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SECURITIES

Wells Fargo Economics *Monthly Macro Manual*

Your guide to the events in the month ahead that will shape the economic outlook and drive financial markets.

May 9, 2018

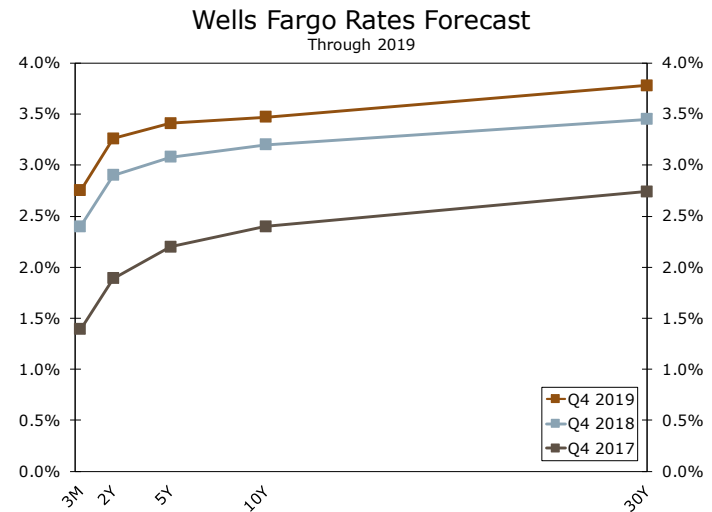
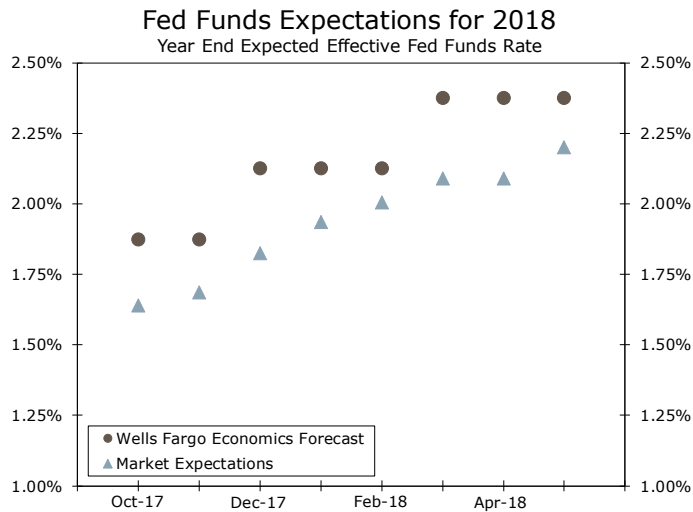
Together we'll go far



Key Takeaways

Developments since our last Monthly Economic Outlook

- Our initial forecast for Q2-2018 real GDP growth in the United States is 3.3 percent. We look for real GDP to accelerate in Q2, led by stronger consumer spending, housing and federal spending.
- We expect economic growth to remain near 3 percent the rest of the year as fiscal stimulus from the tax cuts/spending increases ramps up.
- We remain of the view that the Fed will hike three more times this year and twice in 2019. With inflation back to 2 percent and U.S. economic growth boosted by fiscal stimulus, we believe the Fed will strike while the iron is hot in 2018.
- We look for the European Central Bank to continue its €30 billion per month pace of asset purchases through September before tapering further to €10-€15 billion per month through the end of the year. Amid signs of slowing economic growth and tame inflation, the ECB has signaled that it is in no hurry to tighten policy even after it ends its bond-buying program.



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

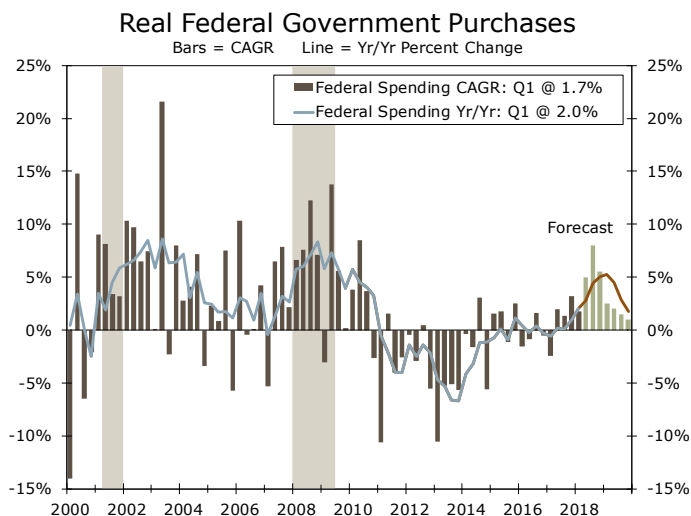
Monthly Macro Calendar: May 7-June 1

Monday	Tuesday	Wednesday	Thursday	Friday
7	8	9	10	11
Consumer Credit March \$11.6B Bostic* (Atlanta Fed) Speaks in Amelia Island, FL Barkin* (Richmond Fed) Speaks in Fairfax, VA	JOLTS Job Openings March 6,550 Powell* (Chair) Speak at SNB/IMF Event in Zurich	Producer Price Index (MoM) March 0.3%; April 0.2% (W) Bostic* (Atlanta Fed) Speaks in Jacksonville	U.S. Consumer Price Index (MoM) March -0.1%; April 0.3% (W) Monthly Federal Budget March \$208.7B; April \$212.0B (C) Bank of England Rate Decision Previous 0.50%; May 10 0.50% (W)	Import Price Index (MoM) March 0.0%; April 0.7% (W) Bullard (St. Louis Fed) Speaks on Economy in Missouri
14	15	16	17	18
Mester* (Cleveland Fed) Speaks in Paris at Bank of France Bullard (St. Louis Fed) Speaks at Crypto Conference in NY	Retail Sales (MoM) March 0.6% Business Inventories (MoM) Feb. 0.6% Japan GDP (QoQ, SAAR) Q4 0.4%	Housing Starts (MoM) March 1.9% Industrial Production (MoM) March 0.5% Bostic* (Atlanta Fed) Speaks in Atlanta	Leading Economic Index (MoM) March 0.3%	Mester* (Cleveland Fed) Speaks in Frankfurt
21	22	23	24	25
Harker (Philadelphia Fed) Speaks in NY Kashkari (Minneapolis Fed) Speaks at Q&A in Minneapolis		New Home Sales (MoM) March 4.0% FOMC Minutes	Exiting Home Sales (MoM) March 1.1% Harker (Philadelphia Fed) Speaks in Dallas on Tech & Labor	Durable Goods (MoM) March 2.6% Powell* (Fed Chair) Speaks in Stockholm
28	29	30	31	1
	S&P 500 Home Prices (MoM) Feb. 0.83% Consumer Confidence April 128.7	Bank of Canada Rate Decision Previous 1.25% Fed Beige Book	Personal Income (MoM) March 0.3% Eurozone CPI (YoY) April 1.2%	Nonfarm Payrolls April 164K ISM Manufacturing April 57.3 Construction Spending (MoM) March -1.7%

Note: (W) = Wells Fargo Estimate, * = voting FOMC member in 2018

Source: Bloomberg LP and Wells Fargo Securities

- Most recent real GDP forecast for Q2-2018: 3.3% (seasonally adjusted annual rate).
- **Change since last *Monthly Economic Outlook*: +0.4 percentage points.**
- Drivers of the revision:
 - Base effects from actual Q1-2018 data and stronger than expected near-term contributions from government spending, trade and inventories.
- Real GDP forecast for full-year 2018: 2.9%.
- **Change since last month: +0.3 percentage points.**
- Commentary: Real GDP growth came in slightly stronger than expected in Q1 as the effects of residual seasonality on first quarter growth were less apparent than in prior years. Consumer spending growth was soft and homebuilding was flat after robust growth in Q4-2017. Both sectors appear poised to bounce back this quarter. Coupled with a bump to growth from the recent federal budget deal, we believe real GDP growth will prove resilient in Q2 and through the remainder of the year.



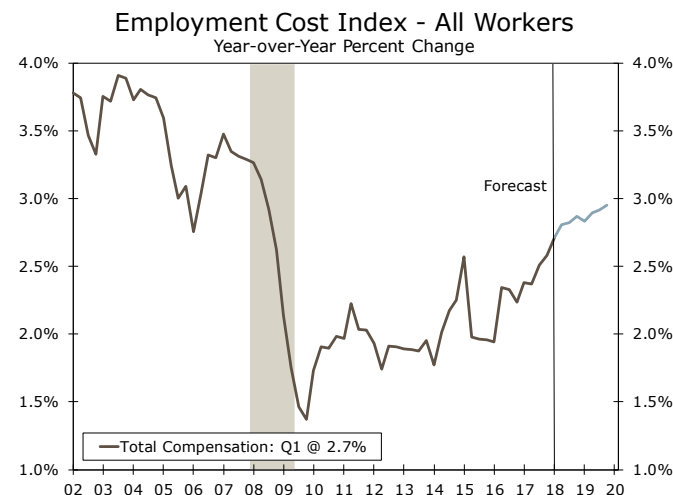
Source: U.S. Department of Commerce and Wells Fargo Securities

Key Themes and Upside/Downside Scenarios

- Fiscal policy has swung from a neutral to an expansionary stance, helping to propel economic growth above potential.
- Upside scenario: After a better-than-expected Q1, consumption and investment gather steam and fiscal expansion helps push full-year growth to 3 percent for the first time since 2005.
- Downside scenario: Rising gasoline prices and interest rates pressure consumers and businesses, while a trade war adds to uncertainty and inflation pressures, leading economic growth to slow later this year.

- Inflation Forecast
 - Essentially unchanged: Our forecast is for the core PCE deflator to rise 2.0 percent year over year in Q4-2018 (current reading is 1.9 percent).
- Labor Market Forecast
 - Our expectations for the average monthly employment change in 2018 remained steady at 178,000. Our forecast for employment costs rose slightly from April.

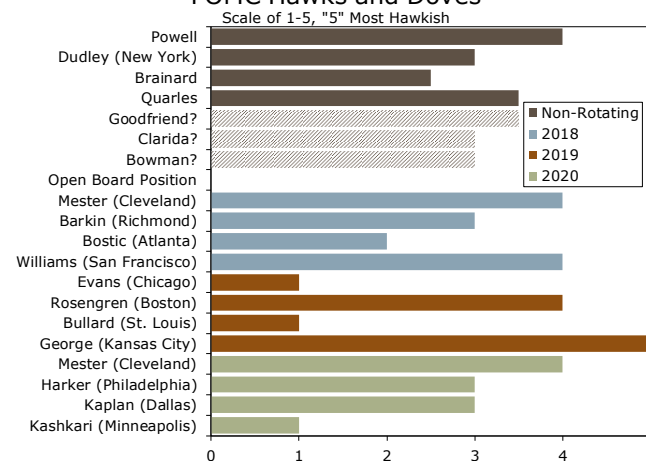
Fed composition update: John Williams set to take over for William Dudley at the New York Fed on June 18. Marvin Goodfriend has yet to be confirmed by the Senate, while Richard Clarida and Michelle Bowman are now beginning the confirmation process.



Fed Funds Outlook

- Fed funds forecast for 2018
 - Three more 25 bps hikes in June, September, December.
 - **Change since last month: No change**
 - Rationale: If economic growth/inflation proceed as we forecast, we believe the Fed will have no reason to pause its tightening in the second half of 2018.
- Fed funds forecast for 2019
 - Two 25 bps hikes in June, December
 - **Change since last month: No change**

FOMC Hawks and Doves



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

Wells Fargo U.S. Interest Rate Forecast

	Actual				2018				Forecast			
	2017				2018				2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.75	2.00	2.25	2.50	2.50	2.75	2.75	3.00
3 Month LIBOR	1.15	1.30	1.33	1.69	2.31	2.35	2.50	2.65	2.65	2.90	2.90	3.15
Prime Rate	4.00	4.25	4.25	4.50	4.75	5.00	5.25	5.50	5.50	5.75	5.75	6.00
Conventional Mortgage Rate	4.20	3.90	3.81	3.94	4.44	4.50	4.55	4.70	4.82	4.87	4.92	4.97
3 Month Bill	0.76	1.03	1.06	1.39	1.73	1.95	2.15	2.40	2.60	2.65	2.70	2.75
6 Month Bill	0.91	1.14	1.20	1.53	1.93	2.15	2.30	2.55	2.70	2.75	2.80	2.85
1 Year Bill	1.03	1.24	1.31	1.76	2.09	2.25	2.35	2.60	2.75	2.80	2.85	2.90
2 Year Note	1.27	1.38	1.47	1.89	2.27	2.49	2.67	2.90	3.05	3.12	3.19	3.26
5 Year Note	1.93	1.89	1.92	2.20	2.56	2.86	2.98	3.08	3.20	3.27	3.34	3.41
10 Year Note	2.40	2.31	2.33	2.40	2.74	2.95	3.05	3.20	3.32	3.37	3.42	3.47
30 Year Bond	3.02	2.84	2.86	2.74	2.97	3.20	3.30	3.45	3.64	3.70	3.74	3.78

Forecast as of: May 9, 2018

Source: Federal Reserve Board and Wells Fargo Securities

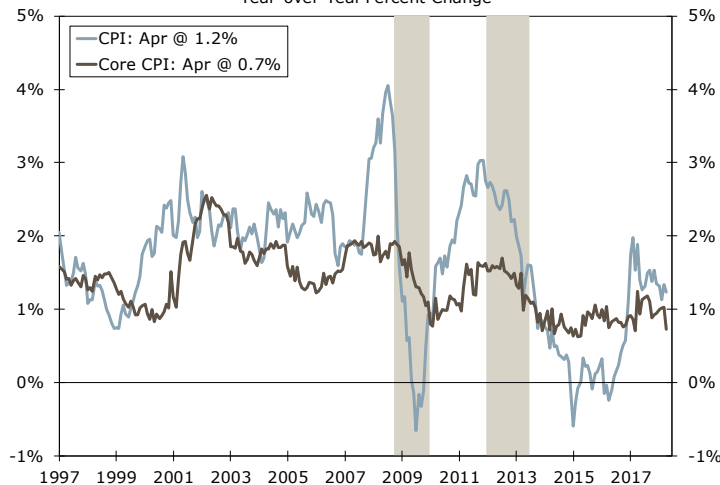
What Are We Watching in the Month Ahead?

- **FOMC:** What data points are most important to get to four rate hikes this year?
 - Core inflation and wage growth reign supreme for the Fed.
 - Fed officials have made efforts of late to signal their willingness to tolerate inflation a bit above 2 percent.
- **Foreign central banks:** How will central banks react to slower economic growth?
 - Like the U.S., a strong end to 2017 gave way to slower economic growth to start 2018 in many developed economies. Will the European Central Bank, Bank of England and other major central banks adopt a more cautious stance than markets had anticipated?
- **Treasury issuance:** With deficits on the rise, how will Treasury allocate new issuance along the curve?
 - Bill supply in Q1 highlighted the potential for supply/demand imbalances to drive Treasury yield curve moves. With bill supply stabilizing and coupon issuance steadily climbing, how will the market absorb this new debt?

Advanced Economies

- Advanced economies broadly saw a slowdown in economic growth in Q1-2018 after a robust end to last year.
- Both economic growth and inflation slowed in the Eurozone in Q1, and inflation fell further to start Q2.** Though the decline may have been exaggerated by the timing of Easter, inflation clearly remained tame.
- Q1 real GDP growth in the United Kingdom was significantly weaker than consensus expectations, rising just 0.4 percent on an annualized basis. Slow growth in consumer spending and a decline in construction output weighed on growth.

Eurozone Consumer Price Inflation
Year-over-Year Percent Change

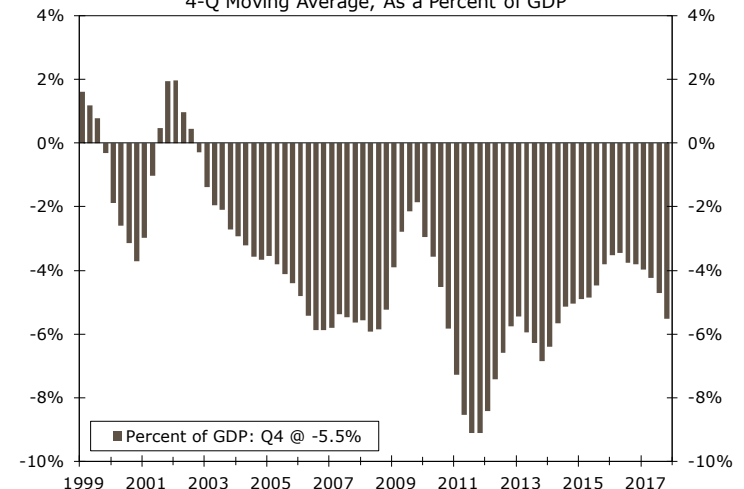


Source: IHS Markit and Wells Fargo Securities

Developing Economies

- Chinese economic growth was once again stable in Q1, but we expect growth to slow gradually as leverage concerns and structural factors weigh.
- Concerns about the Turkish economy, its current account deficit and political uncertainty have put additional pressure on the Turkish lira and drove the central bank to hike one of its main policy rates 75 bps last week.
- The key downside risks to our global outlook include a sharp rise in interest rates, a trade war or some other geopolitical shock.**

Turkish Current Account
4-Q Moving Average, As a Percent of GDP



Wells Fargo Central Bank Policy Forecasts

Central Bank	Current Policy Rate	Last Major Policy Change	WF Next Forecasted Policy Change
United States (FOMC)	1.75	March 2018 25 bps hike	Next Rate Hike: Q2-2018
Eurozone (ECB)	0.00 (Refi Rate)	October 2017 <i>Announced taper of asset purchases to €30 billion/month in Jan. 2018</i>	Taper bond purchases in Sept., end purchases by the end of 2018 Next Rate Hike: Q2-2019 (Deposit Rate), Q3-2019 (Refi Rate)
United Kingdom (BOE)	0.50	November 2017 25 bps hike	Maintain size of balance sheet through Q4-2019 Next Rate Hike: August 2018
Japan (BOJ)	-0.10	September 2016 <i>Introduced monetary easing program (QQE) with yield curve control</i>	Maintain annual asset purchases of ¥80 trillion Maintain current policy rate and some degree of yield curve control
Canada (BOC)	1.25	January 2018 25 bps hike	Next Rate Hike: Q3-2018

Forecast as of: May 9, 2018

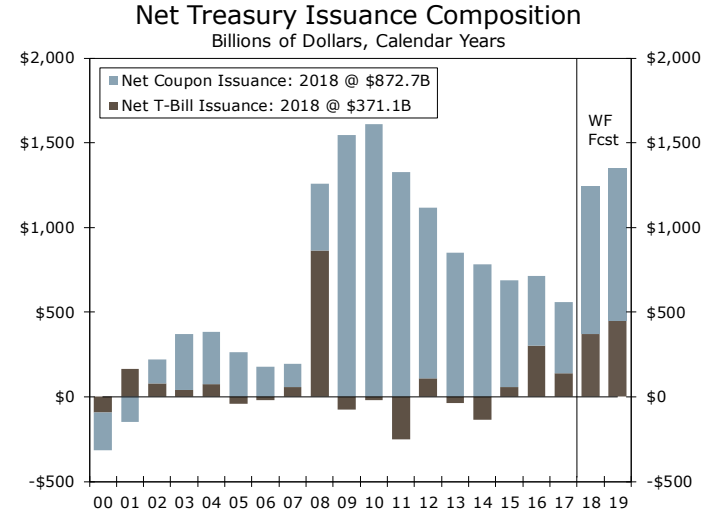
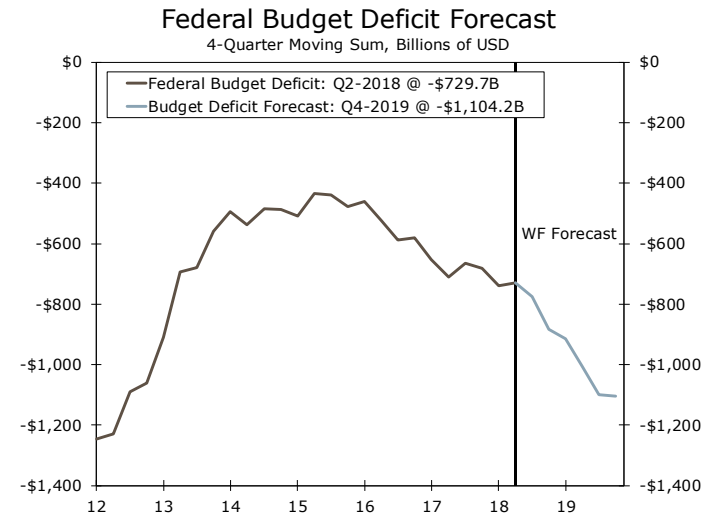
Source: Bloomberg LP and Wells Fargo Securities

What Are We Watching in the Month Ahead?

- European Central Bank
 - The economic expansion in the Eurozone is still firmly underway, but core consumer price inflation remains below 1 percent at present. Price growth will be key to how quickly the ECB ends its QE program.
- Bank of Japan
 - Economic growth has improved but inflation remains lackluster. We see the BoJ's move to drop the target date for hitting 2 percent inflation as further affirmation that any tightening remains a long way off.
- Bank of England
 - We expect the Bank of England to adopt a "wait-and-see" approach in light of a weak Q1 for the U.K. economy. With inflation receding, the BoE can afford to wait for stronger economic data before its next hike.
- Bank of Canada
 - Uncertainty over NAFTA and high household debt levels are keeping the BoC from tightening more rapidly.

Till Debt Do Us Part: Treasury Refunding Highlights

- In its Quarterly Refunding Statement last week, the U.S. Treasury announced another across-the-board increase in coupon auction sizes for Treasury securities.
- As illustrated in the charts to the right, we expect net Treasury issuance to skyrocket this year and next. The jump in issuance has been driven by both technical and fundamental factors. On the technical side, the Treasury operated under the debt ceiling for much of 2017, creating a backlog of debt in the pipeline that was issued in Q1-2018 once the debt ceiling was suspended.
- On the fundamental side, the triple whammy of tax cuts, the recent budget deal and Federal Reserve balance sheet redemptions have significantly increased the amount of issuance that the public must absorb.
- Over the April-December 2018 period, we expect the U.S. Treasury will have a borrowing need of \$750 billion when including the Fed's balance sheet reductions.
- As a result, **we do not believe Treasury is done increasing auction sizes. We expect that all Treasury tenors, including those at the long-end, will be leaned upon to meet the financing gap over the next 12-24 months.**
- For further reading, see our special report "[Rates Explorer: Treasury Refunding Highlights](#)" available on our website and upon request.



Source: U.S. Department of the Treasury 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)	3.8%	3.6%	3.5%	3.0%	3.3%	3.4%
Global (Market Exchange Rates)	3.2%	3.5%	3.4%	3.0%	3.3%	3.4%
Advanced Economies ¹	2.3%	2.5%	2.4%	1.7%	2.0%	2.0%
United States	2.3%	2.9%	2.8%	2.1%	2.5%	2.3%
Eurozone	2.5%	2.2%	2.0%	1.5%	1.4%	1.7%
United Kingdom	1.8%	1.3%	1.9%	2.7%	2.3%	2.0%
Japan	1.7%	1.5%	0.9%	0.5%	0.9%	0.8%
Korea	3.1%	2.8%	2.7%	1.9%	2.1%	2.1%
Canada	3.0%	1.9%	1.8%	1.6%	2.3%	1.9%
Developing Economies ¹	4.8%	4.6%	4.6%	4.0%	4.6%	4.9%
China	6.9%	6.5%	6.0%	1.6%	1.8%	2.0%
India ²	7.1%	6.7%	7.4%	3.3%	4.3%	4.7%
Mexico	2.0%	1.9%	3.0%	6.0%	5.3%	5.0%
Brazil	1.0%	2.8%	3.2%	3.4%	3.0%	3.2%
Russia	1.5%	2.0%	2.2%	3.7%	2.7%	3.9%

Forecast as of: May 9, 2018

¹Aggregated Using PPP Weights

²Forecast Refers to Fiscal Year

Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	3-Month LIBOR						10-Year Bond					
	2018			2019			2018			2019		
	Q2	Q3	Q4	Q1	Q2	Q3	Q2	Q3	Q4	Q1	Q2	Q3
U.S.	2.35%	2.50%	2.65%	2.65%	2.90%	2.90%	2.95%	3.05%	3.20%	3.32%	3.37%	3.42%
Japan	-0.03%	-0.02%	-0.01%	0.00%	0.00%	0.01%	0.06%	0.07%	0.08%	0.09%	0.10%	0.11%
Euroland ¹	-0.35%	-0.30%	-0.20%	-0.10%	0.05%	0.15%	0.65%	0.75%	0.90%	1.10%	1.20%	1.30%
U.K.	0.65%	0.80%	0.90%	1.05%	1.15%	1.30%	1.50%	1.70%	1.85%	1.95%	2.10%	2.15%
Canada ²	1.75%	1.90%	2.00%	2.15%	2.25%	2.40%	2.30%	2.50%	2.50%	2.60%	2.65%	2.70%

Forecast as of: May 9, 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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