The outlook for U.S. and global growth remains solid in 2018. However, the relationship between the improving U.S. economy, the Fed funds rate, and the benchmark 10-year Treasury yield is somewhat of an enigma. The yield on the 10-year note continues to lag U.S. growth rates even as global monetary policies tighten and short-term rates rise. With benchmark yields perhaps poised to move higher, this month we explore several factors that help to determine them, including demand from foreign central banks, monetary policies across the G10 and in Japan especially, and demographics. The gap between nominal GDP growth rates and nominal yields is likely to be much wider than a “return to normal” would suggest in 2018.

Although markets have shown little concern over the yield disparity, we think some issues that could begin to influence markets include political tensions in Italy and higher oil prices. Italy will hold national elections in March, and the uncertainty threatens to undermine an already fragile economy. Additionally, oil prices have been spurred higher in part by protests in Iran, explosions in Libya, and Yemeni missiles over Saudi Arabia.
Mind the yield gap

The yield on the 10-year bond, which has trailed GDP growth, is expected to rise only slightly in 2018 as market forces cap rates.

The difference between 10-year Treasury yields and U.S. growth is unusually wide. Nominal GDP growth averaged about 4% over the past few years, while the nominal yield on the 10-year note was 2.4% at year-end 2017. So, why are yields so far below the growth rate?

Ten-year yields can be understood in many ways. In a stable, closed economy with inflation holding at the central bank’s target, it’s easy to derive the result that the 10-year yield should be close to the growth rate of the economy. After all, there is a relationship between the policy rate (the fed funds interest rate) and economic growth. This relationship is not as close as textbooks suggest since the policy rate is a risk-free rate, and growth should compensate for risky capital. But there clearly should be some relationship.

The question is whether a world where monetary policy is gently tightening and short-term rates are rising is also a world where 10-year yields move closer to nominal growth rates. Do “normal” monetary policy and “normal” two-year yields mean we should see “normal” 10-year yields? We continue to think the answer is no. The “stable, closed economy” model simply isn’t working. Capital flows are too large for the “closed” piece of the model to apply, and there are too many long-term forces at work for the “stable” piece of the model to apply.

Instead, it makes sense to think of yields like any other price: It’s a result of supply and demand. Last month, we wrote about the yield curve, and we received a number of questions. So, let’s briefly consider the factors currently driving supply and demand, and how they may change in 2018.

Demand for Treasuries remains strong. A legacy of the 1998 financial crisis that swept across emerging markets is that global central banks’ demand for reserves has shifted significantly higher. As a result, foreign central banks hold about two thirds of their reserves in Treasuries.
Monetary policies in the G10 and Japan also play a role. The Fed is tightening policy, but the European Central Bank (ECB) and the Bank of Japan (BoJ) continue with quantitative easing (QE). These bond-buying programs have anchored yields on the long end of the bond market. While the Fed’s quantitative tightening is having an impact on the front end of the U.S. yield curve, it clearly hasn’t done much, if anything, for the 10-year note.

Japan’s policy is particularly important because unlike other QE programs, which pass specific quantities of money to the private sector, the BoJ’s policy cares about quantities only insofar as they produce price effects. The BoJ targets the 10-year Japanese government bond yield and carries out enough QE to ensure this target is met. There’s clearly a limit to how far U.S. yields can rise when Japanese yields are capped.

Instead, it makes sense to think of yields like any other price: It’s a result of supply and demand.

There’s a chance all this will change later in 2018. The ECB may end its QE program in September, and the BoJ may reconsider its dovish policy. That could change the supply/demand balance in the market, pushing 10-year U.S. yields higher.

Private demand for low-risk government debt remains strong. Regulatory changes affecting financial institutions have given them strong incentives to hold government securities. You need to only look at the eurozone and the Italian banking system to understand this.

On the other hand, corporate sector demand for investable funds is low. This may reflect changing technology, reduced capital investment, and a decline in the relative price of capital goods. Looking ahead, rising business confidence and lower U.S. corporate taxes could boost investment, and thus an increase in demand for investable funds.

### Ten-year Treasury yields remain below nominal GDP growth

[Graph showing the relationship between U.S. 10-year Treasury yield and U.S. nominal GDP from 2011 to 2017, with a peak in 2017.]

Sources: FactSet, U.S. Bureau of Economic Analysis, December 2017.
Reluctance to increase supply

It’s important to note that governments are reluctant to increase debt supply. Concerns about debt levels and debt dynamics after the financial crisis made fiscal expansion politically unpalatable. The Europeans have enshrined austerity in the founding documents of the eurozone.

Private-sector supply of debt is also changing due to demographics. The post-Lehman financial crisis and the collapse of housing prices made a lot of households very nervous about their balance sheets. As a result, household savings rates have risen. Income inequality, changing age distribution in the population, and higher life expectancy will affect aggregate savings rates. Funding longer retirements, and perhaps a motive to provide bequests to the next generation, may be lifting savings rates of older cohorts, increasing household debt supply.

Aside from supply and demand, inflation risk could also influence yields. Could fears of a resurgence in inflation push nominal yields a lot higher? We think the risks of a general inflationary upsurge is low because of the institutional and structural features of the world economy.

Return to normal?

Ultimately, we expect 10-year bond yields to rise only a little in 2018. Some of the factors mentioned above will change in 2018, and there is some upward risk to rates. But others will remain in place and keep the gap between nominal GDP growth rates and nominal yields much wider than a “return to normal” would suggest.
Italian President Sergio Mattarella dissolved parliament in December, setting the country on the path to national elections on March 4 under a new electoral law. This has raised concerns about political instability in the eurozone’s third-biggest economy.

Opinion polls show the anti-establishment Five Star Movement (M5S) leading Prime Minister Paolo Gentiloni’s Democratic Party, as well as groups in a possible center-right coalition that would include former Premier Silvio Berlusconi’s Forza Italia. The polls projected support for M5S at around 28%, the Democrat Party at around 22%, Forza Italia at around 16%, and the Northern League at about 14%. It’s likely the M5S will be the single, largest party in the lower house after the election.

Historically, Italy’s president gives the largest party the first chance to form a government, creating the possibility M5S would lead the government, or attempt to form one. However, Mattarella indicated he would rather opt for mainstream political leaders, a move that could create a political storm. Under such a scenario, a right-wing alliance led by Berlusconi, or a grand coalition, could emerge. The right wing seems to be swinging behind Berlusconi, whose leadership is questionable. He is appealing a ban on holding office because of a 2013 tax fraud conviction, and the appeal is currently before the European Court of Human Rights. (Italian courts had rejected his earlier appeals.) A coalition government, on the other hand, will be unable to address structural reforms.

We already see bouts of weakness in Italy’s equity and fixed-income markets. There is considerable headline risk between now and the election largely due to the popularity of the anti-euro M5S, and Berlusconi’s absurd campaign promises that include circulating a parallel currency, and a set of tax breaks for pet owners. The risk is that the markets will start taking some of his campaign rhetoric seriously. The debt market is also likely to face pressure from an end to the ECB’s bond-buying program. Finally, there are concerns that hawks at the ECB will prevent any further extension of the QE program, which is set to end in September.

Italy must refinance debt equivalent to 17% of GDP in 2018, and its debt stock remains above 125% of GDP. The country is both too big to fail and too big to save. Reforms have been slow to put Italy on a sustainable growth path. This is going to become a lingering problem for Brussels and Berlin.
Oil prices have continued to move higher. Protests in Iran, Yemeni missiles over Riyadh in Saudi Arabia, explosions in Libya’s Sidra pipelines, and cracks in the North Sea Forties pipeline have played a role in lifting prices. Severely cold weather in the densely populated areas of the United States have also driven prices higher, which is expected to spur consumption of heating fuels.

These factors are all likely to be temporary. Supply disruptions don’t have much impact on prices when inventories are high, and so these price movements indicate that inventories are normalizing.
Fair value model implies oil prices can rise

Prices indicate US$ per barrel of oil

Sources: U.S. Energy Information Administration, December 2017; Bloomberg, January 2018; Putnam calculations, January 2018.

**Prices can trend slightly higher**
Our fair value model suggests prices can move a little higher, partly reflecting the recent weakness in the U.S. dollar, the normalization of inventories, and the steady improvement in the supply and demand balance.

**U.S. shale production and impact on oil**
Regarding U.S. shale supply, the rig count has been broadly stable, and it’s difficult to see a large production increase in the first half of 2018. Beyond that, it’s hard to say. It is possible tax legislation and the Environmental Protection Agency’s support of the interests of the extractive industry will boost investment. That would push output higher in the second half of this year.

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Risk appetite continues to indicate optimism

**SHORT-TERM TREND**

December was another month of strong risk appetite

**Risk**

- Strong risk appetite for commodities and equities
- Fixed-income returns were mixed as European bonds sold off in the second half of December, while other risky bonds posted positive returns
- U.S. Treasury yields at the front and belly of the yield curve continued to trend higher

**LONG-TERM CYCLE**

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

Source: Putnam. Data as of December 31, 2017. 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 growth trajectory remains robust

**SHORT-TERM TREND**
Growth increased slightly in December

Among G10 countries, growth increased the most in Canada and the U.K. Canada’s economy got a boost from employment data, the IVEY Purchasing Managers Index, and retail sales. U.S. growth improved as personal consumption expenditure (PCE) rose. Among emerging markets, growth improved in Russia, Turkey, and Singapore, but held steady in China.

**LONG-TERM CYCLE**
This six-year illustration captures GDP gyrations since the financial crisis.

Source: Putnam. Data as of December 31, 2017. 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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