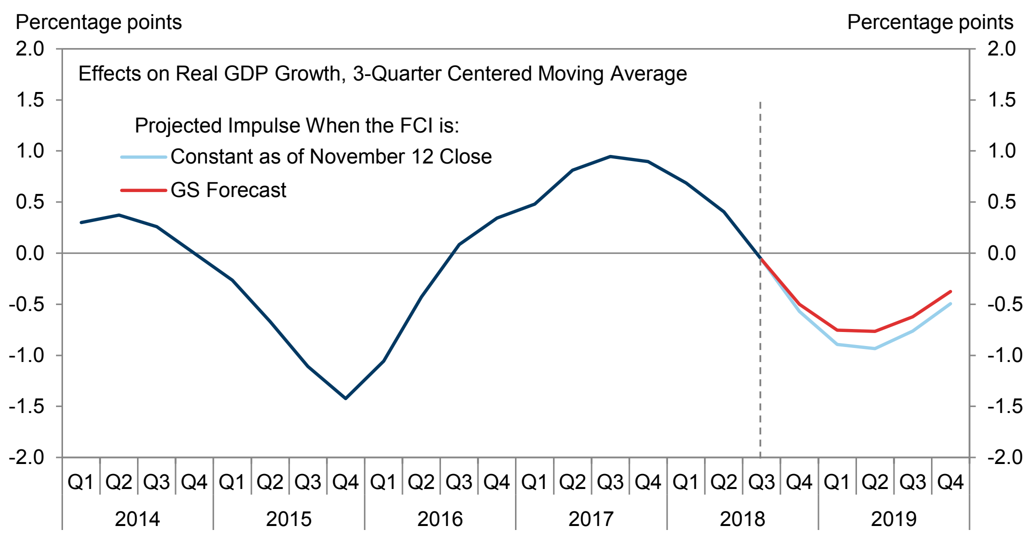
Source: Department of Labor, The Conference Board, JOLTS, NFIB, Goldman Sachs Global Investment Research

The tight labor market is increasingly translating into higher wages and prices. Wage growth is now up to about 3% year-on-year across a range of measures, with wage survey indicators pointing toward further gains. And while sequential core PCE price inflation has been a bit softer than expected recently, the year-on-year rate remains at 2.0% at a time when the tariff impact is probably just about to show up in higher goods pricing. We continue to expect a gradual move to about 2¼% by the end of 2019.

This implies that growth needs to slow to its estimated trend pace of 1¾% sooner rather than later, from a recent pace of around 3½%. Although the positive impact of fiscal policy—worth an estimated ¾pp at present—is likely to diminish in 2019, healthy household balance sheets, a relatively high personal saving rate, strong labor market momentum, and high business confidence all remain important near-term tailwinds. This means that we will probably need to see a significant negative impulse from financial conditions to slow growth down to a trend pace.

How big a negative US growth impulse can we expect from the recent FCI and equity market moves? It is hard to be precise, but Exhibit 8 implies a hit averaging about ¾pp in 2019 under GS forecasts for Fed policy and the different asset markets. Combined with the loss of fiscal impulse, we think this will slow growth to a trend pace by the end of 2019.

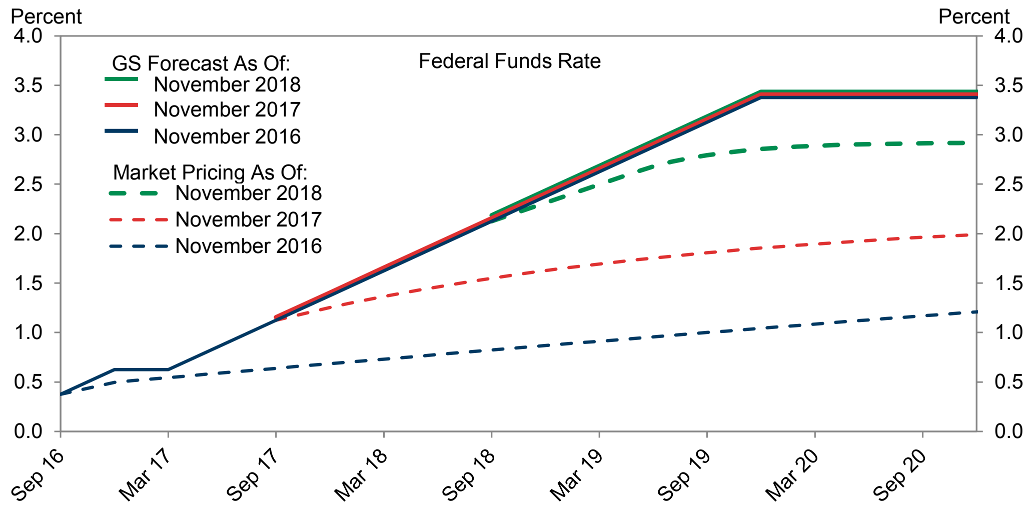
Exhibit 8: Tighter US Financial Conditions Point to a Headwind Next Year



Source: Goldman Sachs Global Investment Research

We therefore remain comfortable with our forecast of quarterly rate hikes until the funds rate hits 3¼-3½% by the end of 2019. This remains above market pricing, but Exhibit 9 shows that it is the smallest disagreement in quite a while. Two years ago, our funds rate call for the end of 2019 was 240 basis points (bp) above market pricing. One year ago, the gap had shrunk to 160bp. Now, the gap is 50bp. This is not a trivial amount, but we should also not overstate the required adjustment relative to the repricing that has already occurred.

Exhibit 9: More Repricing Needed, But Much of It Is Done



Source: Bloomberg, Goldman Sachs Global Investment Research

The Spillovers from Fed Tightening

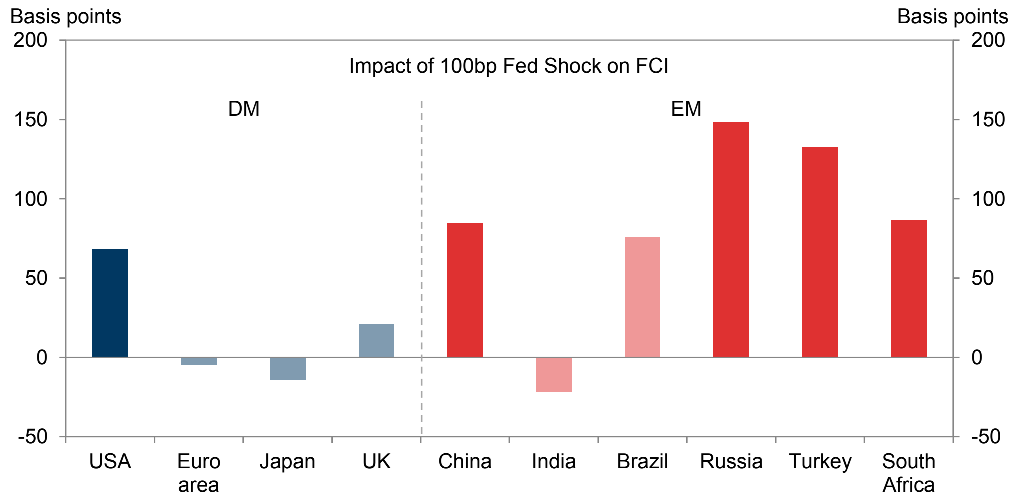
Many investors agree that further funds rate hikes are needed from a domestic US perspective but worry that this will result in large negative spillovers to the rest of the world and thereby undermine the global recovery, and perhaps even the Fed's ability to continue tightening. They point out that EM growth, in particular, underperformed expectations in 2018 and blame the shortfall on higher US rates and resulting upward pressure on the currency.

Our view is more nuanced. As shown in the left-hand chart of Exhibit 10, we find that Fed policy shocks do not have significant net effects on financial conditions in foreign advanced economies. This is because the exchange rate tends to cushion spillovers into long-term interest rates and equity prices in other DMs.[1] But we do find that hawkish Fed shocks have net negative effects on EM financial conditions (right-hand panel of Exhibit 10), because exchange rates do not move sufficiently to offset the spillovers into EM domestic financial conditions (and also because the exchange rate has a smaller weight in our EM FCIs).[2]

[1] For a more detailed discussion, see Jan Hatzius, Sven Jari Stehn and Matteo Leombroni, "Looking after Number One," *Global Economics Analyst*, June 10, 2016.

[2] See Nicholas Fawcett, "Tighter Fed Policy a Manageable Risk for EM Financial Conditions", *Global Economics Analyst*, April 1, 2018. Part of the reason why the FX weight is smaller is the importance of dollar-denominated debt in many EM economies.

Exhibit 10: The Effects of Fed Tightening on Global Financial Conditions



Source: Goldman Sachs Global Investment Research

A hawkish Fed is therefore, in principle, a concern for EM. But again, it is important to keep the numbers in perspective. The estimates in Exhibit 10 suggest that the two additional hikes we see on top of current market pricing would tighten EM financial conditions by 40bp, on average.[3] And our FCI impulse analysis suggests that such an FCI tightening might slow growth in EM economies by about 0.3pp. This would be a noticeable, but manageable, drag on EM growth.

One risk to all of this is that the US economy overheats more significantly. If so, Fed officials would likely need to go beyond our current baseline forecast for the funds rate, and might even need to accelerate the pace of rate hikes. If so, the spillovers especially to EM could turn out to be significantly larger as well. This illustrates how important it is for the world that the FOMC achieve a soft landing for the US economy in 2019.

Easing "As Needed" in China

China has slowed significantly in 2018, with our CAI down from 7½% in the first half to around 6% in the fall (Exhibit 11). We see two main drivers of this deceleration. First, credit growth slowed sharply in the early part of the year, which tightened financial conditions and slowed domestic demand growth. Second, fears about a damaging trade war with the US weighed on Chinese sentiment and equity prices, likely exacerbating domestic demand weakness.

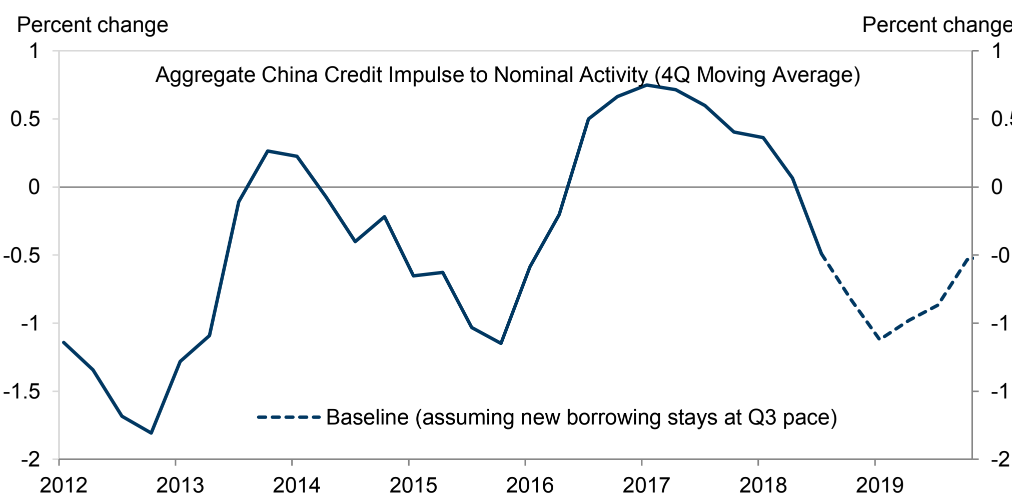
[3] A 50bp increase in the funds rate typically tightens our US FCI by about 35bp. Exhibit 10 suggests that this would lead to an average EM FCI tightening of 40bp.

Exhibit 11: The Slowdown in China

Source: Haver Analytics, Goldman Sachs Global Investment Research

With monetary and fiscal policy now in easing mode, however, we expect only a modest further deceleration in 2019. The PBoC has already lowered short-term interest rates from 3% to 2% this year, the Renminbi has depreciated 6½% against the dollar, credit growth has picked up sequentially, and fiscal policy has turned more expansionary since the summer. The authorities have signaled that policy will be eased further "as needed" and we expect additional fiscal measures in coming months, with corporate tax cuts and increased bond issuance to finance local infrastructure projects.

Exhibit 12: China in Easing Mode

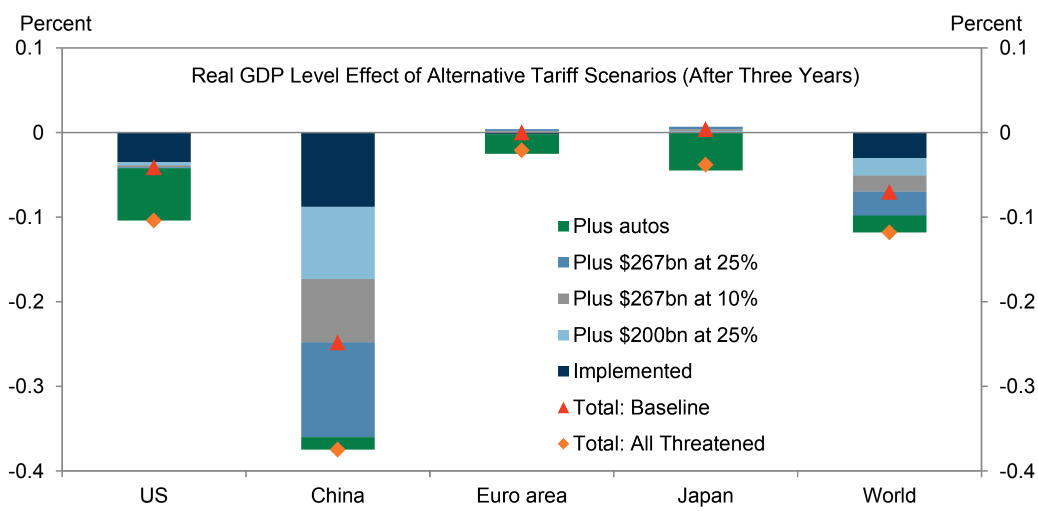


Source: Goldman Sachs Global Investment Research

The US-China trade tensions are likely to rise further from here. So far, President Trump has imposed a 25% tariff on $50bn-worth of imports from China and 10% on another $200bn-worth, in addition to a range of goods-specific duties. We expect him to raise the tariff rate on the $200bn tranche to 25%, as already scheduled for January, and also view a 10% tariff on the remaining $267bn of imports from China as more likely than not.

Our analysis suggests that these tariffs should have a moderately negative effect on Chinese growth (Exhibit 13).[4] Our simulations point to a real GDP hit of 0.25% under our baseline expectation and 0.4% if President Trump raises the tariff rate on the remaining $267bn to 25%. The latter is not our baseline, but the uncertainty around the extent of the escalation from here and the likelihood of an ultimate trade deal is substantial. An even larger hit is possible, of course, if the US-China tensions morph into a truly global trade war and global financial conditions tighten sharply in response. In our baseline, however, the drag on Chinese growth looks manageable given the remaining room for policy easing.

Exhibit 13: China Is Most Exposed to Higher Tariffs



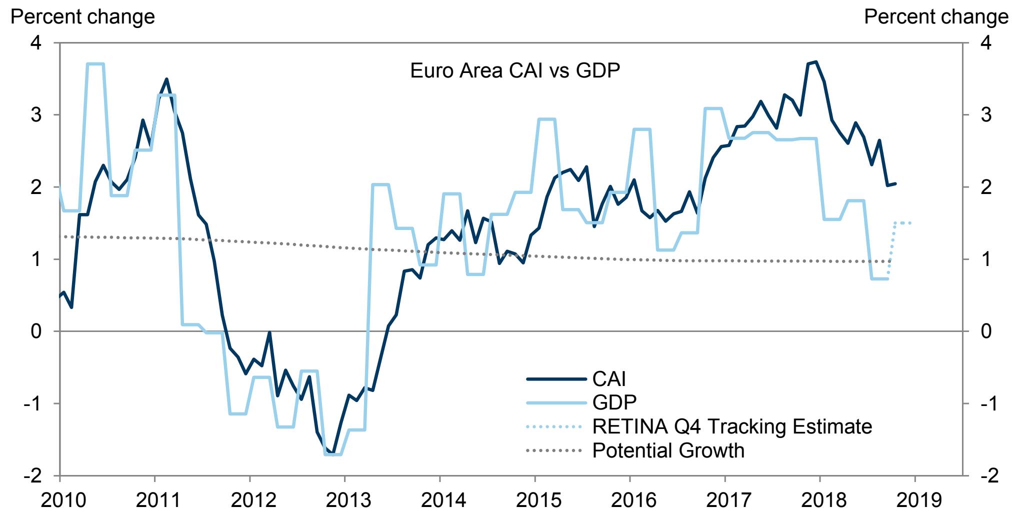
Source: Goldman Sachs Global Investment Research

Europe: Slower But Not Slow

The latest Euro area growth numbers have been disappointing, including softer-than-expected real GDP growth in Q3 and a further decline in the manufacturing PMIs. The bulk of this weakness, however, appears due to a sharp and temporary contraction in the European auto sector, stemming from a change in environmental rules. Cutting through the noise, we believe that the underlying growth trend in the Euro area has slowed from about 3% at the start of the year to just below 2% now (Exhibit 14).

[4] For details, see Sven Jari Stehn and Jan Hatzius, "The Trade War: Bigger Numbers, Same Conclusion," *Global Economics Analyst*, October 5, 2018.

Exhibit 14: European Moderation

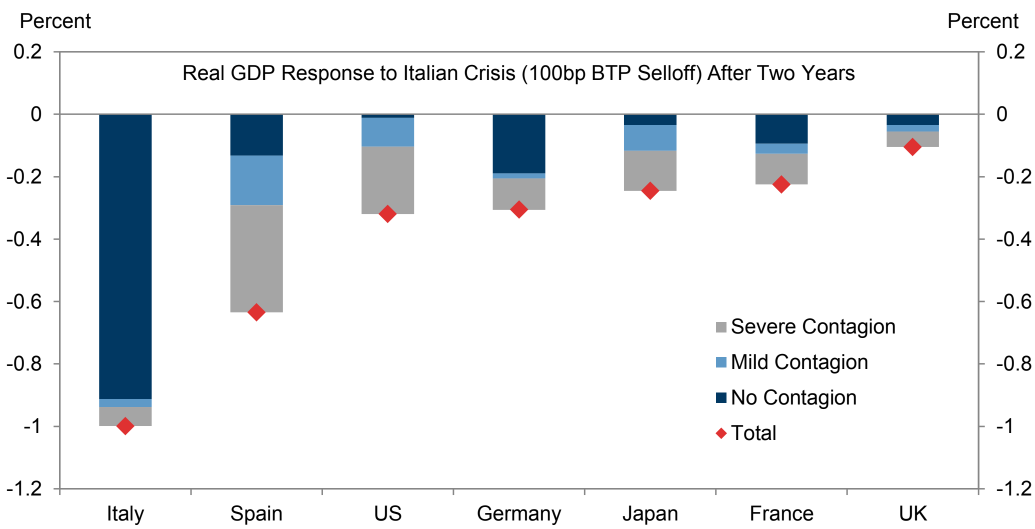


Source: Haver Analytics, Goldman Sachs Global Investment Research

The European economy faces a range of risks in 2019 that could make the outcome worse than we expect. Italy's budget crisis remains unresolved and we expect the Italian economy to flirt with recession early next year. Although the budget tensions might have to get worse before they get better, we see the economic spillovers from Italy as manageable, unless financial contagion rises sharply from here (Exhibit 15).[5] A disorderly Brexit also remains a risk, but parliamentary ratification before March 2019 remains our base case, which would put the UK into a status-quo transition phase after Brexit. And while the threat of US auto tariffs still clouds the European outlook, we expect the US administration to focus trade restrictions on China.

[5] See Sven Jari Stehn, Silvia Ardagna and Matteo Crimella, "Global Repercussions of Italy's Budget Crisis," *Global Economics Analyst*, September 30, 2018.

Exhibit 15: Spillovers from Italy Should Remain Contained



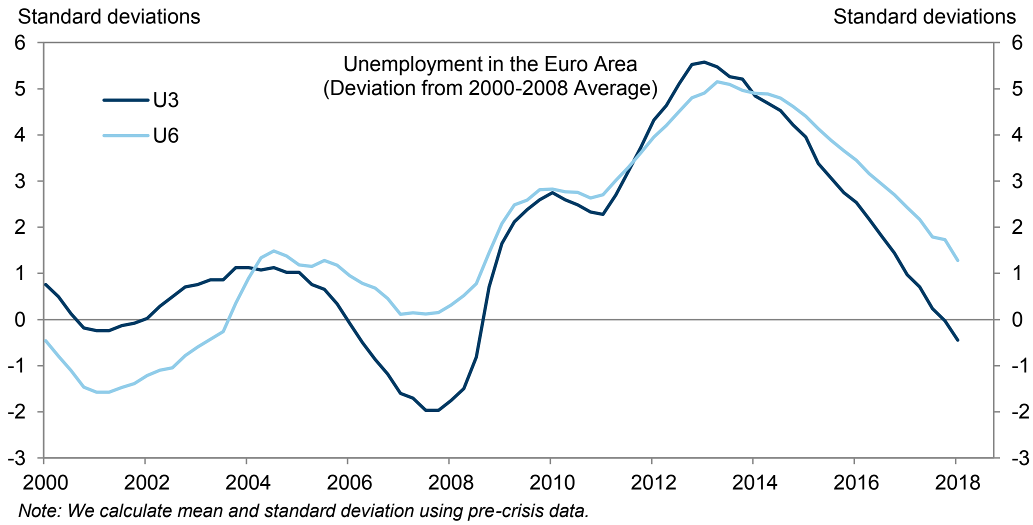
Source: Goldman Sachs Global Investment Research

While the risks are real, there are still some significant positives in Europe. Household incomes are growing strongly, given solid employment gains and a notable acceleration in wage growth. Credit conditions remain supportive for growth, helped by accommodative ECB policy. And fiscal policy looks poised to turn more expansionary next year, boosting area-wide growth by ¼pp in our estimates. Based on all this, we expect the Euro area to grow 1.6% in 2019, which is still above trend—although that is admittedly a relatively low hurdle given a European potential growth rate of only around 1%.

So far, the above-trend growth of recent years has not done much to boost core inflation, which remains stuck at 1%. A number of factors have likely weighed on inflation, but our estimates suggest that remaining labor market slack plays a key role.[6] Although the headline unemployment rate has now fallen to 8.1%, the lowest level since late 2008, a broader "U6" measure remains above the previous cycle highs (Exhibit 16). Remaining slack should continue to weigh on core inflation in the near term. But the combination of falling unemployment and accelerating wage growth suggests that inflation will ultimately rise back towards the ECB's goal.

[6] See Sven Jari Stehn and Jan Hatzius, "Broad Slack and ECB Policy," *Global Economics Analyst*, April 22, 2018.

Exhibit 16: Broad Euro Area Slack Remains



Source: Haver Analytics, Goldman Sachs Global Investment Research

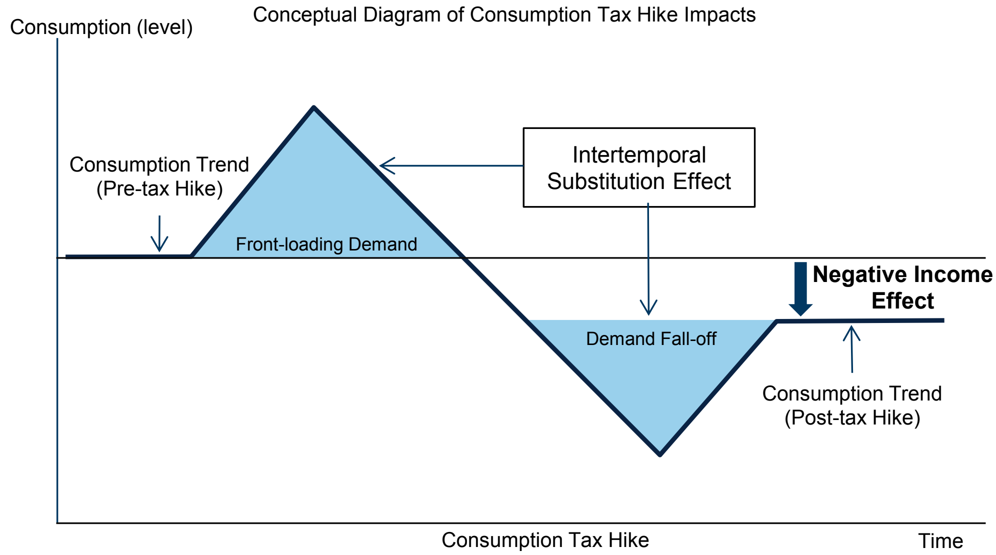
ECB officials have therefore sent a steady message in recent weeks, indicating that risks to the outlook are still broadly balanced and policy normalization remains on track. Net asset purchases are on course to wind down at the end of the year but reinvestments of maturing assets are likely to continue for the foreseeable future. Our baseline forecast remains for the first hike in the deposit rate in late 2019, but the risks are skewed towards a later lift-off.

VAT Hike Keeps BoJ on Hold

Growth in Japan has generally held up well this year. Real GDP contracted in Q3, but this likely reflects a negative impact from a number of natural disasters and we expect growth to rebound in the current quarter. The continued improvement in the labor market—with further declines in the unemployment rate and increases in the 15-64 employment/population ratio—also shows that the economy has grown at a clearly above-trend pace. Consistent with this, Japanese wage growth has been on an accelerating trend.

However, next year will be a challenging one for Japanese growth, mainly because we expect the planned October VAT hike to weigh sharply on growth in 2019Q4. The government will likely try to cushion the impact by recycling some of the additional revenue via spending hikes, but we nevertheless expect a drop in GDP, with a pattern exacerbated by expenditure shifting in surrounding quarters. Exhibit 17 from our Japan economics team shows the likely effects in schematic form.

Exhibit 17: The VAT Hike Will Weigh on Japanese Growth in Late 2019



Source: NLI Research Institute, Cabinet Office

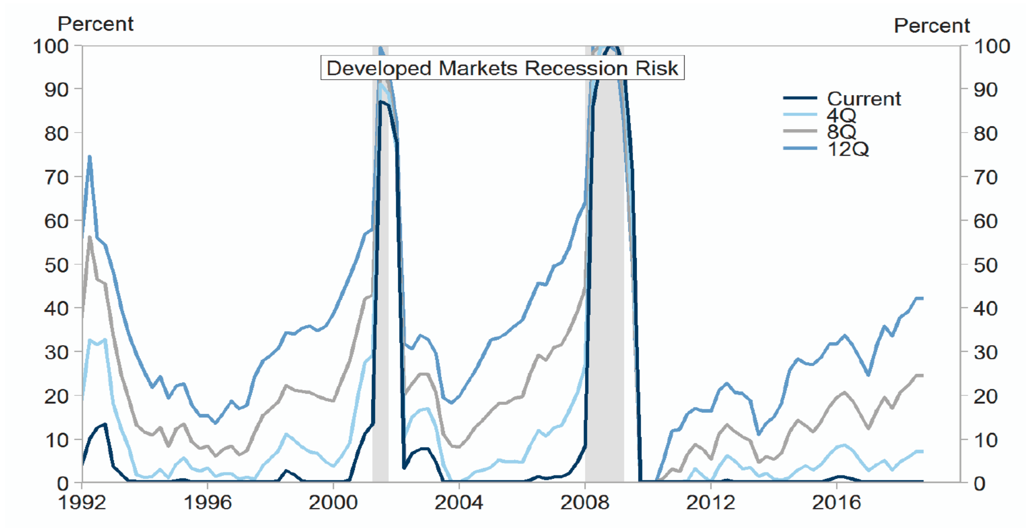
The consumption tax hike has important implications for monetary policy. With underlying measures of inflation still far below the Bank of Japan's 2% target—the CPI excluding fresh food and energy is up just 0.4% over the past year—we think the BoJ will want to minimize the chance of a fresh relapse. To be sure, policymakers have increasingly discussed the potential financial vulnerabilities stemming from the easy policy stance. But we don't think officials see these adverse effects as strong enough to trigger hikes any time soon and we continue to see the BoJ on hold past the tax hike.

How Far Is Too Far?

Our baseline forecast beyond 2019 is continued global growth close to the estimated 3½% potential rate, with below-trend numbers in economies that have already moved beyond full employment (such as the US) and above-trend numbers in countries that are still climbing out of the hole (such as Southern Europe and much of EM outside of China). That is, we are not forecasting a global recession, either in 2019 or beyond. But what are the risks to this view?

For 2019, the risk of recession looks low. Growth momentum remains fairly strong, financial conditions are broadly accommodative, debt growth remains subdued (with China a partial exception), inflation is moderate, and output has not yet meaningfully surpassed its potential. Consequently, our statistical model in Exhibit 18 shows recession risk over the next year far below the unconditional historical average.

Exhibit 18: Recession Risk Remains Low (For Now)



Source: Goldman Sachs Global Investment Research

The longer-term versions of the model—which depend less on near-term momentum and more on the level of asset prices and the output gap—show the risk increasing to levels close to the historical average three years ahead. Recession in the out years is therefore a meaningful risk, especially in places where output has already moved beyond potential. This means the unemployment rate—especially in countries where it has already fallen quite far, such as the United States—must stabilize before too long to limit the risk of recession further down the road. So the plane needs to land, and it needs to land soon.

Jan Hatzius

Sven Jari Stehn

Global Economic Forecasts

Real GDP Growth (YoY)	2017	2018	2019	2020
World	3.8	3.8	3.5	3.6
Advanced Economies	2.4	2.4	2.1	1.7
Emerging Markets	5.1	5.1	4.7	5.3
G3				
United States	2.2	2.9	2.5	1.6
Euro area	2.5	1.9	1.6	1.6
Germany	2.5	1.7	1.9	1.6
France	2.3	1.6	1.7	1.6
Italy	1.6	1.0	0.4	1.1
Spain	3.0	2.5	2.3	2.1
Japan	1.7	0.9	1.0	0.6
Advanced Economies				
Australia	2.2	3.4	3.1	2.9
Canada	3.1	2.1	2.3	1.9
New Zealand	2.8	2.8	3.1	3.0
Norway	2.4	1.7	2.2	2.2
Sweden	2.4	2.5	2.3	2.2
Switzerland	1.7	2.8	1.3	1.6
United Kingdom	1.7	1.3	1.5	1.4
Asia				
China	6.9	6.6	6.2	6.1
India	6.3	7.5	7.3	7.9
CEEMEA				
Russia	1.5	1.7	1.8	2.8
Turkey	7.4	3.0	-1.5	3.6
Latin America				
Brazil	1.0	1.2	2.6	3.0
Mexico	2.0	2.2	1.9	1.7

Core CPI Inflation (YoY)	2017	2018	2019	2020
G3				
United States (core PCE)	1.6	1.9	2.2	2.2
Euro area	1.0	1.0	0.9	1.2
Germany	1.3	1.2	1.3	1.4
France	0.6	0.9	0.5	0.6
Italy	0.8	0.7	0.8	1.3
Spain	1.2	1.1	1.1	1.4
Japan (ex food & energy)	0.1	0.4	0.8	1.5
Advanced Economies				
Norway	1.4	1.5	2.1	2.1
United Kingdom	2.4	2.1	2.0	2.0

Policy Rate (%)	2017	2018	2019	2020
G3				
United States	1.3	2.4	3.4	3.4
Euro area	0.0	0.0	0.0	0.5
Japan	-0.1	-0.1	-0.1	-0.1
Advanced Economies				
Australia	1.5	1.5	1.8	2.3
Canada	1.0	1.8	2.8	3.3
New Zealand	1.8	1.8	2.0	2.5
Norway	0.5	0.8	1.5	2.3
Sweden	-0.5	-0.3	0.3	1.0
Switzerland	-0.8	-0.8	-0.8	-0.3
United Kingdom	0.5	0.8	1.0	1.3
Asia				
China	3.1	2.5	2.5	2.5
India	6.0	6.5	7.3	7.3
CEEMEA				
Russia	7.8	7.5	7.0	6.0
Turkey	8.0	24.0	18.0	13.0
Latin America				
Brazil	7.0	6.5	8.0	9.0
Mexico	7.3	8.0	8.0	6.8

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

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We, Jan Hatzius, Sven Jari Stehn, Nicholas Fawcett, Soeren Radde and Manav Chaudhary, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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