MONTHLY OUTLOOK

U.S. Overview

The Economic Divide Continues to Widen

The growing economic divide between domestic demand and global economic influences was the central feature of our annual economic outlook and has figured prominently during the first few weeks of 2016. Growing concerns about slowing global economic conditions have caused businesses, policymakers and investors to become more risk averse. Sales and earnings expectations have been lowered, credit spreads between government and corporate bonds have increased and the S&P 500 has tumbled more than 9 percent since the start of the year.

We have slightly lowered our forecast for U.S. economic growth and now look for real GDP to rise at just a 1.8 percent pace this year and a 2.3 percent pace in 2017. The drivers of growth remain the same. Domestic demand is holding up relatively well, with consumer spending and homebuilding growing solidly. Government spending should also make a modest contribution to growth this year. Areas tied to the global economy are weakening even more, however, particularly investment tied to energy and mining. In addition, the widening trade deficit is expected to subtract 0.5 percentage points from growth this year.

While expectations for economic growth have been reduced, we continue to look for the Federal Reserve to attempt to normalize short-term interest rates. Falling interest rates overseas will make this a difficult mission for the Fed, however, and the rate outlook will continue to be influenced by global forces beyond the Fed's direct control.

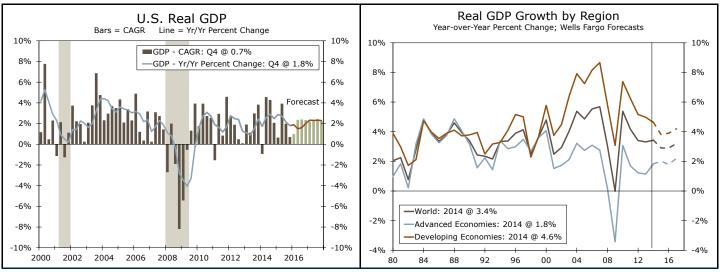
International Overview

Slow Global Growth to Continue

Much of the volatility in financial markets since the beginning of the year has been linked to concerns about the global economic outlook. We expect the global economy grew roughly 3 percent in 2015, marking the fourth consecutive year in which global GDP growth has been below its long-run average of 3.5 percent per annum. In our view, the outlook for global growth in 2016 is for continued weakness.

With the notable exception of Brazil and Russia, real GDP growth rates in many developing economies have slowed but they generally have not turned negative. The Indian economy is growing in excess of 7 percent, and we look for real GDP in China to grow roughly 6 percent per annum in 2016 and 2017. Slow economic growth in the developing world does not help growth prospects in the developed world, but it is not likely, by itself, to lead to recession in advanced economies. The expansions that have been in place in most advanced economies should remain in place, although the pace of GDP growth in these major economies likely will be lackluster.

The combination of slow growth in real GDP and lack of pricing power means that nominal GDP growth on a global basis continues to slow, and it likely will remain lackluster for the foreseeable future. Consequently, the operating environment for many businesses probably will remain challenging. Furthermore, in an environment of slow growth in nominal GDP, sovereign bond yields in most economies are not likely to rise significantly anytime soon.



Source: U.S. Department of Commerce, International Monetary Fund and Wells Fargo Securities, LLC



A Rough Start to 2016

The central theme highlighted in our 2016 annual outlook—the widening divide between domestic demand and global economic conditions—has clearly played a prominent role during the first few weeks of 2016. Growing concerns about slowing global economic growth and its impact on commodity prices, exchange rates and corporate earnings has led to widening in credit spreads and a slide in equity markets around the world. Yields on government bonds have also plummeted, particularly overseas, where interest rates on the bonds of many developed countries are now negative.

The deterioration in financial conditions is a warning sign for the economy and is typically a harbinger of slower economic growth. The growing risk aversion evident from falling share prices and declining "risk-free" government bond yields is also evident at the corporate level, where a growing number of businesses are redoubling cost control efforts and scaling back plans for capital spending and hiring. So far, consumer spending appears to be less affected, but the longer share prices tumble the greater the risk that some sort of negative wealth effect will take hold.

While the markets appear to be full of gloom and doom, domestic economic conditions are holding up relatively well. Consumer spending grew at a respectable 2.2 percent pace during the fourth quarter of last year and is expected to rise 2.7 percent in 2016.

Consumer spending is being supported by strong job growth, increasing hours worked and rising wages. Nonfarm employment growth has been solid, averaging 215,000 jobs per month over the past six months. The index of hours worked has also ramped up, climbing at a 2.8 percent annualized pace in the fourth quarter. In addition, average hourly earnings have gradually perked up and are now up 2.5 percent over the past year.

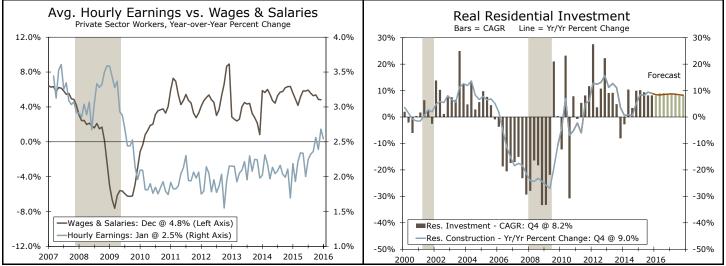
Homebuilding is another bright spot in the economic outlook. Housing starts rose 10.8 percent in 2015 and are expected to rise 8.0 percent in 2016. While the percentage gain seems large in an economy expected to grow just 1.8 percent, the gain comes off of an extremely low base. We are looking for housing starts to rise to just a 1.20 million-unit pace in 2016, a pace well below what we would expect for an economy six-plus years into an expansion. We are looking for residential construction spending to rise a strong 8.5 percent, reflecting a larger gain in single-family starts relative to apartments. Home improvement spending is also ramping up, benefitting from rising home values and the reduced turnover of existing homes.

One of the big questions for 2016 is whether the growth in domestic demand will be enough to help pull along limping global economies. The dollar has strengthened against most major currencies and has soared against currencies of emerging economies and large commodity-driven economies, such as Canada. We are looking for the trade deficit to widen as imports increase and exports decline.

Another key question for 2016 is how much of a cutback we see in the energy sector. We expect oil prices to finally find a bottom at some point in 2016, but prices are likely to remain lower for even longer than had been expected and the industry is likely to undergo a major consolidation, particularly among smaller and mid-sized exploration and production firms. Capital spending budgets have also been slashed further, which is evident in our reduced forecast for structures investment.

With global economic growth slowing and commodity prices under pressure, the risks to the inflation outlook will remain skewed to the downside. We still see the major inflation measures moving toward the Fed's 2.0 percent target, however, which will keep the Fed's goal of normalizing rates in place.

We have not changed our forecast for the federal fund rate because we already had the Fed waiting until June to make its next move. We continue to have three quarter-point rate hikes in our forecast for 2016 but that view is contingent on the global economy finding its footing, or at least enough footing, so that is does not pull the U.S. economy down with it.



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

U.S. Economic Forecast

Wells Fargo Securities, LLC

	Wells Fargo U.S. Economic Forecast																				
				Ac	tual							Fore	cast					Actual		Fore	cast
		20	014			20	15			20	16			20	17		2013	2014	2015	2016	2017
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q					
Real Gross Domestic Product (a)	-0.9	4.6	4.3	2.1	0.6	3.9	2.0	0.7	1.0	2.4	2.4	2.3	2.2	2.3	2.4	2.3	1.5	2.4	2.4	1.8	2.3
Personal Consumption	1.3	3.8	3.5	4.3	1.8	3.6	3.0	2.2	2.8	2.7	2.7	2.6	2.4	2.3	2.3	2.3	1.7	2.7	3.1	2.7	2.5
Business Fixed Investment	8.3	4.4	9.0	0.7	1.6	4.1	2.6	-1.8	0.3	2.5	3.3	3.5	4.7	4.7	4.9	4.8	3.0	6.2	2.9	1.4	4.2
Equipment	3.5	6.5	16.4	-4.9	2.3	0.3	9.9	-2.5	2.1	2.5	3.0	3.5	4.1	4.2	4.5	4.4	3.2	5.8	3.1	2.3	3.8
Intellectual Property Products	7.8	4.9	6.5	6.9	7.4	8.3	-0.8	1.6	3.0	6.0	5.8	5.3	4.9	4.7	4.8	4.7	3.8	5.2	5.8	3.6	5.1
Structures	19.1	-0.2	-1.9	4.3	-7.4	6.2	-7.2	-5.3	-8.0	-3.0	0.0	0.5	6.0	6.0	6.0	6.0	1.6	8.1	-1.5	-4.1	3.6
Residential Construction	-2.7	10.4	3.4	9.9	10.1	9.4	8.2	8.2	8.0	9.0	9.0	8.5	8.5	8.5	8.0	8.0	9.5	1.8	8.7	8.5	8.5
Government Purchases	0.0	1.2	1.8	-1.4	-0.1	2.6	1.8	0.7	0.0	2.1	1.8	1.7	1.2	1.0	1.0	0.9	-2.9	-0.6	0.8	1.2	1.4
Net Exports	-434.0	-443.3	-429.1	-463.6	-541.2	-534.6	-546.1	-566.5	-594.0	-619.9	-646.9	-668.5	-685.8	-699.4	-712.2	-724.9	-417.5	-442.5	-547.1	-632.3	-705.6
Pct. Point Contribution to GDP	-1.4	-0.2	0.4	-0.9	-1.9	0.2	-0.3	-0.5	-0.7	-0.6	-0.6	-0.5	-0.4	-0.3	-0.3	-0.3	0.2	-0.2	-0.7	-0.5	-0.4
Inventory Change	36.9	77.1	79.9 0.0	78.2	112.8	113.5 0.0	85.5	68.6	60.0	65.0 0.1	70.0 0.1	70.0 0.0	64.0	60.0 -0.1	61.0 0.0	55.0	61.4 0.0	68.0 0.0	95.1	66.3	60.0
Pct. Point Contribution to GDP	-1.3	1.1	0.0	0.0	0.9	0.0	-0.7	-0.5	-0.2	0.1	0.1	0.0	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.2	-0.2	0.0
Nominal GDP (a)	0.6	6.9	6.0	2.2	0.8	6.1	3.3	1.5	1.2	4.2	4.7	4.5	4.1	4.3	4.4	4.1	3.1	4.1	3.4	3.0	4.3
Real Final Sales	0.4	3.5	4.3	2.1	-0.2	3.9	2.7	1.1	1.4	2.2	2.3	2.4	2.4	2.4	2.4	2.4	1.4	2.4	2.2	2.0	2.4
Retail Sales (b)	2.2	4.5	4.4	4.3	2.6	1.9	2.3	1.8	3.6	2.9	2.8	3.5	4.0	4.1	4.2	4.2	3.9	3.9	2.1	3.2	4.2
Inflation Indicators (b)																					
PCE Deflator	1.3	1.7	1.6	1.1	0.2	0.3	0.3	0.4	0.9	0.8	1.1	1.6	2.0	2.0	1.9	1.9	1.4	1.4	0.3	1.1	2.0
Consumer Price Index	1.4	2.1	1.8	1.2	-0.1	0.0	0.1	0.4	1.1	1.0	1.2	1.7	2.3	2.3	2.2	2.1	1.5	1.6	0.1	1.3	2.2
"Core" Consumer Price Index	1.6	1.9	1.8	1.7	1.7	1.8	1.8	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1	1.8	1.7	1.8	2.0	2.1
Producer Price Index (Final Demand)	1.4	2.0	1.8	1.3	-0.5	-0.8	-0.9	-1.3	-0.2	0.0	0.4	1.5	2.2	2.3	2.3	2.2	1.4	1.6	-0.9	0.4	2.2
Employment Cost Index	1.8	2.0	2.2	2.3	2.6	2.0	2.0	2.0	1.9	2.3	2.4	2.5	2.6	2.6	2.7	2.8	1.9	2.1	2.1	2.3	2.7
Real Disposable Income (a)	4.0	3.0	2.7	4.7	3.9	2.6	3.8	3.2	2.5	2.6	2.7	2.7	2.5	2.5	2.4	2.4	-1.4	2.7	3.5	2.9	2.5
Nominal Personal Income (b)	3.9	4.2	4.5	5.2	4.5	4.5	4.7	4.3	4.6	4.5	4.4	4.6	4.6	4.5	4.4	4.4	1.1	4.4	4.5	4.5	4.5
Industrial Production (a)	3.6	5.7	3.9	4.7	-0.3	-2.3	2.8	-3.4	-0.3	2.1	1.1	2.2	2.6	2.2	1.1	2.5	1.9	3.7	1.3	0.1	2.1
Capacity Utilization	77.3	78.0	78.3	78.8	78.4	77.7	77.9	77.0	77.8	78.4	78.6	78.7	78.5	78.3	78.2	78.3	76.7	78.1	77.8	78.4	78.3
Corporate Profits Before Taxes (b)	-3.6	1.2	5.8	3.4	4.6	0.6	-5.1	2.3	2.6	2.5	2.4	2.4	2.4	2.2	2.2	2.2	2.0	1.7	0.4	2.5	2.3
Corporate Profits After Taxes	-7.5	-2.6	4.9	2.7	4.7	-0.6	-8.2	2.0	1.9	1.7	1.8	1.8	1.6	1.5	1.5	1.5	1.2	-0.6	-0.7	1.8	1.5
Federal Budget Balance (c)	-241	47	-117	-177	- 263	123	-123	-216	- 200	41	- 200	-180	-180	-40	-190	-160	-680	-484	-439	- 575	- 590
Current Account Balance (d)	-96.4	-92.0	-97.9	-103.1	-118.3	-111.1	-124.1	-110.0	-110.0	-120.0	-130.0	-135.0	-140.0	-150.0	-155.0	-155.0	- 376.8	-389.5	-463.5	-495.0	-600.0
Trade Weighted Dollar Index (e)	76.9	75.9	81.3	85.1	92.1	89.9	92.3	94.5	92.0	93.5	95.0	96.3	97.5	98.0	98.0	97.5	75.9	78.5	91.1	94.2	97.8
Nonfarm Payroll Change (f)	209	276	245	274	190	251	192	279	180	185	185	180	175	170	165	160	193	251	228	182	168
Unemployment Rate	6.7	6.2	6.1	5.7	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.5	4.4	4.4	7.4	6.2	5.3	4.7	4.5
Housing Starts (g)	0.93	0.98	1.03	1.06	0.98	1.16	1.16	1.13	1.19	1.20	1.20	1.22	1.23	1.24	1.25	1.26	0.92	1.00	1.11	1.20	1.25
Light Vehicle Sales (h)	15.8	16.5	16.7	16.8	16.7	17.1	17.8	17.8	17.5	17.4	17.3	17.1	17.1	17.0	16.9	16.8	15.5	16.4	17.3	17.3	17.0
Crude Oil - Brent - Front Contract (i)	107.6	109.5	103.7	77.3	55.6	63.9	51.6	45.0	30.0	34.0	43.0	46.0	47.0	51.0	57.0	52.0	108.4	99.5	54.0	38.3	51.8
Quarter-End Interest Rates (j)																					
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	0.25	0.25	0.27	0.88	1.88
3 Month LIBOR	0.23	0.23	0.24	0.26	0.27	0.28	0.33	0.61	0.70	0.95	1.20	1.45	1.70	1.95	2.20	2.45	0.27	0.23	0.32	1.08	2.08
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.50	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	3.25	3.25	3.27	3.88	4.88
Conventional Mortgage Rate	4.34	4.16	4.16	3.86	3.77	3.98	3.89	3.96	3.96	4.01	4.06	4.16	4.29	4.36	4.41	4.55	3.98	4.17	3.85	4.05	4.40
3 Month Bill	0.05	0.04	0.02	0.04	0.03	0.01	0.00	0.16	0.39	0.67	0.90	1.18	1.33	1.59	1.88	2.15	0.06	0.03	0.05	0.78	1.74
6 Month Bill	0.07	0.07	0.03	0.12	0.14	0.11	0.08	0.49	0.50	0.69	0.95	1.20	1.41	1.64	1.97	2.21	0.09	0.06	0.17	0.84	1.81
1 Year Bill	0.13	0.11	0.13	0.25	0.26	0.28	0.33	0.65	0.52	0.84	1.02	1.33	1.52	1.79	2.03	2.27	0.13	0.12	0.32	0.93	1.90
2 Year Note	0.44	0.47	0.58	0.67	0.56	0.64	0.64	1.06	0.91	1.13	1.36	1.59	1.82	1.98	2.09	2.29	0.31	0.46	0.69	1.25	2.05
5 Year Note	1.73	1.62	1.78	1.65	1.37	1.63	1.37	1.76	1.55	1.66	1.74	1.85	1.95	2.06	2.16	2.33	1.17	1.64	1.53	1.70	2.13
10 Year Note	2.73	2.53	2.52	2.17	1.94	2.35	2.06	2.27	2.01	2.06	2.12	2.23	2.39	2.48	2.55	2.67	2.35	2.54	2.14	2.10	2.52
30 Year Bond	3.56	3.34	3.21	2.75	2.54	3.11	2.87	3.01	2.75	2.77	2.80	2.84	2.87	2.92	2.97	3.14	3.45	3.34	2.84	2.79	2.98
Forecast as of: February 10, 2016					•				-											_	

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.

(f) Average Monthly Change (g) Millions of Units - Annual Data - Not Seasonally Adjusted (h) Quarterly Data - Average Monthly SAAR; Annual Data - Actual Total Vehicles Sold

(d) Quarterly Sum - Billions USD (e) Federal Reserve Major Currency Index, 1973=100 - Quarter End

(i) Quarterly Average of Daily Close (j) Annual Numbers Represent Averages

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

International Outlook Wells Fargo Securities, LLC

Slow Global Growth to Continue

It would be an understatement to say that financial markets have been volatile since the start of the year. Much of this volatility is linked to concerns about the global economic outlook. As shown in the chart on the front page, we expect the global economy grew roughly 3 percent in 2015, marking the fourth consecutive year in which global GDP growth has been below its long-run average of 3.5 percent per annum. In our view, the outlook for global growth in 2016 is roughly the same.

Although most economies experienced lackluster economic growth last year, the slowdown was led by developing economies. Except for the immediate aftermath of the global financial crisis in 2009, economic growth in the developing world has not been this slow since 2001. Many developing countries are commodity exporters, and economic growth in these countries over the past decade or so was stoked by the insatiable demand for commodities that emanated from China. Now that the Chinese economy is slowing, these commodityexporting countries have suffered from sharply lower commodity prices and weaker export volumes.

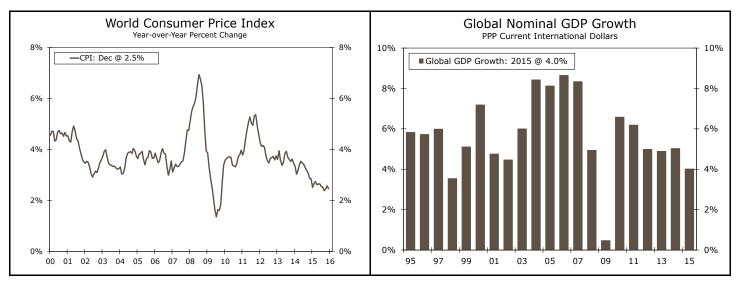
Real GDP growth in many developing economies has slowed, but it generally has not turned negative. (Brazil and Russia, which are mired in deep recessions at present, are major exceptions.) Statistical authorities in India recently announced that the economy likely will grow 7.5 percent in the fiscal year that ends on March 31, and we look for it to grow in excess of 7 percent in the coming fiscal year. We forecast that real GDP growth in China, although clearly not in double digits anymore, will grow 6 percent or so per annum in 2016 and 2017.

Could economic growth in China, which is the second-largest individual economy in the world, slow more than we forecast? Sure. However, an absolute downturn in Chinese real GDP does not look likely either, at least not in the near term. For starters, Chinese authorities have policy flexibility to respond to slower-than-expected economic growth. The benchmark lending rate of the central bank currently stands at 4.35 percent, giving it 435 bps of "ammunition." The central bank has other policy tools at its disposable to loosen the monetary reins to support economic growth. Fiscal policy has turned stimulative at the margin, and it could be eased further, if needed. Moreover, authorities have the incentive to do everything possible to support economic growth. Authorities fear the potential social instability that could come with a sharp weakening in the economy.

Slow economic growth in the developing world does not help growth prospects in the developed world, but it is not likely, by itself, to lead to recession in advanced economies. As we showed in a report last summer, final spending in the developing world accounts for roughly 6 percent of value added (i.e., wages, salaries and profits) in advanced economies. (See "Could Developing Countries Take Down Developed Economies?" which is available upon request.) We look for the U.S. economy to continue to grow in 2016, albeit at a modest pace, and we also forecast positive, but slow, real GDP growth in other advanced economies this year.

Global inflationary pressures remain nonexistent. Not only has the overall rate of global inflation declined to a post-2009 low (bottom left), but core inflation rates in many economies have slipped lower as well over the past few years. The combination of slow growth in real GDP and lack of pricing power means that nominal GDP growth on a global basis continues to slow (bottom right), and it likely will remain lackluster for the foreseeable future. Consequently, the operating environment for many businesses likely will remain challenging.

In an environment of slow growth in nominal GDP, sovereign bond yields in most economies are not likely to rise significantly anytime soon. As shown on page 3, we expect the yield on the 10-year Treasury security to remain below 3 percent through 2017. Government bond yields in most other countries likely will remain depressed as well.



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

International Economic Forecast

Wells Fargo Securities, LLC

Wells Fargo International Economic Forecast											
(Year-over-Year Percent Change)											
		GDP		CPI							
	2015	2016	2017	2015	2016	2017					
Global (PPP Weights)	2.9%	2.9%	3.2%	3.3%	3.2%	3.6%					
Global (Market Exchange Rates)	2.8%	2.6%	3.1%	n/a	n/a	n/a					
Advanced Economies ¹	2.0%	1.8%	2.2%	0.2%	1.1%	1.9%					
United States	2.4%	1.8%	2.3%	0.1%	1.3%	2.2%					
Eurozone	1.5%	1.7%	2.0%	0.0%	0.7%	1.4%					
United Kingdom	2.2%	1.9%	2.1%	0.0%	0.9%	1.8%					
Japan	0.6%	0.6%	0.8%	0.8%	0.7%	1.1%					
Korea	2.5%	2.6%	3.3%	0.7%	1.6%	2.0%					
Canada	1.1%	1.4%	2.3%	1.2%	1.8%	1.9%					
Developing Economies ¹	3.8%	3.9%	4.2%	6.1%	5.3%	5.3%					
China	6.9%	6.3%	5.8%	1.4%	1.4%	1.7%					
India ²	7.5%	7.5%	7.2%	6.0%	5.0%	5.2%					
Mexico	2.5%	2.4%	2.7%	2.7%	3.0%	3.0%					
Brazil	-3.7%	-2.0%	2.6%	9.0%	9.7%	8.5%					
Russia	-4.0%	-0.6%	1.6%	15.6%	7.7%	6.4%					
Forecast as of: February 10, 2016											

¹Aggregated Using PPP Weights

²Forecasts Refer to Fiscal Year

Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)															
	3-Month LIBOR								10-Year Bond						
		201	20	17	2016				2017						
	Q1	Q2	Q3	Q4	Q1	Q2	Q1	Q2	Q3	Q4	Q1	Q2			
U.S.	0.70%	0.95%	1.20%	1.45%	1.70%	1.95%	2.01%	2.06%	2.12%	2.23%	2.39%	2.48%			
Japan	0.02%	0.00%	-0.02%	-0.03%	-0.04%	-0.05%	0.05%	0.07%	0.10%	0.12%	0.15%	0.18%			
Euroland ¹	-0.22%	-0.25%	-0.27%	-0.30%	-0.30%	-0.27%	0.25%	0.30%	0.35%	0.50%	0.60%	0.70%			
U.K.	0.60%	0.60%	0.70%	0.90%	0.95%	1.20%	1.50%	1.60%	1.70%	1.80%	2.00%	2.10%			
Canada ²	0.85%	0.85%	0.85%	0.90%	1.00%	1.25%	1.10%	1.15%	1.25%	1.40%	1.50%	1.60%			

Forecast as of: February 10, 2016

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

Source: Wells Fargo Securities, LLC

Wells Fargo Securities, LLC 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
Anika R. Khan	Senior Economist	(704) 410-3271	anika.khan@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	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
Erik Nelson	Economic Analyst	(704) 410-3267	erik.f.nelson@wellsfargo.com
Alex Moehring	Economic Analyst	(704) 410-3247	alex.v.moehring@wellsfargo.com
Misa Batcheller	Economic Analyst	(704) 410-3060	misa.n.batcheller@wellsfargo.com
Michael Pugliese	Economic Analyst	(704) 410-3156	michael.d.pugliese@wellsfargo.com
Julianne Causey	Economic Analyst	(704) 410-3281	julianne.causey@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@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 Advisors, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC. ("WFS") 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 Bank, N.A. ("WFBNA") is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. WFS and WFBNA 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 does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for genera

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