Economics Group

Special Commentary

Jay H. Bryson, Global Economist jay.bryson@wellsfargo.com • (704) 410-3273 Michael Pugliese, Economic Analyst michael.d.pugliese@wellsfargo.com • (704) 410-3156

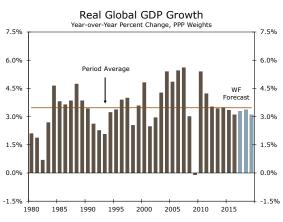
Global Chartbook: September 2017

Executive Summary

After slowing in 2016, global economic activity has accelerated this year. To wit, global industrial production (IP) was growing less than 2 percent on a year-ago basis last autumn, but it strengthened to a 3.6 percent growth rate this summer (Figure 1). Global trade volumes, which had more or less stalled through much of 2016, were up 5.0 percent in June. On a global basis, real GDP grew only 3.1 percent in 2016, the slowest year of growth since 2009 (Figure 2). In our view, global GDP is on pace to grow 3.4 percent this year.

Signs of stronger economic growth are widespread. Let's start with the United States where real GDP grew only 1.5 percent in 2016. The collapse in energy prices depressed investment spending in the sector, and slower growth in the rest of the world in conjunction with dollar strength weighed on U.S exports. But these two headwinds to U.S. real GDP growth have now largely faded. Economic growth in China, the world's second-largest individual economy, slowed to a 26-year low of 6.7 percent in 2016. Concerned by the slowdown that was taking place, Chinese authorities loosened economic policies in an effort to stabilize the country's growth rate, which they have largely succeeded in doing.

Figure 1 Figure 2 World Export & IP Volume Year Percent Chang 7.5% 25% 25% 20% 20% 6.0% 15% 15% 10% 10% 4.5% 5% 5% 0% 0% 3.0% -5% -5% 1.5% -10% -10% -15% -15% 0.0% World Export Volume: Jun @ 5.0% -20% -20% -World Industrial Production: Jun @ 3.6% -25% -25 96 98 00 02 04 06 08 10 12 92 94 14 16



Source: International Monetary Fund, IHS Global Insight and Wells Fargo Securities

Real GDP in the Eurozone rose 2.3 percent in Q2-2017, the strongest year-over-year growth rate in more than six years. The downturn in energy prices weighed on Canadian economic growth through most of 2015 and 2016. However, the economy has come roaring back this year with real GDP up 3.7 percent on a year-ago basis in the second quarter. The Japanese economy has expanded on a sequential basis for six consecutive quarters, the longest winning streak for the

Together we'll go far

This report is available on wellsfargo.com/economics and on Bloomberg WFRE.

Contents.....Page

World	3
United States	4
Eurozone	
Japan	
United Kingdom	
Australia	
Canada	
Singapore 10	
South Korea1	1
Sweden 1	
Switzerland 1	
-	-
Taiwan1	•
Argentina1	
Brazil 1	
Chile1	·
China 1	
India 1	-
Mexico20	0
Russia 2	1
Turkey2	2
Dollar Exchange Rates 2	3
Energy 2	
Other Commodities 2	
Forecast2	

world's third largest economy in more than a decade. Deep recessions in Brazil and Russia have come to an end this year.

Looking forward, we forecast that global economic expansion will remain intact with real GDP growing 3.4 percent in 2018 and 3.1 percent in 2019. Although these growth rates are well short of the 5 percent per annum rates that were standard fare between 2004 and 2007, they are hardly synonymous with global recession. With expansions becoming more firmly entrenched, we expect most central banks to slowly remove policy accommodation over our forecast horizon. Specifically, we look for the Federal Reserve, which has hiked rates twice already in 2017, to raise its target range for the fed funds rate by 25 bps in December and by another 50 bps next year. The Bank of Canada (BoC) has also tightened this year by raising its main policy rate by 25 bps in July and again on September 6. We look for two rate hikes by the BoC next year.

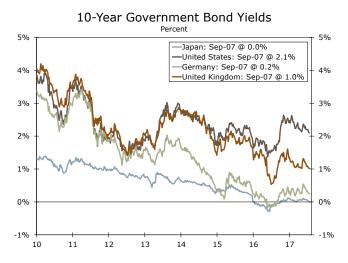
Most other major central banks lag the Fed and the BoC, but they are moving closer to tightening their own policy stances. The European Central Bank dialed back its monthly rate of bond purchases earlier this year, and we look for it to announce another reduction in its monthly purchase rate at its October 26 policy meeting. We believe that the ECB will cease buying bonds altogether by the middle part of next year, and we look for it to begin a slow process of rate hikes starting in late 2018. In our view, the Bank of England will also get into rate-hiking mode by mid-2018. Our currency strategy team forecasts that the U.S. dollar will continue to trend lower versus most currencies as other major central banks further normalize their own stances of monetary policy.

Are there any downside risks to our base-case scenario of continued global economic expansion? Yes. Topping the list would be the Chinese economy. The debt-to-GDP ratio of the non-financial corporate (NFC) sector in China has exploded from less than 100 percent a decade ago to nearly 170 percent today. In our view, the debt problem of the Chinese NFC sector is largely manageable. That said, the Chinese economy is rather opaque, and it is difficult to say with certainty how the economy will evolve. If growth were to slow sharply in China due to the leveraged nature of the NFC sector, global GDP growth surely would take a hit. The U.S. economy has entered its ninth year of expansion. Although there is no reason to expect that the United States is about to slip into recession, the expansion cannot go on indefinitely as imbalances start to build.

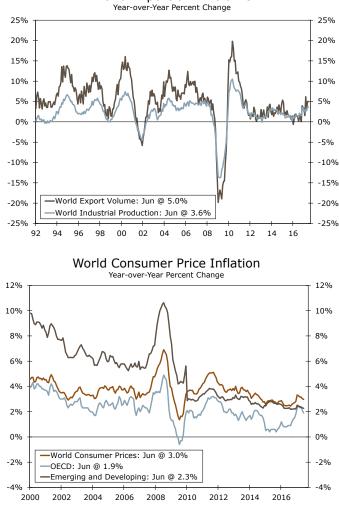
But perhaps the largest downside risks to the forecast stem from geopolitical factors. From North Korea to Russia to the Middle East, there are plenty of geopolitical factors that have the potential to raise risk aversion and tighten conditions in financial markets (i.e., declines in stock markets and wider credit spreads) and weigh on global economic growth. Because geopolitical risks are very difficult to predict, our forecasts are predicated on the assumption that geopolitical shocks do not occur. However, the global economic outlook could change quickly if one or more of these geopolitical risks were to transpire.

World

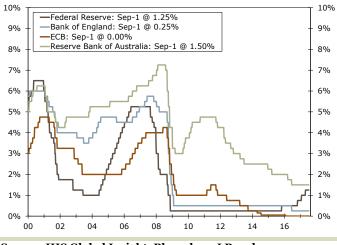
- Global economic growth has strengthened in 2017 relative to last year. We do not have a good measure of global GDP on a quarterly basis, but global industrial production and trade volumes have both accelerated. The recent strengthening in global growth reflects, in part, supportive policy stances in many countries put in place over the past couple of years. Since our last chartbook, we have upwardly revised our global growth forecast for 2017 by 0.1 percentage point, to 3.4 percent. Our 2018 forecast remains the same at 3.4 percent.
- Despite stronger growth, inflation has moved lower in many countries. On a year-over-year basis, global consumer prices were up 3.0 percent in June, nearly a percentage point below the rate registered back in January. Lower commodity prices account for some of this deceleration, but core inflation in several countries has also shown signs of cooling.
- Faster economic growth and inflation helped spur higher sovereign bond yields earlier this year as investors considered a shift toward less accommodative monetary policy around the world. Although growth has remained firm, the inflation slowdown has since tamped down some of these more hawkish expectations, bringing bond yields down with them.
- Broadly speaking, we expect global monetary policy to become less accommodative in the coming quarters. However, with economic growth still far from robust and inflation tame, caution will likely reign among the world's major central bankers.







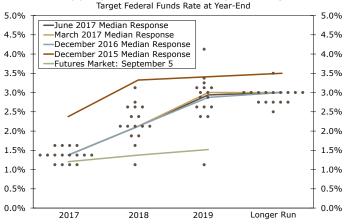
Central Bank Policy Rates



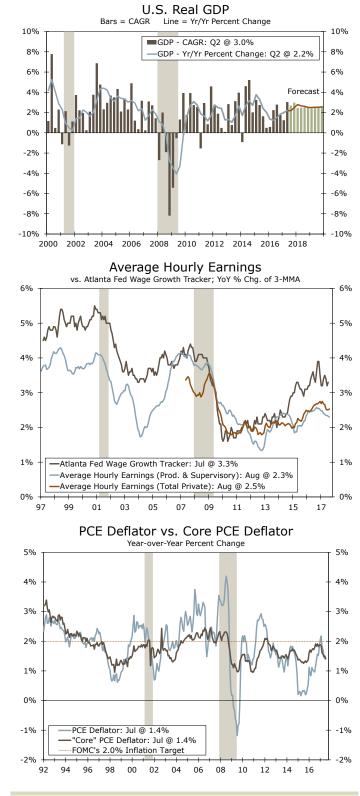
Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

United States

- Economic growth in the United States averaged roughly 2 percent in the first half of the year, in line with the average growth rate for much of this expansion. Despite soaring consumer confidence and steady job growth, household consumption growth has been relatively ho-hum. A turnaround in business investment has been a bright spot amid a more stable environment for energy prices and improving corporate profits. Our outlook is for continued economic growth in the 2.0-2.5 percent range.
- Employment growth averaged a rock solid 176,000 through the first eight months of the year, helping to push the unemployment rate down to 4.4 percent. The labor market is a clear strength of the U.S. economy at present, but faster wage growth remains the missing piece of the puzzle. Slack in the labor market by most metrics is relatively low, but wages have not shown a marked acceleration over the past year.
- Inflation has been soft recently, and with it has come a raging debate around the causes of this deceleration. One-off factors have undeniably played a role, but the weakness has been broadbased enough to warrant concerns that the slowdown may not be transitory. We expect inflation to turn modestly higher later this year and into next.
- We expect the FOMC to announce the start of its balance sheet reduction program at its September 20 meeting followed by a 25 bps increase in the fed funds rate in December and two more rate hikes in 2018.



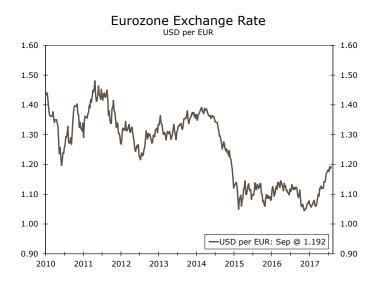
Appropriate Pace of Policy Firming Target Federal Funds Rate at Year-End

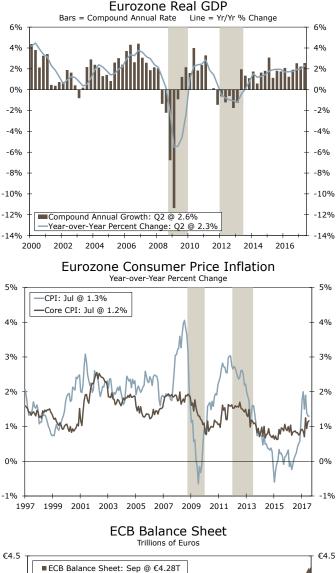


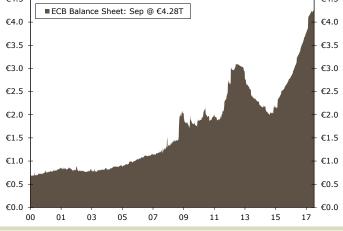
Source: U.S. Depts. of Labor and Commerce, Bloomberg LP, Federal Reserve System and Wells Fargo Securities

Eurozone

- Real GDP has accelerated in the Eurozone, as the year-ago pace of growth recently crossed the 2 percent threshold for the first time since Economic growth Q1-2011. has become increasingly broad based amid steady employment gains and improving business sentiment. Strengthening economic growth in the rest of the world has also helped bolster export growth in the euro area.
- Looking forward, we expect the increasingly selfsustaining economic expansion to remain intact. Our current projection looks for real GDP in the Eurozone to grow 2.1 percent in 2017, which, if realized, would be the strongest annual average growth rate since 2007.
- Like several other advanced nations, Eurozone monetary policymakers face a challenging conundrum; the unemployment rate has reached an eight-year low, but core inflation remains listless around 1 percent. As such, policymakers at the European Central Bank (ECB) will likely proceed with caution in the months ahead as it begins to tamp down the policy stimulus.
- The ECB has maintained its main refinancing rate at 0.00 percent since March 2016. The ECB dialed back its monthly rate of bond purchases earlier this year, and we look for it to cease buying bonds altogether by the middle part of next year and for it to hike rates by the end of 2018. Expectations of tighter ECB policy should cause the euro to trend higher vis-à-vis the dollar in coming months.



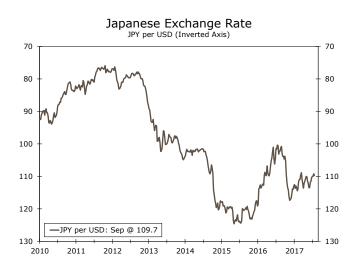


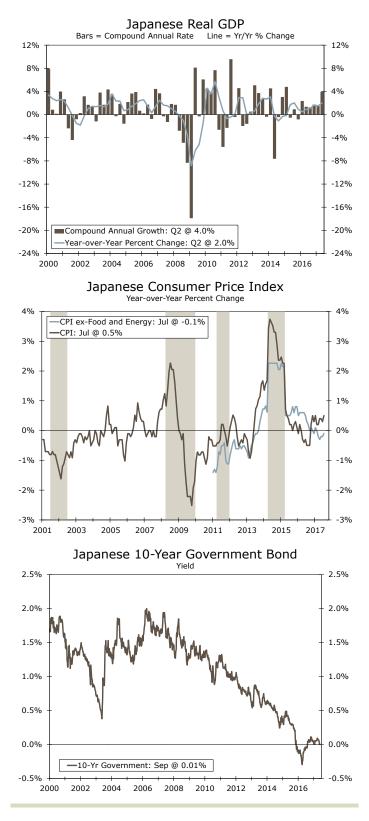


Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Japan

- The Japanese economy has quietly built some momentum in recent quarters. Real GDP growth picked up in Q2, the year-over-year pace lifting roughly 2 percent. Economic growth was driven primarily by domestic demand, another encouraging sign for a country that has at times relied on export growth to carry the burden. Faster growth has yet to translate into an uptick in inflation, which is hovering near zero percent.
- At present, the Bank of Japan's (BoJ) monetary policy programs encompass the following: (1) a negative policy rate of -0.10 percent, (2) a pace of Japanese Government Bond (JGB) purchases sufficient to keep the yield on the 10-year JGB "around zero percent" at an annual pace of roughly ¥80 trillion, (3) purchases of exchangetraded mutual funds at an annual pace of ¥6 trillion, (4) purchases of real estate investment trusts at an annual pace of ¥90 billion and (5) commercial paper and corporate bond holdings at their present values of ¥2.2 trillion and ¥3.2 trillion, respectively.
- The Bank of Japan (BoJ) is steadfast in its commitment to achieving what has been a fleeting objective for a generation: sustained inflation of 2 percent. Japan has struggled with slow growth and inflation to a far greater extent than most other advanced nations, and as a result, its central bankers are resolutely committed to banishing its deflationary demons. Thus, we believe the BoJ will remain committed to its accommodative monetary policy measures for the foreseeable future.

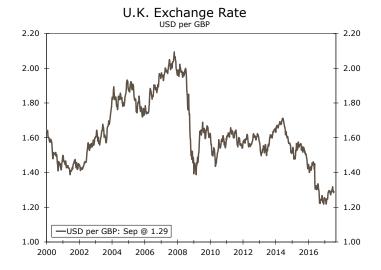


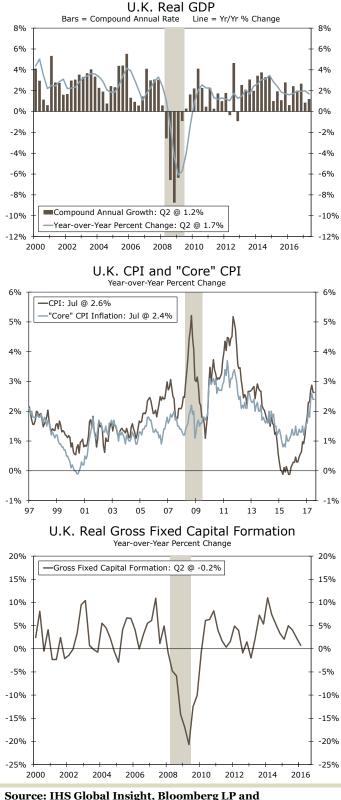


Source: IHS Global Insight and Wells Fargo Securities

United Kingdom

- Monetary policymakers in the U.K. are among the few central bankers in the advanced world facing too fast, rather than too slow, inflation. CPI inflation has shot higher, at least in part, due to the marked depreciation of sterling in the wake of last year's Brexit referendum. The Monetary Policy Committee of the Bank of England (BoE) expects inflation to peak around 3 percent in October before the price pressures from the sterling's depreciation begin to fade.
- Economic growth has remained modest in this environment, registering 1.7 percent year-overyear in Q2. Faster inflation and stagnant wage growth have taken a bite out of household's real disposable income, exerting some headwinds on consumer spending growth.
- The uncertainty related to Brexit also appears to be affecting business investment. Real fixed capital formation has decelerated over the past few quarters, and survey data that measure investment intentions generally remain low. Until some of the uncertainty regarding the Brexit process is cleared up, many businesses in the United Kingdom may adopt a wait-and-see attitude regarding investment spending.
- The recent stabilization of sterling should help relieve some of the inflationary pressure, and stronger growth in the global economy, especially the Eurozone, should also contribute positively to real GDP growth. A modestly better growth outlook should allow the Bank of England to start to hike rates next spring.

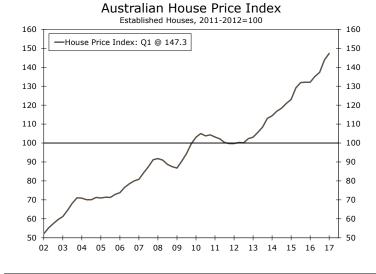




Wells Fargo Securities

Australia

- The Australian economy has decelerated amid the softer commodity price environment, but economic growth continues to trudge along. Unsurprisingly, a contraction in fixed investment spending has weighed on growth as the commodity-oriented sectors of the economy have retrenched. Public spending has helped pick up some of the slack.
- At present, both headline and core inflation remain well below the Reserve Bank of Australia's (RBA) 2-3 percent target, a common theme in many advanced nations. In Australia's case, despite some recent improvement, the unemployment rate remains about 0.7 percentage points above its cycle-low reached in 2011 when commodity prices were much higher. This slack in the labor market has restrained wage growth and inflation.
- Despite below-target inflation and soft growth, the RBA has resisted cutting its main policy rate further. The main driver of this holding pattern is elevated household debt. Even lower interest rates could pour fuel on the fire, creating rising debt imbalances, particularly in the country's housing market. The bifurcation between booming areas like Sydney and Melbourne and the struggling resource-intensive regions has created a challenging balancing act for the RBA.
- The recent stabilization of the Chinese economy and strengthening in the global economy as a whole should bode well for Australian growth. High household debt levels and still-low commodity prices, however, will likely keep a lid on any acceleration in the economy.



8% 8% 6% 6% 4% 2% 20% 0% -2% -2% -4% -4% Compound Annual Growth: 02 @ 3.3% -Year-over-Year Percent Change: Q2 @ 1.8% -6% -6% 2006 2000 2002 2008 2010 2012 2014 2016 2004 Australian Consumer Price Index Year-over-Year Percent Change 7% 7% Overall CPI: Q2 @ 1.9% Core CPI: Q2 @ 1.5% 6% 6% 5% 5% 4% 4% 3% 3% 2% 2% 1% 1% 0% 0% -1% -1% 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 RBA Cash Rate Target Percent 8% 8% 7% 7% 6% 6% 5% 5% 4% 4% 3% 3% 2% 2% -Cash Rate: Sep @ 1.50% 1% 1% 2000 2002 2004 2006 2008 2010 2012 2014 2016

Australian Real GDP

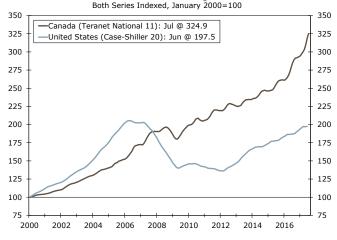
Bars = Compound Annual Rate

Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

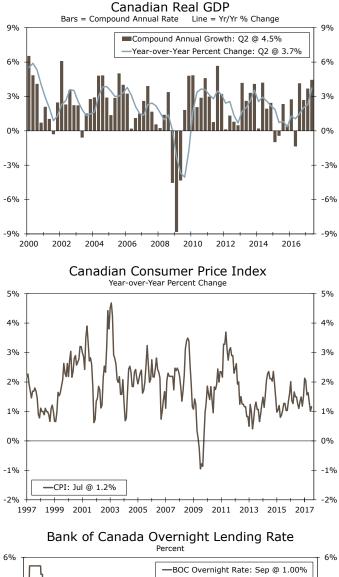
Line = Yr/Yr % Change

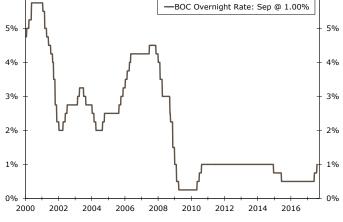
Canada

- The Canadian economy has gathered some momentum of late, reaching year-over-year growth of 3.7 percent, up from just 0.4 percent in Q4-2015. With the economy growing at an annualized rate of 4.5 percent, it is currently the fastest growing G-7 economy. Fixed investment spending has turned positive after remaining all of 2015-2016 in negative territory on a year-ago basis. Private consumption growth has also been solid amid an improving labor market; the unemployment rate has fallen nearly a percentage point over the past year.
- Despite the pick-up in economic growth, inflation remains at the low end of the Bank of Canada's (BoC) 1-3 percent target range. But, in a semi-surprise move, the BoC increased its overnight lending rate to 1.0 percent at its September meeting. The BoC attributed this increase to the acceleration in the Canadian economy as being "more broadly based and selfsustaining." The BoC remains cautious in its approach going forward, as high debt levels and overheated housing markets could weigh on the sustainability of consumer spending.
- Higher interest rates could discourage additional consumer leveraging, as well as the funding available to finance home purchases. However, if interest rates rise too quickly, existing vulnerabilities could cause more severe economic disruptions. The BoC will be forced to balance these factors going forward by tightening policy at a gradual pace.



Canadian and U.S. Existing Home Prices

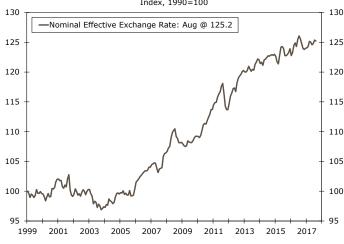




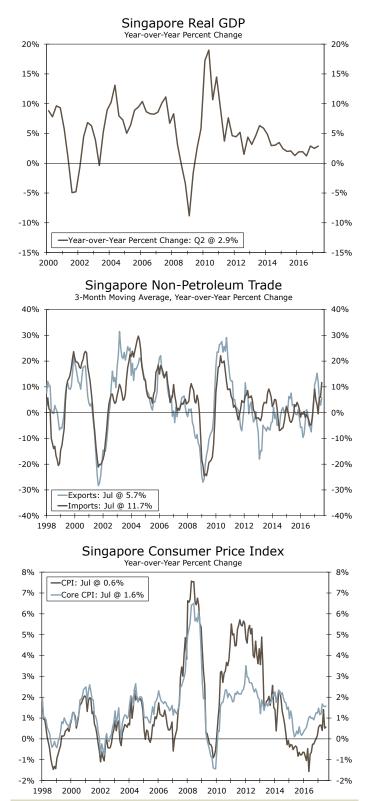
Source: IHS Global Insight, Bloomberg LP, S&P Case-Shiller and Wells Fargo Securities

Singapore

- Real GDP growth in Singapore can be highly volatile, but it has held steady at 2.9 percent year-over-year over the past couple of quarters. The slowdown in global trade that occurred in 2015-2016 weighed heavily on the trade-reliant Singaporean economy, pulling economic growth in the island nation down to just 2 percent in both years. Exports are more than double the size of Singapore's economy as a whole.
- As we turn to the second half of this year, the recovery in global trade has helped spur an improved global economic outlook that bodes well for a continued gradual revival of economic growth in Singapore.
- Although we do not explicitly forecast real GDP in Singapore, we believe the Bloomberg consensus of 2.4 percent real GDP growth for full year 2017 to be a reasonable forecast. If realized, this would mark an improvement in growth relative to the past two years. That said, we do not expect growth in global economic activity to return to the robust rates seen during the last expansion that would help drive growth in Singapore back to its pre-recession pace.
- Because of the open nature of Singapore's economy, along with the importance of trade, the Monetary Authority of Singapore is primarily concerned with the nation's exchange rate. Our currency strategy team looks for the U.S. dollar to depreciate modestly versus the Singapore dollar in coming quarters amid generalized greenback weakness.



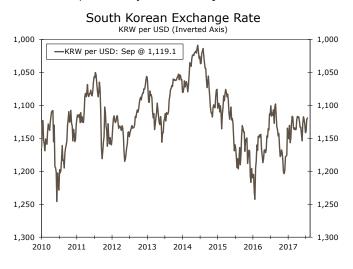
Singapore Nominal Effective Exchange Rate

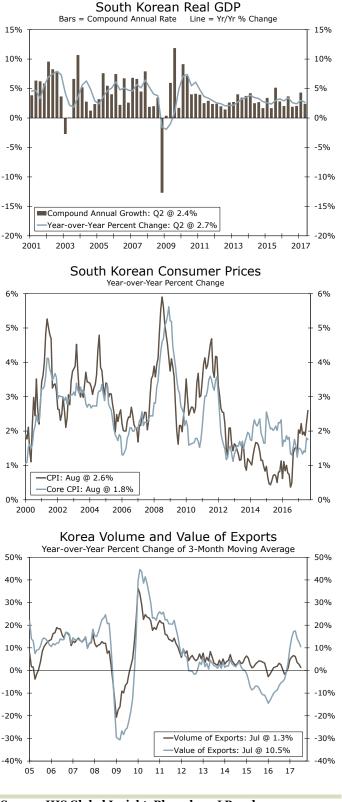


Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

South Korea

- As has been the experience of most economies, South Korea has experienced a slower rate of economic growth in recent years, with real GDP growing at an annual average rate of only 2.8 percent between 2012 and 2016.
- Growth in the rest of the world is important for the South Korean economy because real exports of goods and services are equivalent to about 55 percent of GDP. China takes in one-quarter of South Korea's exports, making it South Korea's most important export market by a wide margin. Economic deceleration in China since the beginning of the decade has exerted a slowing effect on the South Korean economy.
- This slow growth environment has depressed rates of CPI inflation. Consequently, the Bank of Korea cut its policy rate from 3.25 percent in 2012 to 1.25 percent today. The Korean won slid significantly against the dollar from mid-2014 to early-2016. It has since recouped some of its losses, but if tensions with the North boil over, the won could come under downward pressure.
- Over the longer-run, the South Korean economy faces some secular challenges. We expect a continued deceleration in the Chinese economy, which will weigh on the Korean economy. An aging population and a historically elevated household debt-to-GDP ratio also threaten to exert a drag on future economic growth.
- We project that the economic expansion in South Korea will continue for the foreseeable future with real GDP growing 2.9 percent in 2017 and 2.8 percent next year.

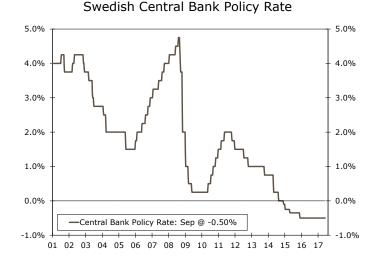




Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Sweden

- Swedish GDP jumped in Q2, rising 1.7 percent sequentially (7.1 percent annualized), marking the fastest sequential growth rate registered by the Swedish economy since Q4-2010 when the global economy was climbing back from the throes of the Great Recession. Encouragingly, economic growth was generally broad-based in Q2, led by strength in domestic demand.
- Earlier this year, the Swedish Riksbank signaled that, despite healthy economic activity and rising inflation, it did not expect to increase its currently negative policy rate until mid-2018. Since then, growth has continued to firm, and inflation has moved above 2 percent. Despite this progress, monetary policy in Sweden remains highly accommodative.
- After several years of relatively benign inflation, the Riksbank is cognizant of how quickly inflation and inflation expectations can revert back to below-target levels. In addition, labor market progress remains slow going: Sweden's unemployment was a semi-elevated 7.1 percent in July, and, despite faster inflation and improved economic growth, wage growth has been subpar.
- This slow progress on the labor market front is coupled with high household debt levels. Higher interest rates as a result of monetary policy tightening could drive the household debt-service ratio higher, choking off the nascent recovery in growth and inflation.



1%

00

02

04

-Average Hourly Earnings: Jun @ 1.4%

06

08

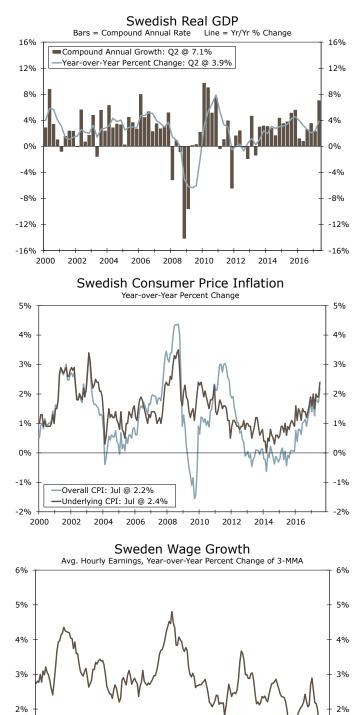
Source: IHS Global Insight and Wells Fargo Securities

10

12

14

16

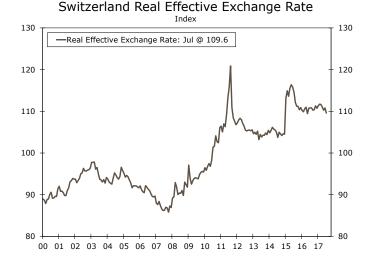


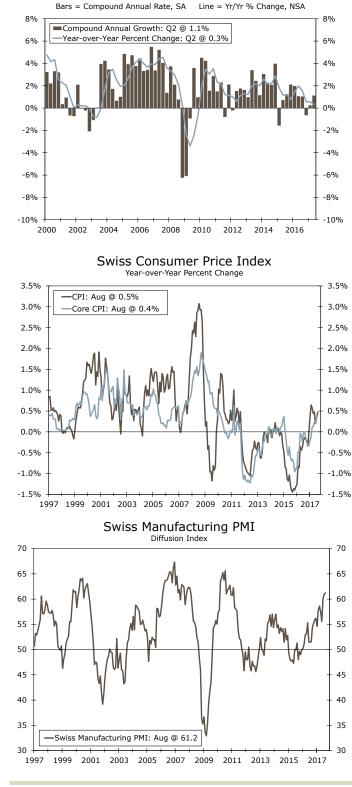
1%

0%

Switzerland

- Economic growth in Switzerland has been on the soft side in recent quarters, increasing just 0.3 percent over the past year. Switzerland is a very open economy, as exports account for roughly 70 percent of GDP. As a result, slow growth in its major trading partners, particularly in the Eurozone, and the strong Swiss franc have weighed on economic growth.
- The manufacturing sector, which accounts for about 18 percent of value added in Switzerland, has faced a challenging environment amid the stronger currency and weaker growth abroad. Recently, however, the Swiss manufacturing purchasing managers' index has surged to a six-year high, and supply-side data from the Q2 GDP release showed manufacturing output growing a solid 0.9 percent, helping to corroborate the improvement in sentiment.
- Price growth has shifted from deflation to inflation, but the pace of growth is quite benign. The Swiss National Bank (SNB) looks for inflation to remain below 1 percent until 2019.
- Our currency strategy team expects the Swiss franc to soften versus the euro but to strengthen against the dollar. The SNB has shown few signs of shifting to a more hawkish stance, saying that the "Swiss franc is still significantly overvalued." Furthermore, year-ago consumer price growth has averaged -0.3 percent over the past five years, so the SNB may wait for a clear, sustained increase to ensure that inflation expectations are well-anchored above zero percent.



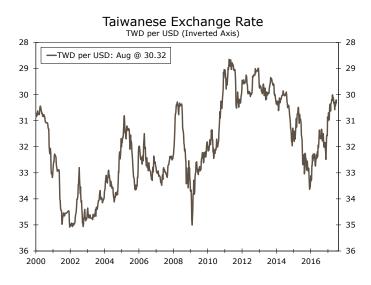


Swiss Real GDP

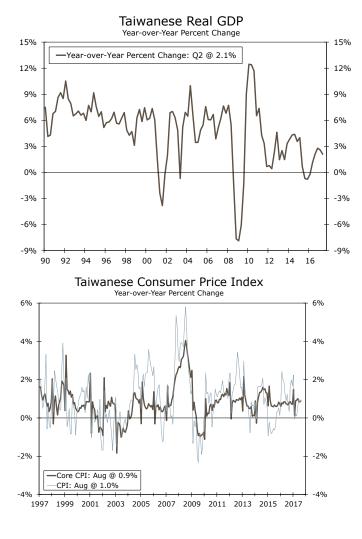
Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Taiwan

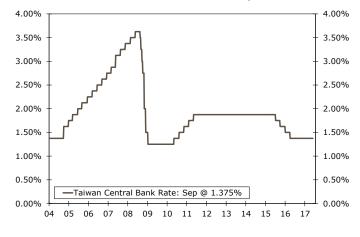
- Real GDP growth in Taiwan was 2.1 percent year-over-year in Q2. From a glass-half-full perspective, this represents an improvement from the sharp downturn in growth that occurred over the past two years amid the broad slowdown in global growth and trade. For the pessimists, however, economic growth has been decisively slower in this expansion compared to previous periods.
- International trade is critically important to Taiwan. Exports and imports are each equivalent to roughly 70 percent of GDP. Exports to China account for more than a third of all Taiwanese merchandise exports, and as a result, the slowdown in growth in China has weighed on Taiwan's economy.
- CPI inflation in Taiwan is running at only 1 percent. With economic growth likely to remain lackluster for the foreseeable future, inflation in Taiwan probably will remain benign. Due in part to the low inflation environment, the central bank reduced its main policy rate from 1.88 percent in September 2015 to 1.38 percent in June 2016 and subsequently has maintained it at this level. Most analysts look for the central bank to keep policy on hold for the foreseeable future.
- Looking forward, our currency strategy team expects that the Taiwanese dollar will modestly strengthen further against the U.S. dollar as the greenback continues to lose ground vis-à-vis most other currencies.











Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Argentina

- Real GDP is accelerating again in Argentina as economic growth entered positive territory on a year-ago basis in Q1 for the first time in a year. Stronger domestic demand helped spur the improvement as personal consumption and gross fixed capital formation both strengthened.
- Although the manufacturing sector remained weak in the first quarter of the year, declining 2.2 percent from a year earlier, the severity of the weakness lessened. It appears that conditions continued to improve in the manufacturing sector in Q2 as year-over-year industrial production growth hit a five-year high in June, although base effects have likely made this gain look more favorable.
- Inflation has fallen from its soaring highs but remains elevated at 21.5 percent year-over-year as of July. Inflation skyrocketed last year after the sharp devaluation in the Argentine peso that occurred at the end of 2015.
- The Argentine peso has continued to slide this year, falling roughly 9 percent against the dollar since the start of the year. This continued downward trend for the peso raises questions about whether inflation will continue to slow. Our currency strategy team sees the Argentine peso continuing to weaken against the U.S. dollar in the quarters ahead despite dollar weakness against most other currencies.
- The Argentine central bank's monetary policy levers mainly rely on short-term interest rates, which have crept higher since the start of 2017.



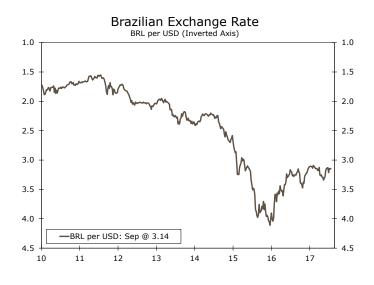




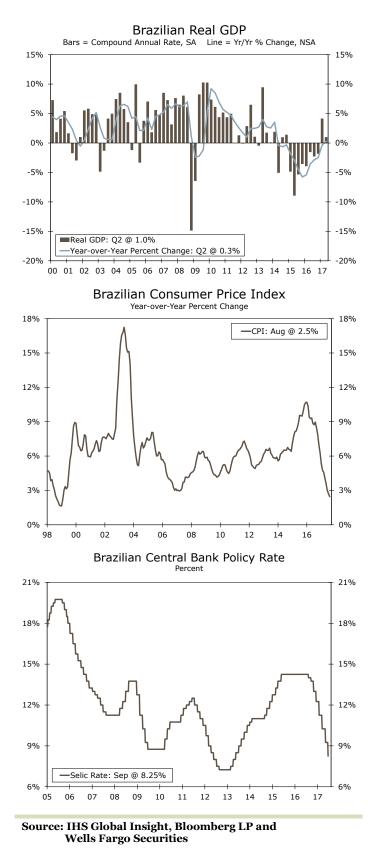
Source: IHS Global Insight and Wells Fargo Securities

Brazil

- Brazil posted its second consecutive positive print for real GDP growth in Q2, the first backto-back positive readings since Q4-2014. Growth also returned to positive territory on a year-over-year basis.
- Inflation has continued to slow, falling further below the central bank's 4.5 percent target in July. To help the Brazilian economy climb back from the deep recession, the Brazilian central bank has reduced its policy rate by 600 bps since October 2016.
- Lower interest rates appear to have helped produce the desired outcome, although favorable base effects have also helped. Both industrial production growth and retail sales growth appear to have turned the corner alongside the improvement in economic growth. We believe the economy is positioned to continue growing throughout the remainder of the year, with gradual growth of 0.6 percent for 2017 and 2.0 percent in 2018.
- Our outlook remains cautious as the Brazilian political system embodies vast uncertainty. While President Michel Temer has recently evaded a corruption trial, he remains subject to political turmoil, inevitably constraining the swift success of future Brazilian governmental reforms. Such uncertainty surrounding the current political system is reflected in a lack of public confidence. As the Brazilian economy progresses, markets will remain impatient as the recovery is likely to persist at a slow pace.

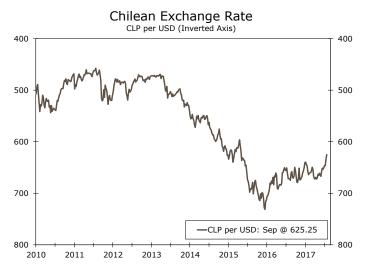


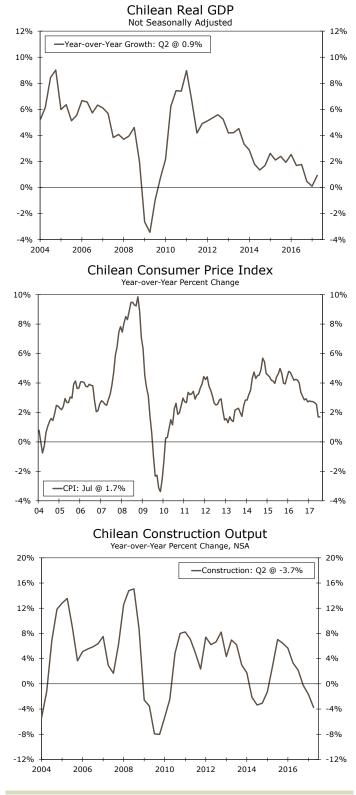




Chile

- GDP growth in Chile avoided negative territory in Q2, improving to a still-soft 0.9 percent yearover-year pace. The construction sector, the darling of the Chilean economy during the past several decades, once again weighed on economic growth.
- Thus far, Chile is one of the few economies that has not benefitted from the rebound in global economic activity. Chile's reliance on the mining sector has highlighted the lack of diversity in the nation's economy. Fortunately, mining output rose on a quarter-over-quarter basis in Q2, though it remained negative year-over-year.
- Against this weak economic backdrop, inflation in Chile has slowed. The Chilean peso that began a long slide against the U.S. dollar in 2013 has seen more stability over the past year. More recently, the peso has seen some modest strengthening against the dollar amid general greenback weakness. The Central Bank of Chile elected to keep its main policy rate unchanged at 2.5 percent at its August meeting after cutting rates 100 bps points over the past year amid the slowdown in growth and inflation.
- Perhaps the recent jump in copper prices, if sustained, will provide a second half tailwind to the Chilean economy. Economic growth is unlikely to return to the faster growth rates registered earlier in this decade any time soon, however. A sustained period of modest economic growth is a phenomenon with which Chilean policymakers have not had to grapple in several decades.

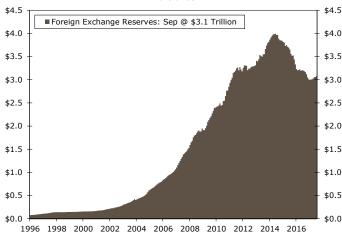




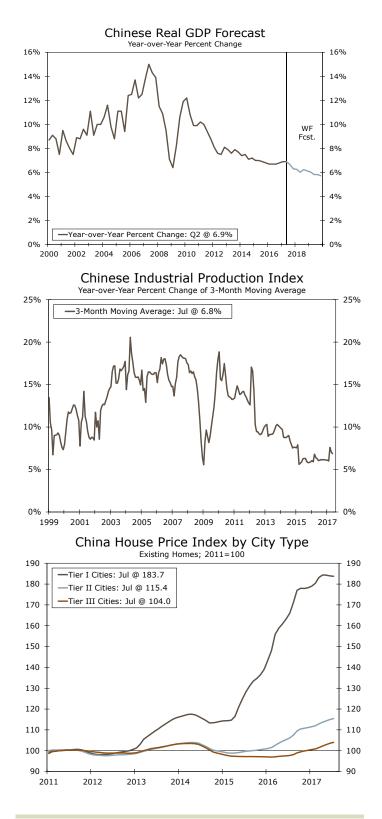
Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

China

- Volatility rose in financial markets in early 2016 as investors fretted that growth in China was slowing sharply. Fast forward six quarters, and Chinese economic growth has actually been remarkably stable between 6.5 percent and 7.0 percent over that period. Chinese foreign exchange reserves, after falling significantly amid these fears, have also stabilized alongside economic growth around the \$3 trillion mark.
- Chinese authorities "encouraged" stronger credit growth last year when the economy needed an extra boost, helping to stabilize economic growth. It appears that policymakers are now attempting to tamp down credit growth so as not to inflate a housing bubble. House prices in "Top Tier" cities, such as Beijing and Shanghai, have soared over the past couple years, and policymakers face the daunting task of deleveraging, while also threading the needle on the government's economic growth target.
- We forecast that GDP growth in China will slow somewhat in 2018 relative to the rate that likely will be achieved this year. Although there is justified concern about the amount of financial leverage in the non-financial corporate sector, we believe that the Chinese government should be able to manage any issues that may arise in the banking system in the foreseeable future.
- China also faces some fundamental issues that likely will lead to even slower economic growth in the next decade. Not only will the workingage population in China decline in coming years, but the build-up in leverage likely will constrain growth in capital spending.



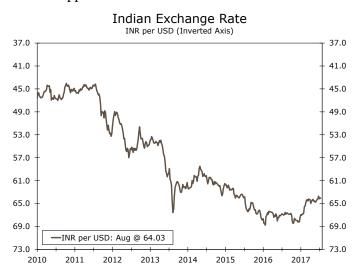
Chinese Foreign Exchange Reserves Trillions of USD

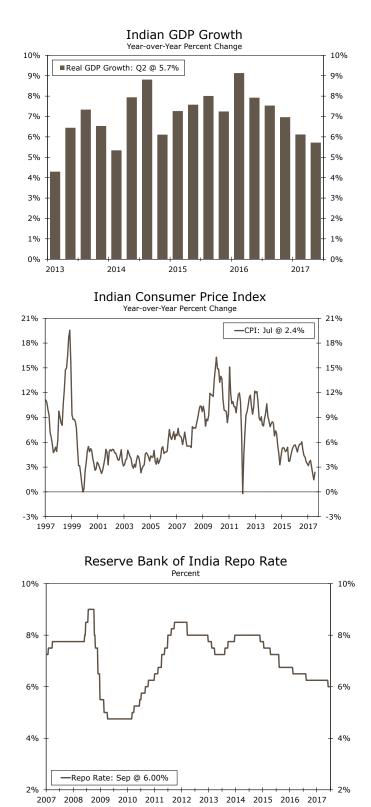


Source: IHS Global Insight, CEIC, Bloomberg LP and Wells Fargo Securities

India

- Many other economies have experienced some acceleration this year, but real GDP growth in India clearly has lost some steam. Real GDP growth in India continued to slide in Q2, slowing for the fifth consecutive quarter. Year-over-year growth in investment spending returned to positive territory in Q2, but the 1.6 percent growth rate is rather anemic.
- Consumer price inflation rebounded in July from a multi-year low, but on trend inflation has slowed significantly. A sharp deceleration in food prices has driven much of this slowdown. Food & beverages account for nearly half of India's consumer price index, and prices in this sector are up just 0.4 percent over the past year.
- In response to this weak backdrop, the RBI cut its main policy rate last month by 25 bps, but with inflation slowing more rapidly, real interest rates have risen. High real interest rates pose another challenge to increasing output in the more investment-heavy, production-oriented sectors of the economy. This economic backdrop of slowing growth and inflation likely leaves the RBI with scope to cut interest rates further in the month ahead.
- Despite the recent interest rate cut, India's real interest rates remain high, while the policy easing is somewhat supportive for growth. Our currency strategy team sees these dynamics as a possible catalyst behind further capital inflows, which drives their view of further rupee appreciation over time.

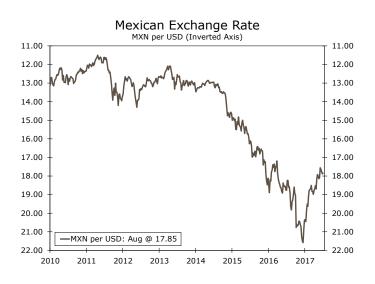


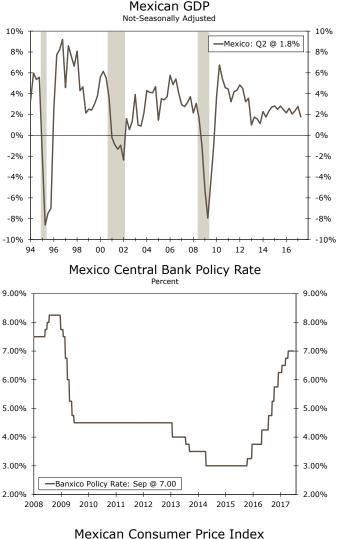


Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

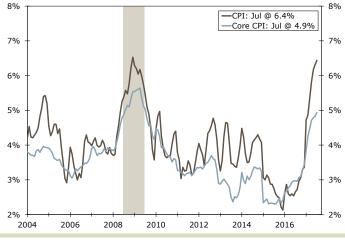
Mexico

- Sentiment regarding the Mexican economy was generally downbeat to start the year amid a rapidly falling peso and fears about the United States pulling out of the North American Free Trade Agreement (NAFTA).
- Since then, economic growth has held up reasonably well. Real GDP growth was 1.8 percent year over year in Q2, roughly in-line with trend growth over the past couple years. The service sector remains the lead driver of growth, up 3.9 percent on a year-earlier basis.
- Inflation continues to be a key challenge for the Mexican economy. The Bank of Mexico has increased its main policy rate by 400 bps since November 2015 to combat the rapid increase in inflation and sharp depreciation of the peso. So far, the abrupt tightening in monetary policy implemented over the past couple of years has yet to make a serious dent in economic activity.
- Uncertainty continues to surround the Mexican economy. It is unclear where US-Mexico trade relations are headed, as renegotiations of the NAFTA have recently commenced.
- We expect modest growth in the Mexican economy of 2.1 percent in 2017 and 2.3 percent in 2018, with inflationary pressures from the sharp fall in the peso beginning to abate as they fade from the year-ago calculations. The near doubling of interest rates remains the biggest threat to continued improvement in economic activity in the second half of the year.





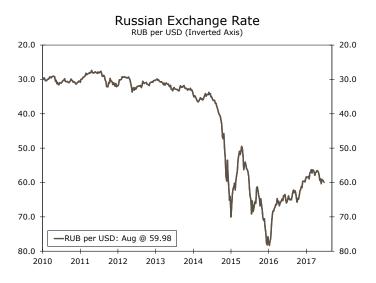
Year-over-Year Percent Change



Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Russia

- The past couple of years have been challenging for the Russian economy as the plummeting ruble, skyrocketing inflation and economic sanctions led to a rapid tightening in monetary policy and a severe recession.
- Recently, real GDP in Russia has accelerated. The Q2 GDP reading pushed Russia's economy firmly into expansionary territory. Commodity prices and the ruble have stabilized, and inflation has receded. International trade has also improved, as real exports rose 7.1 percent year-over-year in Q2. This in turn has allowed the central bank to bring its main policy rate back down, helping to nourish seeds for the budding economic recovery. We predict steady expansion in 2017 and 2018, with annual GDP growth at 1.7 and 2.0 percent, respectively.
- Despite the recent acceleration, economic growth in Russia is unlikely to return to the supercharged growth rates of the past. Still-low commodity prices, economic sanctions and a declining working-age population will likely weigh on capital and labor growth, restraining the nation's capacity to sustainably increase production over time.
- The ruble has weakened slightly over the past few months, tracking declining oil prices over the same period. Our currency strategy team looks for the ruble to weaken slightly against the dollar in the remainder of 2017, partially due to the possibility of future rate cuts from Russia's central bank.



WELLS FARGO SECURITIES ECONOMICS GROUP

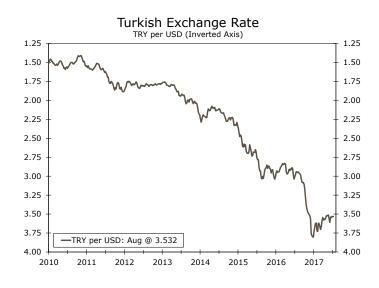


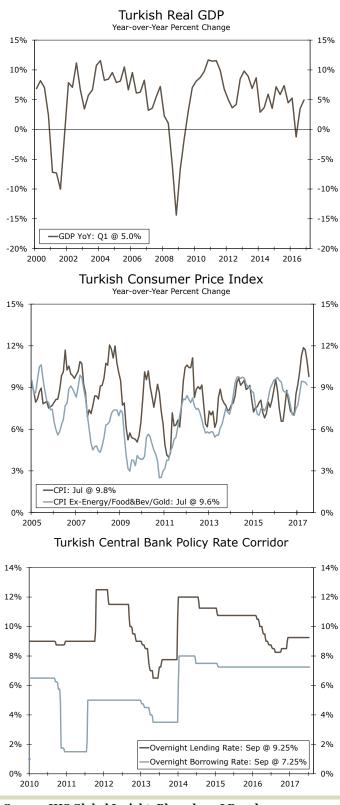


Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Turkey

- Economic growth in Turkey has rebounded after a short but sharp slowdown that began in the middle of last year. The improvement has been broad-based, led by strong growth in personal consumption and government spending. Export growth has also surged amid a weaker Turkish lira and improving global growth.
- Since the start of the year, economic growth has improved, prices have accelerated and the lira has appreciated against the dollar modestly. At present, the Turkish central bank appears to be on hold as it waits to see how the economic fundamentals respond to tighter monetary policy. Its latest policy statement from the end of July signaled that the "tight stance in monetary policy will be maintained until the inflation outlook displays significant improvement."
- Turkey's demographic makeup presents a potential positive opportunity for the country. The working-age population is expected to grow further over the next two decades, which should translate into more national production, everything else equal. But, in the long term, if Turkey cannot raise its national savings rate, its long-term economic growth prospects should remain constrained. The nation relies heavily on capital inflows to finance a relatively large current account deficit.
- The consensus expects year-over-year real GDP growth of 5.3 percent in Q2.

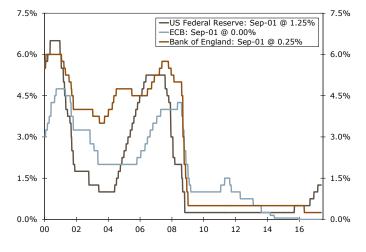




Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities

Dollar Exchange Rates

- The U.S. dollar has been soft this year, as the Federal Reserve's trade weighted dollar major currency index is down 6.8 percent year-to-date.
- Over the past couple of years, monetary policy at the Fed has diverged from policy at the world's other major central banks. Policymakers at the Fed have spent most of the past two years gradually tightening policy amid steady economic growth and an ever-tightening labor market, while the Bank of Japan, the European Central Bank and others have eased policy further over that period.
- More recently, the divergence that has characterized the past two years has flipped to a story of convergence. Markets have begun to anticipate that central banks around the world will soon begin to slowly take away the respective punch bowls. This has occurred at the same time that inflation has slowed markedly in the U.S., raising questions about whether the Fed's current projected path of tightening is too hawkish.
- In addition, after a surge in optimism following the U.S. presidential election last fall, markets appear to have dialed back their expectations for a substantial fiscal bump.
- Our currency strategy team expects trend softness in the U.S. dollar to continue over the medium term. They forecast moderate emerging currency gains, with global financial market conditions mostly benign even as some major central banks start to move to less accommodative monetary policy.



Central Bank Policy Rates

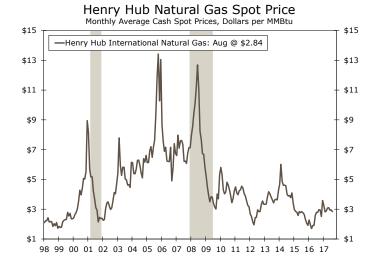
Ok

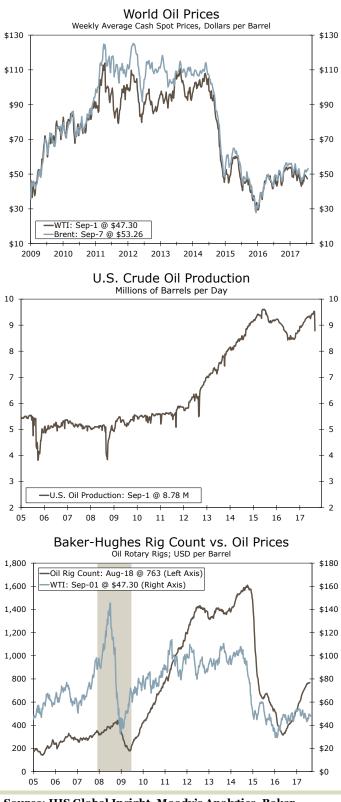


Source: Federal Reserve Board, Bloomberg LP, IHS Global Insight and Wells Fargo Securities

Energy

- Oil prices have rebounded from their 2017 low that occurred right around the last publication of the *Global Chartbook* in June. Brent prices have held above the \$50 threshold since late July and have moved modestly higher recently. Oil prices have been relatively range bound this year, mostly moving within a \$45-\$55 range.
- U.S. crude oil production has shown continued resiliency. Despite oil prices remaining low relative to a few years ago, U.S. oil output has nearly reached its pre-oil price collapse high. Rig counts have been on the rise, although July saw the fewest monthly oil rig additions since rig count began increasing last summer. The rig count still remains roughly 50 percent below its 2015 peak despite near record levels of production. Productivity growth has been sluggish elsewhere in the U.S. economy, but certainly not in this sector.
- The International Energy Agency (IEA) projects that oil demand will rise about 1.5 percent this year amid firming global economic growth in both advanced and developing economies. The IEA cited stronger demand growth in OECD countries, particularly the United States and Germany, as key drivers of stronger oil demand this year.
- Natural gas prices have been relatively stable in recent months. The IEA expects natural gas production to decline slightly in 2017 before recouping the losses with stronger output growth in 2018.

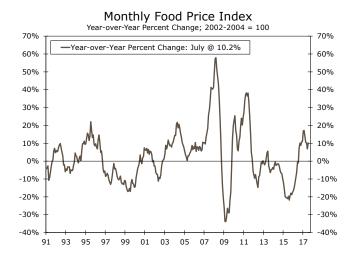


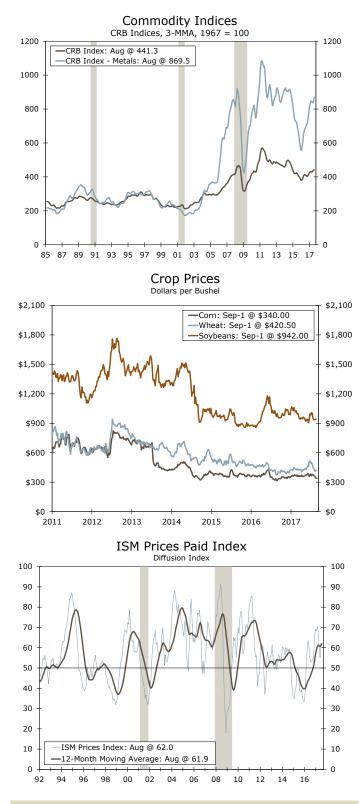


Source: IHS Global Insight, Moody's Analytics, Baker-Hughes and Wells Fargo Securities

Other Commodities

- Prices for industrial metals have been a key driver of rising commodity prices in recent months. Prices for industrial metals jumped amid expectations for greater U.S. infrastructure spending following the presidential election, and have regained their momentum after some softening earlier this year.
- Copper prices have risen about 14 percent over the past three months and more than 30 percent since the U.S. presidential election. Other metallic commodities, such as steel, have seen a similar trend.
- The United Nation's Food Price Index has risen 6 percent over the past year. Dairy prices have soared 42 percent over that period, although much of this is a recovery after a decline of a similar magnitude occurred, beginning in 2014.
- Cereals prices are up about 7 percent, while the sugar index saw the only year-over-year decline, with prices falling about 29 percent. Cocoa prices have remained mired in a slump, hovering near lows not seen since early 2011.
- In the United States, survey respondents in the ISM manufacturing index have reported rising input prices. In addition, inflation as measured by the producer price index was 1.9 percent in July, matching the pace from three years earlier right before the broad-based decline in commodity prices began.





Source: Bloomberg LP, ISM, Commodity Research Bureau, the United Nations and Wells Fargo Securities

Wells Fargo International Economic Forecast									
(Year-over-Year Percent Change)									
		GDP			CPI				
	2017	2018	2019	2017	2018	2019			
Global (PPP Weights)	3.4%	3.4%	3.1%	3.2%	3.3%	3.1%			
Global (Market Exchange Rates)	3.2%	3.3%	2.8%	3.2%	3.3%	3.1%			
Advanced Economies ¹	2.3%	2.3%	1.8%	1.7%	1.9%	1.4%			
United States	2.2%	2.6%	2.5%	1.9%	1.7%	2.2%			
Eurozone	2.1%	2.0%	1.7%	1.5%	1.7%	1.9%			
United Kingdom	1.6%	1.7%	1.6%	2.6%	2.1%	2.0%			
Japan	1.9%	1.1%	0.7%	0.3%	0.7%	0.3%			
Korea	2.9%	2.8%	3.0%	2.1%	2.0%	2.4%			
Canada	3.0%	2.0%	1.9%	1.6%	1.9%	2.0%			
Developing Economies ¹	4.5%	4.5%	4.3%	4.8%	4.8%	4.8%			
China	6.6%	6.3%	5.9%	1.5%	2.0%	1.9%			
India ²	7.1%	6.4%	7.2%	3.1%	4.1%	4.3%			
Mexico	2.1%	2.3%	2.4%	6.0%	5.0%	5.2%			
Brazil	0.6%	2.0%	2.2%	3.5%	3.5%	3.8%			
Russia	1.7%	2.0%	2.2%	4.2%	4.3%	4.5%			

Forecast as of: September 7, 2017

¹Aggregated Using PPP Weights

Wells Fargo International Interest Rate Forecast

(End of Quarter F	Rates)	tes) 3-Month LIBOR							10-Year Bond					
	20	2017		2018			2017		2018					
	Q3	Q4	Q1	Q2	Q3	Q4	Q3	Q4	Q1	Q2	Q3	Q4		
U.S.	1.35%	1.65%	1.65%	1.90%	1.90%	2.15%	2.30%	2.49%	2.57%	2.66%	2.71%	2.78%		
Japan	0.00%	0.00%	0.02%	0.02%	0.03%	0.03%	0.00%	0.03%	0.05%	0.07%	0.09%	0.12%		
Euroland ¹	-0.37%	-0.35%	-0.30%	-0.15%	0.05%	0.20%	0.40%	0.45%	0.60%	0.75%	0.85%	1.00%		
U.K.	0.27%	0.30%	0.40%	0.60%	0.65%	0.85%	1.10%	1.20%	1.40%	1.50%	1.60%	1.75%		
Canada ²	1.40%	1.50%	1.65%	1.75%	1.90%	2.00%	1.90%	2.00%	2.20%	2.30%	2.40%	2.45%		

Forecast as of: September 7, 2017

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

Source: IMF and Wells Fargo Securities

Wells Fargo Securities Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Eugenio J. Alemán, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Senior Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Eric Viloria, CFA	Currency Strategist	(212) 214-5637	eric.viloria@wellsfargo.com
Sarah House	Economist	(704) 410-3282	sarah.house@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo.com
Jamie Feik	Economist	(704) 410-3291	jamie.feik@wellsfargo.com
Erik Nelson	Currency Strategist	(212) 214-5652	erik.f.nelson@wellsfargo.com
Michael Pugliese	Economic Analyst	(704) 410-3156	michael.d.pugliese@wellsfargo.com
E. Harry Pershing	Economic Analyst	(704) 410-3034	edward.h.pershing@wellsfargo.com
Hank Carmichael	Economic Analyst	(704) 410-3059	john.h.carmichael@wellsfargo.com
Ariana Vaisey	Economic Analyst	(704) 410-1309	ariana.b.vaisey@wellsfargo.com
Abigail Kinnaman	Economic Analyst	(704) 410-1570	abigail.kinnaman@wellsfargo.com
Shannon Seery	Economic Analyst	(704)410-1681	shannon.seery@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@wellsfargo.com
Dawne Howes	Administrative Assistant	(704) 410-3272	dawne.howes@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Clearing Services, LLC., Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC. is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Securities, LLC. and Wells Fargo Bank, N.A. are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company (© 2017 Wells Fargo Securities, LLC.

Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. The content of this report has been approved by WFSIL a regulated person under the Act. For purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients. This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE