THE MACRO REPORT | NOVEMBER 2018

The Fed's interest-rate gamble

Global economic growth remains vulnerable in the face of escalating trade tensions, higher interest rates, and volatility among emerging markets. But there are no early signs of a recession. While the nine-year U.S. economic expansion is poised to continue through the end of 2018, growth is likely to slow in 2019 as the stimulus from the tax cuts wanes. The Federal Reserve may be tightening monetary policy too much and too quickly, and further increases in interest rates may adversely impact the economy. President Donald Trump has criticized Fed Chairman Jerome Powell for the hikes and blamed an "out of control" central bank for the worst stock market sell-off since November 2008. The key question is if a policy mistake is unfolding.

In China, an escalating trade war with the United States, slowing growth and rising debt are weighing on the economy. The currency has weakened and is hovering near a 10-year low against the dollar. There is risk the U.S. administration may overtighten the screws on Beijing, raising the specter of a sharper Chinese downturn. Meanwhile, in Brazil, Jair Bolsonaro won the presidency in a runoff vote in October, signaling a shift to the far right. He inherits an economy hobbled by low growth and high debt.

THIS MONTH

Risk of Fed policy mistake grows

Populism wins in Brazil

China's economy looking shaky

Risk of Fed policy mistake grows

U.S. Federal Reserve officials are worrying about inflation and have signaled more rate hikes at the risk of reversing the nine-year economic expansion.

The Fed may be tightening monetary policy too much and too quickly, and further increases in interest rates could adversely impact the economy. President Trump has in recent weeks criticized Fed Chair Powell for the rate increases and blamed an "out of control" U.S. central bank for the worst stock market sell-off since 2008. The key question is whether Trump may be right. Has the Fed done too much? Is all the Fed commentary about "moving beyond neutral" appropriate? Will this end in tears, as so many central bank tightening episodes have in the past?

Already, interest rates have risen materially. Real rates are now pushing into territory we haven't seen for many years, and the increase in U.S. rates has not been matched elsewhere in the advanced world. It's not surprising that the dollar has risen against various baskets of currencies. Higher rates and a stronger dollar have two kinds of effects; they affect the real economy, and they affect asset markets. Obviously, these two interact.

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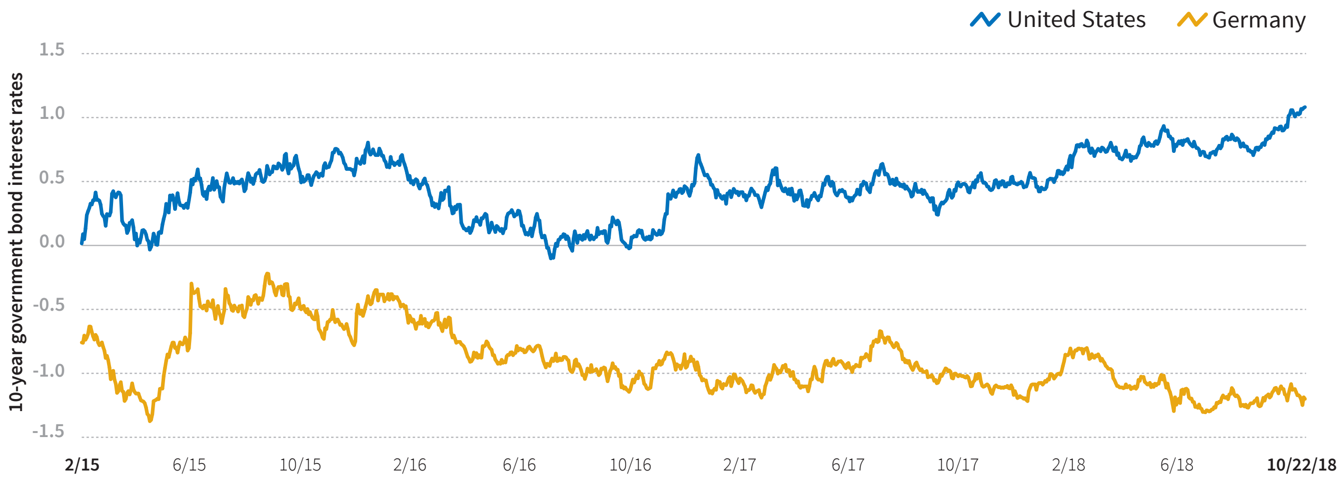
Housing and auto sales slow

Housing and autos, the sectors of the economy that are most sensitive to movements in interest rates, have clearly turned down. No surprise here. As mortgage rates moved higher, housing affordability — or the combined effect of household income, house prices, and mortgage rates — has dipped. As evidence, the University of Michigan's survey of consumers considers their outlook on economic prospects, including buying homes, cars, and other household durables. This outlook makes up the headline Consumer Sentiment Index. It is clear household attitudes have rolled over, and they have done so at the current level of interest rates and despite the strength of the labor market.

At the same time, the labor market remains strong. The pace of job creation continues to be robust, and unemployment is hovering near a 50-year low. But as we suggested in September 2018, real wages are not doing much at all, and there are signs the direction of the labor market may be changing. The Atlanta Fed's "wage tracker" is a useful indicator of wage pressures because it avoids the composition issues that influence economy-wide average hourly earnings. It tracks the wages of the "same worker," and the wages of people who switch jobs and

Real interest rates trend steadily higher

10-year real interest rates (%)



Source: Bloomberg, as of October 2018.

those who stay in the same jobs. In a non-unionized labor market like the United States, a key factor driving wages is the "quit rate," or the number of people who leave their jobs. As workers leave for higher paying jobs, their previous employers may face pressure to raise wages for existing employees to prevent further defections.

We track quit rates. Our findings indicate that in key sectors of the economy, a high and rising quit rate does not seem to be leading to much of a rise in wages. The Fed remains attached to the Phillips curve model (the theory that as the labor market continues to tighten, it will put upward pressure on wages and inflation). That could lead the Fed to favor continued interest-rate increases. But as the unemployment rate falls, the Fed is faced with risks becoming highly asymmetric. The Fed believes the economy is getting closer to a tipping point. This means policy has to take a hawkish tilt even though inflation is bumbling along at a perfectly reasonable rate.

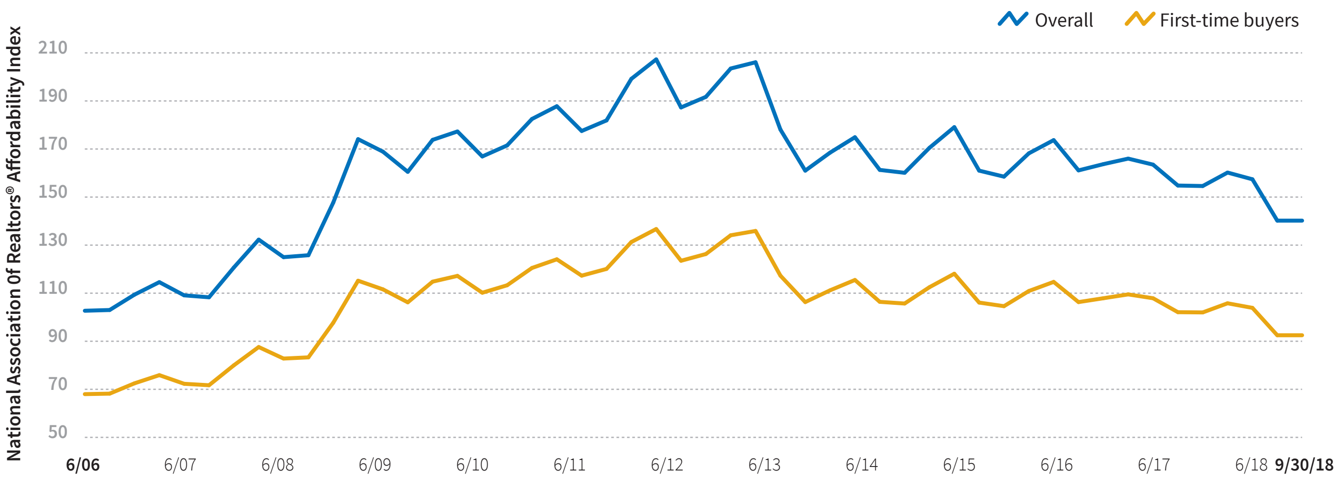
Markets destabilized

Economic growth is expected to slow in 2019 as the stimulus provided by the 2017 tax cuts winds down. There is simply no sign of the kind of rise in private investment that would shift the economy to a sustainably stronger path. The outlook, therefore, is for the economy to weaken a little. The movements in real interest rates have destabilized equity markets. Real rates have moved up in two bursts this year. Rising rates at the start of 2018 caused equity market stresses in late January and early February, and markets tumbled in October after the Fed raised rates in September. The equity market matters for the U.S. economic outlook; wealth effects can be seen in household consumption, and the equity market has a large influence on the cost of capital for the corporate sector. A weaker equity market would mean weaker economic performance.

While we are not great enthusiasts for "financial conditions indices," interest rates, exchange rates, and equity markets together can edge an economic forecast up or down. It's hard to argue that a certain percentage change in equities is equivalent to a certain number of basis points of Fed hikes, or a certain change in the value of the dollar. Still, that idea makes some sense: If rates increase, the dollar would appreciate, equity markets would tumble, and the economic outlook would deteriorate. The bigger these changes, the larger the economic impact. How could it be otherwise?

Rising mortgage rates have affected home affordability

(Housing Affordability Index)



Source: National Association of Realtors® affordability index, as of October 2018.

When the index measures 100, a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signals the family earning the median income has more than enough income to qualify for a mortgage on a median-priced home, assuming a 20% down payment.

There are signs the Fed is paying more attention to financial markets. Fed officials have made comments about leveraged loans, commercial real estate, equities, and financial stability. The argument goes that, if the Fed missed something in the 2004 to 2007 period, it was the growth of leverage and risk taking in the financial system, with the Fed too focused on more benign traditional economic indicators. Back then the Fed strongly argued that monetary policy should not be used to address asset market developments. That view has clearly changed.

The Fed ignored equity market stresses

The Fed was not worried about the recent equity market stress. Typically interest rates decline when stocks tumble. That didn't quite happen during the October market sell-off. Despite the decline, the Fed continued its balance sheet reduction, effectively withdrawing liquidity from the market. It would have been easy for the Fed to ease up for a few days as equities declined, but they did not. Combine this with the increase in Treasury issuance as the deficit widens, and it looks more and more to us as though "excess" reserves have gone from the system.

The increase in interest rates is already producing effects in the real economy and in the markets for risky assets. These are happening at the same time as the global economy weakens and the outlook for inflation remains benign. What should a forward-looking central bank be doing in this context? Should it be banging on about how great the economy is and how rates might need to be pushed above neutral? Or should it be saying, let's wait and see how all this plays out? The widely expected December hike doesn't quite matter in this context. The issue is the 2019 outlook and what messages the Fed chooses to send about the next phase in monetary policy. A pause to wait and see? Or a signal that continued increases are warranted by fears of a tipping point in the labor market? The latter would be a mistake.

Populism wins in Brazil

Jair Bolsonaro won the presidency in a runoff vote in October, signaling a shift to the far right. He inherits an economy hobbled by low growth and high debt.

Jair Bolsonaro, the right-wing populist, won the second-round presidential runoff vote by a healthy margin in October. The president-elect and his party, together with various allies, did well in various Congressional and gubernatorial races. Asset markets had rallied in the weeks leading up to the runoff vote on bets that a Bolsonaro win was low. But markets rose after the results on expectations Bolsonaro may actually do some good.

His inheritance is difficult. Bolsonaro is a divisive figure. While he has core support in Congress, he is short of a majority. Congress remains very fragmented. There are 30 parties in the new Lower House, up from 25, and 21 parties in the new Senate, up from 16. While there's clearly a popular mood in favor of change, and a rejection of the old order, a lot of the demand for change is for better public services. It will be difficult to manage these social and political pressures. Bolsanaro has tried to shore up his reformist credentials by appointing a key figure in the investigation of the "Car Wash" corruption scandal as the new Justice Minister. The scandal started in March 2014 as an investigation into allegations that executives at the state oil company, Petrobras, had accepted bribes from construction firms in return for awarding them contracts at inflated prices. The scandal then spread and engulfed dozens of politicians, including popular former president Luiz Inacio Lula da Silva.

Economic agenda remains a mystery

Brazil has been underperforming for years. Growth was held back by microeconomic inefficiencies and high taxes, and by macroeconomic imbalances, especially high and steadily rising pension spending that limits fiscal flexibility. The political climate by the end of Lula's presidency, and throughout the terms of former president Dilma Rousseff and her successor, Michel Temer, made it impossible to do anything short of temporary fiscal patches. Growth has been slow since the recessions of 2015 and 2016.

We know little of the new president's economic agenda since the campaign did not focus on policies. The issue is less likely to be whether policy intentions are sensible, and more whether the political environment allows sensible policy measures to be implemented. There's a big fiscal and domestic debt problem, and there isn't a whole lot of time to tackle this challenge. The good news is that Brazil's capacity to provide a financial shock to the rest of the world, if things go badly, is limited. Its external debt is not large, the debt service profile is not demanding, and the balance of payments looks strong. Brazil has a trade surplus, modest current account deficit and international reserves, and robust foreign direct inflows.

China's economy looks shaky

The economy is cooling, and policy makers are taking steps to calm jittery global markets as the trade war with the United States escalates.

In China, things are getting interesting. It's clear the economy is slowing. While the data is not of the highest quality and it's hard to be confident about the exact pace of the slowdown, we believe the slowdown is real. Whether you look at the famed Li Keqiang index (LKQ), the various PMIs, or our nowcast, the only questions are about the speed of the deceleration and how broad it is. Another sign of the downturn is that the Politburo issued a statement in October saying, "timely steps are needed to counter the slowdown."

It's unusual to see that kind of declaration. There are three things going on here. The first is that policy makers continue to attach importance to deleveraging the financial sector. The second is the trade and investment conflict with the United States, which has increased uncertainty for the business sector in China. The third is that as the Chinese economy gets bigger and more complex, it gets harder for the authorities to fine-tune its performance. This combination of pressures increases the risk of policy overshoot, and the fact that the trade conflict is an external shock of unknown dimension adds to the difficulty.

Weakening yuan and policy tools

There is one obvious release valve — the exchange rate — and it has weakened. But there is a risk that allowing the yuan to weaken too far, or too quickly, would destabilize private sector expectations and create more macroeconomic problems than it solves. There are some signs that capital outflows are picking up. In the very short term, the yuan is likely to move with the trade war prospects: The currency will weaken on tariff threats but strengthen after phone calls between Trump and Xi Jinping. The other easily available fiscal tool is infrastructure spending. But the problem is this operates with more of a lag and is less useful. Of course, Beijing could give up on fine-tuning altogether, but it doesn't seem willing to do that. So far, the government has revealed little about new policies to counter pressures on the economy.

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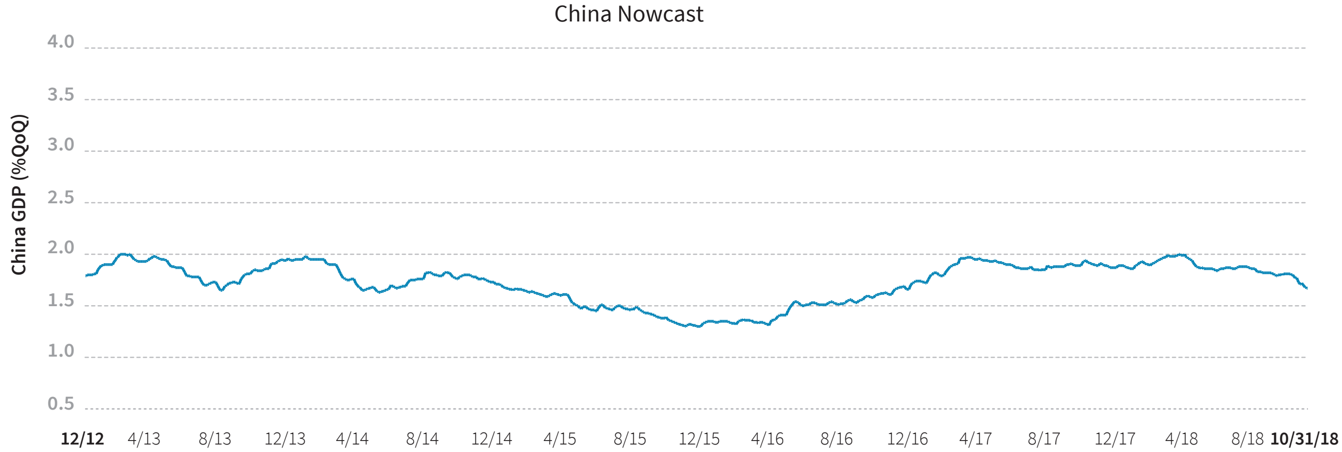
China's growth trends lower

(% quarter-on-quarter)



Source: Putnam, as of October 2018.

We base our proprietary China GDP Nowcast on a tailored methodology that captures quarterly data releases for China's most essential growth characteristics including purchasing managers' index data, industrial production, retail sales data, job market metrics, real estate activity indexes, sentiment indicators, and numerous other factors. The mix of factors used may change over time as new indicators become available from data sources or if certain factors become more, or less, predictive of economic growth.

No sign of a trade deal

The other obvious possibility is to reach a trade agreement with the United States to lift the cloud from the Chinese economy. There are Trumpist economists who argue U.S. measures have weakened China's economy, and that if Trump continues to push hard, he will force China to the table with fresh concessions to reach an agreement. We are skeptical about this strategy and its chances for success.

It takes two to reach an agreement. It is not really clear what Trump and his advisors want, and it's not at all clear that Beijing is ready or willing to submit. But there are times when the smoke signals seem more or less encouraging. China is increasingly of the view that there will be no trade deal and that rebalancing the bilateral trade position by importing more goods from the United States is simply not going to work because the real goal of the Trump administration is to weaken China and reduce its integration into the global economy.

The "cheese option"

If this does become the dominant view in Beijing, then the chances of a trade agreement shrink. Moreover, even if there is a benign eventual outcome, the short-term risks are clearly biased toward things getting worse. There is, of course, the good outcome that, in honor of the tiny concession Canada made to be able to join the new NAFTA, we call the "cheese option." Under this scenario, the United States accepts what it previously rejected. We can't rule this out. If the U.S. economic outlook deteriorates, this option would become more appealing to the White House. But we don't expect such an outcome given the anti-China trade warriors in the administration.

China is likely to be successful in shepherding its economy to a growth rate policy maker it is happy with. But downside risks loom large. The economy's path isn't exactly what Beijing wants or planned. Our confidence in their ability to get what they want has slipped. There is also the risk that, if the U.S. administration believes that an ever-tightening screw is the way to wring concessions out of Beijing, the screw may get overtightened. This would raise the risk of a sharper Chinese downturn. Given the economy's weight in global trade and global GDP, a sharp slowdown would matter for overall growth prospects.

The Putnam Global Risk Appetite (RA) Index is a proprietary quantitative model that aims to measure investors' willingness to invest in risky assets, including equities, commodities, high-yield bonds, and other spread sectors. With a composite view of risk-appetite signals across a broad mix of asset types, Putnam's RA Index provides a framework for discussing investor preferences and can signal trend changes in broad market sentiment.

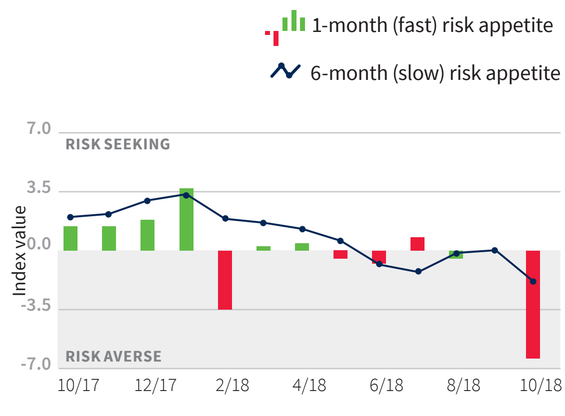
Risk appetite tumbles

SHORT-TERM TREND

October was one of the worst months since 1980

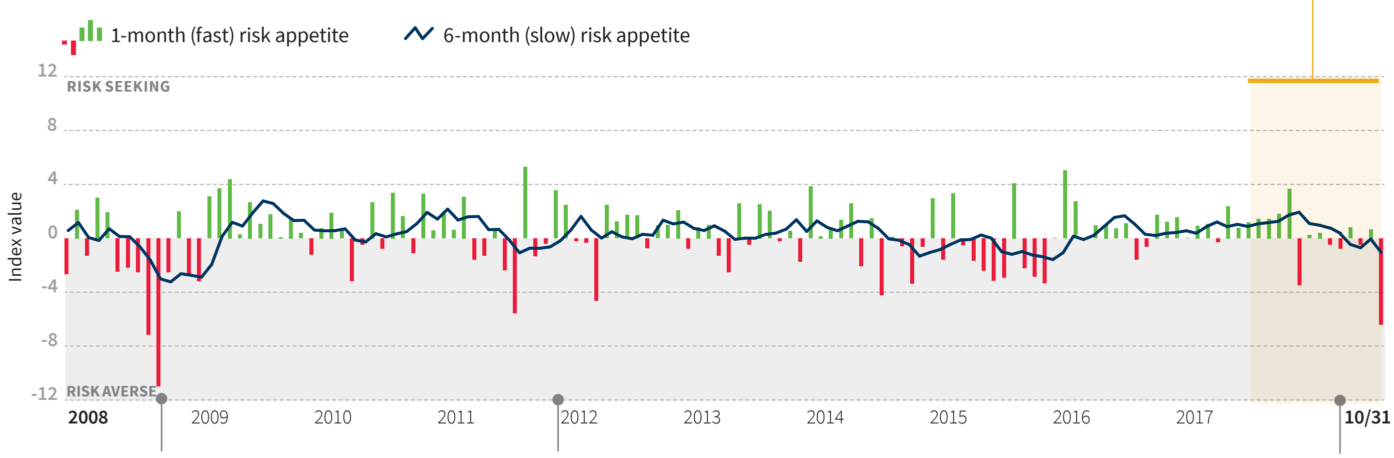
Risk ON OFF

- Small-cap stocks were the worst performers.
- U.S. Treasuries failed to generate excess returns.
- Non-U.S. risk-free rate markets did marginally better.
- Emerging market corporate credit gained, but emerging market equities tumbled.



LONG-TERM CYCLE

This 10-year illustration captures the cyclicality of investors' appetite for risk.



Sept '08
With Lehman Brothers' bankruptcy and the onset of the global financial crisis, appetite for risk all but disappears.

Sept–Nov '11
Eruption and subsequent clearing of concerns over EU sovereign debt crisis, U.S. debt ceiling, and fear of China hard landing drive major risk selloff and rally.

March '16–Jan '18
Risk assets rally amid improving commodity prices, perceived stability in China's macro data, and expectations for gradualist Fed policy.

Source: Putnam. Data as of October 31, 2018. To create the Global Risk Appetite Index, we weigh the monthly excess returns of 30 different asset classes over 3-month T-bills relative to the trailing 2-year volatility of each asset class. The higher the excess return and the lower the volatility, the greater the risk appetite; conversely, the lower the excess return and the higher the volatility, the stronger the risk aversion.

The Putnam Global GDP Nowcast Index is a proprietary GDP-weighted quantitative model that tracks key growth factors across 25 economies. This index and individual country indexes are used as key signals in Putnam's interest-rate and foreign-exchange strategies.

Global economic growth eases

SHORT-TERM TREND

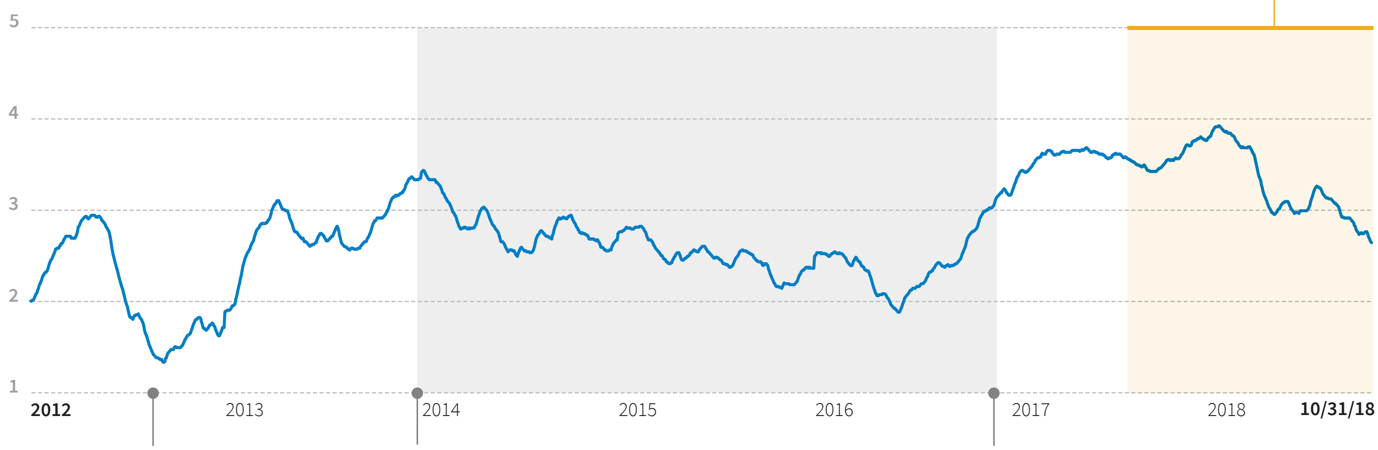
Global nowcast continues to deteriorate amid emerging market, trade war risks

▲ 2.63%

Growth among G10 countries moderated. Economic indicators for the United States and Canada eased, while the eurozone rebounded. In the United States, personal consumption, housing and regional surveys weakened. In the eurozone, industrial production and economic sentiment were strong. Growth eased in China.

LONG-TERM CYCLE

This six-year illustration captures GDP gyrations since the financial crisis.

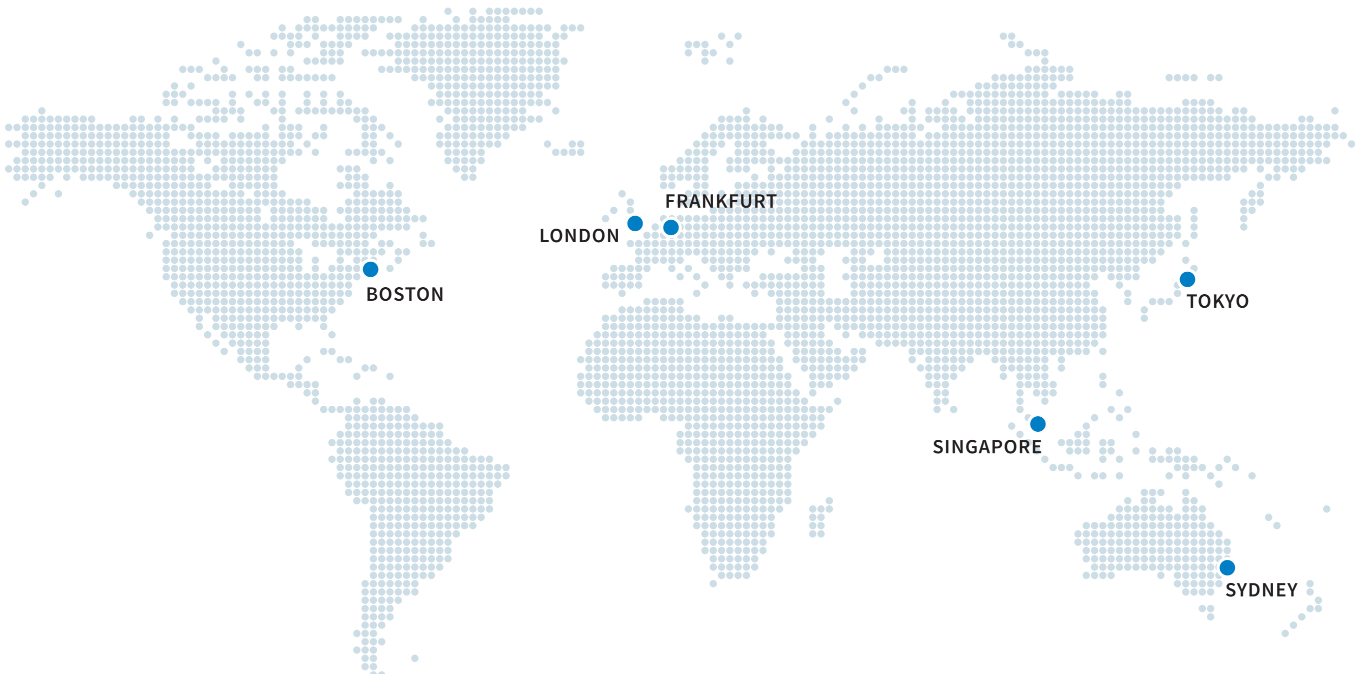


Sept '12–Dec '13
Global growth swings dramatically, under pressure from sovereign debt crises and darkening global growth prospects amid fitful recoveries.

Jan '14–Oct '16
Global growth settles into a more subdued pattern of modestly disappointing results.

Nov '16–Dec '17
More synchronous performance across global markets emerges to lift the trajectory of global growth.

Source: Putnam. Data as of October 31, 2018. We base our Global GDP Nowcast on a tailored methodology that captures daily data releases for the most essential growth characteristics for each of 25 countries — including purchasing managers' index data, industrial production, retail sales data, labor market metrics, real estate price indexes, sentiment indicators, and numerous other factors. The mix of factors used for each market may change over time as new indicators become available from data sources or if certain factors become more, or less, predictive of economic growth.



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The Macro Report is written by members of Putnam's Fixed Income team. With backgrounds in applied economics, currency and interest-rate analysis, and sovereign and local bond market dynamics, this group conducts macroeconomic research in support of Putnam's global fixed-income strategies.

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