December 13, 2018

Economics Group

2019 Annual Economic Outlook

How long can this aging cycle last?

As the current economic expansion approaches the longest on record, we consider just how much longer the good times can last. Our base case sees the economy continuing to expand, albeit with some slowing, through 2020. But we also note factors that could either prolong — or derail — this expansion over the next couple of years.

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Executive Summary

Records Are Made to Be Broken

The economic expansion that began in June 2009 has been in place now for 114 months, making it the second longest U.S. economic upswing on record. Although we expect real GDP growth will slow somewhat from the rate that will be achieved in 2018 (nearly 3%), we forecast that the expansion will remain intact through 2020.

Real GDP growth in 2018 has been boosted, at least in part, by economic policies. The tax cuts that President Trump signed into law in late 2017 have helped to raise real disposable income, which has supported strong growth in real personal spending. In addition, last year's budget agreement provided a lift to government spending, which has also made a positive contribution to real GDP growth. Although the Federal Reserve has been hiking rates, monetary policy is still accommodative, at least it was earlier this year.

We forecast that the expansion will remain intact through 2020.

However, some of the factors that have contributed to strong economic growth this year are beginning to fade. The income-lifting effects of the tax cuts will dissipate in 2019, which should lead to some deceleration in real personal consumption expenditures. Growth in real government expenditures is also set to slow. Higher interest rates appear to have weighed on the housing market recently, and the Fed is probably not completely done yet with its process of removing policy accommodation.

That said, the economy has strong momentum behind it at present, which should keep the expansion intact. Business confidence is buoyant, thereby underpinning investment spending and employment growth. Real consumer spending should be supported by continued growth in real disposable income, upbeat confidence and record levels of household wealth. The high personal saving rate gives households the financial ability to maintain solid rates of spending growth.

Unemployment has receded to its lowest rate in nearly 50 years, which has led to some acceleration in wages. Modest rates of wage inflation are putting some upward pressure on rates of consumer price inflation. Consequently, the Federal Reserve has been gradually removing policy accommodation, and we look for further tightening ahead. We expect that the Federal Open Market Committee (FOMC) will lift its target range for the fed funds rate by 25 bps at its next policy meeting on December 19, and we forecast that the FOMC will hike another 50 bps in 2019.

It Is the Best of Times, It Is the Worst of Times

Could the good times last even longer than we anticipate? Yes. Recessions tend to occur when excesses get built up during the boom years and then are subsequently reversed when risk tolerances shift due to a policy mistake or an exogenous shock. The most striking feature of the current expansion is the absence of any obvious excesses. As noted above, inflation has crept higher recently but a return to 1970s-like rates of inflation seems to be a remote possibility. Therefore, the Fed probably does not need to jam on the brakes, which can prolong the expansion.

A stronger rate of potential GDP growth could be another elixir to the longevity of the expansion. Reduced marginal income tax rates could be drawing more people into the labor market, and corporate tax reform could potentially lead to sustained acceleration in capital spending. Stronger labor force growth and acceleration in capital investment would lift the economy's potential growth rate. If the economy's speed limit is actually higher than most analysts currently estimate, then inflation should remain generally quiescent, reducing the risk of a policy mistake by the Fed.

But there are also some credible downside risks to our forecast that should be kept in mind. Although inflation has generally remained benign, it could conceivably rise more rapidly in coming months if wages accelerate further due to tightness in the labor market. In that scenario, the FOMC could end up tightening policy too forcibly. Trade tensions between the United States and China have risen this year. Although the "first order" effects of the trade war do not appear to be large enough to derail the U.S. expansion, "second order" effects on investment and consumer spending could be more meaningful. Furthermore, there has been broad asset price appreciation in recent years, and a significant selloff in asset markets could weaken confidence and erode household wealth. Authorities are not in the best position to fight a downturn, should one occur. The Fed does not have as much conventional "ammunition" as it usually does before a recession (i.e., the fed funds rate generally remains low). The federal government's deficit is already on its way to more than $1 trillion, limiting its ability to loosen fiscal policy further to offset economic weakness.

There are some credible downside risks to our forecast that should be kept in mind.

Executive Summary

Global Growth Set to Slow Somewhat

We estimate that global GDP has risen 3.7% in 2018, which would make it the strongest year of global GDP growth since 2011. But, we look for some deceleration in the global economy in 2019. As discussed previously, U.S. GDP growth should slow somewhat throughout next year. But we also look for slower growth in China, the world's second largest individual economy, due, at least in part, to the "trade war" with the United States. We forecast that the Japanese economy will also decelerate a bit in 2019, although the pace of economic activity in the Eurozone and in the United Kingdom should hold up reasonably well. A "disorderly" Brexit and political tension between the Italian government and the European Commission represent possible downside risks to our forecast, but we anticipate that both issues will be resolved.

We look for some deceleration in the global economy in 2019.

The trade-weighted value of the U.S. dollar against other major currencies has risen about 5% on balance since the beginning of the year. The strength of the U.S. economy relative to most other major economies has led the Federal Reserve to hike rates at a faster pace than other major central banks, thereby supporting the greenback. But, we expect that many other major central banks will start to catch up to the Fed next year. This "monetary policy convergence" should lead to dollar depreciation vis-à-vis most other major currencies in 2019. We expect that the greenback's performance will be generally mixed against emerging market currencies next year.

As Monetary and Fiscal Support Fade, Will the Economy Be Able to Stand on Its Own Two Legs?

For the U.S. economy, 2018 looks set to go down as one of the best years of this expansion. Fiscal stimulus at the start of the year has led to stronger economic growth, and we estimate real GDP to have increased 2.9% for the year as a whole. If realized, that would match the 2015 high water mark for growth in a cycle that has been characterized by slow growth. But can the upward momentum be sustained in 2019? Incoming data suggest that GDP growth has slowed in the final quarter of the year. After increasing at an average annualized pace of 3.9% in the second and third quarter, we estimate GDP growth eased to a 2.2% pace in the fourth quarter.

For the U.S. economy, 2018 looks set to go down as one of the best years of this expansion.

This moderation in the pace of GDP growth is unlikely to be a blip. Fiscal stimulus in the past year gave the economy a late cycle second wind. But fiscal as well as monetary policy support is fading heading into 2019. The lift to GDP growth from the Tax Cuts & Jobs Act (TCJA) is likely cresting, while the boost to federal spending tied to the two-year budget deal will peter out toward the end of 2019. For the first time since the financial crisis, U.S. monetary policy next year will have a neutral, if not slightly restrictive, effect on GDP growth.

We expect that the U.S. economy will expand 2.7% in 2019. That forecasted growth rate somewhat overstates the pace for the year as Q4/Q4 growth will be closer to 2.5% (Figure 1). The slowing trajectory, however, should not take away from what stands to be another above-average year. Underlying demand remains sufficiently strong that even without the tremendous policy support of recent years, the current expansion looks likely to extend through 2019 and, by the middle of the year, become the longest on record.

Figure 1

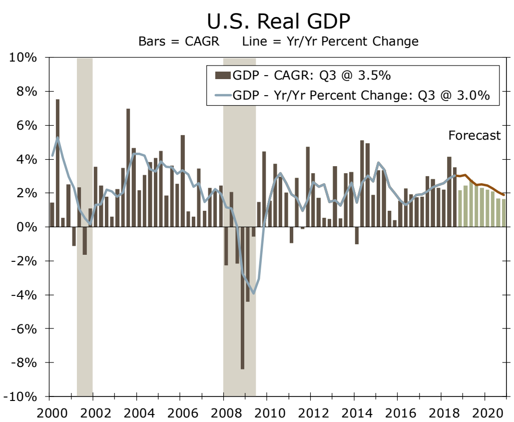
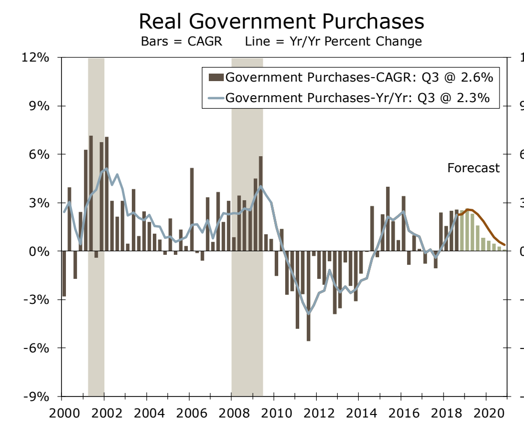


Figure 2



Source: U.S. Department of Commerce and Wells Fargo Securities

The Fiscal Fade Begins

Expansive fiscal policy was the defining macro story of 2018. Sweeping changes to the federal tax code coupled with increased federal spending pushed what was already a modest upswing in U.S. real GDP growth into overdrive. As we look ahead into 2019, fiscal policy should remain supportive to growth, albeit to a more modest extent by year end (Figure 2).

Fiscal policy should remain supportive to growth, albeit to a more modest extent by year end.

The TCJA ushered in an added degree of optimism in the business community that propelled the equity market higher and sent "soft" data on business sentiment and activity well above "hard" data on sales and production. On the household side, tax changes contributed to real disposable income increasing at the strongest pace since 2015. The benefit to corporate profits and household income will be more incremental in 2019, with a full year of the code changes under the economy's belt by the second quarter. With the midterm elections splitting control of Congress, we see neither additional tax cuts nor a repeal of the TCJA. As a result, the boost to real disposable income and after-tax corporate profit growth from the TCJA is likely to fade steadily over the course of 2019. This in turn suggests households and businesses will need to generate more pre-tax income, draw down savings and/or borrow more to sustain current consumption and investment growth rates.

More uncertain for the year ahead is the outlook for government spending. The federal budget deal lifted 2018 GDP growth by about 0.2 percentage points alone, but the deal extends only through September 30, 2019. Without a new agreement, federal spending would snap back to the limits imposed under the 2011 Budget Control Act, which would lead to a decline in real spending. We anticipate that heading into a presidential election year an outright decline in spending will be avoided. Yet growing deficit pressures will likely make many politicians wary about upping spending further. We therefore expect to see a middle-of-the-road approach that results in nearly flat real federal spending by the final quarter of 2019. State and local spending has risen alongside higher revenues, but we anticipate the pace of outlays to ease over 2019 as pension and healthcare costs weigh on budgets. As a whole, we expect growth in real government consumption and investment to peak on a year-over-year basis by mid-2019.

Consumer Spending & the Job Market: Linchpins for Another Year of Solid Growth

Real disposable income is expected to remain strong in 2019, making consumer spending a cornerstone in our outlook for another year of solid real GDP growth. Many households, particularly those outside of regions with high state and local tax burdens, are expected to benefit from larger tax refunds in the first half of the year. Beyond tax changes, however, the fundamentals suggest the robust pace of consumer spending is likely to endure over the year. Household wealth stands at a record high as financial assets have climbed and property prices have recovered. At the same time, the household saving rate has been little changed and is about twice as high as in the 2000s.

Strong consumer spending is a cornerstone in our outlook for another year of solid real GDP growth.

The elevated rate of saving at this stage of the business cycle provides households the financial ability to maintain spending at around a 2.5%-3.0% pace in 2019. Moreover, credit has played a minimal role in consumer spending in this cycle. Credit growth has slowed across all major categories over the past year as standards have tightened, interest rates have risen and tax cuts have reduced demand for debt. Debt service remains exceptionally low, giving scope for households to direct a high share of income to new purchases rather than previous ones (Figure 3).

Figure 3

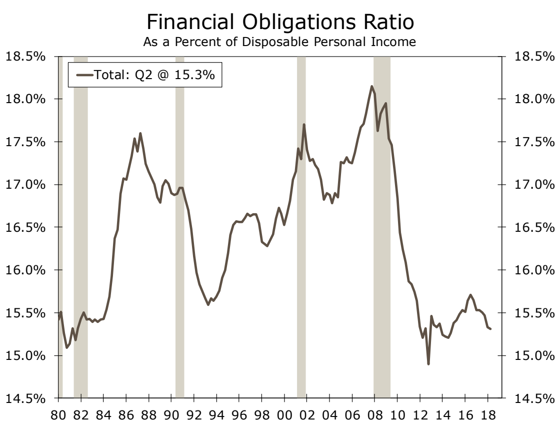
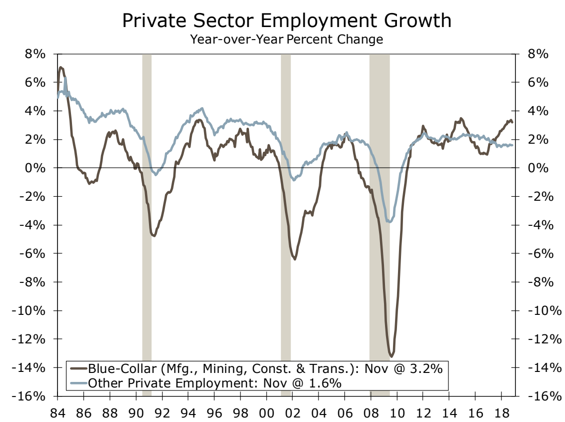


Figure 4



Source: Federal Reserve Board, U.S. Department of Labor and Wells Fargo Securities

Most important for consumer income and spending in the year ahead will be ongoing strength in the job market. Employers indicate no letup in demand for workers. Job openings have climbed to record highs with more than one million more job vacancies than unemployed workers. While figures on wealth and saving mask some of the income disparity that has been a flash point this cycle, the job market suggests that the tide has shifted in favor of those at the lower end of the earnings ladder. Demand for workers has been particularly strong in blue-collar and low-wage industries. Hiring in transportation, manufacturing, construction and mining has grown twice as fast as other private sector employment this year (Figure 4). Wage growth in lower-paying industries like retail and leisure & hospitality is outpacing the broader market.

Employers indicate no letup in demand for workers.

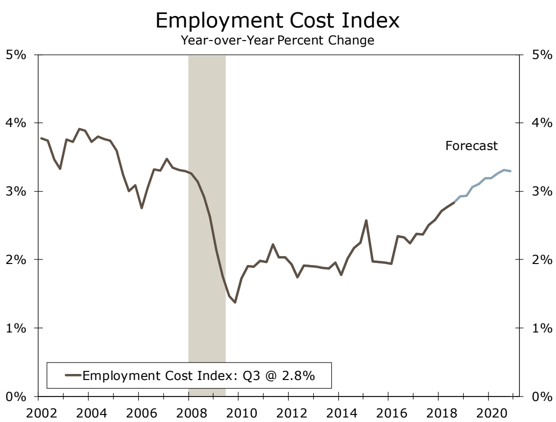
The outperformance of what had been lagging sectors over the past few decades has helped pull workers sidelined by the Great Recession back into the job market. Labor force participation among "prime" workers (ages 25-54) over the past three years has regained about half of the ground lost since the recession. The influx of workers back into the labor market has been stronger than many expected. Employers have been adding around 200,000 jobs per month, which has supported aggregate household income as more of the population has collected a paycheck. More generally, the rebound in participation has helped keep the expansion on course. Not only has the base of spending broadened, but the additional workers have helped keep labor costs modest and, in turn, the Fed on a historically gradual path for monetary policy normalization.

Nevertheless, we have doubts that this pace of job growth will be maintained as overall economic growth moderates and a lack of available labor constrains hiring. Businesses increasingly cite finding qualified labor as their single most important problem, an issue that will likely intensify in the year ahead. Population growth for ages 16-64 has slowed to about a 0.5% pace from around 1.25% ten years ago, which, along with slower immigration, suggests that labor force growth will continue to trail hiring without a sharp rise in participation.

The acceleration in wages over the past year confirms that the labor market is indeed tight.

We expect the unemployment rate—already at a 49-year low—will fall to 3.5% by the fourth quarter of 2019. At that point, unemployment would be well below FOMC members' estimates of full employment, as well as the conservative end of our own estimated range (3.6%-4.6%). While estimates of "full employment" come with a wide degree of uncertainty, the acceleration in wages over the past year confirms that the labor market is indeed tight (Figure 5). We expect to see employment costs increase 3.1% in 2019.

Figure 5



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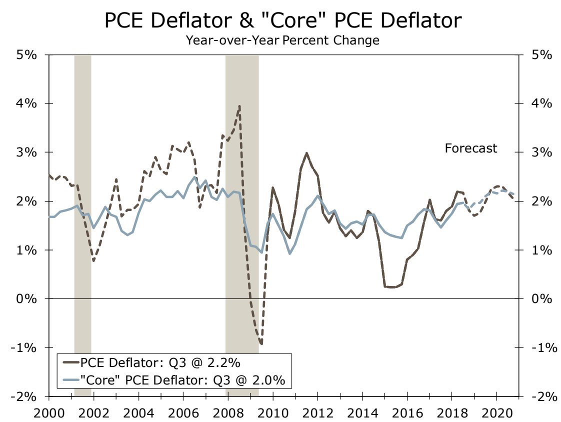


Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities

So Long Monetary Accommodation: Inflation, the Fed and Interest Rates

Core inflation has continued to undershoot the Fed's target for most of 2018, but it should tick a bit higher in 2019. Not only are businesses experiencing higher labor costs as the job market has tightened, but input prices for goods and services have risen as spare capacity in the economy has dwindled. More businesses are reporting raising prices than at any other point in the cycle. Tariffs have exacerbated price pressures for many businesses and are expected to contribute to higher inflation. A strong dollar and stable inflation expectations, however, should keep core inflation from breaking significantly above the Fed's target of 2% (Figure 6). Headline inflation should not present much of a threat either as energy and food-related commodity prices have come down in recent months.

We expect core inflation to tick a bit higher over the course of 2019.

With the labor market and inflation clearly in line with the FOMC's mandate, we expect to see the committee press ahead with an additional 50 bps of tightening in 2019. Along with another quarter-point move at next week's FOMC meeting, that would put the federal funds rate at 2.75%-3.00%—what we believe will be the terminal rate this cycle. While Fed Chairman Jerome Powell has stressed the imprecise nature of measuring a "neutral" level of rates, most estimates suggest that at that level, monetary policy would no longer be accommodative for the first time in more than a decade.

Short-term Treasury yields are poised to follow the fed funds rate higher, but longer-term Treasury yields are also expected to climb. On the supply front, the rising federal deficit is expected to keep net Treasury issuance elevated. At the same time, demand is likely to remain under pressure with the Fed's balance sheet unwind in full swing, the European Central Bank ending its quantitative easing program and higher yields in other advanced economies eroding the relative value of U.S. Treasuries. After flattening over most of 2018, the yield curve, as measured by the spread between two-year and ten-year Treasuries securities, is anticipated to steepen slightly (Figure 7).

Figure 7

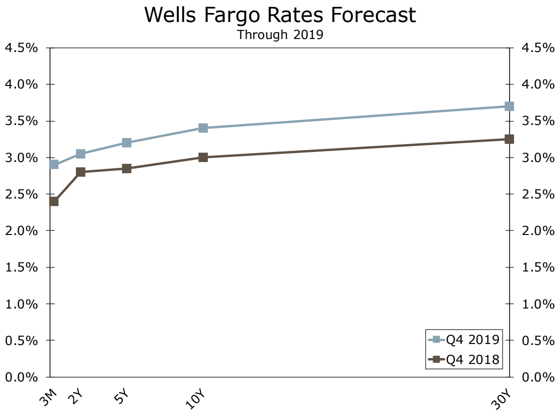
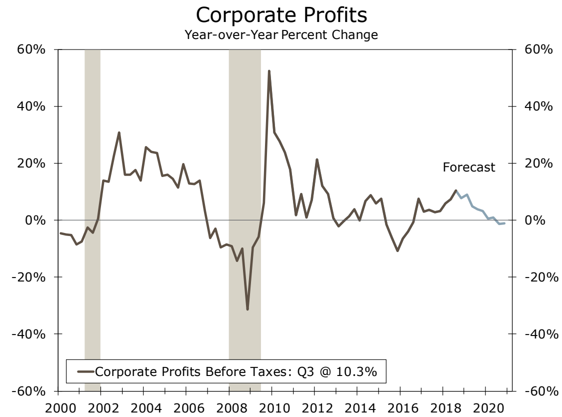


Figure 8



Source: Bloomberg LP, U.S. Department of Commerce and Wells Fargo Securities

Late Cycle Strains in View

The Fed's gradual path of rate hikes mitigates the risk that higher interest rates will unduly choke off growth in 2019. Yet the rise in interest rates is another sign that the economy has reached the late stage of the cycle. A number of interest-rate sensitive areas of the economy are beginning to show signs of strains and likely will weaken in 2019.

The Fed's gradual path of rate hikes mitigates the risk that higher interest rates will unduly choke off growth in 2019.

Stronger sales and the reduction in corporate tax rates have led to an upswing in profit growth this past year. Yet 2019 will likely be tougher. Sales are slowing while input costs are rising. In recent cycles where inflation expectations have been well-anchored and the pass-through between wages and inflation has been weak, increases in input costs have weighed on business margins. Higher interest rates on record amounts of corporate debt will further pressure corporations' bottom lines by driving interest costs higher. We expect corporate profits will peak in the second half of next year (Figure 8).

Amid slower profit growth and higher interest rates, business investment likely will moderate (Figure 9). The global backdrop has become less favorable and, along with a strong dollar, is expected to weigh on exports and commodity prices, which disproportionately hit the capital-intensive manufacturing and energy sectors. Capital spending plans have cooled off as uncertainty around U.S. trade policy remains elevated, even with the tentative resolution of the NAFTA/USMCA renegotiation. Spending on equipment and structures is expected to rise by about 4% in the year ahead. Intellectual property products, which includes R&D and software spending, should do better, underpinned by a shorter shelf-life and businesses' growing reliance on intangibles.

Nowhere has rising interest rates been felt more acutely this past year than in the housing sector. Affordability had already been deteriorating with prices rising consistently faster than incomes, but higher mortgage rates have accelerated the decline. We expect price appreciation to moderate in the year ahead as interest costs take up a greater share of homebuyers' monthly payments. Existing home sales are down 2.5% year-to-date, but inventories of homes are rising from their extraordinarily low levels, which should facilitate a modest uptick in sales next year despite the erosion in affordability. Gradual easing in mortgage credit standards and Millennials moving into their prime buying years have provided some counter-support to higher mortgage costs.

Figure 9

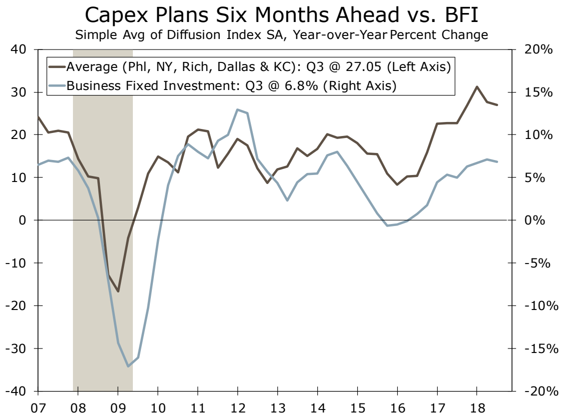
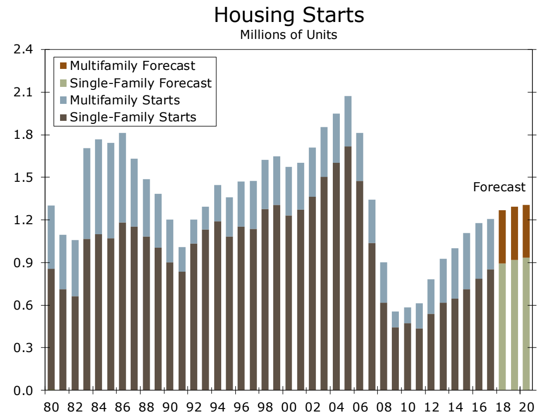


Figure 10



Source: U.S. Department of Commerce, Federal Reserve Board and Wells Fargo Securities

New single-family construction is also shifting toward the entry-level segment, adding supply to where the market has needed it most. The overall rate of new construction should remain fairly tepid, however, as builders continue to grapple with high costs and a lack of available labor (Figure 10).

Although higher interest rates represent a headwind for 2019, the economy is starting the year with considerable momentum. Growth over the past year has been well above the economy's potential, meaning the economy can stand to lose some altitude. The expansion's age is beginning to show, but in our view it remains healthy enough to extend through 2020.

Everything Continues to Go Right

Our base case, which is discussed in detail in the previous section, looks for some moderation in real GDP growth over the next two years. But, we expect that real GDP growth will remain positive and that the expansion will become the longest on record next summer. That said, there is still a credible case to be made that the economy could continue to exceed expectations for even longer. Could our base case forecast be too pessimistic?

Relative Lack of Excesses Means the Expansion Might Last Even Longer

Recessions tend to emanate from the build up of excesses during the boom years, and they are typically triggered by a sudden reversal of risk tolerances from either a policy mistake or exogenous shock. The most striking feature of the current expansion is the absence of any obvious excesses, particularly in the most cyclical parts of the economy. Consumer spending on big ticket items, housing, commercial construction and business fixed investment collectively account for around 20% of real GDP, but these spending components typically account for most of the swing in real GDP during recessions (Figure 11). The absence of a boom means downside adjustments will likely be smaller than in the past and take longer to materialize.

This cycle has featured an absence of obvious excesses.

Figure 11

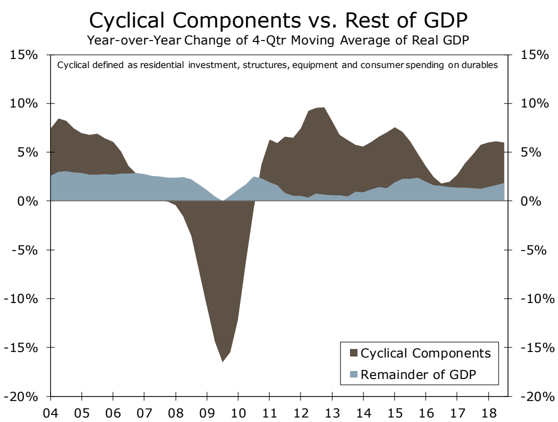
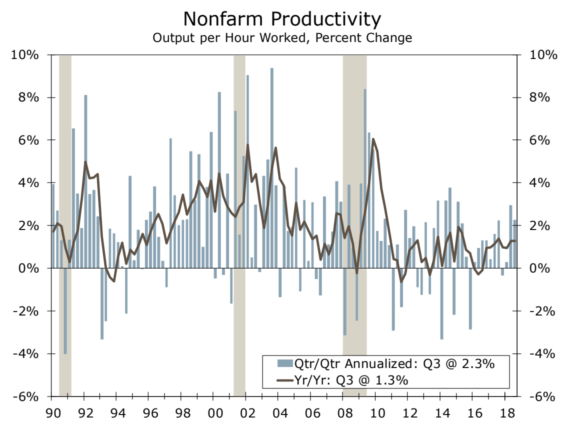


Figure 12



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

There are a number of reasons why so few excesses have developed in the more cyclical parts of the economy. The severity of the Great Recession undoubtedly made businesses, regulators and lenders much more cautious during the ensuing recovery, which resulted in less risk taking in general. The recoveries in business fixed investment, homeownership and commercial real estate development all took much longer to gain momentum than in prior economic recoveries. Changing tastes and preferences among younger persons have also played a role. The severity of the recession led to an increase in college enrollments, much of which was financed by student loans. One of the results has been substantially slower household formation among younger households, leading to a slower housing recovery. With so many young persons living in apartments or with relatives, there has been less demand for homes and goods in general, much less for big ticket items. Cumulative real GDP growth through the first nine years of this expansion has been just 23%, about one-half of the 41% rise that occurred during the first nine years of the long expansion of the 1990s.

We suspect the economy has become less cyclical.

The slower growth in demand for goods purchases has likely restrained inflationary pressures. On the flip side, younger persons have been more inclined to spend for experiences, which has helped drive growth in the leisure & hospitality sector, communications, travel, and health & fitness sectors—all of which are difficult to inventory. Baby Boomers, the youngest of which turned 54 this year, are also at a point in their lives where they are accumulating less stuff and spending more for experiences or devoting a larger portion of their income toward saving for retirement.

With consumer spending for goods rising more slowly, traditional retailers have become more disciplined, closing unprofitable or marginally profitable stores and limiting expansions to the choicest locations. The result has been a dearth of retail development, as well as a rise of vacant big box retail locations. Many of these abandoned facilities have been remade into experience-type businesses, ranging from escape rooms to bounce rooms and climbing facilities. Other areas of commercial development have also faced demographic headwinds. Office construction took far longer to recover in this cycle, despite vacancy rates topping out at lower levels than in past recessions. The culprit has been slower office employment growth and the advent of co-working space, which has reduced the demand for fixed office space. Warehouse and distribution spaces, apartments and hotels have benefitted from consumers' growing preference for online shopping, rental housing and travel and leisure. Industries benefitting from this shift tend be less labor-intensive, thereby reducing the economy's inherent cyclicality.

Public Policy May Pack More Punch

While caution in the aftermath of the Great Recession, life cycle effects and shifting consumer preferences may have combined to reduce some of the economy's downside risks, shifts in public policy may also be providing some powerful upside benefits. Tax reform significantly reduced marginal tax rates, which may be encouraging more people to join the workforce and more current workers to remain in the workforce for longer. While Fed Chairman Powell has repeatedly stated it is too early to identify supply side influences from tax reform, the nonfarm employment data for 2018 are encouraging. Most forecasts, including our own, have nonfarm employment growth slowing, as ever lower unemployment rates make it tougher for employers to find the skilled labor that they need. Last year, we projected that nonfarm payrolls would rise 1.3% in 2018 and that an average of 163,000 jobs would be added each month. The actual data show employment rising 1.7%, with an average monthly gain of about 200,000 jobs. The increase is likely due to tax reform, at least in part, which has boosted the returns to work relative to leisure. It is important to note, however, that the labor force participation rate has improved only modestly over the past year. Labor force growth averaged just 0.5% from 2010 to 2017, so even a 0.2 percentage point increase, or about half of the additional nonfarm employment growth we have seen this past year, would provide a meaningful boost to potential GDP growth.

Employment growth this year has exceeded expectations.

Potential GDP growth may also be getting a boost from stronger productivity growth. Lower corporate tax rates and the full deductibility of investment in plant and equipment could lead to stronger growth in the capital stock and increased productivity growth. To some extent, this may already be happening. The latest data show nonfarm productivity rose at an annualized rate of 3.0% in Q2-2018 and 2.3% in the third quarter (Figure 12). Year-over-year growth remains a disappointing 1.3% but even that is up from an average of just 0.8% per year over the past three years. If we were to see a similar improvement above the three year-moving average in 2019 that would take productivity growth up to 1.8%.

An increase in productivity gains would meaningfully boost GDP growth.

Such an improvement in productivity growth would make sense, given that business fixed investment growth has picked up over the past year and older and more experienced workers are remaining in the workforce for longer. While the recent slowdown in capital spending amidst uncertainty surrounding the U.S. trade relationship with China may upend this improvement in the near term, incentives for capital spending should remain in place for years to come.

Even with stronger labor force growth and increased productivity growth, actual GDP growth likely will continue to outpace potential GDP growth, which means inflationary pressures are likely to intensify. Fortunately, inflation has remained below the Fed's 2% target throughout most of this expansion and the FOMC is likely willing to target a modest overshoot for some time. This should allow for the Federal Reserve to continue to modestly nudge interest rates higher and allow economic growth to remain stronger for longer. In addition to making up for inflation undershooting the Fed's target, there are other reasons why the Fed can afford to be a little less pre-emptive in combating inflation at this point of the cycle. The digital revolution has likely produced a number of material shifts in the relationship between inflation and traditional measures of full employment. For starters, the cost of price discovery for many goods and services has fallen to nearly zero, substantially increasing price competition in general. Social media, internet search, streaming video, the rise of the sharing economy and online job search platforms have also produced structural shifts that are likely to produce less wage and inflationary pressures at any given level of unemployment.

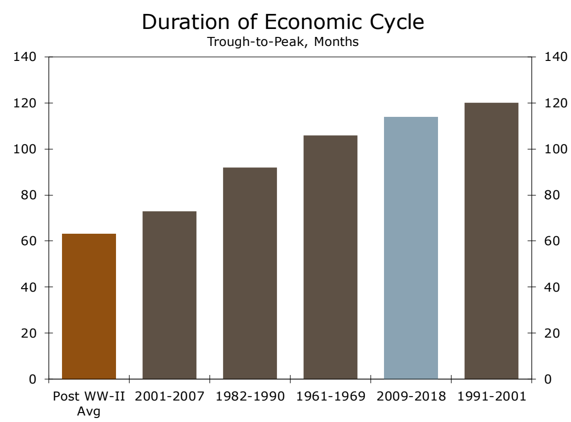
Inflation should only modestly increase.

Current Expansion Is Closing in on a Record

As discussed above, there is a credible case to be made that our base case forecast may not be optimistic enough. But there are equally credible downside risks to our forecast that should be kept in mind. While it's true that expansions do not die of old age, by any reckoning this cycle is getting long in the tooth. Tallying the months since the economy emerged from recession in July 2009, December marks the 114th month of the current expansion. That is nearly double the average post-war expansion of 63 months and is closing in on the record of 120 months set during the expansion of the 1990s (Figure 13). If our forecast is correct that the U.S. economy continues to grow throughout 2019, then the current expansion will break the record in July. As we near that milestone, it pays to be circumspect, especially because, as we will explain, fiscal and monetary policies may not be as effective in a downturn as they have been in prior cycles. Here then are a few developments that could potentially bring an end to this expansion sooner than we presently expect.

December marks the 114th month of the current expansion.

Figure 13



Source: National Bureau of Economic Research, and Wells Fargo Securities

Overheated Job Market Stokes Inflation Prompting Fed to Overreact

One of the biggest risks is that inflation could potentially shoot higher, which could lead the Federal Reserve to accelerate its pace of monetary tightening. For much of the past decade, the Fed, like many of the world's central banks, has struggled to achieve a 2% inflation target. For what is admittedly an old economic cycle, the risk of an inflationary overshoot is a relatively new development.

A pickup in inflation could push the Fed to tighten more aggressively.

We have not yet seen the tightness in the labor market give way to cost-push inflation via wage acceleration. Still, there is the potential that the rise in employment costs that is shown above (Figure 5) could lead businesses to raise prices at a faster rate. In discussions with clients, we hear more than anything how difficult it is for them to find skilled labor at present. These anecdotes are backed up by "hard" data. The number of job openings recently hit its highest level on record. Better job prospects are luring workers to seek better employment arrangements in a way that has not been seen in at least 18 years. As a share of employment separations, voluntary quits recently rose to a record high (Figure 14).

By any objective measure, our clients are right: it *is* difficult to find skilled labor in today's job market. Employers may decide to pay their existing staff more to stave off a mass exodus to higher paying jobs elsewhere. This has not shown up yet in terms of outsized wage growth. However, for the first time in a long time, labor has the upper hand in wage negotiations and is beginning to take back some of its lost share of gross domestic income after a multi-decade decline that began in the early 1970s (Figure 15). The unemployment rate is now as low as it has been since the 1960s. If the labor market is as genuinely hot as it has been in roughly a half century, we might be on the cusp of the kind of wage-push inflation that has been absent from the expansion thus far, and, if realized, might take policymakers by surprise. This expansion could end if the Fed overreacts to rapidly rising inflation or even the perceived risk of it by accelerating its pace of tightening, thereby unintentionally snuffing out economic growth in the process.

Figure 14

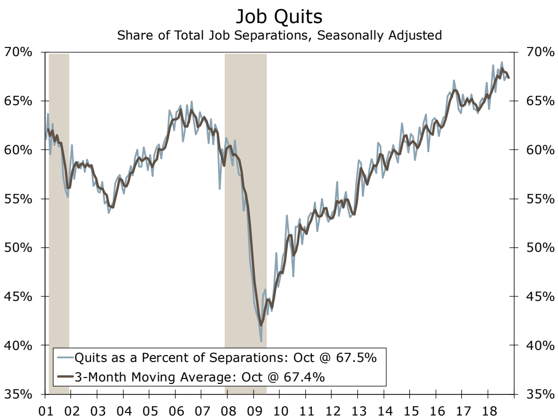
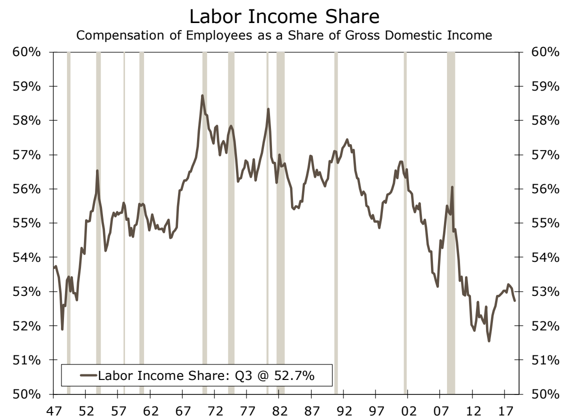


Figure 15



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

How Costly Could a Trade War Actually Be?

The United States and China have been engaged in an escalating cycle of tariff imposition for most of 2018. President Trump and Chinese President Xi recently agreed to call a 90-day truce in this trade war, but uncertainty still remains. Could the economy be brought to its knees if the trade war flares up again in 2019?

There could be meaningful "second order" effects of a trade war.

The "first order" effects on the U.S. economy from a trade war are not that large. American exports of goods to China totaled $130 billion in 2017, which represented less than 1% of $19.5 billion worth of GDP that the U.S. economy produced last year. The value of American exports to China has softened a bit this year, but a sharp decline does not appear likely. However, there could be meaningful "second order" effects as well. For example, uncertainty regarding U.S. trade policy could cause some export-oriented businesses to mothball capital expenditures. The stock market has weakened in recent weeks due, at least in part, to concerns about the trade war. A continued slide in the stock market could eventually weigh on growth in consumer spending. The negative effects on the U.S. economy of the trade war could potentially be larger than many analysts currently expect.

Irrational Exuberance & Swollen Central Bank Balance Sheets

Broad stock market indices soared to all-time highs earlier this year due, at least in part, to accommodative monetary policy. However, much of the gains in the stock market were fueled by a narrow group of tech stocks. Sound familiar? Near the end of the dot-com era nearly 20 years ago, then Fed Chairman Alan Greenspan popularized the phrase "irrational exuberance" that came to be associated with the euphoria of period. Today we are in an eerily similar situation; the stock market has had its longest run since that era and a narrow group of tech companies have been the primary drivers of the gains. There are echoes of the "irrational exuberance" era in economic indicators as well. Measures of business confidence are near all-time highs, and the Conference Board's measure of consumer confidence recently rose to its highest level since September 2000. Consumer confidence has peaked at different levels in different cycles, but it has seldom been higher than it is today, and it has a tendency to peak at the very end of the business cycle.

A decline in asset prices could spell trouble for the expansion.

This cycle is admittedly quite different in the sense that there has not been broad tech spending across industries as in the late 1990s. If there was a common critical question of Fed policy after the tech bubble burst and the economy slipped into recession in 2001, it was whether rates were kept too low for too long. Once we have the benefit of hindsight for this cycle, the critical question may involve the expansion of central bank balance sheets. The Fed's balance sheet expanded five-fold between late 2008 and early 2015, and the balance sheets of the Bank of Japan and the European Central Bank have also ballooned since the global financial crisis. While rates of consumer price inflation have remained benign, at least so far, asset prices have experienced quite a bit of inflation. Real estate, stocks and bonds have had an uncharacteristically synchronous appreciation in recent years. A sudden sell-off in one or a combination of these categories could also be a contributing factor in bringing about the next recession.

Are any of these categories in overvalued or in bubble territory? We'll leave valuation estimates to subject matter experts in each of these asset classes, but we do have one thought. Namely, there are few guarantees when it comes to the stock market, but one constant is this: all bull markets come to an end. The current one is the longest uninterrupted climb without a 20% pullback on record. A bear market for equities may not bring the U.S. economy to a halt in an ordinary expansion when everything else is going well. However, this late in the cycle, it may not take much to derail the expansion.

Performing Without a Safety Net?

In prior cycles, budget deficits generally shrank as the expansion grew longer. When recessions inevitably came around, the government was on solid enough footing to absorb the loss of revenue and the increased outlays that so often accompany an economic downturn. Yes, a recession means that deficits will get bigger, but in prior cycles they started at a low level. Figure 16 plots the budget deficit as a share of GDP over the past 40 years or so. The point of the chart is to show that as expansions continue, the budget deficit typically narrows (green arrows) and when recessions happen, the deficit will get bigger (red arrows). The only other time an expansion lasted as long as the current one was the 1990s, and by this point in that cycle, the government was running a surplus. After chipping away at the deficit earlier in this cycle, government finance trends have reversed during the past couple of years and the deficit is growing again. When the next recession comes along, the government will not be in as strong a position as it has been in prior cycles.

The deficit, which usually shrinks during an expansion, is growing again.

Figure 16

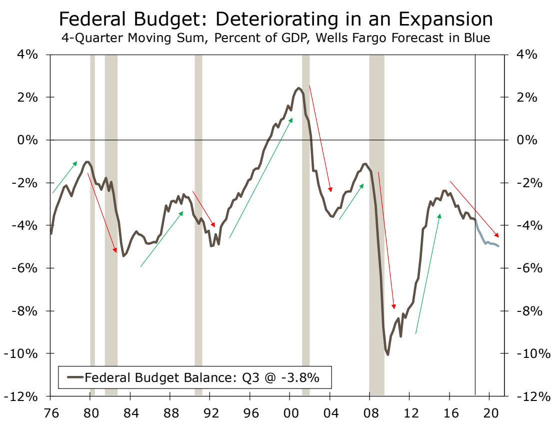
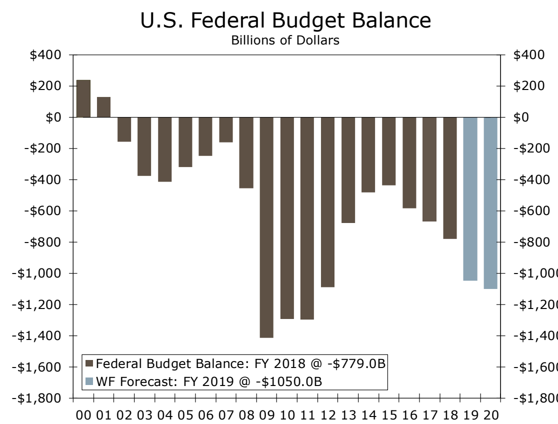


Figure 17



Source: U.S. Department of Treasury, U.S. Department of Commerce, CBO and Wells Fargo Securities

We expect the deficit to keep widening in fiscal year (FY) 2019 (which began on October 1) to $1.05 trillion, up from $779 billion in FY 2018 (Figure 17). There are three factors that are contributing to the marked increase in red ink. First, the tax cuts put a dent in the revenue side of the government's ledger. Second, government spending has increased as a result of last year's budget agreement. Third, higher interest rates have raised the government's debt service burden.

Our baseline forecast assumes the impact of the tax cuts and discretionary spending increases will have mostly faded by mid-2019, but interest rates are set to continue moving higher. As a result, we expect the deficit will keep widening but at a somewhat slower pace than has occurred of late. Even with a slower widening, we anticipate a federal budget deficit of $1.1 trillion in FY 2020. Obviously, these projections are contingent on our economic forecast. If the economy grows more slowly than the 2.2% we have penciled in for 2020, our deficit forecast would likely creep higher. If a recession were to occur in the next few years, government finances would already be in poor shape, which could limit the ability of the federal government to engage in countercyclical fiscal easing.

We expect a deficit of $1.1 trillion by FY 2020.

Global Growth Buffeted by Trade Winds, Political Problems?

The global economy enjoyed another solid year of growth in 2018, with global GDP projected to grow by an estimated 3.7%, which would match the strongest pace of global growth since 2011 (Figure 18 & Figure 19). It also marks a remarkably steady period of expansion over the past several years, with global GDP growth holding within a range of 3.3% to 3.7% over the past six years. As we have highlighted previously in this report, the strong performance of the U.S. economy was an important driver contributing to the global economy's gains this year. In contrast, growth rate in some other important economic regions—notably China and the Eurozone—have slowed in 2018.

Heading into next year, our base case is for steady economic expansion to continue, albeit with a further gradual slowdown. We project global GDP growth at 3.6% in 2019 and 3.4% in 2020, still within the recent range. Should the pace of economic growth remain reasonably steady, we expect foreign central banks to gradually become more active in normalizing monetary policy. The European Central Bank, the Bank of England and the Bank of Canada are all key central banks that we expect to raise interest rates next year, while we also expect the Bank of Japan to adjust monetary policy. That said, downside risks to what is a mature global expansion are arguably growing, and we will be sensitive to signs of a more rapid growth slowdown, something that could slow or delay global tightening activity.

Figure 18

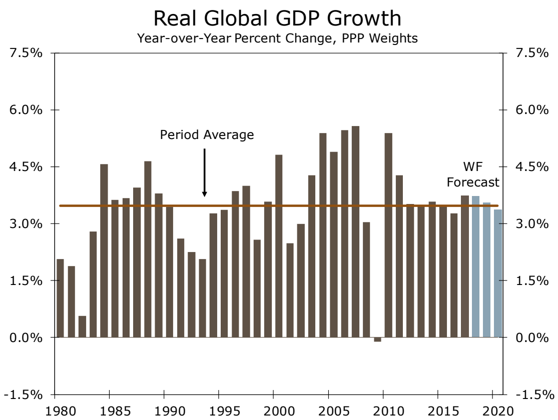
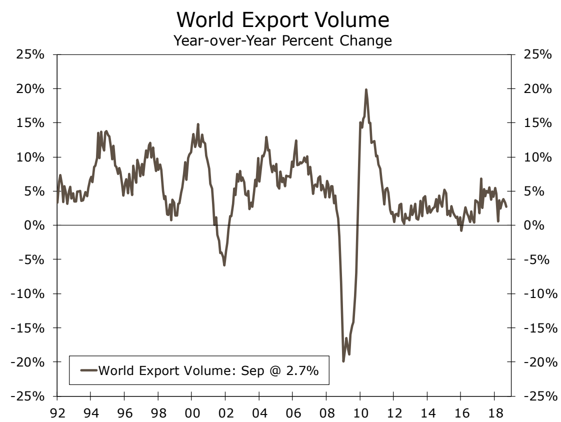


Figure 19



Source: IHS Markit, International Monetary Fund and Wells Fargo Securities

Major Shockwaves?

One theme of particular focus is ongoing tensions surrounding international trade, and one economy of particular focus is China. In 2019 we expect further slowing in Chinese GDP growth to 6.2%, while in 2020 we also see economic growth a touch below that pace, at 6.0%. The United States and China have been at the front lines of the "trade war", and to date the U.S. has imposed tariffs on more than $250 billion of Chinese goods, with the majority of those tariffs currently imposed at a rate of 10%. Chinese export growth has held up reasonably well so far, but further escalation of the trade war, should that occur, could weigh on Chinese economic growth even further.

One potential reason that trade growth has held up so far is possible front-loading of Chinese exports on concerns about the imposition of further measures from the United States. Indeed, the U.S. administration has said that in the absence of a resolution, the 10% tariff currently imposed on the majority of Chinese goods will be lifted to 25%, though with the recently announced 90-day truce period, that might not happen until Q2-2019. Moreover, there remains some risk that tariffs could be enacted on the remainder of Chinese exports. With Chinese domestic activity under some pressure, the risks remain tilted toward a sharper growth slowdown. We think the scenario of a sharper China slowdown will be avoided, however, as Chinese authorities continue to actively lean against economic headwinds and support the economy. In 2018 China's central bank has reduced the reserve requirement ratio for major banks (the amount of funds that banks must hold against customer deposits) by 2.50 percentage points to 14.50%, a measure that frees up liquidity and enables commercial banks to increase lending (Figure 20). The consensus forecast is for a further 1.50 percentage point reduction in this ratio next year, which, combined with tax cuts and increased government spending, should put a floor under Chinese GDP growth.

The other major economic region of focus is the Eurozone, where growth has gone through a soft spot in 2018, but should remain reasonably steady in 2019. A combination of stronger employment and wage growth should offer support to consumer incomes and spending, while across much of the Eurozone interest rates remain remarkably low by historical standards. Overall, we see fundamental headwinds to the Eurozone economy as moderate at the current juncture, and as long as growth remains on a respectable path—we forecast 1.7% in 2019 and 1.6% in 2020—then we expect the European Central Bank to embark on a rate hike path within the next 12 months.

There is, however, some potential for political jitters to restrain the Eurozone economy and hold back the European Central Bank, with Italy standing out as a potential flash point. Since the populist Five Star Movement and the Lega were elected to power earlier this year, Italy has been heading toward easier fiscal policy despite repeated warnings from European Union officials that this would violate the union's budget rules. Thus far, Italian leaders have been unwilling to offer concessions large enough to appease their European partners and are effectively involved in a game of chicken with the European Commission. If a compromise is unable to be reached, market volatility and fears about contagion and the broader sustainability of the Eurozone could persist. That said, our base case is for Italy's government to eventually reach an acceptable resolution with the European Commission, perhaps within the next three to six months.

Moderate Ripples?

While these are by no means the only risks to the global economy, we view them as the most consequential. The ongoing uncertainty about the exact nature and timing of the U.K.'s exit from the European Union will likely continue to hold the British economy back for the time being. That said, despite the volatile nature of the negotiations and political developments surrounding Brexit, we ultimately anticipate a deal will be struck in the near term and finalized by the first quarter of next year. Accordingly, we expect U.K. GDP growth to firm to 1.5% in 2019 and for the Bank of England to resume raising interest rates from Q2 next year. In contrast, Japan's economic growth will likely slow in 2019 and 2020 if, as we expect, the government raises the consumption tax in late 2019. However, regardless of how the U.K. or Japanese economies evolve, we do not see either economy as large enough to materially move the dial in terms of global GDP growth. The same can be said for Canada's influence on global activity, although in any case, we maintain a solid enough outlook for Canada's economy, with improved sentiment after a trade agreement was reached in principle between the U.S., Mexico and Canada offset to some extent by recently lower oil prices. We forecast Canadian GDP growth of 2.0% in 2019 and 1.7% in 2020, and expect the Bank of Canada to raise interest rates three times next year.

Figure 20

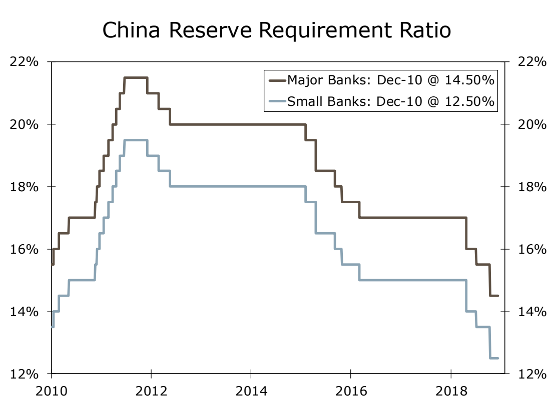
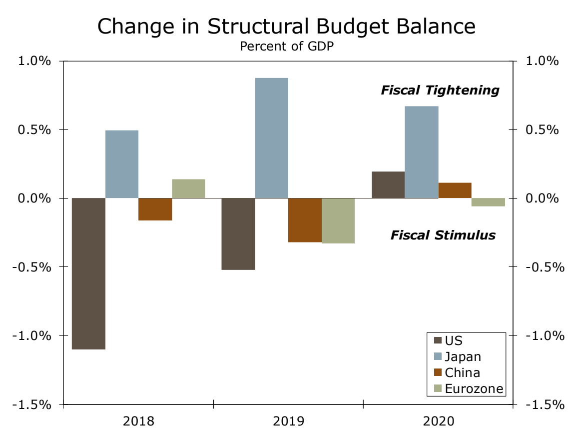


Figure 21



Source: Bloomberg LP, Datastream and Wells Fargo Securities

Fiscal Policy Unlikely to Boost Activity Next Year, but Income Growth Might

Within the overall context of a global slowdown, one focus for next year will be whether the divergent economic growth performance of 2018 will begin to converge in 2019, and in particular whether international economic activity can begin catching up to the United States. Of course, a key factor behind the strong U.S. performance this year has been a large fiscal stimulus, and so a natural question is whether we could see fiscal stimulus enacted to also boost growth in other regions. In our view, the answer is probably not. One way to assess this question is examining the IMF's forecasts for the general government structural budget balance (that is, the budget balance for central and local governments, adjusted for the state of the economic cycle).

Figure 21 shows changes in that structural balance, an indirect measure of changes in fiscal policy, such that a negative figure represents fiscal stimulus, and a positive figure represents fiscal tightening. The chart shows a sizeable U.S. fiscal stimulus in 2018 and, to a lesser extent, 2019. We believe the likelihood of similar fiscal policy action elsewhere is quite low. Short of a major economic collapse, Chinese fiscal policy is likely to be eased in an incremental fashion. Sizeable fiscal stimulus is also unlikely in the Eurozone either due to constraints (Italy) or traditional fiscal caution (Germany). In Japan, with the proposed consumption tax increase, fiscal policy is actually expected to tighten. Overall, these fiscal outlooks are reflected in the IMF's forecasts—the cumulative decline in the structural budget balance from 2018 through 2020 is around 1.5% of GDP for the United States, much larger than the 0.4% of GDP envisaged for China, or 0.25% for the Eurozone. Accordingly, we doubt fiscal stimulus outside the United States will be a significant driver of global growth in 2019.

So, what could be a more significant driver of growth outside the United States in 2019? One factor that might provide a temporary boost to global activity is some firming in employment and wage growth seen across many economies, which should support consumer incomes and spending. Signs of stronger wage growth are evident, among other countries and regions, in the United States, United Kingdom, Eurozone and even Japan. Meanwhile, after several years of undershooting their inflation targets, central banks may at least initially move quite gradually along their respective rate hike paths—as we discuss later. Temporarily at least, firmer employment and wage growth could help international economies lean against any U.S. growth slowdown or, in some cases, "catch up" to stronger U.S. growth. Over the much longer term, however, the impact is less clear, if central banks were to intensify their pace of monetary tightening and that were to ripple through financial markets more broadly.

Will the U.S. Dollar Ever Depreciate?

When looking at the Federal Reserve's Major Currency Index, which measures the trade-weighted performance of the U.S. dollar against major currencies around the world, the U.S. dollar has appreciated around 5% in 2018 (Figure 23). Despite this strong performance, we expect the U.S. dollar will eventually reverse trend and begin to depreciate for much of 2019.

Figure 22

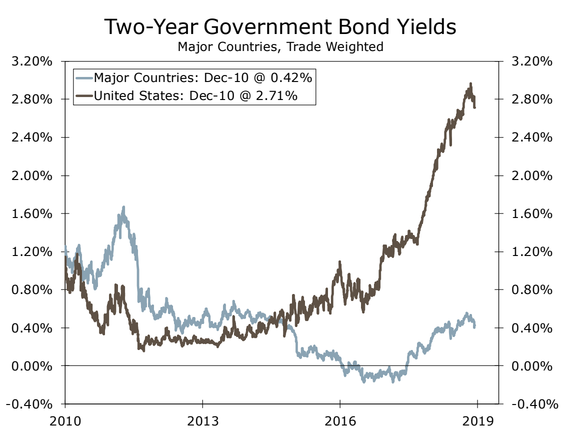
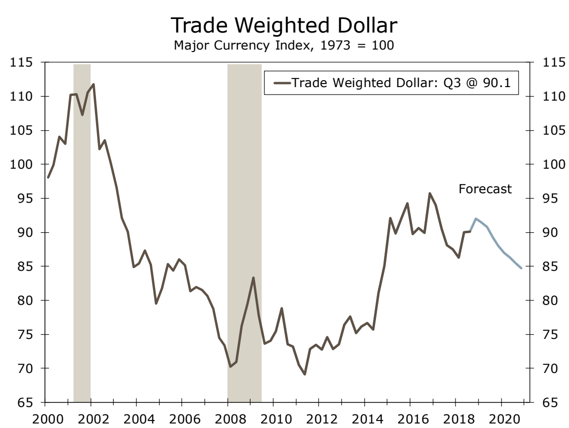


Figure 23



Source: Datastream, Federal Reserve Board and Wells Fargo Securities

Over the past year, we can point to multiple factors that have contributed to a strong U.S. dollar, but the overall strength of the U.S. economy, in relation to the rest of the world, has been the primary driver. Fiscal stimulus, in the form of tax cuts and higher government spending, has helped the U.S. economy grow at a faster pace than many other developed economies and has achieved its intended positive effects on the U.S. economy. In particular, fiscal stimulus has resulted in lower unemployment, increased wage growth and higher inflation, which has provided the Federal Reserve with additional scope to continue its path of tighter monetary policy. A strong U.S. economy has resulted in the Fed raising interest rates at a faster pace than central banks around the world, ultimately leading to a stronger U.S. dollar (Figure 22 & Figure 23).

Heading into 2019, we expect the Federal Reserve will continue raising its policy rate, but we believe monetary policy in many foreign economies will get tighter as well. This phenomenon, known as "monetary policy convergence," is at the core of our view for a weaker U.S. dollar over the course of the year. As major developed economies grow at respectable rates, we expect foreign central banks will begin to remove monetary policy accommodation more meaningfully, while a mature Fed tightening cycle may not have the beneficial impacts on the dollar we saw in 2018. If foreign central banks eventually begin the process of tightening monetary policy as we expect, the U.S. dollar is likely to embark on a downward trend against many of the major G10 currencies.

While we expect dollar weakness against most major currencies in 2019, we also look for a mixed performance from the greenback versus emerging currencies. Trade tensions between the U.S. and China will likely determine the path of the renminbi and may result in short-term weakness of the Chinese currency if trade disputes escalate. However, we believe Chinese authorities will implement policy measures to limit the amount of renminbi depreciation over the medium term. We expect the U.S. dollar will continue to strengthen against the more fragile emerging currencies, such as the Argentine peso and Turkish lira, while increased political risk in Mexico and Brazil could result in weakness of those currencies as well. There are some bright spots in the emerging world, one of these being the Russian ruble, as eventual stability in oil prices should support the economy, while additional U.S. sanctions appear to be less likely at this point

Wells Fargo U.S. Economic Forecast

	Actual							Forecast										Actual	Forecast		
	2017				2018				2019				2020				2017	2018	2019	2020
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Real Gross Domestic Product (a)	1.8	3.0	2.8	2.3	2.2	4.2	3.5	2.2	2.4	2.8	2.5	2.3	2.2	2.1	1.7	1.7	2.2	2.9	2.7	2.2
Personal Consumption	1.8	2.9	2.2	3.9	0.5	3.8	3.6	2.9	2.4	2.9	2.6	2.5	2.1	2.1	1.8	1.7	2.5	2.7	2.8	2.2
Business Fixed Investment	9.6	7.3	3.4	4.8	11.5	8.7	2.5	5.6	4.7	4.9	4.4	4.0	3.7	3.6	2.9	2.8	5.3	6.9	4.8	3.7
Equipment	9.1	9.7	9.8	9.9	8.5	4.6	3.5	5.3	3.9	4.2	3.7	3.1	2.7	2.6	2.1	2.0	6.1	7.4	4.1	2.8
Intellectual Property Products	8.0	6.6	1.7	0.7	14.1	10.5	4.3	7.5	4.8	5.3	4.7	4.6	4.7	4.6	3.7	3.6	4.6	7.1	5.7	4.5
Structures	12.8	3.8	-5.7	1.3	13.9	14.5	-1.7	3.0	6.5	6.0	5.5	5.0	4.5	4.0	3.5	3.5	4.6	5.7	4.9	4.5
Residential Construction	11.1	-5.5	-0.5	11.1	-3.4	-1.3	-2.6	-3.0	-1.5	2.0	1.8	1.5	1.5	1.5	1.0	1.0	3.3	-0.1	-0.7	1.5
Government Purchases	-0.8	0.0	-1.0	2.4	1.5	2.5	2.6	2.5	2.7	2.3	1.6	0.8	0.7	0.5	0.3	0.1	-0.1	1.7	2.3	0.8
Net Exports	-845.5	-844.1	-845.9	-899.2	-902.4	-841.0	-945.8	-975.9	-984.4	-996.7	-1010.7	-1021.3	-1018.1	-1017.0	-1020.8	-1020.6	-858.7	-916.3	-1003.3	-1019.1
Pct. Point Contribution to GDP	-0.1	0.1	0.0	-0.9	0.0	1.2	-1.9	-0.6	-0.2	-0.3	-0.3	-0.2	0.1	0.0	-0.1	0.0	-0.4	-0.3	-0.5	-0.1
Inventory Change	-2.4	11.9	64.4	16.1	30.3	-36.8	86.6	85.0	79.0	74.0	74.0	74.0	72.0	72.0	72.0	72.0	22.5	41.3	75.3	72.0
Pct. Point Contribution to GDP	-0.8	0.2	1.0	-0.9	0.3	-1.2	2.3	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Nominal GDP (a)	3.9	4.2	4.8	5.1	4.3	7.6	5.0	3.5	4.5	5.1	5.0	4.7	4.5	4.4	3.6	3.6	4.2	5.1	4.7	4.4
Real Final Sales	2.6	2.8	1.8	3.2	1.9	5.4	1.2	2.5	2.6	2.9	2.5	2.3	2.2	2.1	1.7	1.7	2.2	2.8	2.6	2.2
Retail Sales (b)	4.9	4.1	4.3	5.6	4.5	5.7	5.7	4.6	5.1	4.5	4.5	4.5	4.5	4.4	4.4	3.7	4.7	5.1	4.6	4.2
Inflation Indicators (b)																				
PCE Deflator	2.0	1.6	1.6	1.8	1.9	2.2	2.2	1.8	1.7	1.8	2.0	2.2	2.3	2.3	2.2	2.1	1.8	2.0	1.9	2.2
"Core" PCE Deflator	1.8	1.6	1.5	1.6	1.7	1.9	2.0	1.8	1.9	2.0	2.1	2.2	2.2	2.2	2.2	2.1	1.6	1.9	2.1	2.2
Consumer Price Index	2.6	1.9	2.0	2.1	2.3	2.6	2.6	2.3	2.0	2.2	2.5	2.6	2.7	2.7	2.5	2.4	2.1	2.4	2.3	2.6
"Core" Consumer Price Index	2.1	1.8	1.7	1.7	1.9	2.2	2.2	2.2	2.1	2.3	2.4	2.4	2.3	2.2	2.2	2.2	1.8	2.1	2.3	2.2
Producer Price Index (Final Demand)	2.0	2.2	2.4	2.8	2.8	3.0	2.9	2.6	1.8	1.6	1.9	2.0	2.5	2.6	2.4	2.2	2.3	2.8	1.8	2.4
Employment Cost Index	2.4	2.4	2.5	2.6	2.7	2.8	2.8	2.9	2.9	3.1	3.1	3.2	3.2	3.3	3.3	3.3	2.5	2.8	3.1	3.3
Real Disposable Income (a)	4.5	2.2	2.2	2.3	4.4	1.8	2.4	3.0	3.1	3.3	3.1	3.0	2.9	2.8	2.7	2.5	2.6	2.8	2.9	2.9
Nominal Personal Income (b)	4.1	4.3	4.5	4.6	4.3	4.5	4.4	4.3	4.2	4.6	4.8	4.7	4.4	4.2	3.9	3.6	4.4	4.4	4.6	4.0
Industrial Production (a)	1.0	5.0	-1.5	7.7	2.5	5.3	4.7	3.1	2.4	4.2	1.2	4.0	2.5	4.7	0.7	0.1	1.6	3.9	3.3	2.8
Capacity Utilization	75.4	76.2	75.8	77.0	77.2	77.8	78.3	78.4	78.5	78.6	78.6	78.8	78.9	79.1	79.0	78.9	76.1	77.9	78.6	79.0
Corporate Profits Before Taxes (b)	3.0	3.6	2.8	3.3	5.9	7.3	10.3	7.7	9.0	5.0	3.9	3.3	0.6	1.0	-1.4	-1.0	3.2	7.8	5.2	-0.2
Corporate Profits After Taxes	6.0	6.2	6.4	7.3	15.1	15.8	19.4	13.9	8.0	4.8	3.7	3.2	0.5	0.9	-1.7	-1.3	6.5	16.0	4.9	-0.4
Federal Budget Balance (c)	-317	4	-143	-225	-375	-7	-172	-317	-434	-72	-228	-313	-463	-79	-245	-339	-666	-779	-1050	-1100
Trade Weighted Dollar Index (d)	94.0	90.5	88.1	87.5	86.3	90.0	90.1	92.0	91.5	90.8	89.3	88.0	87.0	86.3	85.5	84.8	91.1	89.6	89.9	85.9
Nonfarm Payroll Change (e)	177	190	142	221	218	217	190	191	180	170	160	160	150	140	100	90	182	204	168	120
Unemployment Rate	4.7	4.3	4.3	4.1	4.1	3.9	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.3	3.3	3.3	4.4	3.9	3.6	3.3
Housing Starts (f)	1.23	1.17	1.17	1.26	1.32	1.26	1.22	1.28	1.29	1.30	1.30	1.30	1.30	1.31	1.31	1.31	1.20	1.27	1.30	1.31
Light Vehicle Sales (g)	17.1	16.8	17.1	17.6	17.1	17.2	16.9	17.2	16.8	16.7	16.7	16.6	16.6	16.5	16.4	16.3	17.1	17.1	16.7	16.5
Crude Oil - Brent - Front Contract (h)	54.6	50.8	52.2	61.4	66.9	74.6	75.8	69.0	62.0	64.0	68.0	70.0	68.0	67.0	66.0	65.0	54.7	71.6	66.0	66.5
Quarter-End Interest Rates (i)																				
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.75	2.00	2.25	2.50	2.75	2.75	3.00	3.00	3.00	3.00	3.00	2.75	1.13	2.13	2.88	2.94
3 Month LIBOR	1.15	1.30	1.33	1.69	2.31	2.34	2.40	2.75	2.95	2.95	3.15	3.15	3.15	3.15	3.15	2.90	1.26	2.45	3.05	3.09
Prime Rate	4.00	4.25	4.25	4.50	4.75	5.00	5.25	5.50	5.75	5.75	6.00	6.00	6.00	6.00	6.00	5.75	4.13	5.13	5.88	5.94
Conventional Mortgage Rate	4.20	3.90	3.81	3.94	4.44	4.57	4.63	4.60	4.80	4.85	4.95	5.00	5.05	5.05	5.00	4.95	3.99	4.56	4.90	5.01
3 Month Bill	0.76	1.03	1.06	1.39	1.73	1.93	2.19	2.40	2.60	2.65	2.85	2.90	2.90	2.90	2.85	2.65	0.95	2.06	2.75	2.83
6 Month Bill	0.91	1.14	1.20	1.53	1.93	2.11	2.36	2.60	2.75	2.80	2.95	2.95	2.95	2.90	2.85	2.70	1.07	2.25	2.86	2.85
1 Year Bill	1.03	1.24	1.31	1.76	2.09	2.33	2.59	2.75	2.85	2.90	3.00	3.00	3.00	2.95	2.90	2.75	1.20	2.44	2.94	2.90
2 Year Note	1.27	1.38	1.47	1.89	2.27	2.52	2.81	2.80	2.90	2.95	3.05	3.05	3.05	3.00	2.95	2.80	1.40	2.60	2.99	2.95
5 Year Note	1.93	1.89	1.92	2.20	2.56	2.73	2.94	2.85	3.00	3.05	3.15	3.20	3.20	3.15	3.10	3.00	1.91	2.77	3.10	3.11
10 Year Note	2.40	2.31	2.33	2.40	2.74	2.85	3.05	3.00	3.20	3.25	3.35	3.40	3.45	3.45	3.40	3.35	2.33	2.91	3.30	3.41
30 Year Bond	3.02	2.84	2.86	2.74	2.97	2.98	3.19	3.25	3.45	3.55	3.65	3.70	3.75	3.80	3.75	3.70	2.89	3.10	3.59	3.75

Forecast as of: December 13, 2018

Notes: (a) Compound Annual Growth Rate Quarter-over-Quarter
(b) Year-over-Year Percentage Change
(c) Quarterly Sum – Billions USD; Annual Data Represents Fiscal Yr.
(d) Federal Reserve Major Currency Index, 1973=100 – Quarter End
(e) Average Monthly Change
(f) Millions of Units – Annual Data – Not Seasonally Adjusted
(g) Quarterly Data – Average Monthly SAAR, Annual Data – Actual Total Vehicles Sold
(h) Quarterly Average of Daily Close
(i) Annual Numbers Represent Averages

Source: Federal Reserve Board, IHS Markit, U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

Wells Fargo International Forecast

(Year-over-Year Percent Change)

	GDP			CPI		
	2018	2019	2020	2018	2019	2020
Global (PPP Weights)	3.7%	3.6%	3.4%	3.5%	3.6%	3.7%
Advanced Economies[1]	2.4%	2.3%	2.0%	2.2%	2.1%	2.3%
United States	2.9%	2.7%	2.2%	2.4%	2.3%	2.6%
Eurozone	1.9%	1.7%	1.6%	1.8%	1.7%	1.8%
United Kingdom	1.3%	1.5%	1.5%	2.4%	2.2%	2.0%
Japan	0.9%	0.9%	0.5%	1.0%	1.2%	1.9%
Canada	2.1%	2.0%	1.7%	2.3%	2.1%	2.0%
Developing Economies[1]	4.6%	4.5%	4.4%	4.5%	4.7%	4.7%
China	6.6%	6.2%	6.0%	2.2%	2.4%	2.3%
India	7.4%	7.3%	7.1%	4.5%	4.6%	4.8%
Mexico	2.1%	2.3%	1.9%	4.9%	4.0%	3.7%

Forecast as of: December 13, 2018

[1]Aggregated Using PPP Weights

Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	3-Month LIBOR						10-Year Bond					
	2018	2019				2020	2018	2019				2020
	Q4	Q1	Q2	Q3	Q4	Q1	Q4	Q1	Q2	Q3	Q4	Q1
U.S.	2.75%	2.95%	2.95%	3.15%	3.15%	3.15%	3.00%	3.20%	3.25%	3.25%	3.40%	3.45%
Japan	-0.10%	-0.08%	0.00%	0.00%	0.00%	0.00%	0.10%	0.15%	0.20%	0.22%	0.24%	0.25%
Euroland[1]	-0.35%	-0.35%	-0.30%	-0.10%	0.15%	0.15%	0.40%	0.55%	0.65%	0.75%	0.85%	0.95%
U.K.	0.85%	0.85%	1.10%	1.10%	1.35%	1.35%	1.40%	1.70%	1.90%	2.00%	2.05%	2.10%
Canada[2]	2.20%	2.45%	2.70%	2.95%	2.95%	2.95%	2.35%	2.60%	2.70%	2.80%	2.85%	2.90%

Forecast as of: December 13, 2018

[1] 10-year German Government Bond Yield [2] 3-Month Canada Bankers' Acceptances

Source: International Monetary Fund and Wells Fargo Securities

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