Note: The following is an abridged version of GS Research's 2018 global economic outlook *As Good As It Gets.*

Goldman Sachs | Economics Research

15 November 2017 | 10:29AM EST

**Global Economics Analyst**

# As Good As It Gets


Jan Hatzius
Goldman Sachs & Co. LLC

Sven Jari Stehn
Goldman Sachs International

Nicholas Fawcett
Goldman Sachs International

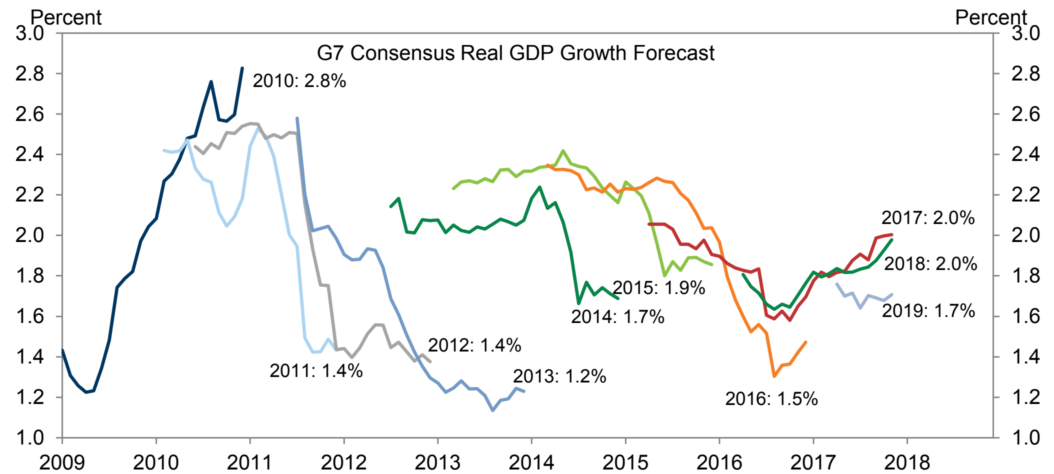
Manav Chaudhary
Goldman Sachs International


- For the first time since 2010, the world economy is outperforming most predictions, and we expect this strength to continue. Our global GDP forecast for 2018 is 4.0%, up from 3.7% in 2017 and meaningfully above consensus. The strength in global growth is broad-based across most advanced and emerging economies.
- On the supply side, we have also seen tentative signs of a rebound in productivity growth from its dismal post-crisis trend. Nevertheless, spare capacity is diminishing rapidly—and already exhausted in a number of advanced economies, including the US. There, the question is no longer *whether* output will overshoot potential, but by how much. By contrast, Southern Europe needs several more years' strong growth to return to full employment.
- If the output gap has largely closed, why is core inflation still so low? Our analysis suggests that a good part of the answer lies in a sizable and relatively long-lasting drag from the earlier weakness in import and commodity prices, which has offset the relatively small (though statistically highly significant) impact of diminishing slack so far. Over the next year, these pass-through effects are likely to diminish and we expect a gradual increase in global core inflation, albeit to levels that are still below central bank targets in most places.
- If inflation does move up, the strength in activity will soon feel like "too much of a good thing" for some central banks, which need to slow growth to a trend rate to prevent a bigger overheating—and bigger recession risks down the road. So our Fed call is considerably more hawkish than market pricing, and we are also above the market in smaller G10 economies such as Sweden and Australia. By contrast, our ECB and BoJ call remains modestly dovish to the market.
- For now, faster Fed tightening is unlikely to weigh significantly on DM growth, where divergent monetary policies typically have limited net financial spillovers. And while the impact on emerging economies could be more significant, we think that recent structural adjustments have left EM economies more resilient than in past Fed tightening cycles. The bigger near-term risks to the outlook are likely political, ranging from the future of NAFTA through the Italian election to the risk of military conflict on the Korean peninsula.


Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

Global growth has outperformed consensus expectations meaningfully in 2017. Real GDP likely grew by 3.7% this year, significantly above the end-2016 consensus forecast for a 3.3% gain. Exhibit 1 shows that G7 growth this year has beaten the Bloomberg survey of economic forecasters for the first time since 2010, ending the post-crisis pattern of forecasters revising down their initially lofty GDP growth estimates.

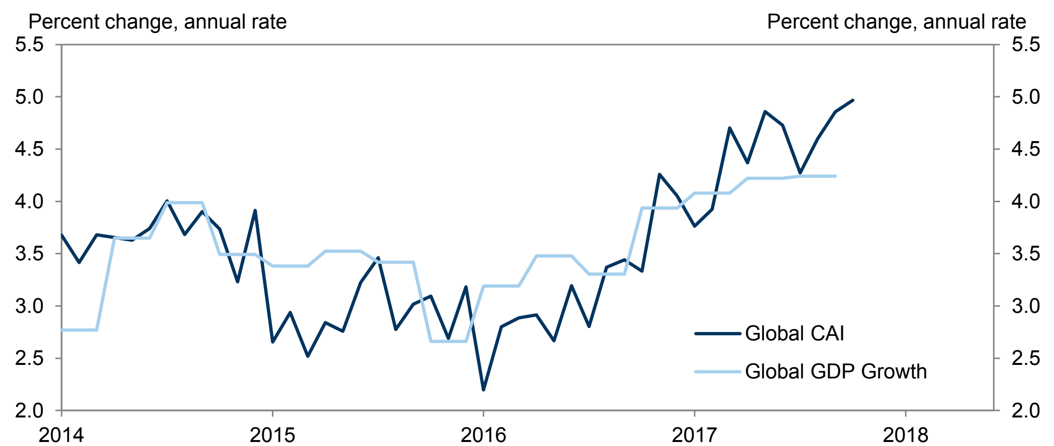
**Exhibit 1: Global Growth Has Beaten Expectations**




Source: Bloomberg, Goldman Sachs Global Investment Research

Even on a higher-frequency basis, the news remains very positive. Exhibit 2 shows that our global current activity indicator (CAI) stood at 5% in October, up from 3.3% a year ago.[1] Sequential real GDP growth has also continued to strengthen, with global Q3 quarter-over-quarter annualized growth tracking at 4.2%.

**Exhibit 2: Both GDP and the CAI Remain Very Strong**



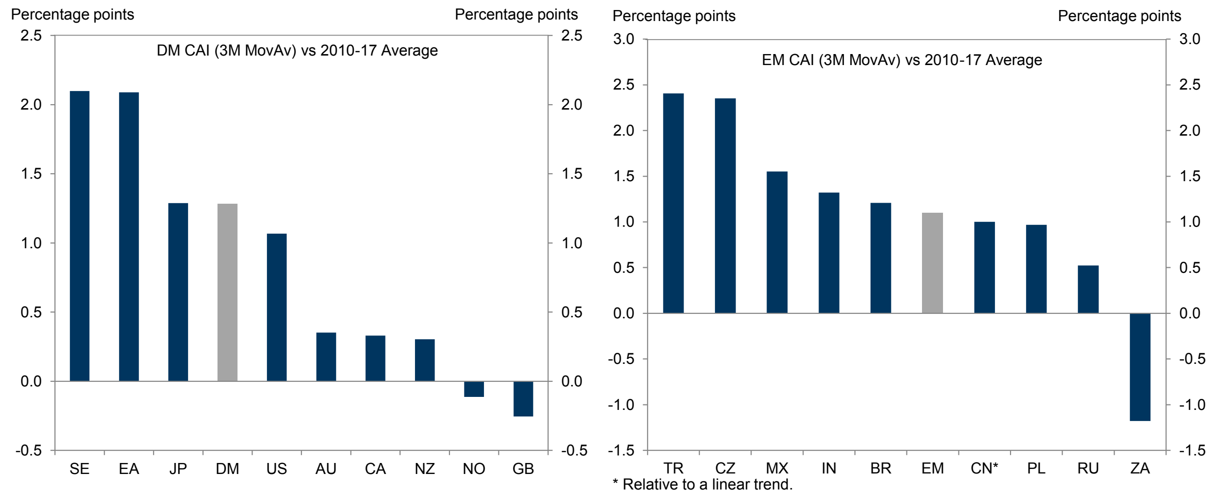

Note: We show global GDP growth across all of the economies we cover, a slightly larger set of economies than the 33 included in our global CAI.

Source: Haver Analytics, Goldman Sachs Global Investment Research

[1] For details on our global CAIs, see Nicholas Fawcett, Sven Jari Stehn, Jan Hatzius and Karen Reichgott, "Trackin' All Over the World - Our New Global CAI," *Global Economics Analyst*, February 26, 2017.

The strength in global growth is broad-based across countries. Exhibit 3 shows that growth has recently exceeded its post-crisis average across almost all major DM and EM countries. Among advanced economies, the three-month moving average of the CAI has been particularly strong in the Euro area and Sweden (around 2pp above their post-crisis average), Japan (1.3pp) and the US (1.1pp). A number of EM economies have recently outpaced their post-crisis average, although growth is likely still below potential in a number of emerging economies.

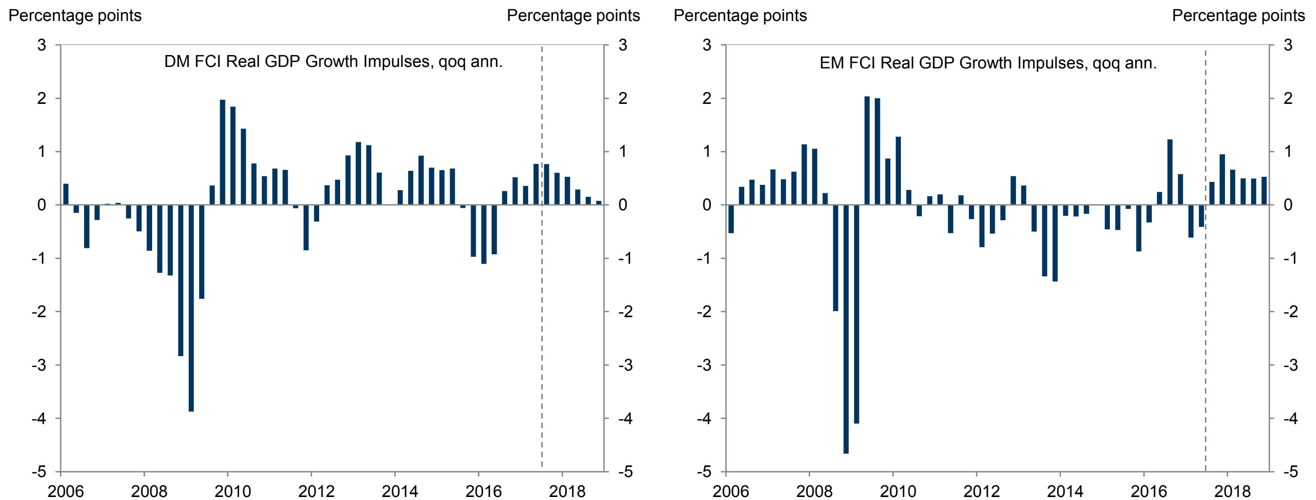
**Exhibit 3: Most Economies Are Running Ahead of Their Post-Crisis Average**




Source: Goldman Sachs Global Investment Research

Demand-side news is likely to remain fairly positive next year. Our FCIs suggest that easy financial conditions have played an important role in supporting the pickup in global growth since mid-2016. Exhibit 4 shows that the growth impulse from financial conditions in advanced economies has swung from a 1pp drag in early 2016 to a boost of ¾pp now. The FCI impulse in emerging economies has been more volatile—as EM financial conditions tightened in early 2017—but has also been more growth-friendly since early 2016. Looking ahead, our FCI impulses point to continued above-trend growth in 2018, even though the DM boost might diminish somewhat from here.

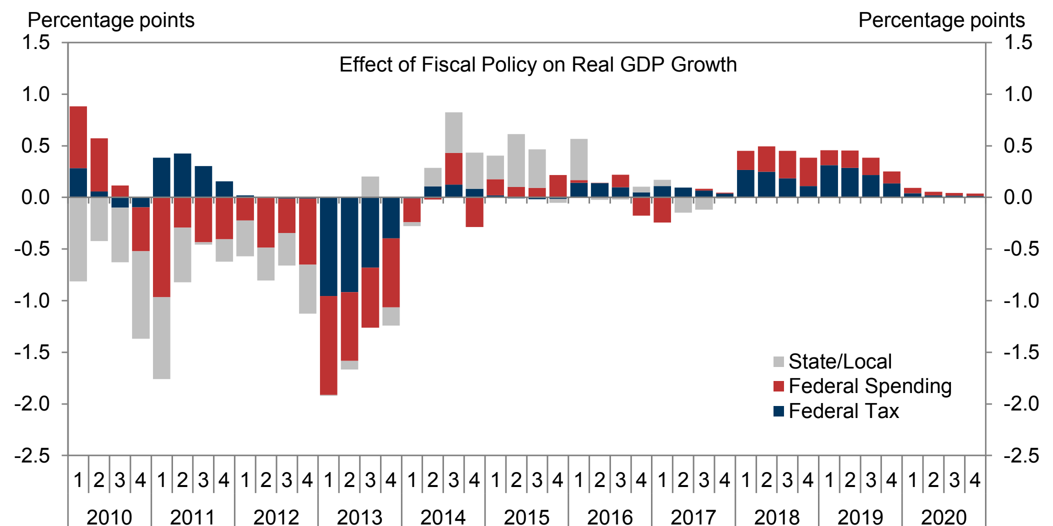
**Exhibit 4: FCI Impulses Remain Positive**




Source: Goldman Sachs Global Investment Research

The US tax reform debate has moved quickly in recent weeks and we believe the probability of an agreement by early 2018—most likely in January—has risen to around 80%. The outlook in the Senate is not yet clear, but the signs in that chamber are more positive than they have been in several months. The effects of tax reform on the economy should, however, be fairly modest. As shown in Exhibit 5, we estimate that fiscal policy changes over the coming year will boost US growth by about 0.4pp in 2018 and 2019, with roughly half of the impulse coming from tax reform.

**Exhibit 5: A Modest Boost from US Tax Reform**




Source: Goldman Sachs Global Investment Research

## Strong Growth Continues

With easy financial conditions and some support from fiscal policy, we expect continued strong expansion in the world economy next year. As shown in Exhibit 6, we project real GDP growth of 4.0% in 2018, notably above consensus expectations. The strength is quite broad-based across advanced economies, including above-trend growth in the US (at 2.5% in 2018), Euro area (2.2%) and Japan (1.6%). The UK is the main DM underperformer, growing only 1.3% in 2018 as higher inflation weighs on real income growth and consumption.

By and large, the message of strength carries over to the emerging world as well, though with greater differences across countries. We are most positive in India and Russia, where growth is still rebounding from—partly idiosyncratic—weakness, and we also expect Brazil to continue recovering. By contrast, China appears to be slowing modestly, with our CAI down from a peak of 7.5% in June to 6.6% in October. While some of the most recent softness may be due to special factors (including the conclusion of the Party Congress), we also expect a drag on growth from reforms aimed at curbing the negative externalities of past expansion, including measures to contain financial risk, and improve the environment. We therefore expect Chinese growth to slow gradually from 6.8% in 2017 to 6.1% in 2019.

**Exhibit 6: We Expect Strong Growth to Continue in 2018**

| Real GDP Growth<br>Percent Change yoy | 2015 | 2016 | 2017 (f) GS | 2017 (f) Cons* | 2018 (f) GS | 2018 (f) Cons* | 2019 (f) GS | 2019 (f) Cons* |
|---|---|---|---|---|---|---|---|---|
| US | 2.9 | 1.5 | 2.2 | 2.2 | 2.5 | 2.4 | 1.8 | 2.1 |
| Japan | 1.1 | 1.0 | 1.6 | 1.5 | 1.5 | 1.1 | 1.3 | 0.9 |
| Euro Area | 1.9 | 1.7 | 2.3 | 2.2 | 2.2 | 1.9 | 1.8 | 1.6 |
| Germany | 1.5 | 1.9 | 2.6 | 2.2 | 2.5 | 2.0 | 2.0 | 1.6 |
| France | 1.0 | 1.1 | 1.8 | 1.7 | 2.0 | 1.8 | 1.8 | 1.6 |
| Italy | 0.7 | 1.0 | 1.5 | 1.5 | 1.1 | 1.2 | 0.9 | 1.1 |
| Spain | 3.2 | 3.2 | 3.1 | 3.1 | 2.5 | 2.6 | 2.2 | 2.2 |
| UK | 2.3 | 1.8 | 1.5 | 1.5 | 1.3 | 1.4 | 1.6 | 1.6 |
| China | 6.9 | 6.7 | 6.8 | 6.8 | 6.5 | 6.4 | 6.1 | 6.1 |
| India** | 8.0 | 7.1 | 6.4 | 6.8 | 8.0 | 7.4 | 8.3 | - |
| Russia | -2.8 | -0.2 | 2.2 | 1.9 | 3.3 | 1.8 | 2.9 | 1.8 |
| Brazil | -3.8 | -3.6 | 0.9 | 0.7 | 2.7 | 2.4 | 3.1 | 2.5 |
| Developed Markets | 2.3 | 1.7 | 2.3 | 2.2 | 2.3 | 2.1 | 1.9 | 1.9 |
| Emerging Markets | 4.6 | 4.7 | 5.0 | 4.5 | 5.6 | 4.9 | 5.7 | 5.0 |
| World | 3.5 | 3.2 | 3.7 | 3.5 | 4.0 | 3.6 | 3.9 | 3.4 |

* Bloomberg consensus forecasts as of November.

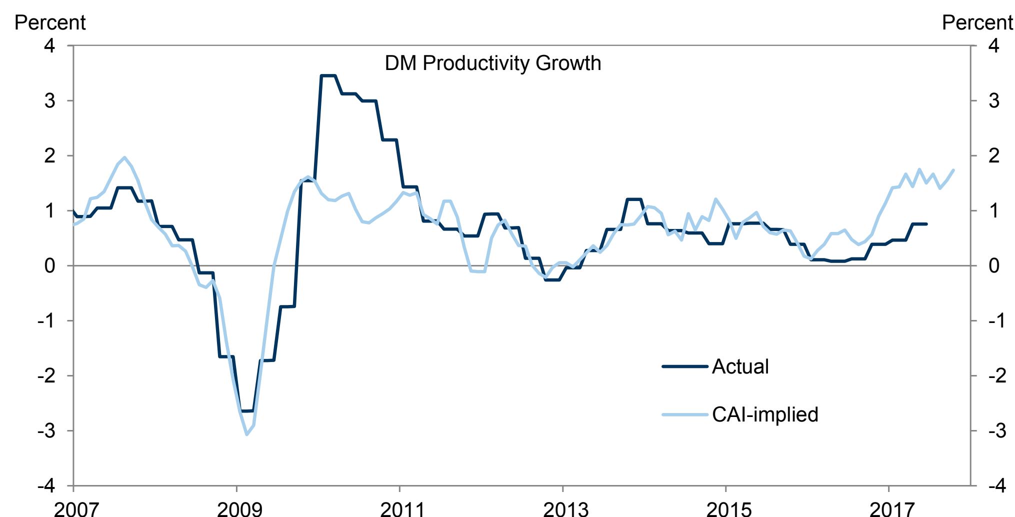
** Fiscal year basis, 2017 is India FY18 (Q2 2017 - Q1 2018). FY20 consensus numbers are not yet available.

Source: Bloomberg, Goldman Sachs Global Investment Research

Meanwhile, a number of encouraging signs have emerged that the global economy's supply-side performance may be improving at last. Exhibit 7 shows that labor productivity growth in advanced economies has started to accelerate, with the latest numbers pointing to a pickup in DM productivity growth to almost 1%, up from only 0.1% in early 2016. Our CAI-implied measure of productivity—calculated as the difference between output-related indicators relative to the employment-type indicators

in the CAI—suggests that the official productivity metrics have further room to grow.[2] Consistent with this, our supply-side estimates suggest that potential growth rates across the advanced economies might have bottomed out.[3] We find that long-term potential growth—the rate at which the economy can expand due to underlying trends in labor input and productivity—has slowed notably since the late 1990s. But we also find that short-run potential growth (the rate needed to keep slack unchanged from quarter to quarter) has been firming over the last 2-3 years, as actual growth has accelerated around the world.

**Exhibit 7: Early Signs of a Productivity Rebound**




Source: Haver Analytics, OECD, Goldman Sachs Global Investment Research

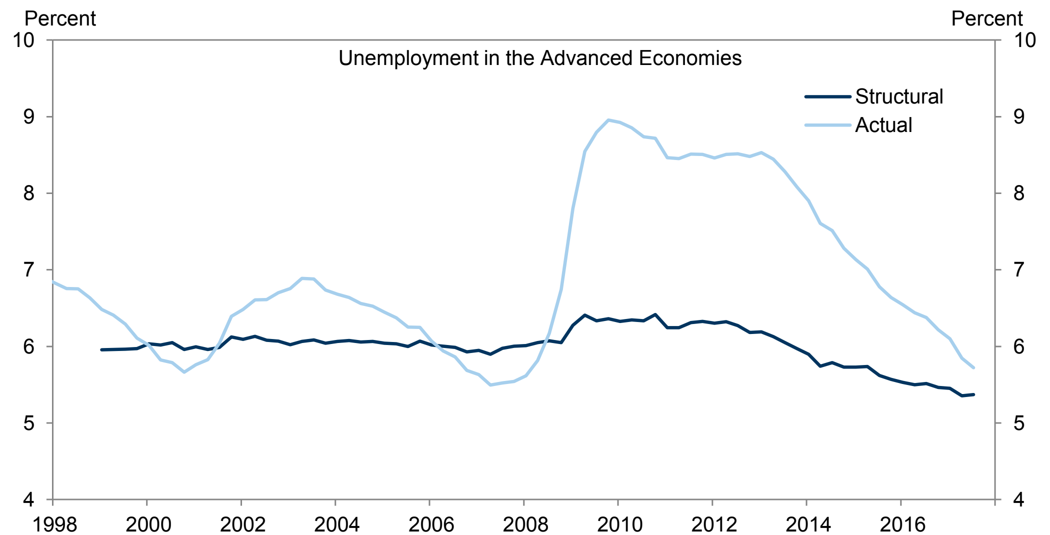
## Slack Has Been Diminishing

Despite the nascent productivity rebound, slack is diminishing sharply across the advanced economies. The most straightforward sign is that the aggregate unemployment rate across advanced economies has fallen almost back to pre-crisis levels, as shown in Exhibit 8. As a result, our output gap estimates in Exhibit 9 suggest that most advanced economies are now near full employment. We find that the US and UK have already slightly moved past full capacity and Japan's output gap is closing quite rapidly. Significant slack remains in the Euro area as a whole, but spare capacity is concentrated in the south (especially Spain and Italy) as Germany has already moved slightly past full employment. Likewise, a number of the smaller, open countries have started to overheat as the global cycle has picked up. We estimate that Sweden, Canada and New Zealand are already operating beyond full capacity. Output gaps in Australia, Switzerland and Norway are still negative, but closing quite rapidly.

[2] See Jan Hatzius and Sven Jari Stehn, "Early Signs of a Productivity Rebound," *Global Economics Analyst*, March 17, 2017.

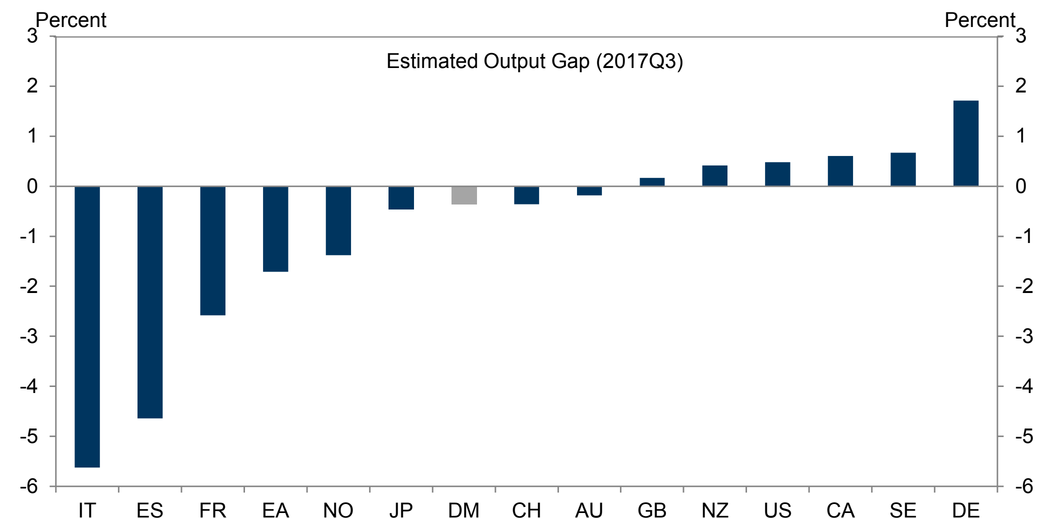
[3] See Sven Jari Stehn, "From Demand to Supply: Our New G10 Output Gap Estimates," *Global Economics Analyst*, November 5, 2017.

**Exhibit 8: Unemployment Has Been Falling Rapidly…**




Source: Haver Analytics, Goldman Sachs Global Investment Research

**Exhibit 9: …And Output Gaps Are Closing**




Source: Goldman Sachs Global Investment Research

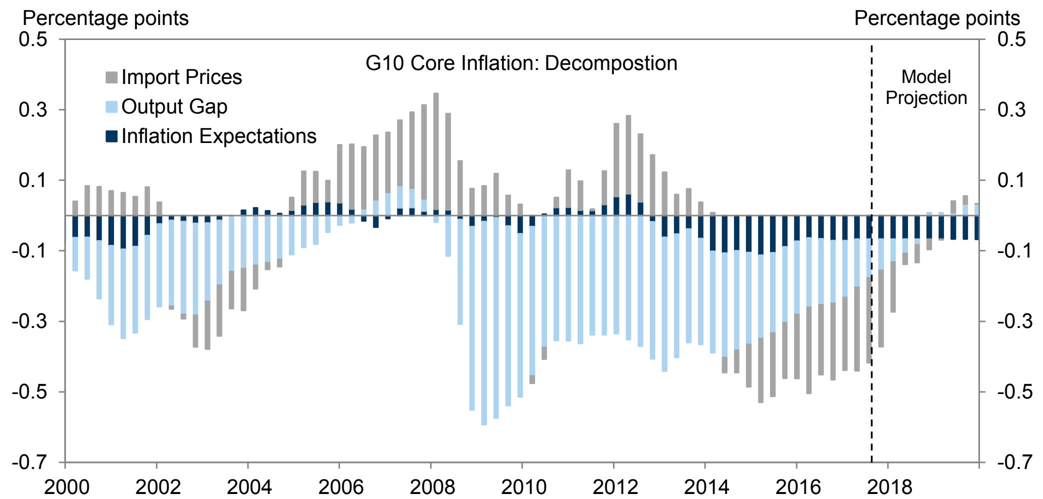
## Firmer Inflation Ahead

If slack has diminished so much, why has core inflation remained low across the advanced economies? Our inflation models suggest that the "Phillips curve" relationship between slack and core inflation is alive but rather weak across OECD economies.[4] We find that slack and inflation expectations are the best predictors of inflation over the medium run, but more idiosyncratic factors often dominate inflation movements in the short run. In particular, we estimate that import price inflation—driven

[4] See Sven Jari Stehn, "The Missing Reflation," *Global Economics Analyst*, June 16, 2017.

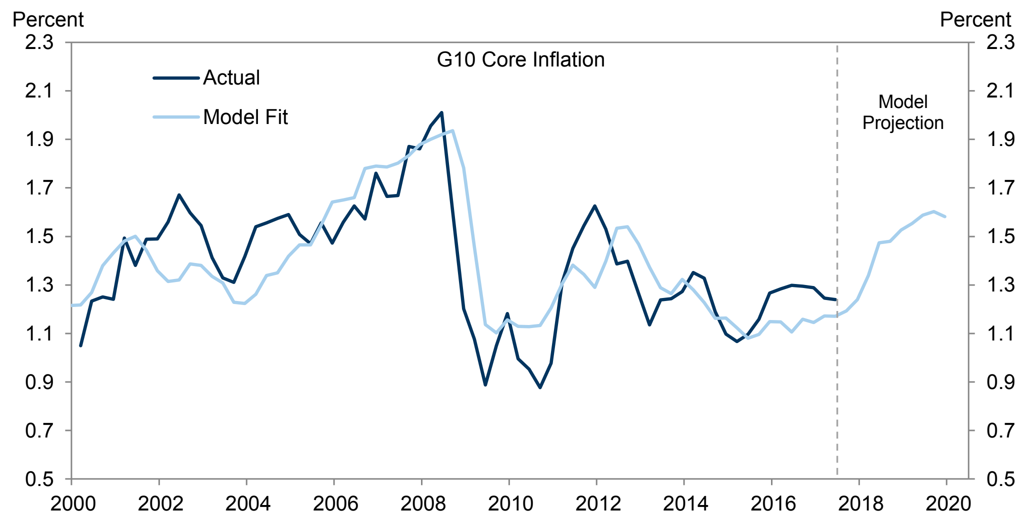
in large part by the decline in commodity prices in 2014-15—has recently been an important drag on inflation in the advanced economies (Exhibit 10). This suggests that inflation across advanced economies should resume its gradual climb as slack continues to diminish and the lagged effects from earlier import price declines unwind (Exhibit 11).

**Exhibit 10: The Price Phillips Curve is Alive But Weak…**




Source: Goldman Sachs Global Investment Research

**Exhibit 11: …And Points to Firmer Inflation Ahead**

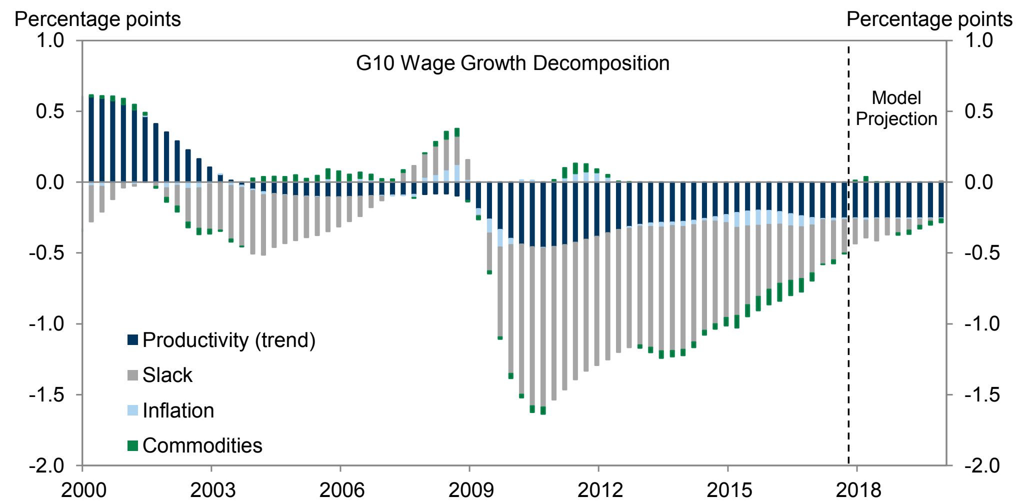



Source: Haver Analytics, Goldman Sachs Global Investment Research

A look at wage growth confirms that Phillips curve-type relationships have not broken down, at least if we adjust for the significant slowdown in productivity growth. Our analysis suggests that labor market slack, trend productivity and lagged headline inflation explain the ups and downs of wage growth pretty well across the G10

economies.[5] We find that labor market slack played the key role in slowing wage growth after the financial crisis but is no longer acting as a major brake for aggregate G10 wage growth (Exhibit 12). Instead, the model says that weak trend productivity growth is keeping wage growth below the pre-crisis norm across all economies in our sample. This is important because it is unit labor costs—wage growth adjusted for productivity gains—that matter for price inflation. Our results therefore point to building price pressures in a number of advanced economies, including the US, UK, Sweden and the commodity price exporting countries (Exhibit 13). But unit labor cost inflation is likely to remain below target in the Euro area, Japan, and Switzerland.

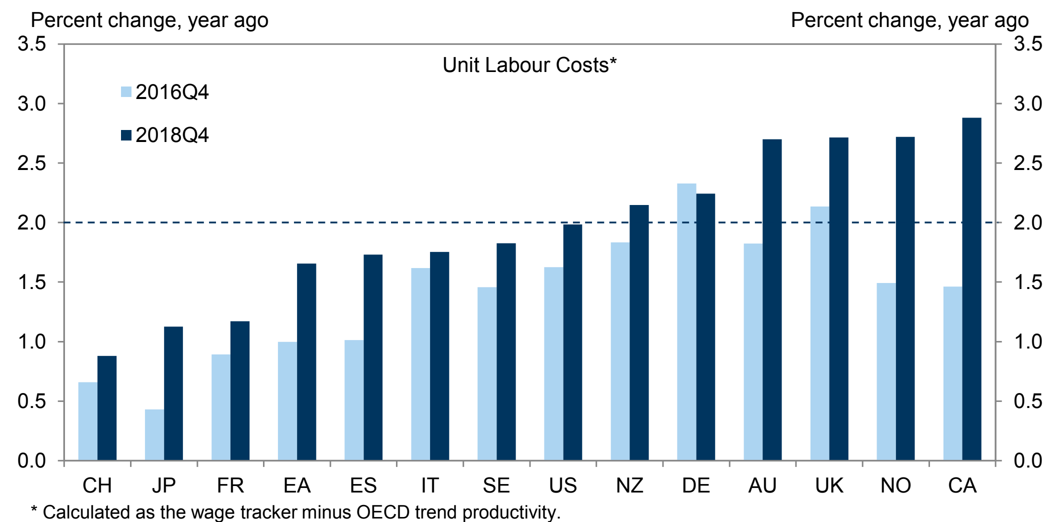
**Exhibit 12: Weak Productivity Growth Key Drag on Wage Growth…**




Source: Goldman Sachs Global Investment Research

[5] See Sven Jari Stehn, "Green Shoots of Wage Growth," *Global Economics Analyst*, October 13, 2017.

**Exhibit 13: ...Pointing to Building Price Pressures**

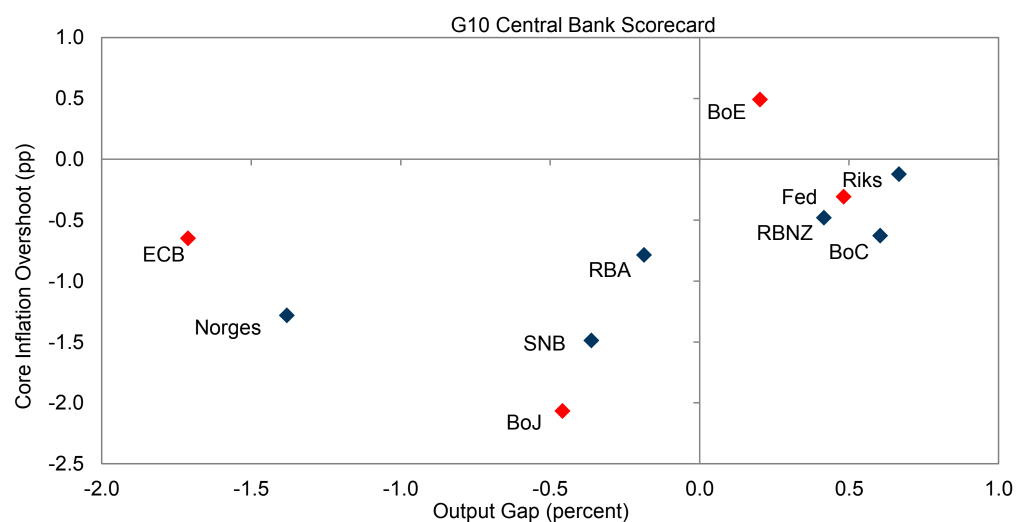



Source: OECD, Goldman Sachs Global Investment Research

## Monetary Policy Divergence

Our conclusions for DM monetary policy still emphasize the divergence of conditions across the G10. Exhibit 14 shows a simple central bank scorecard, summarizing how far central banks are from full capacity (horizontal axis) and their inflation goals (vertical axis).[6] We see that a number of central banks are already faced with labor market overheating, including the Fed, BoE, BoC, Riksbank and RBNZ. The ECB and BoJ, however, remain quite far away from full employment and price stability.

**Exhibit 14: Monetary Policy Divergence across DM**




Source: Haver Analytics, Goldman Sachs Global Investment Research

[6] We use 1.9% to capture the inflation goal of both the ECB and the SNB.

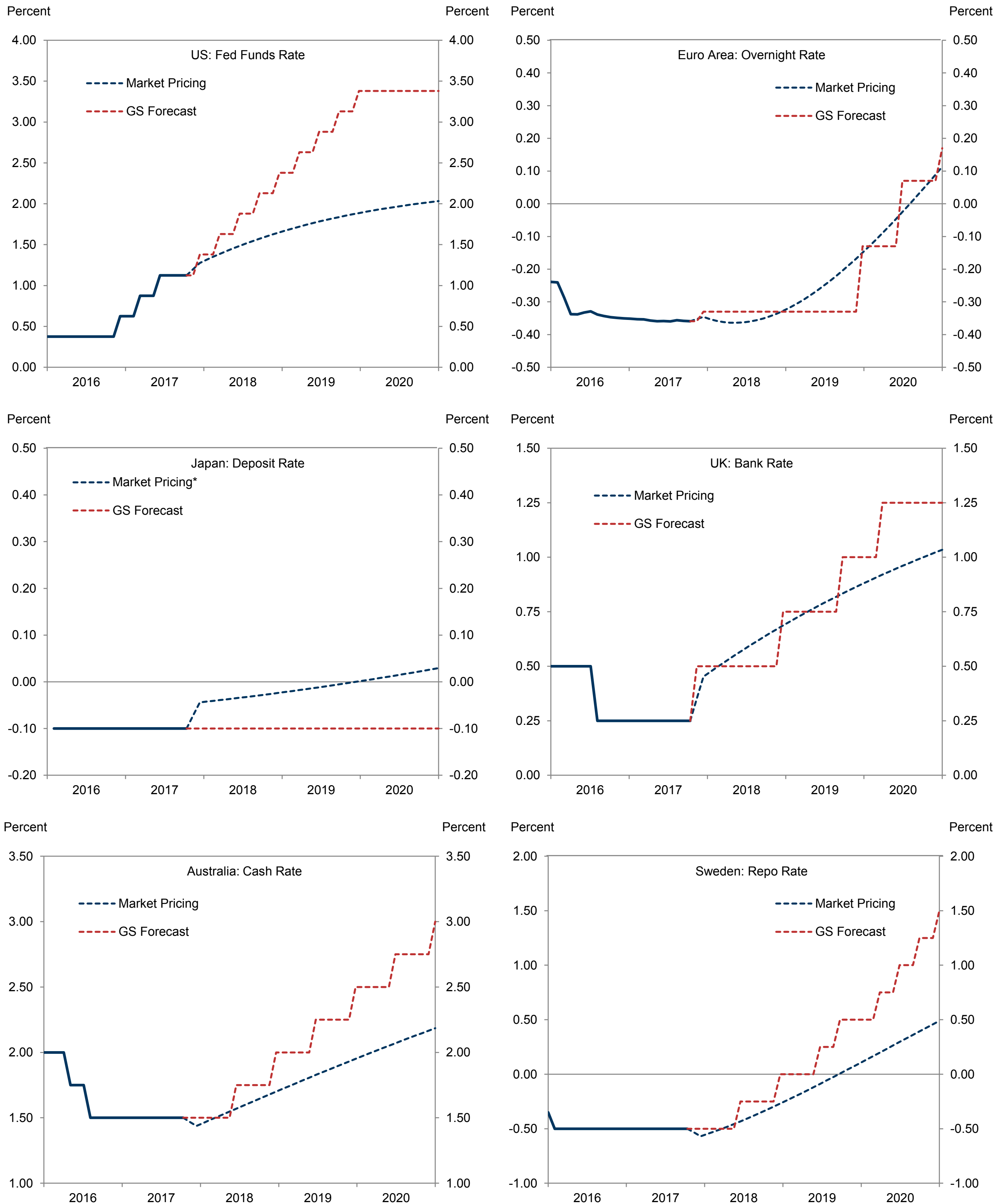
Our DM monetary policy forecasts are consistent with this assessment (Exhibit 15). Our Fed call is considerably more hawkish than market pricing, with a hike in December (subjective probability 85%) and a baseline forecast of 3¼-3½% by late 2019. By contrast, short-term interest rate futures for late 2019 imply just 2%, even after the recent bond market selloff. This is below the level seen at the time of the first rate hike in December 2015, despite 100bp of actual funds rate hikes, much easier financial conditions, a nearly 1pp drop in the unemployment rate, and a sharp pickup in US and global economic growth.

We are also above the market in smaller G10 economies—such as Sweden and Australia—which have benefited significantly from the pickup in global growth. The UK is a special case because of last year's vote to leave the EU. We expect the MPC to hike the policy rate once next year (in November) but the uncertainty around the BoE outlook is particularly large given the uncertainty around the Brexit negotiations.

Our view on the ECB and BoJ remains modestly dovish to the market, largely on account of the continued below-target inflation rates in both economies. We expect the ECB's asset purchases to continue to end-2018 (with some chance of purchases extending into 2019) and no hikes in the deposit rate until late 2019. Although the macro backdrop in Japan has improved, underlying inflationary pressures remain subdued and the BoJ is likely to stick to its yield curve control regime as long as inflation is far short of the 2% target.

Monetary policies are also likely to diverge across major EM economies. We anticipate broadly stable monetary policy in China, though a slight easing may be required to maintain growth at high levels (6.5%). We expect a small CNY depreciation on a trade-weighted basis, implemented opportunistically during any bouts of dollar weakness, and with only modest effects on capital flows given tighter controls. Policy rates are also likely to fall further in Russia, as inflation continues to decline. But we look for rate hikes in India (2018Q3) and Brazil (2018Q4) as the recoveries gain steam.

**Exhibit 15: More Hawkish on the Fed, a Bit More Dovish on the ECB and BoJ**




Note: We measure market pricing using the forward curve of Overnight Index Swap Rates

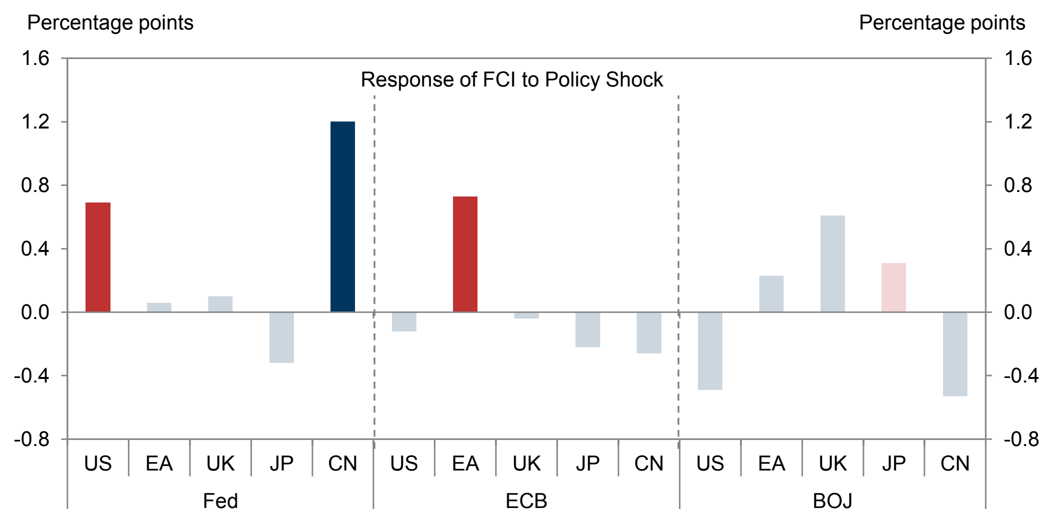
**Japan has a wedge between the OIS forward curve and the deposit rate due to a recent divergence in the BoJ's spot call and deposit rates.*

Source: Bloomberg, Haver Analytics, Goldman Sachs Global Investment Research

## The Biggest Risks are Political

The spillover effects from tighter Fed policy on the DM economies should be manageable. Our research shows that monetary policy shocks have little systematic effect on financial conditions in other DM economies (Exhibit 16).[7] This is because foreign policy shocks tend to push domestic rates and currencies in opposite directions. For example, a hawkish policy shock abroad typically raises bond yields at home but also weakens the domestic currency. As a result, we find that monetary policy spillovers are on net insignificant across advanced economies.

**Exhibit 16: Limited Policy Spillovers among DM Economies**




Source: Goldman Sachs Global Investment Research

Emerging markets, however, could be more at risk from tighter Fed policy. More EM economies keep their exchange rates at least partially fixed, which means that they have to import tighter money when the Fed hikes. This is borne out in the data. Exhibit 16, for example, shows that Chinese financial conditions typically tightened in response to hawkish Fed shocks between 2001 and 2016 given the dollar peg during this time. Moreover, even if EM exchange rates weaken in response to Fed hikes, the resulting growth boost may be less powerful than in DM given the potential adverse balance sheet effects of dollar debt. That is, currency mismatch can tighten financial conditions when a currency depreciation inflates foreign-denominated liabilities, dampening—or even offsetting—the easing from the usual terms-of-trade channel.[8]

Indeed, our EM FCIs have tightened somewhat in recent months, following the US rates selloff and the return of idiosyncratic EM risk. Yet we are cautiously optimistic that the EM economies will be able to weather rougher waters following the adjustments of recent years. China's move to a basket peg and partial closure of its capital account, declining currency mismatch in EM economies and a more broad-based global upswing

[7] See Jan Hatzius, Sven Jari Stehn and Matteo Leombroni, "Looking after Number One," *Global Economics Analyst*, June 10, 2016.

[8] Our EM FCIs allow for this currency mismatch effect, see Nicholas Fawcett and Manav Chaudhary, "Tracking EM Financial Conditions—Our New FCIs," *Global Economics Analyst*, October 6, 2017.

have made EM economies more resilient and should enable them to cope with gradually tighter Fed policy.

The bigger risks to our global outlook are likely political. NAFTA negotiations continue to struggle and we believe that the Trump Administration could announce its intent to withdraw if the talks do not result in a revised agreement by early 2018. While the overall implications for the US economy would likely be modest, US-Mexico trade could be substantially affected and some industries could face disruptions (especially the auto sector). In Europe, the impact of a populist win in the Italian election in 2018 could be profound. But while opinion polls point to a strong showing from the Five Star Movement, our base case is that the election will deliver a broad coalition which will not bring Italian membership of the EU or participation in the Euro into question. Moreover, escalating tensions around North Korea's nuclear ambitions and ongoing instability in the Middle East pose geopolitical risks with highly uncertain but potentially important consequences for the global economy.

Longer term, continued growth near the recent trend would likely push a number of advanced economies more significantly beyond their capacity to produce, raising the risk of recession down the road. The year 2018 is likely to be too early for such a development, and even for 2019 the risk still looks fairly moderate. But the Federal Reserve and some of the other DM central banks now need to lean against the current cyclical strength to achieve a soft landing.

**Jan Hatzius**

**Sven Jari Stehn**

# Disclosure Appendix

## Reg AC

We, Jan Hatzius, Sven Jari Stehn, Nicholas Fawcett 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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