

# Global Economic Outlook

2nd Quarter 2016



# Contents

## Introduction | 2

**By Dr. Ira Kalish**

In the second-quarter edition of the *Global Economic Outlook*, our team of economists tries to explain the factors driving the uncertainty in the global economy.

## China: On the horns of a trilemma | 4

**By Dr. Ira Kalish**

Chinese authorities are striving to stave off a sharp decline in the renminbi's value. Yet the government's uncertain economic goals have put the country in an untenable spot.

## United States: Moderate growth to continue, but when will wages begin rising? | 8

**By Dr. Patricia Buckley**

US consumers are carrying the economy in the face of slowing business investment, falling exports, and rising imports. But the strength of the consumer is largely based on a greater number of people working, rather than the increased spending power of individual workers.

## Eurozone: Recovery intact, institutional turmoil ahead | 14

**By Dr. Alexander Börsch**

Even though significant internal and external risks exist for the European Union, the main institutional and political risk is the possibility of a Brexit. While its consequences are difficult to predict, the political effects for the European Union could range between two scenarios.

## Japan: Finding the right policy mix | 18

**By Ira Kalish**

Despite the monetary stimulus undertaken by the Bank of Japan, the economy is clearly not recovering in the manner that the government had hoped. Introducing negative rates for the first time, the bank is looking for a new tool to boost inflation.

## India: It's going to be all about consumption | 24

**By Dr. Rumki Majumdar**

The Indian economy has maintained strong macroeconomic fundamentals in the face of the global economic slowdown, rising global uncertainty, and even drought. The government's latest budget primarily focuses on stimulating rural demand in order to sustain domestic demand.

## Russia: In austere times | 30

**By Lester Gunnion**

Russia's dependence on oil is likely to intensify its economic troubles. Though oil prices have recovered slightly, they remain below the level required to balance Russia's budget, requiring a further cut in expenditure that will hit the working class and pensioners hardest.

## Brazil: Yearning for the good times | 36

By **Akrur Barua**

Last year was perhaps one of the toughest for Brazil. The economy contracted sharply, even as political challenges hindered economic policy, amid concerns about fiscal dominance. Exports proved to be a bright spot, though.

## Canada: Keynes arrives | 46

By **Dr. Daniel Bachman**

In Canada's current low-inflation environment, the fiscal stimulus promised by the new government will likely be welcome. However, a potential housing bubble and high household debt pose risks.

## United Kingdom: Brexit or not to Brexit? | 52

By **Ian Stewart**

High on the list of risks the United Kingdom faces is uncertainty over the outcome of the referendum on its EU membership. If voters choose to remain, it's going to be status quo, but a vote to leave would be the start of a long, complex process of negotiation and a period of great uncertainty.

## Special topic: Impact of negative interest rates | 58

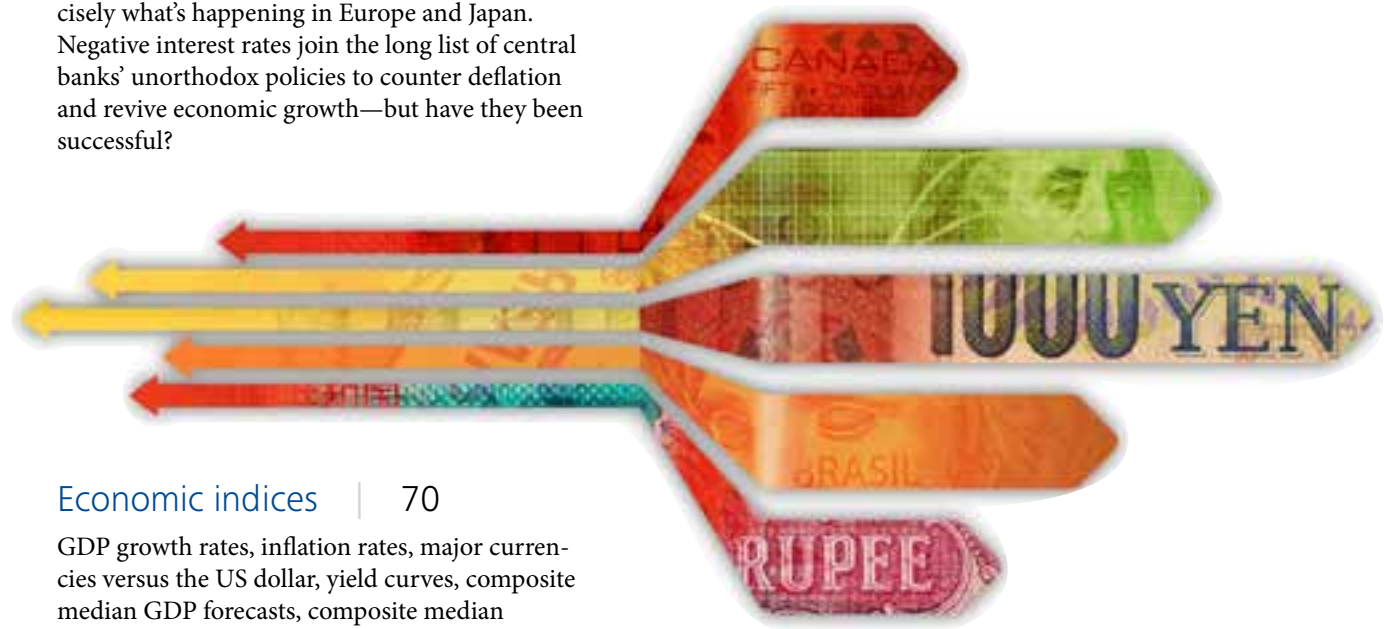
By **Akrur Barua** and **Dr. Rumki Majumdar**

Imagine a lender paying interest to a borrower instead of the other way round—which is precisely what's happening in Europe and Japan. Negative interest rates join the long list of central banks' unorthodox policies to counter deflation and revive economic growth—but have they been successful?

## Additional resources | 73

About the authors | 74

Contact information | 75



## Economic indices | 70

GDP growth rates, inflation rates, major currencies versus the US dollar, yield curves, composite median GDP forecasts, composite median currency forecasts, OECD composite leading indicators.

# Introduction

By Dr. Ira Kalish

**T**HE year 2016 started with a bang rather than a whimper. Financial market volatility soared in the first two months of the year, driven by uncertainty around several key factors influencing the global economy. These included worries about the depth of China's slowdown and the Chinese policy response, the rapid fall in oil prices and the impact on energy company finances, the sustainability of the US recovery, and the potential for a reversion to deflation in Europe. In the realm of policy, central banks once again took center stage, with news of more quantitative easing as well as the implementation of negative policy rates—both of which were unheard of less than a decade ago. As the first quarter comes to an end, the volatility appears to have abated, and asset prices have recovered somewhat. Yet uncertainty never seems to go away.

In this edition of Deloitte's *Global Economic Outlook*, we try to reduce that uncertainty—or at least explain the factors driving it.

We begin with my article on the Chinese economy. I note the degree to which China's exports have suffered lately, contributing to the slowdown in economic growth. I also examine the so-called "trilemma," which involves the Chinese authorities' challenges in simultaneously achieving three critical goals: an independent monetary policy, a controlled exchange rate, and an easing of capital controls. The upshot is that something will likely have to give. Likely, either China will experience a sharper depreciation in its currency, or it will institute more severe capital controls.

Next, Patricia Buckley examines the US economy. Patricia discusses the Federal Reserve's decision making and its likely impact. She notes that although the US economy faces headwinds from a strong dollar and weak oil prices, underlying economic performance remains sufficiently strong to warrant a normalization of interest rates. She says, "The US economy, while not booming, has returned to a state of health that warrants a more normal monetary policy stance."

In his article on the Eurozone economy, Alexander Börsch says that growth continues at an unspectacular pace, driven by consumers who have

benefitted from lower oil prices. Yet the decision by the European Central Bank to further ease monetary policy suggests that the "economic situation is far from normal." Alexander also discusses at length the potential impact of a British exit from the European Union on the rest of Europe. He suggests two possibilities: first, that "Brexit" contributes to an unravelling of the European Union; and second, that Brexit actually leads to an intensification of integration within the rest of the European Union.

In my article on Japan, I discuss the disappointing state of the Japanese economy, including the surprising weakness of the export sector. I also examine the debate over fiscal policy, including whether the government ought to recant on its promise to raise the national sales tax next year. Finally, I look at the Bank of Japan's decision to implement negative policy rates and what this might mean for the economy.

Rumki Majumdar provides her view on the Indian economy next. She notes that, in a world of uncertainty and slow growth, India offers the appearance of an oasis. Moreover, she offers an optimistic take on the outlook. She says that a combination of declining oil prices and an easing of credit conditions bode well for continued strong growth of consumer spending—which has been a key factor in sustaining relatively strong growth. Rumki also suggests that the government's budgetary plans bode well for growth too. On the other hand, she points to risks to the Indian economy, including a strengthening currency that has hurt exports, weak global interest in investing in India, and the problem of nonperforming loans in the Indian banking system.

Next, Russia is the focus of Lester Gunnion's article. Lester not only points to the deep and continuing recession; he also draws attention to the increasing fiscal difficulties that the Russian government will face if oil prices don't significantly recover. He points out that Russia risks depleting much of its financial reserves within two years, thus necessitating even more draconian cuts in government spending. This, in turn, would mean that the government would be in less of a position to ease the burden of declining economic

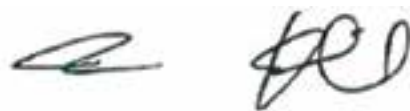
activity on ordinary citizens. Moreover, the government's plan to restore reserves by printing rubles risks fueling inflation and stimulating a further currency depreciation.

Brazil is another troubled economy, and is the subject of Akrur Barua's article this quarter. Akrur discusses in some detail the severity of Brazil's economic decline. But he also notes that, amid the turmoil, exports have performed well. Despite having lost much of its commodity export market due to declining global demand, Brazil's weakened currency (down more than 40 percent in the past two years) now sets the stage for a revival of manufactured exports. Yet currency depreciation alone will not be sufficient to significantly improve Brazil's competitiveness in the global economy. Akrur also discusses obstacles to growth of domestic demand, including high interest rates. Finally, he discusses the issue of "fiscal dominance," in which the central bank's hands are tied by an uncomfortably high government interest obligation. The outlook remains worrisome, especially given political paralysis and crises.

Danny Bachman offers some thoughts on the Canadian economy in our next article. He discusses the fiscal stimulus plans of the new government, which are unique within the developed world. While the stimulus is likely to have a positive effect on GDP growth, much of the stimulus will leak out of the country in the form of increased imports. Danny also examines the worrying level of consumer debt in Canada, and discusses the debate over whether Canada's housing market is characterized by a bubble.

Our last country article, written by Ian Stewart, concerns the United Kingdom. Appropriately, and certainly not surprisingly, Ian focuses on the upcoming referendum on Brexit. While Alexander's article looks at the impact of Brexit on the larger European Union, Ian focuses on the British impact and several potential scenarios should voters say no to the European Union. While he sees potential short-term disruption from an exit vote, he says that the longer-term impact is hard to estimate, especially as it will depend on the kind of relationship the United Kingdom maintains with the European Union going forward.

Finally, in our last article this quarter, Akrur Barua and Rumki Majumdar look at the growing use of negative policy interest rates by several central banks. Although I cover the Japanese experience in my article on Japan, they look at the issue from a broader perspective, with a particular focus on Europe. In essence, Akrur and Rumki offer a primer on the subject, explaining the why, how, desired impact, and risks. They conclude that there are limits to this policy, and that monetary policy alone cannot "tackle challenges" unless there are also "structural reforms and coordinated fiscal policy."



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## On the horns of a trilemma

By Dr. Ira Kalish

### Growth still slowing

More evidence is accumulating concerning the slow-down in Chinese growth. China's exports plunged in February, sparking worries about the state of the global economy. In February, exports denominated in US dollars fell 25.4 percent from a year earlier, the sharpest decline since early 2009. This compares with a drop of 11.2 percent in January. It is true that the February decline was likely amplified by a shift in the timing of the Lunar New Year holiday. Still, the combined decline in January and February, which excludes the impact of the holiday timing, was substantial.

When evaluated in China's currency, the renminbi, exports in February were down 20.9 percent, less than the dollar-based decline. This reflects a modest depreciation in the value of the renminbi over the past year. However, the decline in exports partly reflects the fact that the currency still remains overvalued. The US dollar has soared against other currencies over the past two years; as the renminbi has been relatively steady against the dollar, the renminbi's value has effectively increased against other currencies such as the euro and the yen, hurting China's export competitiveness. In addition, the decline in exports reflects weak global demand.

As the renminbi has been relatively steady against the dollar, the renminbi's value has effectively increased against other currencies such as the euro and the yen, hurting China's export competitiveness.



China also reported that dollar-denominated imports fell 13.8 percent in February versus a year earlier—a bit lower than the 18.8 percent decline in January. This reflects weak domestic demand as well as the impact of lower prices for oil and other commodities.

China's weak trade performance is consistent with that of other Asian countries. Taiwan and South Korea have recently reported sharp declines in exports. Both countries are highly integrated into China's manufacturing supply chain.

Interestingly, imports from Hong Kong surged 88.7 percent even as imports from other Asian economies fell. This follows a 108 percent increase in January. Yet in January, Hong Kong

reported that exports to China fell 7.9 percent. The discrepancy between the Chinese and Hong Kong figures is attributable to the practice of fake invoicing, which is used to hide capital outflows. Hong Kong has not yet reported February export figures.

### The trilemma

While much punditry has focused on China's equity market, it is the market for China's currency that is truly of global importance. If the renminbi falls sharply against the US dollar, it would have several effects. First, China would effectively be exporting deflation, creating deflationary pressures in other

countries that import Chinese goods. Second, global companies that operate in China would see their translated earnings decline. Third, Chinese companies that have substantial foreign-currency-denominated debts would have greater difficulty in servicing those debts. Finally,

Chinese consumers and businesses would experience an effective decline in purchasing power, given the increased price of imported goods and services.

Given all of this, the Chinese authorities have shown a considerable inclination to avoid a sharp decline in the renminbi's value. As capital outflows from China have accelerated, stabilizing the currency has involved sizable sales of foreign currency reserves in order to meet demand for foreign currency and avoid depreciation. In addition, the authorities have attempted to restrain the outflow of capital by tightening capital controls.

Yet in the midst of this, China faces what economists call a "trilemma." That is, China has three separate goals:

- To retain an independent monetary policy so that the government can stimulate the economy, or not do so, at will
- To target the exchange rate
- To loosen capital controls in order to shift the renminbi toward being a major trading and reserve currency

China's weak trade performance is consistent with that of other Asian countries. Taiwan and South Korea have recently reported sharp declines in exports. Both countries are highly integrated into China's manufacturing supply chain.



Yet, if a country wants an independent monetary policy, it should either let the currency float, or implement severe capital controls. If it wants to target the exchange rate, it should consider either subjugating monetary policy to the needs of the exchange rate target, or implementing severe capital controls. Clearly, something has to give.

Some analysts (and hedge funds) believe that the renminbi will ultimately be allowed to fall much further. One reason to believe this is that the country has finite reserves and, at its recent rate of selling reserves, will eventually run out of liquid reserves. Others, however, believe that China is loath to allow a sharp depreciation. Rather, they believe the country is more likely to go for temporary capital controls. Whatever happens will have a big impact not only on China but on the global economy.

## Concerns about debt

One of the big worries for China's leaders is the high level of debt issued by Chinese companies, especially state-run companies, much of it in the form of bank loans. And many such loans are nonperforming. Now, word has come that the authorities are considering debt-for-equity swaps for the country's banks, which are sitting on nearly \$200 billion in nonperforming loans, according to official figures.<sup>1</sup> Some analysts say that the true number is even higher. China's Premier Li Keqiang said that such swaps would "progressively reduce corporate leverage."<sup>2</sup> The idea would be that banks would obtain equity stakes in corporations that have borrowed and cannot service their loans. For the banks, the nonperforming loan ratio would decline. For the companies, the amount of cash devoted to interest payments would be reduced. The problem, of course, is that banks would wind

up having a stake in companies for which they must make credit decisions, creating a conflict of interest.

To deal with the large number of nonperforming bank loans, the Chinese government plans to encourage banks to bundle nonperforming loans into securities that can be sold to investors. The idea is to help remove such loans from banks' balance sheets, thereby improving the quality of bank assets. The end goal is to boost liquidity. The government estimates that \$194 billion in such loans now exists, although some private sector analysts say the true amount is much greater. In the past, China dealt with such loans by moving them to "asset management companies" that sold the loans at a discount. Now, the securitization plan has removed the middleman.

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### Endnotes

1. Yuan Yang, "China explores debt-for-equity swaps to defeat bad debt pile-up," *Financial Times*, March 16, 2016, <http://www.ft.com/intl/cms/s/0/c6e7ccc2-eb44-11e5-bb79-2303682345c8.html#axzz44Ko8Azqb>.
2. Ibid.

## Moderate growth to continue, but when will wages begin rising?

By Dr. Patricia Buckley

**E**CONOMIC growth in 2016 should, in many ways, mirror the growth the United States experienced in 2015, when GDP grew 2.4 percent (that is, of course, unless the current election season moves in a direction that seriously disrupts consumer and business confidence). This similarity will be both in the overall growth rate and in the contribution to growth from the major components, as the three trends that shaped 2015—the low price of oil, the high US dollar, and slower world growth—have persisted into 2016. Overall trends include:

- Consumers should continue to power the economy, based on continued employment growth, low gasoline prices, and cheap imports. In 2015, real personal

consumption expenditures contributed 2.1 percentage points to the 2.4 percent total growth.

- The contribution to growth from exports should be minimal in the face of a high dollar and slower world growth, while the drag from imports will continue to be substantial. In 2015, exports only contributed 0.2 percentage points to growth, while the drag from imports was 0.6 percentage points.
- After four years of subtracting from GDP, the contribution from government spending made a small positive contribution (0.1 percentage points) in 2015—a feat that will most likely be





repeated in 2016 because of a two-year budget deal struck in late 2015.

- Business and residential investment are two of the components with the best chance of improving in 2016 over their 2015 performance.

The contribution to growth from total fixed business investment in 2015 was constrained by the contraction in oil and gas investment. While low oil prices might limit new investment in mining, the United States might be through the worst of the investment pull-back. Housing may also see a pick-up as continued employment growth spurs additional demand.<sup>1</sup>

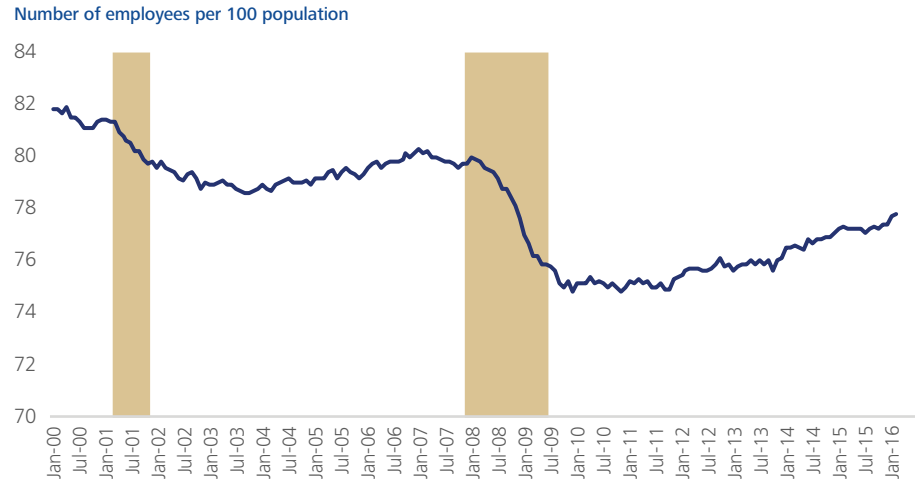
Although US unemployment, at 5.0 percent,<sup>2</sup> is low, there still remains considerable slack in the market, as captured by a variety of measures: The labor force participation rate is lower than it was going into the recession, and the number of people working part time when they want a full-time job remains elevated, as does the number of people who looked for a job in the last 12 months but are no longer looking for work.

Figure 1 shows one of the broadest measures of labor utilization: the employment/population ratio. This measure does not consider whether or not individuals are currently looking for work (the unemployed) or whether they had

Business and residential investment are two of the components with the best chance of improving in 2016 over their 2015 performance.

looked for work in the past but have stopped looking (those not in the labor force). The population in figure 1 is limited to the “prime-age” workforce (those between the ages of 25 and 54) to eliminate much of the impact of young people staying in school longer and the growing retiree population. Currently, this segment of the population is slightly smaller than it was when the recession began because of the overall aging of the US population. If the employee/population ratio continues to trend up, it suggests that employment growth has the potential to continue to drive economic

**Figure 1. Employee/population ratio, 25–54-year-olds**



Source: Bureau of Labor Statistics, March 4, 2016.  
 Graphic: Deloitte University Press | DUPress.com

growth. For example, if the employee/population ratio were 80 percent for this demographic as it was prior to the recession, rather than the current 78 percent, this would represent an additional 3.4 million employees in this segment of the population alone.

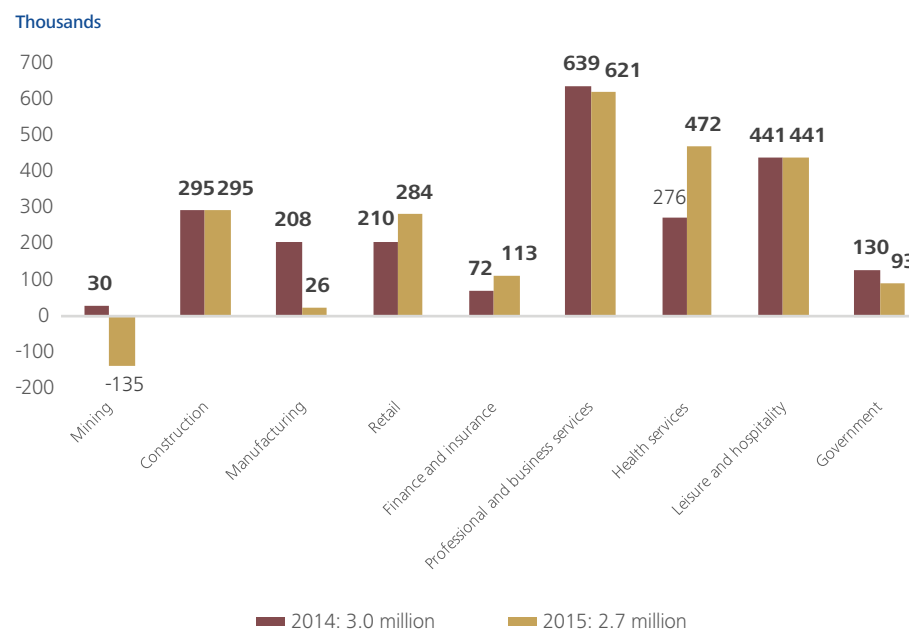
That so much slack remains in the labor market is often cited as an explanation for the slow growth in wages despite the very strong job growth experienced in 2014 and 2015. The 3.0 million and 2.7 million net new jobs created in each of those years, respectively, were the most new jobs created in a year since 1999. As shown in figure 2, the distribution of job creation among industries in 2014 was similar to that in 2015, although the proportion of new jobs created by the combination of professional and business services, health services, and leisure and hospitality increased as a proportion of total job creation from 45 percent to 56 percent from 2014 to 2015. The large decline in mining employment in 2015, which has persisted into early 2016, has reduced mining employment to where it was five years ago. With only 26,000 new jobs, in 2015, manufacturing employment saw its smallest increase by far since the recovery began—a sign of the toll the high dollar and slower world growth have taken on domestic production. In the prior five years, manufacturing employment had been growing by an average of 164,000 jobs per year.

If the employee/population ratio continues to trend up, it suggests that employment growth has the potential to continue to drive economic growth.

As shown in table 1, the distribution of wage increases also varied among industries, with the strongest gains accruing to workers in two of the lowest-paying industries. Average wages for workers in leisure and hospitality, which are 57 percent of the private sector average wage, grew 6.1 percent over the two-year period, and wages for retail employees, which are 70 percent of the private sector average wage, grew 5.3 percent. The other industry that experienced fairly substantial wage gains was professional and business services—an industry with higher-than-average wages. At the industry level, workers employed by manufacturing and health care establishments had smaller nominal increases. Underlying shifts in each industry’s average wage are undoubtedly accounted for by shifts in the occupational makeup of each group. For example, some of the slow growth in the average wages of health care workers may be explained by an increase in the number of workers in lower-paid occupations, such as home health care workers, relative to those in more highly paid occupations, such as surgeons.

Employment gains in the first quarter continue to be relatively strong, and this year should see another strong contribution from employment-driven increases in personal consumption expenditures overall. However, at some point, the US economy will not be able to sustain growth on this basis alone—it will need productivity increases to generate growth as employment growth slows to a rate more reflective of population growth. Over the last two years, overall employment has averaged 1.7 percent growth per year, even as the population aged 16 and over grew by only 1.0 percent per year. Over the same two-year period, labor productivity, measured as output per hour, increased only 0.6 percent, on average. To provide some perspective of how low that rate is, between 1995 and 2003, productivity growth averaged 2.9 percent growth per year. Without an increase in productivity, the growth potential of the US economy will be limited.

**Figure 2. Employment changes in selected industries**



Source: Bureau of Labor Statistics, April 12, 2016.

Graphic: Deloitte University Press | DUPress.com

**Table 1. Average wages in selected industries**

	2013	2014	2015	Percentage change from prior year		Percentage change, 2013 to 2015
				2014	2015	
Mining	\$30.25	\$31.35	\$31.75	3.6%	1.3%	<b>5.0%</b>
Construction	\$26.12	\$26.69	\$27.37	2.2%	2.5%	<b>4.8%</b>
Manufacturing	\$24.35	\$24.81	\$25.25	1.9%	1.8%	<b>3.7%</b>
Retail	\$16.63	\$17.00	\$17.51	2.2%	3.0%	<b>5.3%</b>
Financial services	\$30.15	\$30.76	\$31.52	2.0%	2.5%	<b>4.5%</b>
Professional and business services	\$28.55	\$29.29	\$30.09	2.6%	2.7%	<b>5.4%</b>
Health care	\$26.60	\$26.93	\$27.56	1.2%	2.3%	<b>3.6%</b>
Leisure and hospitality	\$13.50	\$13.91	\$14.32	3.0%	2.9%	<b>6.1%</b>
<b>Total private</b>	<b>\$23.96</b>	<b>\$24.47</b>	<b>\$25.03</b>	<b>2.1%</b>	<b>2.3%</b>	<b>4.5%</b>

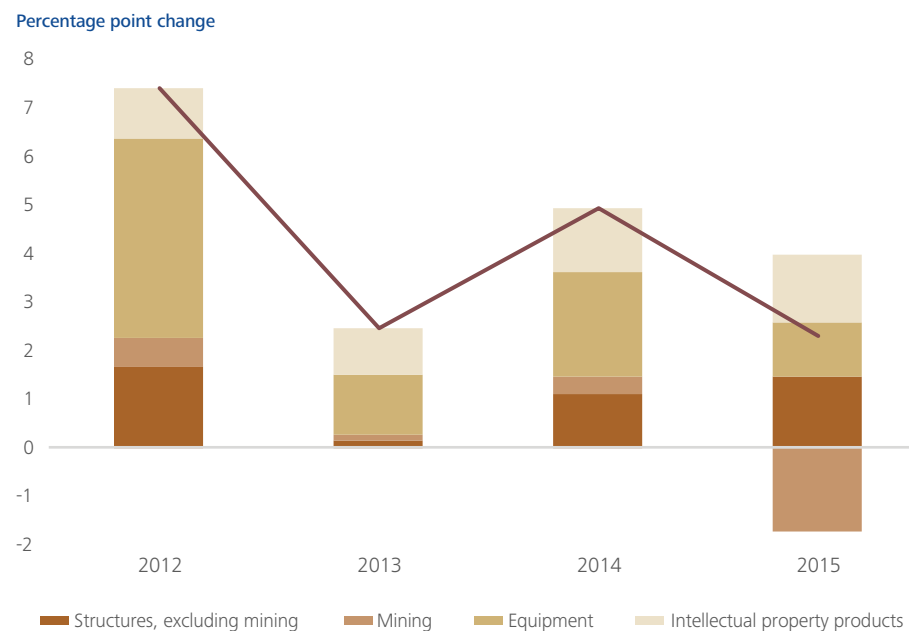
Source: Bureau of Labor Statistics, April 12, 2016.

Important avenues for the generation of productivity improvements include investment in research and development (R&D) and business investment in new software and equipment, both of which embody technological improvements. Figure 3 shows the contribution of the components of real fixed business investment to total growth between 2012 and 2015. The intellectual property (IP) component consists primarily of investment in R&D and software. Figure 3 also divides investment in structures into mining and “all other” categories. The contraction in mining was a major contributor to the slowdown in business investment in 2015. Without that drag, business investment would have increased 4.0 percent rather than 2.3 percent—stronger, but still slower than investment growth in 2012 and 2014. Investment in IP has been fairly strong over the period shown, but 2015 did see a reduction in the contribution from equipment investment—not a positive sign for the future in light of the current slow productivity growth.

The US Federal Reserve continues to exercise extreme caution, keeping rates constant in early 2016, thereby maintaining a highly accommodative monetary policy.

Of course, there are policy changes that could help improve the United States' overall productivity potential, including tax reform, immigration reform, infrastructure investments, and trade agreements. However, the odds of anything getting done in Washington in the lead-up to the November election are slim to nonexistent. Fortunately, the US Federal Reserve continues to exercise extreme caution, keeping rates constant in early 2016, thereby maintaining a highly accommodative monetary policy. The best one can hope for is that nothing happens to cause a crisis of consumer and business confidence, but that might be a challenge given the current political environment.

**Figure 3. Contributions to percentage change in real business investment**



Source: Bureau of Economic Analysis, March 25, 2016.

Graphic: Deloitte University Press | DUPress.com

**Endnotes**

1. All statistics have been sourced from the Bureau of Economic Analysis in March 2016, unless otherwise stated.
2. Bureau of Labor Statistics, April 1, 2016.

## Recovery intact, institutional turmoil ahead

By Dr. Alexander Börsch

**I**N purely economic terms, the first quarter of 2016 has been unspectacular for the Eurozone. The moderate recovery continued, following its trend of the last two years. However, monetary policy decisions by the European Central Bank showed that the economic situation is still far from normal. Also, significant internal and external risks for the Eurozone and the European Union have emerged. These include the continuing refugee crisis and the Chinese growth slowdown, though the main institutional and political risk is the possibility of a “Brexit”: the United Kingdom exiting the European Union.

### Consumers optimistic; investors and corporates less so

The consumer-led recovery in the Eurozone has continued. Household spending has been supported by various factors, especially rising employment. The unemployment rate in the Eurozone stood at 10.3 percent in January, which is one percentage point lower than last summer. Additionally, energy prices have remained low, contributing to higher spending power.

Given that EU skepticism has grown and nationalist parties are on the rise in many EU and Eurozone countries, a Brexit might serve as an example for political movements in other countries.



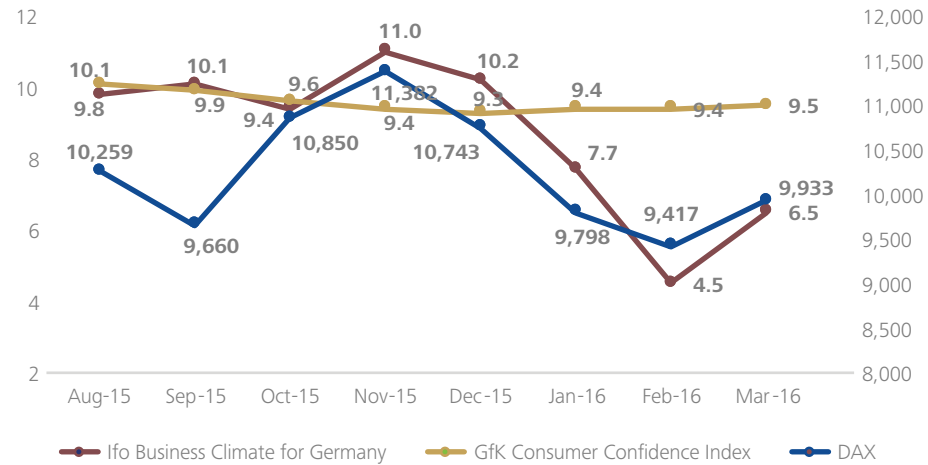


Generally, consumers are by far the most important factor of the Eurozone's growth performance and seem to be unaffected by the various risks, while corporates and investors have become very sensitive to risk. Germany is a case in point. While the DAX equity index took a dip after the Chinese stock market turbulence in January, and corporate sentiment deteriorated substantially since summer, consumers seem unaffected, and consumer sentiment remains strong (figure 1).

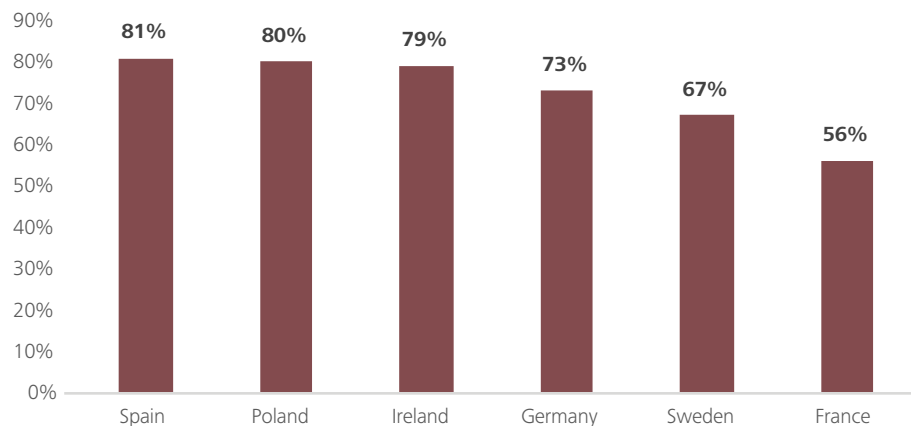
### The Brexit and the risks for the European Union

At an EU summit in late February, the United Kingdom and the European Union concluded renegotiations over the terms of British membership. The referendum on the United Kingdom's EU membership will take place in late June. Apart from the risks for the United Kingdom itself, a possible Brexit would also pose risks for the institutional stability of the European Union.

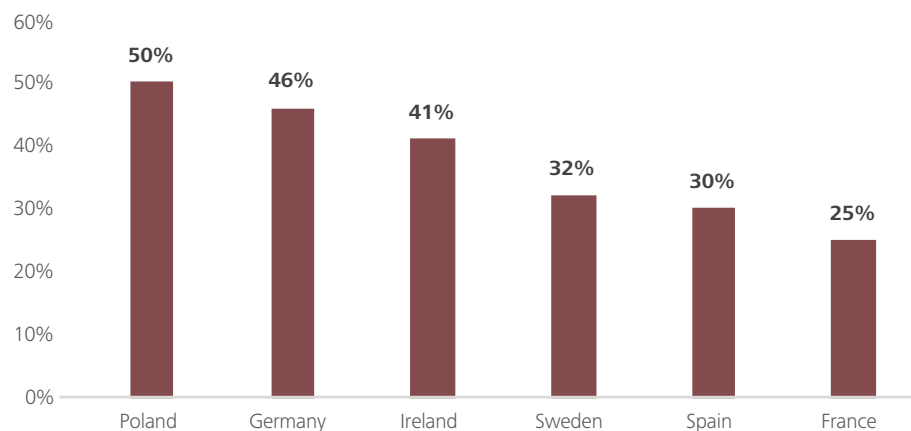
**Figure 1. Development of Ifo business climate index, DAX index, and consumer sentiment in Germany**



Source: Ifo Institute; GfK; German stock exchange.  
 Graphic: Deloitte University Press | DUPress.com

**Figure 2. Support for the United Kingdom remaining in the European Union**

Source: Jan Eichhorn, Christine Hübner, and Daniel Kenealy, *The view from the continent: What people in other member states think about the UK's EU referendum*, University of Edinburgh and AQMeN, March 2016, [https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent\\_REPORT.pdf](https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent_REPORT.pdf).

**Figure 3. Support for the United Kingdom remaining in the EU Single Market**

Source: Jan Eichhorn, Christine Hübner, and Daniel Kenealy, *The view from the continent: What people in other member states think about the UK's EU referendum*, University of Edinburgh and AQMeN, March 2016, [https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent\\_REPORT.pdf](https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent_REPORT.pdf).

While a possible Greek exit has been dominating the news for the last few years, the Brexit has received much less attention. This is strange because the United Kingdom is a prominent member of the European Union; in fact, it is the second-largest economy of the union. The United Kingdom accounts for 13 percent of the European Union's population, 10 percent of its budget, 17 percent of its GDP, and 30 percent of its equity market capitalization.

While polls in the United Kingdom indicate that the “in” and “out” camps are fairly equal in size, in the European Union, the electorate clearly favors the United Kingdom staying part of the European Union.<sup>1</sup> Research done by the University of Edinburgh in six European countries shows that at least two-thirds of respondents prefer the United Kingdom staying a member; in France, a majority shares the view, but the approval is considerably lower (figure 2).<sup>2</sup>

## The political impact of a Brexit on the European Union

The consequences of a Brexit are difficult to predict as there are no historical precedents. No state has ever withdrawn from the European Union. Only Greenland—in a political union with Denmark—left the European Union in 1985 after a referendum. The impact on the European Union as well as on the United Kingdom will hinge on how relations are structured and develop after a Brexit, especially how access to the European Single Market is organized.

Nevertheless, the political effects for the European Union could range between two scenarios. In the first scenario, the Brexit would trigger a domino effect and be the start of a wider disintegration of the European Union. Given that EU skepticism has grown and nationalist parties are on the rise in many EU and Eurozone countries, a Brexit might serve as an example for political movements in other countries. There are different

possible degrees of fragmentation. Complete disintegration is unlikely, but several more countries could leave the European Union or demand renegotiation of their terms of membership. The crucial question would be how the remaining countries react, and whether they choose to push further integration or loosen the ties among themselves.

In a second scenario at the other end of the spectrum, the Brexit might result in deeper integration of the EU 27 or the Eurozone. Such deeper integration often followed institutional crises; for example, the creation of the Single Market followed years of the so-called “euro-sclerosis,” during which the European Union seemed to be unable to take any decisive action to counter economic stagnation. In this sense, the European countries might choose to accelerate integration in the face of the threat of the European Union breaking apart.

## The impact on European firms

The political consequences are closely related to the economic ones. For European companies, the key question will be whether and how the United Kingdom is integrated into the Single Market after a Brexit. There are basically three possibilities. First, the United Kingdom could remain in the Single Market through the European Economic Area, a similar arrangement the European Union has with Norway. In this case, trading relations would not change much. Second, the European Union and the United Kingdom might conclude a free-trade arrangement similar to the EU-Switzerland agreement. Third, the United Kingdom completely drops out of the Single Market, with the likely consequence of tariffs and trade barriers being reintroduced.

While the European Union is the United Kingdom’s most important trading partner, the converse is not true, though the United Kingdom is still a significant trading partner for the Eurozone. For German exporters, for example, it is the ninth-largest export market. If tariffs are introduced, European exporters or companies with production facilities or assets

in the United Kingdom would face higher costs and declining competitiveness in the UK market.

In the case of a free-trade arrangement, exporters would face uncertainty for a considerable amount of time. The access of Swiss firms to the Single Market includes 120 treaties; a similar arrangement for the United Kingdom would take years to conclude. The option of staying in the Single Market even after a Brexit depends entirely on the willingness of the European Union. It is difficult to foresee whether the European Union would be keen on granting the United Kingdom access to the Single Market if the latter decides not to be part of the club any longer. It seems that currently, at least, popular opinion in Europe is against such an outcome (figure 3).

These political and economic scenarios and the associated risk factors indicate that the European Union could develop into a different organization after a Brexit. Any direction taken will be very important for the European Union’s economic future.

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### Endnotes

1. “Brexit poll tracker,” *Financial Times*, <https://ig.ft.com/sites/brexit-polling/>, accessed April 1, 2016.
2. Jan Eichhorn, Christine Hübner, and Daniel Kenealy, *The view from the continent: What people in other member states think about the UK’s EU referendum*, University of Edinburgh and AQMeN, March 2016, [https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent\\_REPORT.pdf](https://www.aqmen.ac.uk/sites/default/files/TheViewFromTheContinent_REPORT.pdf).

# Finding the right policy mix

Dr. Ira Kalish

Japan could probably grow faster under the right set of circumstances. Fiscal stimulus and market-opening reforms, the second and third “arrows” of Abenomics, would probably help.

## Growth

The Japanese economy contracted at an annualized rate of 1.1 percent in the fourth quarter of 2015. Real GDP has declined in five of the last nine quarters, and in two of the last three.<sup>1</sup> For all of 2015, real GDP was up only 0.4 percent from the previous year, having not grown at all in 2014. The economy is clearly not recovering in the manner that the government had hoped, especially given the massive monetary stimulus undertaken by the Bank of Japan (BOJ). Consumer spending fell at a rate of 3.4 percent, and public investment fell at a sharp rate of 12.7 percent—indicating that the fiscal stimulus component of Abenomics is not taking place. Plus, exports fell at a rate of 3.3 percent, despite the weakness of the Japanese yen. On the other hand, business investment

grew at a rate of 6.3 percent after a long period of no growth. In part, Japan is suffering through a demographic shift, as the working-age population shrinks rapidly. On a per capita basis, Japan’s economy is actually growing at a slow but more reasonable pace. However, Japan could probably grow faster under the right set of circumstances. Fiscal stimulus and market-opening reforms, the second and third “arrows” of Abenomics, would probably help. However, only the first “arrow,” monetary stimulus, has been tried in a significant way. Some observers hope that implementation of the Trans-Pacific Partnership will compel the government to address structural reform issues.



Moving into the first quarter, Japanese exports grew modestly from December to January, while imports fell, leading to an increase in the trade surplus. Yet nominal Japanese exports were down 12.9 percent from a year earlier, and imports down even more steeply, at 18 percent. Exports to China were especially poor, declining 17.5 percent from a year earlier, reflecting the weakness of the Chinese economy. Exports to the United States were down 5.3 percent, while imports from the United States were down 9.7 percent. Exports

Meanwhile, the recent rise in the yen, from about 120 yen per dollar to about 112 yen per dollar, was fueled by the flight to safety that followed global financial turbulence. If sustained, this increase could have a negative impact on export volume.

### Fiscal policy

Japanese Prime Minister Shinzo Abe recently met with two Nobel Prize-winning US economists known for favoring fiscal stimulus

the last tax increase, he will call a new election in order to obtain a voter mandate for this important shift in policy. When he postponed the tax increase last year, he said that it would not happen again, and that the tax increase set for 2017 would definitely take place. Thus a new mandate might be seen as essential to covering any political risk associated with this shift in policy. On the other hand, failure to postpone the tax increase could lead to yet another recession for Japan's fragile economy. Stiglitz and Krugman's view is that monetary policy

alone has been inadequate for boosting economic activity, and that a fiscal stimulus is needed as well—not only for Japan but for other developed economies that suffer from weak credit market activity. While this view has gained credence among economists, the International Monetary Fund, and the Organization for Economic Development, it has not been

adopted anywhere other than in Canada and, to a lesser extent, in the United States.

Still, Abe has lately reiterated his intention to go ahead with the tax increase. However, he also suggested that there is room for fiscal stimulus as well. As such, he has directed his finance minister to frontload spending planned for the new fiscal year. That would provide a

Japanese Prime Minister Shinzo Abe recently met with two Nobel Prize-winning US economists known for favoring fiscal stimulus for the Japanese economy.

to the European Union were down 3.6 percent, while imports from the European Union were up 6.0 percent.<sup>2</sup> The weakness of exports is despite the fact that the yen is now competitively priced. On the other hand, exports performed better in volume terms: The weak yen has enabled exporters to cut prices, thus boosting volume while reducing nominal revenue.

for the Japanese economy. The economists, Joseph Stiglitz and Paul Krugman, are known for being left of center compared with Abe's known conservatism. Thus Abe's decision to meet with them and publicize the meetings suggested that he might be preparing the way for a shift in fiscal policy. In addition, it has been suggested that, as he did when he postponed

temporary boost to the economy. Yet he continues to indicate an aversion to backtracking from his original pledge to go ahead with the next tax increase, a pledge he solemnly made when he postponed the last tax increase. Meanwhile, it was reported that real (inflation-adjusted) retail sales fell in January. This indicates continued weakness in the consumer sector and shows the potential danger of another tax increase.

## Negative interest rates

Not long ago, BOJ Governor Haruhiko Kuroda said that the Bank of Japan (BOJ) will not consider negative interest rates, despite continued very low inflation.<sup>3</sup> Recently, however, the BOJ implemented a policy of negative interest rates for the first time. Specifically, the benchmark interest rate was cut to -0.1 percent for new cash reserves. The rate will remain 0.1 percent for existing reserves. Thus banks that receive new deposits will have an incentive to avoid holding excess cash and, instead, to lend that money to the private sector. The bank's policy committee narrowly approved this decision by a vote of 5 to 4. Kuroda said that "through the minus interest rate combined with quantitative easing, I hope we can support companies and individuals in breaking their deflationary mindset." In addition, he said that the bank might "cut the interest rate further into negative territory if judged as necessary." Kuroda also



said that the BOJ would leave the pace of asset purchases (quantitative easing) unchanged for now. However, he indicated that the decision to cut rates did not preclude boosting the pace of asset purchases if need be. He noted that the economic slowdown in China, declining oil prices, and global financial market volatility are suppressing inflation and damaging business confidence in Japan.<sup>4</sup> He evidently hopes that negative rates will encourage a rebound in credit market activity.

The BOJ is not the first central bank to do this. The central banks of Sweden, Switzerland, and the Eurozone have all tried this recently due to the persistence of deflation or near deflation. The European Central Bank (ECB) initiated negative rates in 2014 when it started charging banks for holding cash reserves with the central bank. That action likely contributed to the acceleration of money supply growth in Europe. However, Europe continued to suffer from low inflation for a prolonged period. Investors were surprised by the BOJ's action and reacted accordingly. The yen fell sharply against the US dollar, Japanese equities soared, and equity prices in other developed countries increased following the news from Tokyo.

What exactly does a negative interest rate entail, and what impact might it have? The BOJ, like other central banks, allows commercial banks to deposit short-term cash at the central bank, and it pays those banks a modest interest rate for holding that cash. If the BOJ were to set that interest rate relatively high, it would be an incentive for banks to hold more cash with the BOJ, thus reducing the incentive to lend money to the private sector. As such, the money

Interestingly, banks are now paying zero interest on deposits. The result is that there has been a surge in sales of safes so that people can store cash at home.

creation that comes about from lending money would be inhibited. Conversely, if the BOJ wants to encourage more bank lending to the private sector, it sets the interest rate at a low level. Yet when there is virtually no inflation (or even deflation) in the economy, even a modest interest rate can seem high in real terms. Thus some central banks choose to set the rate at a negative level in order to encourage more credit

creation. This entails requiring that commercial banks actually pay for the privilege of depositing cash with the BOJ. Other central banks that have done this include the ECB and the central banks of Switzerland and Denmark. The latter two banks have set rates at -0.75 and -1.1 percent, respectively.

Currently, the BOJ is struggling to kick-start credit creation in order to boost inflation and to stimulate economic activity. One problem is that, although banks may be willing to lend at very low interest rates, many businesses are reluctant to borrow for fear that deflation will kill the return on any new investment projects. Thus the BOJ is eager to boost expectations of inflation so that businesses feel comfortable investing in new projects. Yet despite two years of massive asset purchases (quantitative easing), expectations have barely budged. Indeed, they have declined due to the impact of declining energy prices. Now, with negative rates, the BOJ is looking for a new tool to boost expectations of inflation.

The implementation of negative interest rates is creating concerns. The program involves charging commercial banks for holding cash reserves with the central bank. The idea is to discourage them from holding excess cash



reserves and to encourage them to lend money to the private sector. However, banks must still hold some cash reserves. If they pay a positive interest rate on their deposits, then they lose money on part of their deposits. If, however, they charge individuals to deposit money with them (offer negative rates on deposits), they risk losing deposits as individuals might choose to hold physical cash at home. Interestingly, banks are now paying zero interest on deposits. The result is that there has been a surge in sales of safes so that people can store cash at home. Also, even if banks offer to lend more to businesses at low interest rates, it is not clear that businesses will want to borrow more unless they are convinced that inflation will rebound and demand will improve. Thus the risk exists that negative interest rates will simply hurt bank profitability without doing much to stimulate credit market activity.

## Bond yields

Recently, the yield on Japanese 10-year government bonds fell below 0 percent for the first time ever. Indeed this is one of the few 10-year bonds for any country to have a yield below zero. Switzerland's 10-year bond has a negative yield, but Switzerland has significant deflation. Many lower-maturity bonds in several countries now have negative yields. This includes the two- and five-year bonds for both Germany and Japan. Why did Japan's 10-year bond yield fall so far? First, the global financial volatility and uncertainty led to a flight to safety, and Japanese bonds are seen as exceptionally safe. Second, lower oil prices have suppressed expectations of inflation in Japan and elsewhere, despite aggressive monetary policy. Third, the BOJ's decision to impose negative short-term rates means that investors are looking elsewhere to park their

funds. Plus, negative policy rates have hurt shares in banks, with investors selling shares and purchasing sovereign bonds. For sovereign debtors, there has never been a better time to borrow money—which leads to the question of fiscal policy. Given the stagnant global economy, now would likely be a good time for governments to issue new bonds to finance infrastructure and other forms of investments.

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### Endnotes

1. Cabinet Office, Government of Japan, "Quarterly estimates of GDP: Oct.–Dec. 2015 (the 2nd preliminary)," [http://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2015/qe154\\_2/gdemenua.html](http://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2015/qe154_2/gdemenua.html), accessed April 2, 2016.
2. Ministry of Finance Japan, "General trade statistics," <http://www.customs.go.jp/toukei/srch/indexe.htm>, accessed April 2, 2016.
3. Leika Kihara, "BOJ's Kuroda says no plan to adopt negative rates now," *Reuters*, January 21, 2016, <http://www.reuters.com/article/us-japan-economy-boj-idUSKCN0UZ0AN>.
4. Robin Harding, Sam Fleming, and Claire Jones, "Japan joins negative rates club," *Financial Times*, January 29, 2016, <http://www.ft.com/intl/cms/s/2/23ff8798-c63c-11e5-b3b1-7b2481276e45.html#axzz44brAsNy1>.

# It's going to be all about consumption

By Dr. Rumki Majumdar

**T**HE Indian economy has shown immense resilience in the face of the global economic slowdown and rising uncertainty in the global financial world. The country, a significant proportion of whose population depends on agriculture for employment and livelihood, also had to withstand drought for two consecutive years. Despite these setbacks, India has maintained strong macroeconomic fundamentals, although a part of the credit goes to falling international crude oil prices. The economy is expected to grow 7.5 percent in the fiscal year (FY) 2015–16 (April 2015–March 2016), in contrast to the estimated average global growth of 3.1 percent in the calendar year 2015.<sup>1</sup> Consequently, credit rating agencies assigned a “stable” outlook for India; a few even view the outlook as “positive.”<sup>2</sup>

The government presented its third budget for FY 2016–17; it is pro-development and pro-reforms, and

it primarily focuses on India's rural sector. After the much-needed emphasis on investment in infrastructure and in the manufacturing sector in the past two budgets, the government focused on stimulating rural demand, which is expected to, in turn, sustain domestic demand. At the same time, the government committed to containing the fiscal deficit to 3.5 percent of GDP in FY 2016–17, down from its estimate of 3.9 percent in FY 2015–16, without significantly compromising on its capital expenditure plans.

Overall, the fiscally prudent budget is expected to provide the desired thrust to economic growth by tending to the core of the economy. With improving fundamentals and strengthening urban demand, this might be a good time for India to unleash the potential of its rural sector to embark on a sustainable growth path.



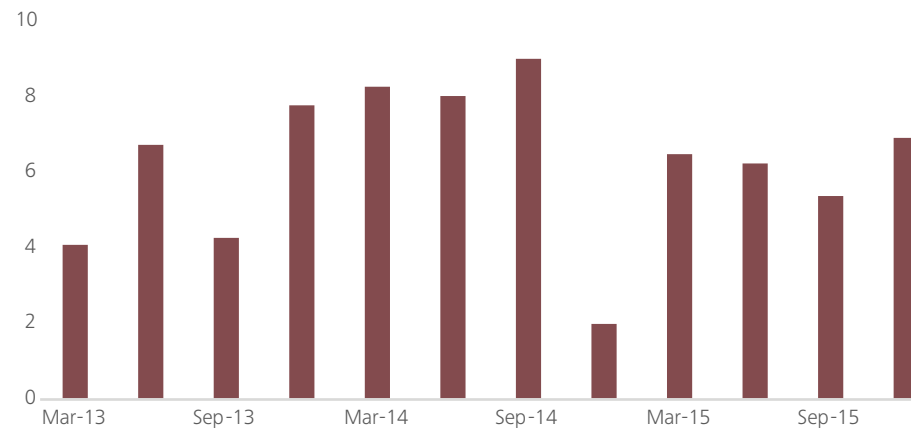
## Consumption to drive growth

It is expected that growth will be driven by consumption in the coming years. Supported by falling oil prices, easing credit conditions, and growing income among the middle-income class, urban demand is probably already seeing an uptick (figure 1). The recent rise in retail loans, car sales, and consumer durables probably indicates that consumption demand growth is improving and will likely get another boost after the implementation of the Seventh Central Pay Commission during FY 2016–17.

In this year's budget, the government aims to buoy domestic demand through proposed spending on the rural and social sectors, such as farm loan interest subsidies, crop insurance, and health insurance schemes for farmers. The budget also includes measures such as improving various rural job schemes and encouraging diversification into dairies, fisheries, and horticulture, which are expected to help farmers earn higher income. The prime minister pledged to double the income of farmers by 2022, to mark India's 75 years of independence.<sup>3</sup>

**Figure 1. Consumption expenditure on a strong footing**

Percentage, year over year

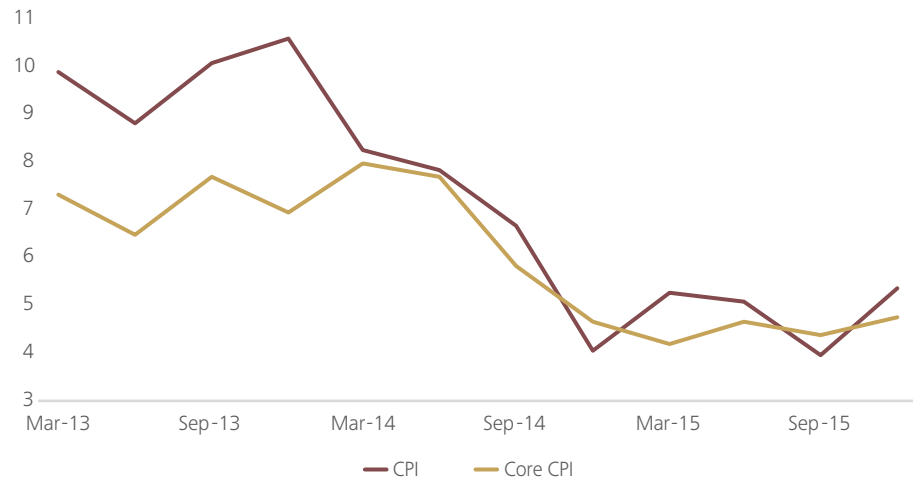


Source: Central Statistics Office; Haver Analytics, March 2016.

Graphic: Deloitte University Press | DUPress.com

**Figure 2. Prices are falling consistently**

Percentage, year over year



Source: Ministry of Statistics and Programme Implementation; Haver Analytics, March 2016.

Graphic: Deloitte University Press | DUPress.com

The prime minister pledged to double the income of farmers by 2022, to mark India's 75 years of independence.

At the same time, the government has committed to increasing spending on rural infrastructure, including irrigation facilities and roads, expanding market access, and improving processing of farm produce. These measures will likely improve capacity building at the grassroots level, thereby alleviating poverty and creating assets in rural areas. The resulting demand boost will likely sustain domestic demand over the longer term.

### Factors that may boost consumption

India has had tremendous success in bringing down inflation to levels not seen in the past 10 years. The decline in prices (figure 2) is due to a combination of factors such as falling international commodity prices, especially global crude oil prices, a favorable base effect, and, lately, a slowdown in rising food prices. Core inflation, which is the net of energy and fuel prices (which fluctuate highly) and is considered to be an indicator of the demand-driven price rise, also has been modest in the past year. Overall, the inflation rate has remained below the Reserve Bank of India's (RBI's) target range and is expected to remain so, which will likely improve spending as consumers have more money to spend on goods and services.

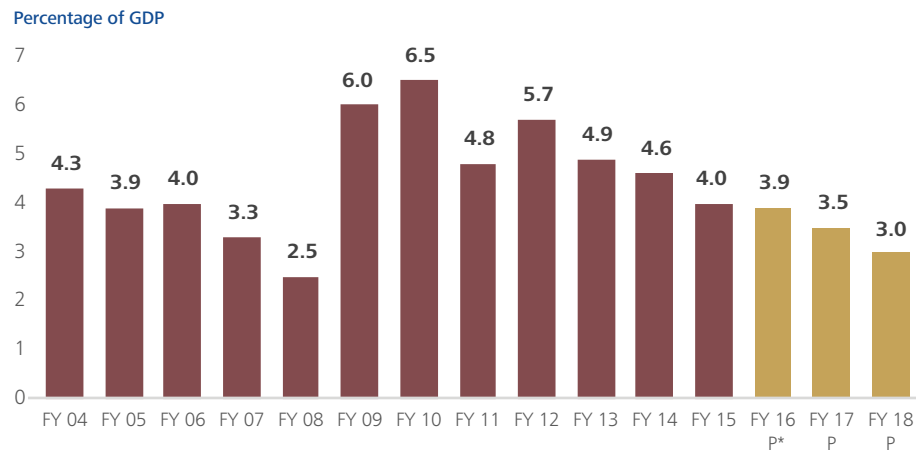
In this budget, the government emphasized fiscal consolidation by targeting a lower fiscal deficit of 3.5 percent of GDP in FY 2016–17, which is in line with its fiscal road map (figure 3). This has allayed investors' fears of a second successive relaxation of fiscal deficit targets. The government has also shown restraint around spending. At the same time, asset sales and higher tax collection (primarily coming from excise taxes) will likely improve government revenues.

The RBI governor called the budget “fiscally prudent.”<sup>4</sup> The government’s adherence to its fiscal road map together with falling prices have led the RBI to cut rates in the latest monetary policy meeting, as well as effect measures to ease the liquidity constraints in the banking sector. These measures are expected to ease credit conditions in the economy. There are arguments that rate cuts by the RBI have only been partially transmitted to consumers, and thus further rate cuts may not spur bank lending. Lately, a few prominent public sector banks

have started cutting both lending and deposit rates. With measures announced by the RBI on May 5, 2016, such as reducing the minimum daily requirement of banks’ cash reserve ratio and narrowing the policy rate corridor (measured as the difference between the marginal standing facility rate and reverse repo rate), more banks may be willing to lend to consumers and provide much-needed stimulus to consumption expenditure. This bodes well for the consumer and industrial sectors.

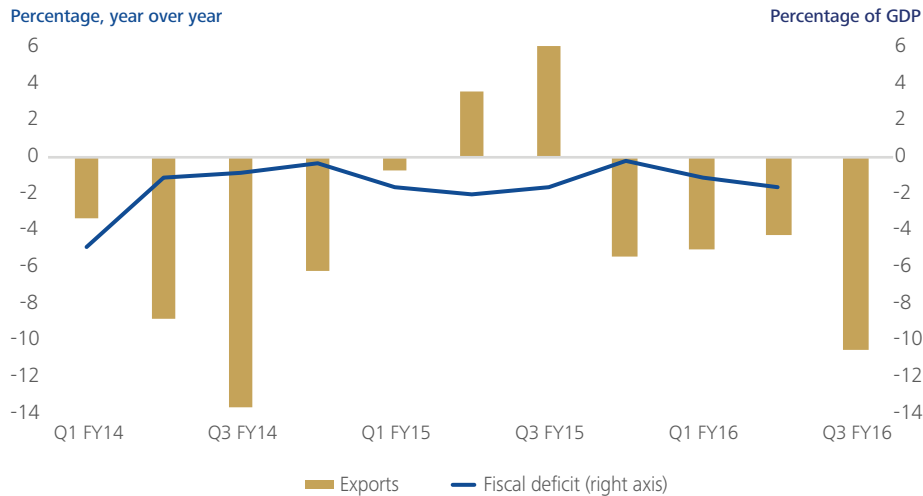


**Figure 3. Fiscal deficit path**



\* Projected.

Source: Labor Bureau of India; Haver Analytics, March 2016.

**Figure 4. Exports contracting, but current account deficit within target range**

Source: Reserve Bank of India; Haver Analytics, March 2016.

Graphic: Deloitte University Press | DUPress.com

## Downside risks to demand

Global demand has been slowing, posing risks to the economy through channels such as reduced exports and cross-border investments. Exports have been declining for 14 consecutive months owing to slower growth in world trade and a real appreciation of the Indian rupee against its basket of currencies; this decline will likely continue to hinder growth in the near future. Falling exports have impacted corporate earnings as well as revenue of the highly labor-intensive small-scale enterprises that export engineering goods. That said, the current account deficit is at a comfortable level and is expected to remain so going forward (figure 4).

At the same time, rising global uncertainty has reduced the risk appetite of investors, who are gradually withdrawing capital from emerging markets and investing in safer havens, such as US bonds. The Indian capital market has lately seen a flight of institutional investments due to a combination of factors such as the economic slowdown in China and the United States, falling international crude oil prices, the US Federal Reserve rate hike, and rising uncertainty due to the increasing possibility of the United Kingdom's exit from the European Union (often referred to as "Brexit"). Coupled with

Rising nonperforming assets and poor profitability have increased risk to the Indian banking sector.

global factors, several domestic elements such as falling corporate earnings, poor industrial production growth, and the slow pace of reforms are diminishing investors' confidence.

Rising nonperforming assets and poor profitability have increased risk to the Indian banking sector. Banks are under stress due to their deteriorating balance sheets, which is impacting their ability to lend and, thereby, credit conditions in the economy. In this budget, the government has allocated funds for bank recapitalization. However, it has also emphasized the need for merger and consolidation, as well as governance reforms for banks to clean up their balance sheets. That said, rising stressed assets pose risks to the Indian financial sector's stability.

Regulatory impediments and uncertainties in the tax environment continue to be major

concerns. The government's slow progress in implementing institutional reforms is frustrating investors, who are awaiting the removal of structural bottlenecks before they jump-start investment. Slow progress in goods and services tax and corporate tax rationalization are a few such bottlenecks that may influence capital investment growth by the private sector.

Since Q2 FY 2014–15, growth in private consumption expenditure has moderated. The government's conscious efforts to improve agricultural income and stimulate rural demand are likely to complement urban consumption expenditure and ensure sustained economic growth for a longer period. The impact of the budget measures on rural consumption demand will probably be seen from the third quarter of this fiscal year. However, a lot will also depend on how the monsoon is this year.

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## Endnotes

1. International Monetary Fund, *World economic outlook update*, January 19, 2016, <https://www.imf.org/external/pubs/ft/weo/2016/update/01/pdf/0116.pdf>.
2. "India's 2016-17 budget 'in line' with current rating: Moody's analyst," *Businessworld*, March 2, 2016, <http://businessworld.in/article/India-s-2016-17-Budget-In-Line-With-Current-Rating-Moody-s-Analyst/02-03-2016-91579/>; Pooja Mehra, "Fitch Ratings affirms India's sovereign rating at 'BBB-', outlook 'stable,'" *Hindu*, December 5, 2015, <http://www.thehindu.com/business/Economy/fitch-ratings-affirms-indias-sovereign-rating-at-bbb-outlook-stable/article7958586.ece>.
3. Omar Rashid, "Will double farm income by 2022: PM," *Hindu*, February 29, 2016, <http://www.thehindu.com/news/national/will-double-farm-income-by-2022-pm/article8293327.ece>.
4. Reuters, "RBI governor Raghuram Rajan says government's budget 'fiscally prudent,'" *Economic Times*, March 12, 2016, [http://articles.economicstimes.indiatimes.com/2016-03-12/news/71447152\\_1\\_rbi-governor-raghuram-rajan-central-bank-fiscal-prudence](http://articles.economicstimes.indiatimes.com/2016-03-12/news/71447152_1_rbi-governor-raghuram-rajan-central-bank-fiscal-prudence).

## In austere times

By Lester Gunnion

**R**USSIA'S economy is deep in recession. The contraction in real GDP in 2015 is likely to continue in 2016. The primary determinant of the depth of Russia's recession will be oil prices, given the country's heavy

dependence on the export of oil as a source of income and subsequent funding. Though oil prices have recovered since mid-January 2016 (as of March 22, 2016), they remain below the levels required to balance Russia's budget. The shortfall in revenue continues to result in a drawing down of Russia's foreign exchange reserves and will likely force further cuts in expenditure. This could impact domestic consumption and invest-

ment. Furthermore, even though monetary policy has been eased through 2015, interest rates remain relatively high due to the high risk of an acceleration in inflation

stemming from the likelihood of persistently low oil prices and a weak ruble. Reduced social services expenditure, falling real wages, and tight monetary conditions are likely to result in Russia's working-class consumers and pensioners bearing the brunt of the recession.

### Russia's fiscal squeeze is likely to tighten

Russia's economic dependence on hydrocarbons is stark—crude oil and petroleum products account for nearly half of Russia's total export revenue (figure 1).<sup>1</sup> More importantly, almost half of Russia's federal budget revenue is in the form of tax on the sale of oil and gas.<sup>2</sup> In fact, it is estimated that close to 70 percent of the country's GDP is directly or indirectly dependent on oil.<sup>3</sup> Russia's budget for last year was based on the assumption that oil would average \$80 a barrel in 2015. This was later revised down to \$60 a barrel.

Russia's budgetary shortfall could swell closer to 6.0 percent of GDP.





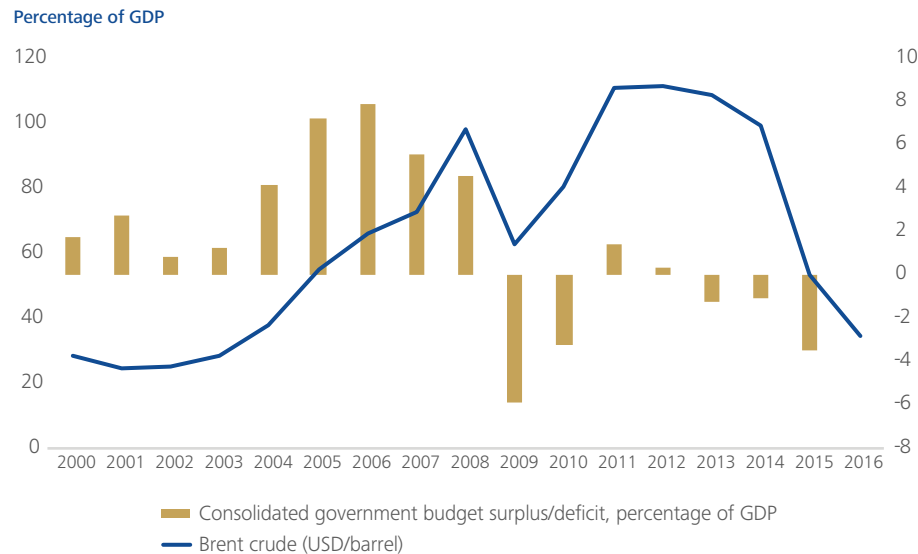


However, oil averaged approximately \$54 per barrel in 2015, resulting in a federal budget deficit of 2.6 percent of GDP (2.8 trillion Russian rubles), up from 0.4 percent of GDP in the previous year.<sup>4</sup> In fact, the budget deficit could deteriorate further, given that Russia’s budget for 2016 assumes oil will hold at \$50 a barrel. On the contrary, even though the price of Brent crude has risen since mid-January, it averages only \$35 per barrel thus far (as of March 22, 2016). Moreover, the US Energy Information Administration forecasts that Brent crude will

average \$34 per barrel in 2016, \$20 below the average price in the previous year.<sup>5</sup> In such a situation, Russia’s budgetary shortfall could swell closer to 6.0 percent of GDP.<sup>6</sup>

Lower oil prices, however, result in a weaker ruble (figure 2). This translates into more rubles in revenue per dollar of crude oil sold. However, currency markets take their cue from Brent crude. Russia, on the other hand, sells Urals crude. And while Urals crude is usually priced \$2–3 below Brent, this gap could widen without compensation in the form of a weaker

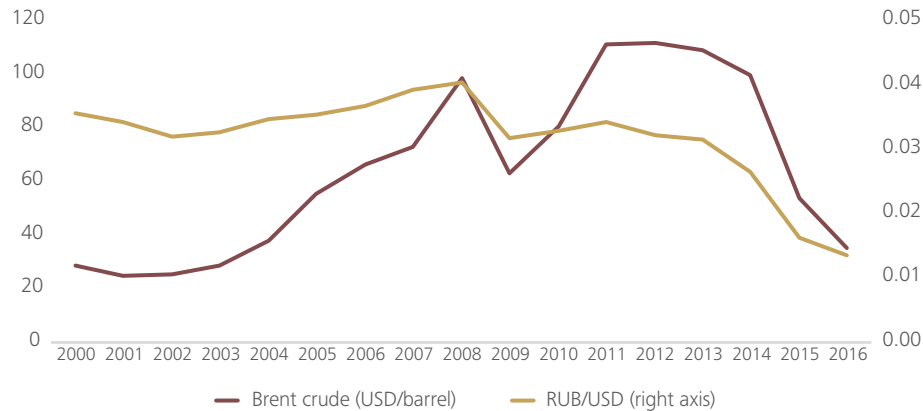
**Figure 1. Russia’s consolidated government budget surplus/deficit**



Source: Federal Treasury of the Russian Federation/Haver Analytics; Bloomberg; Deloitte Services LP economic analysis.

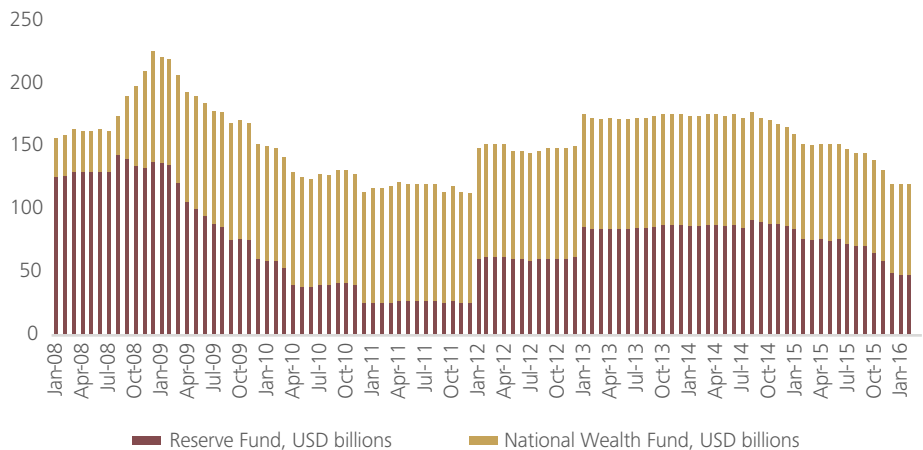
Graphic: Deloitte University Press | DUPress.com

**Figure 2. Declining crude oil prices and the falling ruble**



Source: Bloomberg; Deloitte Services LP economic analysis.  
Graphic: Deloitte University Press | DUPress.com

**Figure 3. Russia’s sovereign wealth funds have been declining**



Source: Ministry of Finance of the Russian Federation/Haver Analytics; Deloitte Services LP economic analysis.  
Graphic: Deloitte University Press | DUPress.com

ruble. Downward pressure on Russia’s crude oil price is likely to stem from competition for market share with Saudi Arabia, Venezuela, Iraq, and, most recently, Iran. The provisional deal between Russia and Saudi Arabia to “freeze” production at January levels is likely to be inconsequential if all the big producers do not join in. Iran, in particular, is keen to ramp up production to pre-embargo levels. In fact, both Russia and Saudi Arabia increased production in February 2016 despite their agreement a month earlier.<sup>7</sup> Any agreement between major producers to freeze production at current levels, which are already high, is unlikely to raise oil prices significantly. Furthermore, efficiency gains in US shale production could result in increased US production volumes even while crude oil prices remain low. Given the dynamics of the oil market, Russia is likely to face an uphill task in reining in the budget shortfall in 2016.

The numbers, however, are not particularly menacing—a federal budget deficit under 3.0 percent of GDP and total government debt under 10 percent of GDP.<sup>8</sup> However, funding the shortfall is where the problem lies. The Reserve Fund is one of Russia’s two buffer funds (the other being the National Wealth Fund) built from increased revenue during periods of high oil prices. The primary purpose of the Reserve Fund is to finance budget deficits during periods of suppressed energy prices, but the rate at which the fund is being drawn is alarming—a 41 percent drop in February 2016 from the same period a year ago.<sup>9</sup> If Russia runs a similar budget deficit for the next two years, the Reserve Fund could well be exhausted within that period. In fact, at the current rate of expenditure, both the Reserve Fund and the National Wealth Fund could be exhausted by 2019.<sup>10</sup> As of February 2016, Russia’s foreign exchange reserves stand at \$313.5 billion—this includes almost all of the sovereign wealth funds (figure 3), with the exception of long-term illiquid assets and ruble-denominated assets of the National Wealth Fund. A less grave view is that Russia’s government assets would be exhausted in a little less than three-and-a-half years (at projected budget deficits).<sup>11</sup> Of course, Russia’s foreign exchange reserves are far

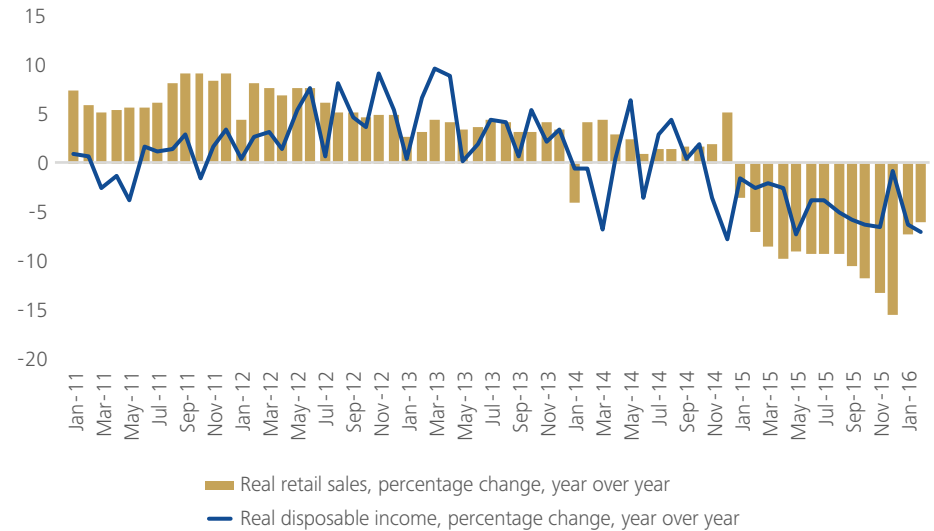
healthier than in the wake of the financial crisis of 1998–99, and sovereign debt is much lower, but oil prices are highly unlikely to climb the way they did between 1999 and 2008.

### Expenditure likely to be cut, and working class and pensioners to be affected

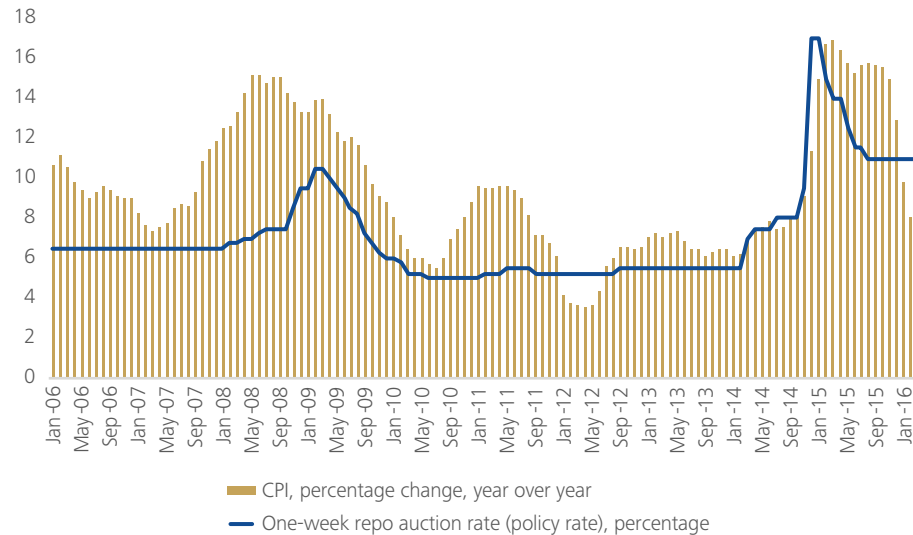
Russia will likely have to reduce expenditure if it is to keep budget deficit within 3.0 percent of GDP in 2016. An overall expenditure cut of 10 percent has already been proposed. This follows a 10 percent reduction in 2015. In fact, it is likely that even military spending, which has been left untouched thus far, will be cut in 2016, despite Russia being in the midst of a rearmament plan. Spending on health care, education, social security, and pensions are likely to be subject to downward revision. This would impact Russia’s working class and its aging population. The official unemployment figure of 5.8 percent is likely misleading as firms usually reduce hours of work or hold back wages instead of dismissing employees—a measure used to conform to official targets and maintain social calm. Year-over-year growth in real disposable income has been in negative territory for the last 16 months.<sup>12</sup> Wage arrears are on the rise, and retail sales have declined year over year for every month since the beginning of 2015 (figure 4).<sup>13</sup>

Moreover, the burden is growing, particularly in Russia’s regional administrations, which were entrusted with a large portion of social spending by the federal government four years ago to keep federal balance sheets healthy. As revenue streams dry up, and the federal government puts the brakes on expenditure, regional administrations carry the burden of reducing social services spending and limiting wage growth in an environment of rising prices. While the federal government has foreign exchange reserves to fall back on, the regional administrations have no buffer apart from the federal government. This could mean a quicker draining of Russia’s sovereign wealth funds. The alternative for regional

Figure 4. Russia’s consumption slump



Source: Federal State Statistics Service/Haver Analytics; Bloomberg; Deloitte Services LP economic analysis.  
Graphic: Deloitte University Press | DUPress.com

**Figure 5. Russia's monetary policy is likely to remain tight**

Source: Central Bank of Russia/Federal State Statistics Service/Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

administrations is to borrow at hefty commercial rates. Russia's aging population is also likely to be affected. State pensions were deindexed from inflation in 2016, a loss in real terms.<sup>14</sup> This is significant, considering that almost 30 percent of Russia's population comprises pensioners.<sup>15</sup>

### Monetary policy is likely to stay tight

Against a negative economic backdrop, the Bank of Russia's (BOR's) monetary policy has been a relatively positive aspect. The BOR's decision to switch to a free-floating, inflation-targeting regime in November 2014, a few months ahead of schedule, has had its advantages, particularly in the form of curtailing sudden drops in the value of the ruble due to speculation and cushioning of the ruble-denominated loss from oil exports. Additionally, by not intervening to defend the ruble, the BOR does not deplete the foreign exchange reserves necessary for fiscal measures.

However, interest rates are likely to remain high. In its most recent meeting (March 18, 2016), the BOR decided to hold its policy rate steady at 11 percent (down from a high of 17 percent in December 2014).<sup>16</sup> While the policy rate was cut through 2015 due to a moderation in inflation and greater stability of the ruble (figure 5), the risk of inflation in 2016 remains

Initiating and fostering an economic environment of competition will likely have long-term benefits for Russia's economy. Recent plans to privatize state-owned enterprises, though a desperate measure to raise money, are a step in the right direction.

high. This is because oil remains well below its average price through 2015, with further declines still a possibility. This would mean further weakening of the ruble, higher prices, and, probably, higher interest rates. Another factor that could exert downward pressure on the ruble and stoke inflation is Russia's plan to rebuild foreign exchange reserves by using rubles to buy foreign currency. Though this is a relatively long-term plan spanning five to seven years, it is likely to contribute to a weakening of the domestic currency.

## Russia is likely to experience another year of contraction

Russia's economic outlook for 2016 is looking bleak. The economy contracted 3.7 percent in 2015 and is likely to contract further in 2016, though not by the same degree (due to base effects). Estimates point to a likely contraction of 1.5 percent.<sup>17</sup> The price of oil, which is expected to remain lower in 2016 than in 2015, will be the deciding factor behind the country's economic performance. Maintaining fiscal discipline will likely stand Russia in good stead if oil prices dip further than expected. The

short-term economic outlook is paltry; careful planning is required if Russia is to restructure its economy in the long term. Specifically, initiating and fostering an economic environment of competition will likely have long-term benefits for Russia's economy. Recent plans to privatize state-owned enterprises, though a desperate measure to raise money, are a step in the right direction.<sup>18</sup> If Russia can chalk out an economic framework that allows for meaningful private competition, it can likely steer away from its dependency on the price of its hydrocarbon resources, something it has little control over.

### Endnotes

1. Central Bank of the Russian Federation/Haver Analytics, "Russia: Exports of major commodities, millions of US\$, year-to-date, monthly, NSA," accessed March 23, 2016.
2. Central Bank of the Russian Federation/Haver Analytics, "Russia: Public sector finance, billions of rubles, year-to-date, monthly, NSA," accessed March 23, 2016.
3. Andrey Movchan, *Just an oil company? The true extent of Russia's dependency on oil and gas*, Carnegie Moscow Center, September 14, 2015, <http://carnegie.ru/publications/?fa=61272>.
4. TASS, "Russia's budget deficit in 2015 totals 2.6% of GDP—finance minister," January 13, 2016, <http://tass.ru/en/economy/849109>; Federal Treasury of the Russian Federation/Haver Analytics, "Russia: Public sector finance, federal government surplus/deficit as a % of GDP," accessed March 23, 2016.
5. US Energy Information Administration, "Short-term energy outlook (STEO)," March 2016, [http://www.eia.gov/forecasts/steo/pdf/steo\\_full.pdf](http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf).
6. Olga Tanas and Anna Andrianova, "Kudrin says Russia can draw on well of social calm for two years," *Bloomberg Business*, January 22, 2016, <http://www.bloomberg.com/news/articles/2016-01-22/kudrin-says-russia-can-draw-on-well-of-social-calm-for-two-years>.
7. Ivana Kottasova, "What oil freeze? Saudi Arabia and Russia pump more," *CNN Money*, March 14, 2016, <http://money.cnn.com/2016/03/14/news/oil-prices-opec-saudi-arabia-russia/>.
8. Federal Treasury of the Russian Federation/Haver Analytics, "Russia: Public sector finance, federal government surplus/deficit as a % of GDP," accessed March 23, 2016; Central Bank of the Russian Federation/Haver Analytics, "Russia: Federal government debt as a % of SAAR GDP," accessed March 23, 2016.
9. Ministry of Finance of the Russian Federation/Haver Analytics, "Russia: Reserve fund, EOP, billions of US\$," accessed March 23, 2016.
10. Sputnik International, "Russia may deplete reserve, national welfare funds by 2019," December 23, 2015, <http://sputniknews.com/business/20151223/1032219375/russia-budget-reserve-fund.html>.
11. Mark Whitehouse, "How Putin is surviving lost oil revenue," *Bloomberg View*, February 22, 2016, <http://www.bloombergvew.com/articles/2016-02-22/how-putin-is-surviving-lost-oil-revenue>.
12. Federal State Statistics Service/Haver Analytics, "Russia: Real disposable income, monthly, NSA, % change y-o-y," accessed March 23, 2016.
13. Federal State Statistics Service/Haver Analytics, "Russia: Wage arrears outstanding, billions of rubles, monthly, EOP, SA, % change y-o-y," accessed March 23, 2016; *Bloomberg*, "Real retail sales, RURSRYOY," accessed March 23, 2016.
14. Mark Mackinnon, "The world is Vladimir Putin's stage, but cracks appear on the Russian president's homefront," *Globe and Mail*, March 6, 2016, <http://www.theglobeandmail.com/news/world/the-world-is-vladimir-putins-stage-but-cracks-appear-on-the-russian-presidents-homefront/article29044963/>.
15. Federal State Statistics Service/Haver Analytics, "Russia: Population/demographics," accessed March 23, 2016.
16. Central Bank of the Russian Federation (Bank of Russia), "The Bank of Russia has retained its key rate at 11.00% p.a.," March 18, 2016, [http://www.cbr.ru/eng/press/pr.aspx?file=18032016\\_133000eng\\_keyrate2016-03-18T13\\_23\\_09.htm](http://www.cbr.ru/eng/press/pr.aspx?file=18032016_133000eng_keyrate2016-03-18T13_23_09.htm).
17. Bloomberg, "Composite median GDP forecast," accessed March 25, 2016.
18. Jason Bush and Richard Balmforth, "Russia eyes trillion rubles from privatization in 2016: Finance minister," *Reuters*, December 31, 2015, <http://www.reuters.com/article/us-russia-privatisation-idUSKBN0UE0OV20151231>.

# Yearning for the good times

By Akur Barua

**L**AST year was perhaps one of the toughest for Brazil's economy since the early 1990s. The economy contracted sharply, even as political challenges prevented much-needed pragmatism in economic policy. Investigations into a widening bribery scandal have ensnared some of the country's highest political leaders. The resulting political conflict thwarted attempts to deal with a high fiscal deficit as well as rising debt and debt-servicing costs. Inflation showed no sign of retreating despite tight monetary policy. All these led to concerns about fiscal dominance: a phenomenon where inflation no longer responds to monetary policy but depends more on fiscal policy. The economy, however, still had something to cheer about. Exports recovered strongly in Q4 2015, providing much-needed succor at a time when high inflation and rising unemployment weighed down one of the key growth drivers, household spending.

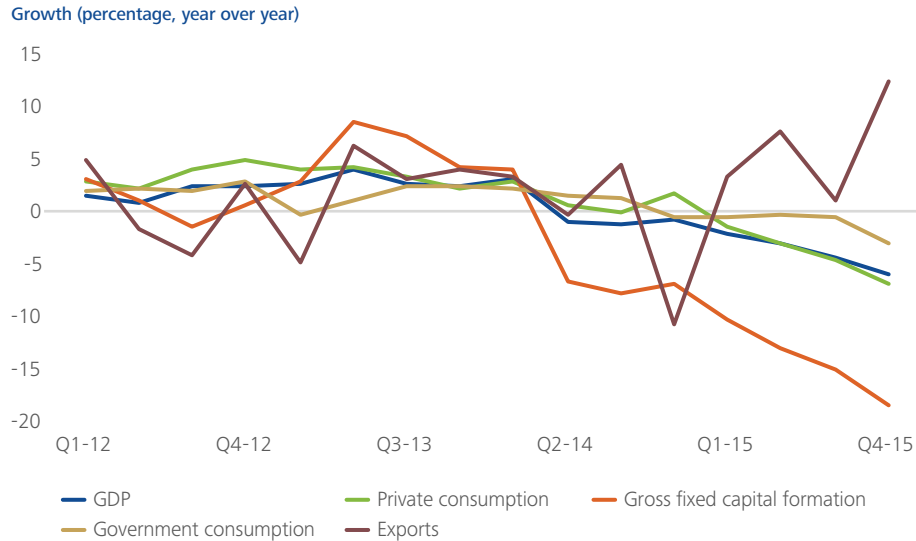
## A contraction yet again in Q4

Real GDP contracted 5.9 percent year over year in Q4 2015, worsening from the 4.5 percent decline in Q3 (figure 1). This was the sharpest contraction in a quarter since the early 1990s, when Brazil was still finding its way out of hyperinflation. Real GDP has now fallen by 7.2 percent since Q1 2014. Both private consumption and investments suffered in Q4 2015. While private consumption contracted 6.8 percent in the quarter, gross fixed capital formation fell 18.5 percent. With government finances in poor shape, it was no surprise that government consumption also fell 2.9 percent in Q4. Overall, final domestic demand fell 8.3 percent, perhaps highlighting how hard it will be for policymakers to revive the economy. Amid all this gloom, there was one bit of positive news though: Exports expanded 12.6 percent, the fastest pace of expansion since Q4 2010.





**Figure 1. A sharp contraction in domestic demand dragged down GDP by 5.9 percent in Q4**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

## It won't be easy for exports to lead the recovery

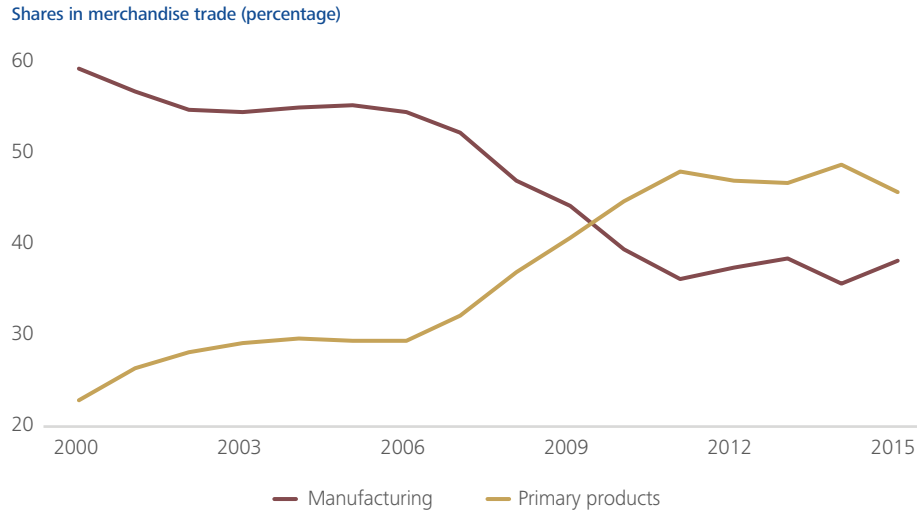
Brazil's exports have changed greatly in the last 15 years. Faced with high demand from fast-growing Asia (primarily China) amid a commodity boom, Brazil turned its attention to commodities in early 2000. As a result, manufacturing exports have suffered over the years. In 2000, for example, manufacturing accounted for 59.1 percent of Brazil's merchandise exports (in US dollars); by 2015, that share had declined to 38.1 percent. Commodities were, of course, the big beneficiary (figure 2). With Asia eager for Brazil's commodities, the region's share in Brazil's exports shot up between 2000 and 2015 (figure 3).

Turning toward Asia is a step in the right direction for Brazil, given the former's ascendancy in the global economy.<sup>1</sup> But with commodities a key export to Asia, Brazil is vulnerable to the fluctuations in the global commodities market—as it is painfully finding out.

Is the current commodities downturn a good opportunity for Brazil to revive manufacturing competitiveness? And will a weak Brazilian real aid this process? The answer is likely yes. In recent months, the weak real has indeed come to the aid of Brazil's exports. The currency has lost 41.1 percent against the US dollar since December 2013 (figure 4). Depreciation isn't restricted to the nominal value of the real. According to the International Monetary Fund, Brazil's real effective exchange rate also declined (by 18.7 percent) during this period.<sup>2</sup> It is no wonder, then, that export volumes from Brazil have been growing (year over year) since December 2014.<sup>3</sup>

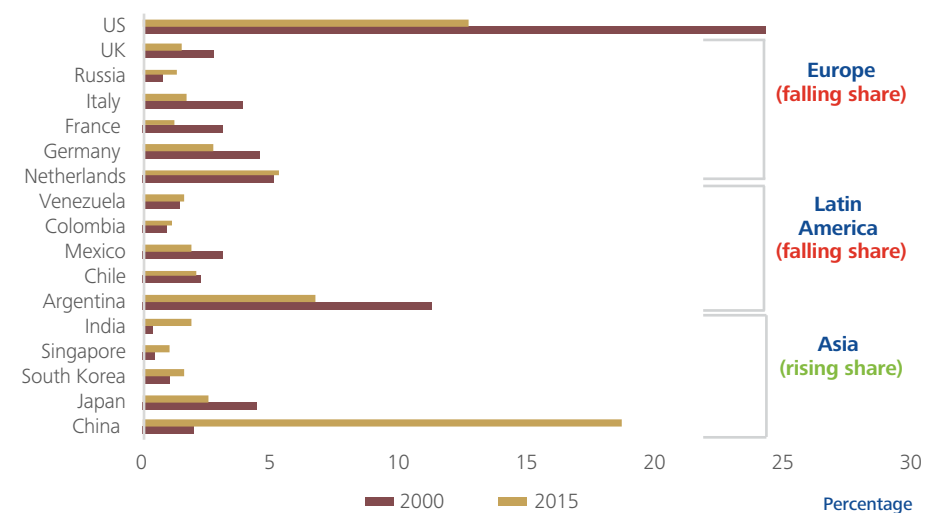


**Figure 2. While manufacturing’s share of merchandise exports declined, fortunes of primary products rose**



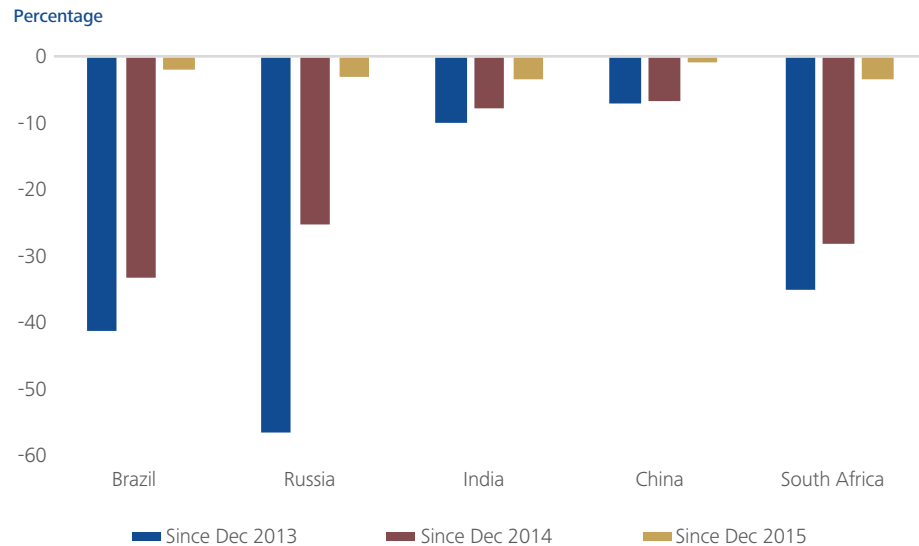
Source: Haver Analytics; Deloitte Services LP economic analysis.  
Graphic: Deloitte University Press | DUPress.com

**Figure 3. Changing share of key markets in Brazil’s merchandise exports over the last 15 years**



Source: Haver Analytics; Deloitte Services LP economic analysis.  
Graphic: Deloitte University Press | DUPress.com

Turning toward Asia is a step in the right direction for Brazil, given the former’s ascendancy in the global economy. But with commodities a key export to Asia, Brazil is vulnerable to the fluctuations in the global commodities market—as it is painfully finding out.

**Figure 4. Decline in key emerging-market currencies against the US dollar**

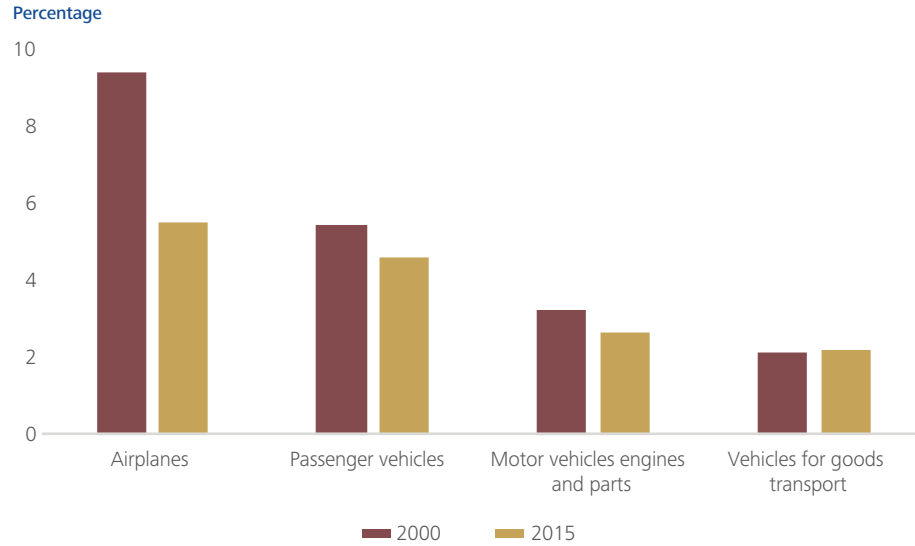
Source: Haver Analytics; Deloitte Services LP economic analysis.

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A weak currency, however, won't be enough to restore Brazil's manufacturing advantage. The shares of two key exports, airplanes and vehicles, in manufacturing exports have declined (figure 5). Brazil also faces formidable competition in manufacturing. For example, Mexico fares much better in the World Bank's ease of doing business rankings: 38 against Brazil's 116.<sup>4</sup> It is hard to start a business in Brazil, and the country's tax system continues to be its Achilles' heel.<sup>5</sup> Moreover, while Brazil fell in overall rankings in 2016, Mexico went up. So even though the recent growth in exports is a welcome relief for Brazil, it does not indicate a structural shift in overall competitiveness. For such a shift, Brazil likely needs deep-seated reforms and to drastically improve infrastructure. Such measures will also make Brazilian industry competitive again, which in turn will aid capacity utilization and subsequent investment (figure 6). With competitors in Asia and Latin America benefitting from numerous free-trade agreements and large-scale foreign direct investment, Brazil likely needs to also raise its game by liberalizing trade further and tying up with key markets, especially those in Asia.

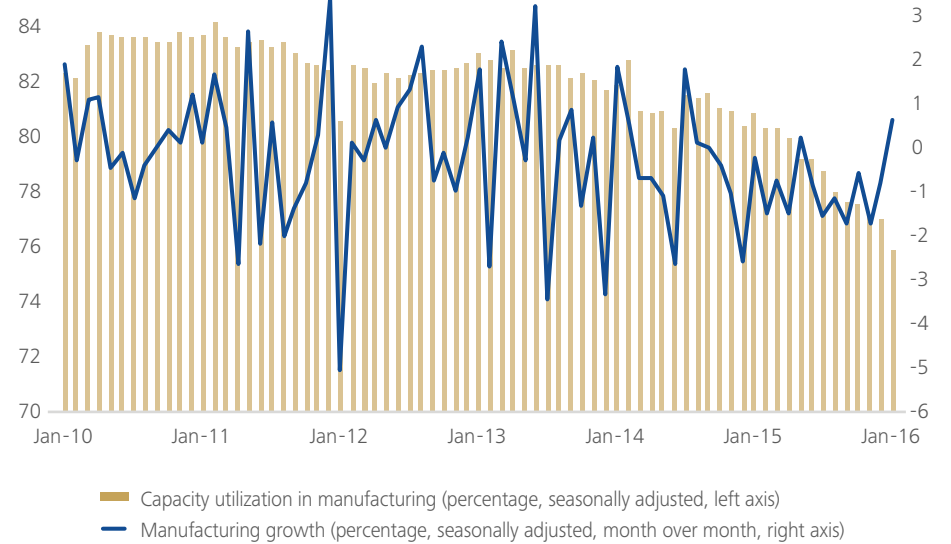
When fiscal dominance occurs, any hike in interest rates raises the government's interest payments, thereby denting its fiscal health. This, in turn, stokes currency weakness, which then pushes up inflation.

**Figure 5. Share of key industries in Brazil’s manufacturing exports has gone down**



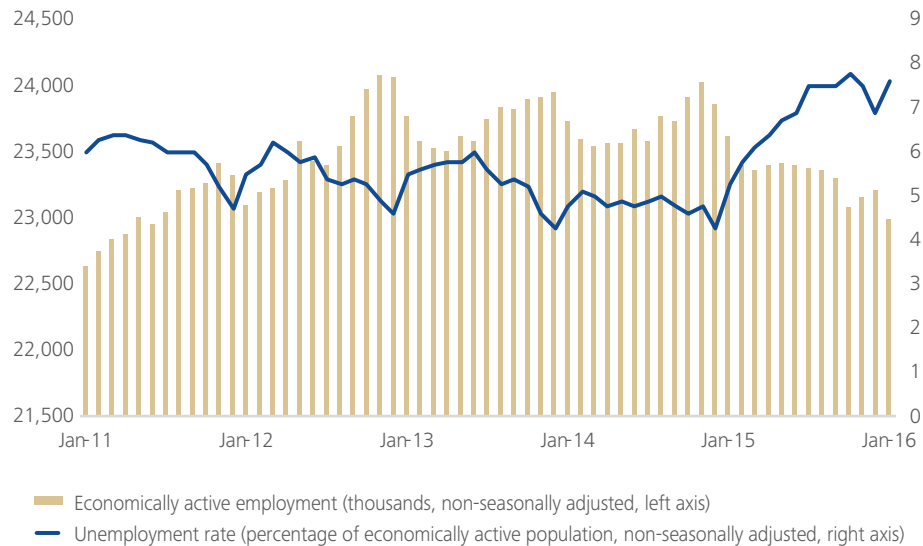
Source: Haver Analytics; Deloitte Services LP economic analysis.  
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**Figure 6. Capacity utilization and manufacturing growth have suffered in recent years**



Source: Haver Analytics; Deloitte Services LP economic analysis.  
 Graphic: Deloitte University Press | DUPress.com

**Figure 7. Total employment has fallen in the last few years; unemployment rate has gone up**



Source: Haver Analytics; Deloitte Services LP economic analysis.

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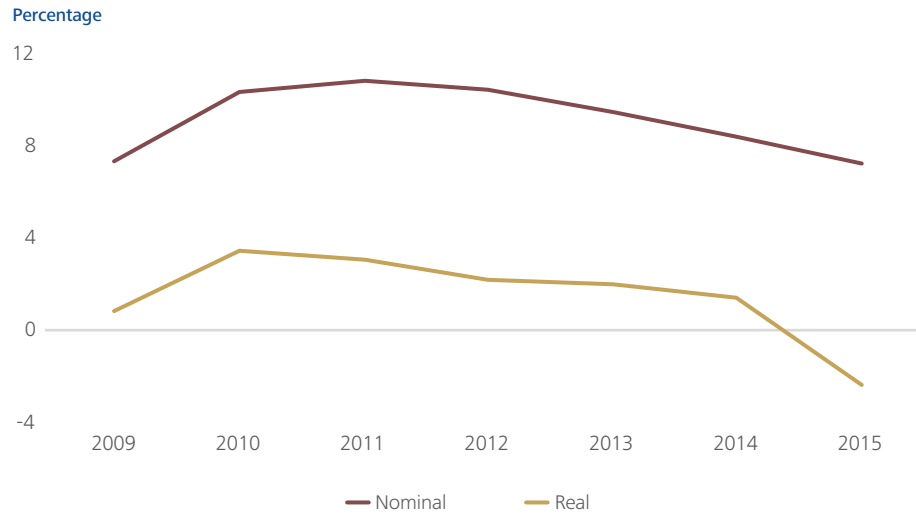
### Any exports revival will not make up for beleaguered private consumption

Private consumption, a key growth driver in recent years, has lost steam. In 2010 and 2011, private consumption grew 6.2 percent and 4.7 percent, respectively. In contrast, it contracted 4.0 percent last year. Multiple factors are weighing on private consumption. First, the labor market has suffered due to the recession. For example, the unemployment rate (non-seasonally adjusted) went up to 7.6 percent in January 2016 from 4.8 percent two years ago (figure 7). During this period, total employment fell 3.2 percent, while employment in the mining, manufacturing, and utilities sector dropped a staggering 14.1 percent.

Second, a weak labor market has dented nominal income gains. According to estimates by Oxford Economics, nominal disposable income in Brazil went up 7.3 percent in 2015, slowing down from the heyday of 2010–12 (figure 8).<sup>6</sup> Real income gains fared worse because of high inflation, which has not slowed down. For example, in January 2016, consumer prices went up 10.7 percent, the highest since November 2003 (figure 9).

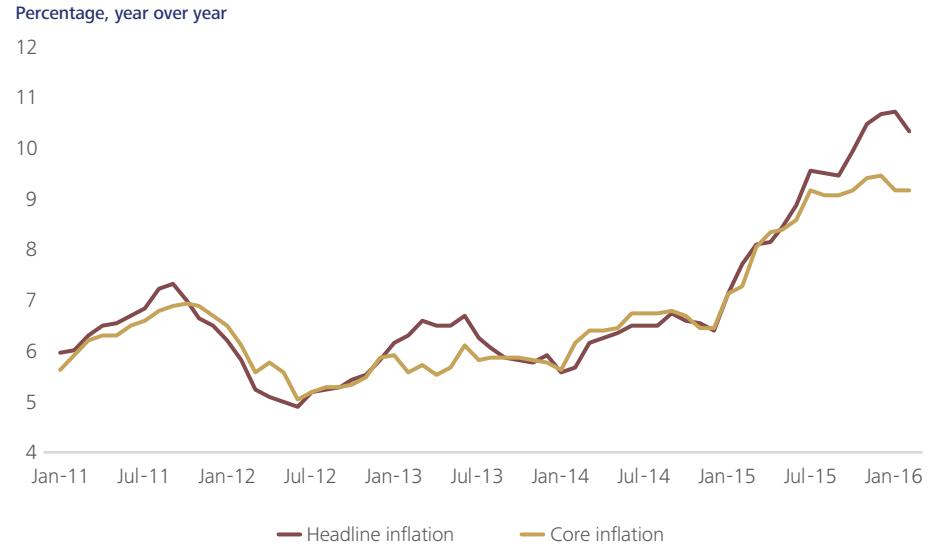
Third, consumers have suffered due to banks' higher interest rates and tighter lending conditions. Rising interest rates have pushed up debt-servicing costs for households, although household debt has stabilized (figure 10).

**Figure 8. Real disposable personal income fell in 2015; nominal gains declined last year**



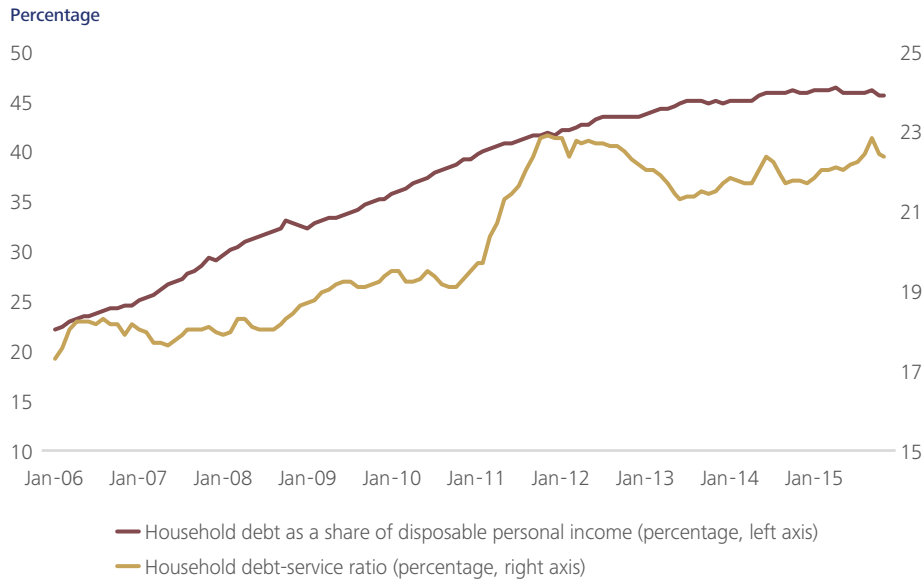
Source: Oxford Economics.  
 Graphic: Deloitte University Press | DUPress.com

**Figure 9. Consumers have suffered from high inflation**



Source: Haver Analytics; Deloitte Services LP economic analysis.  
 Graphic: Deloitte University Press | DUPress.com

**Figure 10. Household debt has stabilized, but debt-servicing cost is high**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

## Political challenges and the threat of fiscal dominance

Last year, as the Banco Central do Brasil (BCB) struggled to contain inflation, economists started worrying about fiscal dominance.<sup>7</sup> When fiscal dominance occurs, any hike in interest rates raises the government’s interest payments, thereby denting its fiscal health. This, in turn, stokes currency weakness, which then pushes up inflation.

Key trends support the fiscal dominance theory. First, repeated hikes in interest rates have failed to curtail inflation. Second, both nominal deficit and interest payments have shot up. For example, while the nominal deficit as a share of GDP nearly doubled between January 2015 and January 2016 (5.8 percent to 10.8 percent), interest payments went up from 5.2 percent of GDP to 9.1 percent of GDP (figure 11). Third, Brazil’s credit rating was cut to junk by two rating majors last year; a third downgrade followed in early February.<sup>8</sup> Finally, the currency plummeted last year, falling 34.2 percent between January 2015 and January 2016. In fact, worries about fiscal dominance may have been one of the factors prompting the BCB to keep rates on hold since July 2015—despite official denials to the contrary.<sup>9</sup>

This year, however, the threat of fiscal dominance is likely to recede. First, as the economy enters the second straight year of high inflation, the base effect will come into play. The downward pressure from aggregate demand on inflation will also rise, especially with GDP contracting 3.9 percent in 2015. Second, the worst for the currency is over. Since the end of January, the real has gained against the US dollar (1.6 percent in a month), making it one of the better-performing emerging-market currencies this year. Third, by the end of 2015, capital markets had priced in all major changes, including declining growth, political uncertainty, and any further rating downgrade. Brazil’s benchmark index is up 14 percent so far this year.

Nevertheless, things could easily spiral out of hand. A deterioration in fiscal health cannot be ruled out in the current environment of political uncertainty. President Dilma Rousseff is facing impeachment proceedings over allegations of violating budget rules.<sup>10</sup> The sudden investigation into Rousseff’s predecessor Lula over the ongoing bribery investigation involving both public officials and the private sector has added fuel to an already-raging political fire.<sup>11</sup> That has hardened positions across the political aisle and also led to protests on the streets.<sup>12</sup> Clearly, such an environment is not conducive to economic legislation, let alone structural and fiscal reforms. Economists are hoping for a quick resolution. For now, however, the dark clouds of political uncertainty still loom over the economy.

**Figure 11. Inflation rises, as do interest payments and the nominal deficit**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

**Endnotes**

1. Akrur Barua, “Packing a mightier punch: Asia’s economic growth among global markets continues,” *Asia Pacific Economic Outlook, Q1 2016*, Deloitte University Press, December 18, 2015, <http://dupress.com/articles/asia-pacific-economic-outlook-q1-2016-asia-economic-growth-continues/>.
2. International Monetary Fund, International Financial Statistics database accessed via Haver Analytics, March 2016.
3. Haver Analytics, March 2016.
4. World Bank, “Ease of doing business in Brazil,” March 2016, <http://www.doingbusiness.org/data/exploreeconomies/brazil/>; World Bank, “Ease of doing business in Mexico,” March 2016, <http://www.doingbusiness.org/data/exploreeconomies/mexico/>.
5. World Bank, “Ease of doing business in Brazil.”
6. Oxford Economics, “Global economic databank,” March 2016.
7. Monica de Bolle, “Brazil needs to abandon inflation targeting and yield to fiscal dominance,” Peterson Institute for International Economics, September 30, 2015, <http://blogs.piie.com/realtime/?p=5172>; Silvio Cascione, “The threat of fiscal dominance in Brazil,” *Reuters*, October 22, 2015, <http://blogs.reuters.com/macroscope/2015/10/22/the-threat-of-fiscal-dominance-in-brazil/>.
8. Marla Dickerson and Rogerio Jelmayer, “Moody’s cuts Brazil’s rating to junk,” *Wall Street Journal*, February 24, 2016, <http://www.wsj.com/articles/moodys-cuts-brazils-rating-to-junk-1456320186>; Filipe Pacheco and Paula Sambo, “Brazil gets second junk rating as Fitch cites economic slump,” *Bloomberg*, December 16, 2015, <http://www.bloomberg.com/news/articles/2015-12-16/brazil-cut-to-junk-by-fitch-with-negative-outlook-on-rating>; Walter Brandimarte, “Brazil downgraded to junk rating by S&P, deepening woes,” *Reuters*, September 9, 2015, <http://www.reuters.com/article/us-brazil-ratings-s-p-idUSKCN0RA06120150910>.
9. “Brazil’s Tombini says economy not under fiscal dominance,” *Reuters*, December 10, 2015, <http://www.reuters.com/article/brazil-economy-cenbank-idUSE4N0XR02520151210>.
10. Simon Romero, “Brazil’s President Rousseff, facing impeachment proceedings, is deluged by more bad news,” *New York Times*, March 3, 2016, [http://www.nytimes.com/2016/03/04/world/americas/brazils-president-rousseff-facing-impeachment-effort-is-deluged-by-more-bad-news.html?\\_r=0](http://www.nytimes.com/2016/03/04/world/americas/brazils-president-rousseff-facing-impeachment-effort-is-deluged-by-more-bad-news.html?_r=0).
11. BBC, “Prosecutors file charges against Brazil ex-leader Lula,” March 10, 2016, <http://www.bbc.com/news/world-latin-america-35770299>.
12. Raymond Colitt and Arnaldo Galvao, “Streets of Brazil may be key to Rousseff’s political future,” *Bloomberg*, March 7, 2016, <http://www.bloomberg.com/news/articles/2016-03-07/streets-of-brazil-may-hold-key-to-rousseff-s-political-future>.

## Keynes arrives

By Dr. Daniel Bachman

CANADIANS voted decisively in the recent election—for the middle-of-the road party. This certainly makes Canada look like the odd country out in the developed world. European voters seem to be increasingly enticed by parties that emphasize nationalism over the European Union’s common purpose; and in the United States, presidential candidates exploiting populist themes have done surprisingly well against candidates associated with more cautious (and centrist) policymaking. Even in Japan, Prime Minister Shinzo Abe’s popularity rests on promises of significant change. Canadians wanted change, too—after all, they changed the party in office—but apparently, not too much change, as the Liberals are very much an establishment party.

### Keynes comes to Ottawa

However, the Liberals did, in fact, promise a very significant and surprising policy innovation—one that has been otherwise rejected across the rest of the developing

world. The Liberal Party vowed to provide a 10 billion Canadian dollar (CAD) fiscal stimulus. The actual budget, presented on March 22, was even more generous. The projected 2016–17 deficit is almost CAD 30 billion, up from just over CAD 5 billion in the current fiscal year. And the new government projects continued deficits through the entire period of its mandate.

That’s not a lot relative to the country’s CAD 2 trillion economy, but it is a profound change in course. Since the mid-1990s, when the federal government (also run at the time by the Liberals) took control of a seemingly runaway budget problem, Canadians have been proud of their country’s fiscal rectitude. Perhaps that’s why it was the Liberals, rather than the more leftist National Democratic Party, that were willing to go out on this particular limb. But the policy was in the platform, and voters made a clear choice to experiment with Keynesian fiscal policy.







Since the mid-1990s, when the federal government (also run at the time by the Liberals) took control of a seemingly runaway budget problem, Canadians have been proud of their country's fiscal rectitude.

The new budget included a variety of spending and tax initiatives, ranging from more infrastructure spending to increasing child benefits.<sup>1</sup> The policy's impact is likely to be small, though more powerful at the current inflation rate. With inflation low, the Bank of Canada won't need to tighten monetary policy, which might offset the impact of the stimulus. And with the oil sector suffering from low prices and continued slower growth in the United States, Canada can almost certainly use a boost in demand.

But Canada remains, relative to its neighbor, a small, open economy. That means that a lot of the fiscal stimulus is likely to leak out of the country. Canadian imports equal about one-third of GDP, so a first guess would be that one-third of the induced spending from the fiscal stimulus will go abroad (mainly to the United States). That will reduce the size of the multiplier from the additional federal spending considerably.

Estimates of the impact of a CAD 10 billion stimulus run in the range of raising GDP by 0.2–0.3 percent, so the larger program could

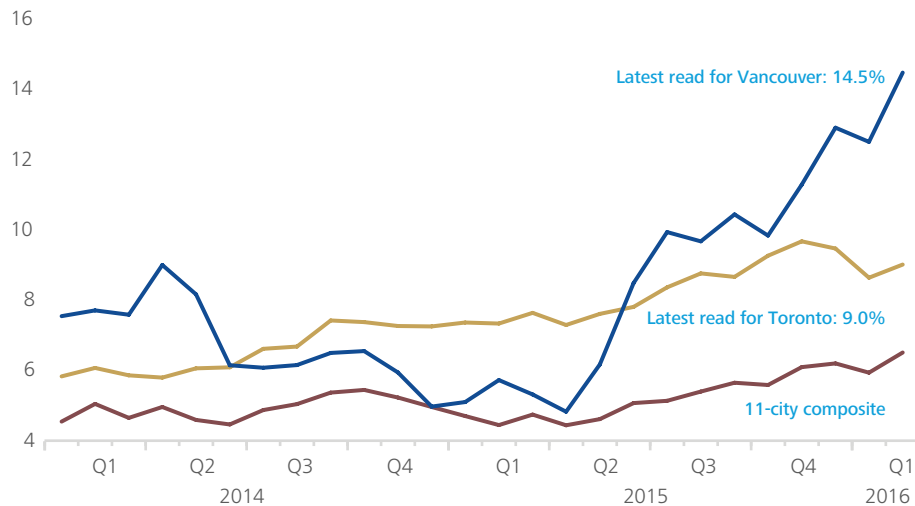
boost growth by more than half a percentage point. In Canada's current low-inflation, low-demand environment, a fiscal stimulus will likely be welcome. And Canada—with a debt-to-GDP ratio of under 30 percent—can afford it. But the stimulus could be more potent if it were combined with similar fiscal stimulus programs in the rest of the developed world.

### Housing prices—the talk of (some) towns

Despite the slow growth of the economy, Canadians are worried about a housing bubble. But don't be fooled—this bubble is not quite the same as the bubble south of the border that burst in 2007. Canada's mortgage underwriting is in a much better state than mortgage underwriting in the United States was in the mid-2000s. Canada's bubble is concentrated in two cities, Vancouver and Toronto, and may reflect some unusual fundamentals. Then again, the US housing bubble was relatively

**Figure 1. Change in housing prices from a year ago**

Percentage change



Source: Teranet; National Bank of Canada; Haver Analytics.

Graphic: Deloitte University Press | DUPress.com

concentrated—and at the time many people thought that it was supported by fundamentals.

Figure 1 shows the recent acceleration of Canadian home prices. The overall price run-up is largely due to housing price inflation in Vancouver and Toronto. Other Canadian cities haven't seen anything like these price rises. Three of the other four major Canadian cities, Montreal, Ottawa, and Halifax, have seen flat housing prices over the past few years. Calgary experienced some acceleration in housing prices as Alberta oil sands projects came online. But house prices in Calgary have been flat or down since the oil price started dropping in late 2014. Only two smaller cities—Hamilton (near Toronto) and Victoria (part of the Vancouver economic ecosystem)—have seen anything like this type of price growth.

Is this a case of “what goes up must come down?” High housing prices in Vancouver and Toronto can be attributed to two factors:

- Both cities are already highly zoned and developed. This holds more for Vancouver, which is physically limited by the ocean and the mountains, than for Toronto. Just as nobody is surprised by unusually high prices for real estate in Manhattan Island, nobody should be surprised by higher prices for housing in Vancouver. Toronto could possibly expand—but at the cost of even longer and more traffic-choked commutes in the city, which already experiences the longest commuting time in Canada.

- Vancouver and Toronto alone accounted for 42 percent of Canada's population growth over the past 12 months, according to Statistics Canada's monthly population survey.<sup>2</sup> These are the cities Canadians want to live in. Low oil prices will simply intensify the preference for these attractive locations with strong economies.

But there are some worrying signs as well:

- Canada's membership in the British Commonwealth (and resulting accessibility to residents of Hong Kong before 1997) and its attractive rules for foreign investment may have allowed foreign investors to pile into the market. The importance of this factor is controversial.<sup>3</sup> Many Canadians tell stories about wealthy home purchasers (especially from China) throwing handfuls of cash at high-end house sellers. If Chinese investment dries up, it could, of course, pose a significant risk to the housing market.

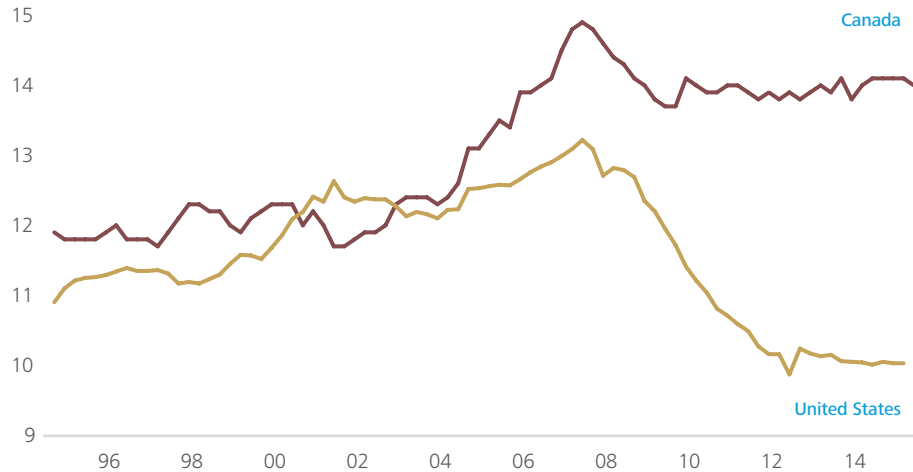
- The Canadian press is starting to report about the type of problems that marked the US housing debacle.<sup>4</sup> A subprime lender has even made headlines over fraudulent practices—although the lender itself investigated and fired the mortgage brokers involved.<sup>5</sup>
- Canadian households have taken on a lot of debt recently—so much so that the Bank of Canada is paying careful attention.

Policymakers are worried enough to try to put the brakes on some housing sales, most notably by increasing required down payments for houses selling for over CAD 500,000. There's no question that the housing market poses a significant risk to the Canadian economy—no matter how amazing it is to live in a city such as Vancouver, where you can sail in the bay in the morning and go skiing in the mountain above in the afternoon.

Canada's membership in the British Commonwealth (and resulting accessibility to residents of Hong Kong before 1997) and its attractive rules for foreign investment may have allowed foreign investors to pile into the market. The importance of this factor is controversial.

**Figure 2. Debt service (interest and principal repayment)**

Percentage of disposable income



Source: Statistics Canada and Federal Reserve; Haver Analytics.

Graphic: Deloitte University Press | DUPress.com

## The Canadian love affair with debt

Over the past 10 years, a lot of attention has focused on US households' borrowing. But Canadian households have long been bigger borrowers than Americans. In the second half of the 1990s, Canadian household borrowing averaged 102 percent of disposable income, some 10 percentage points more than the same figure for the United States. And Canadian household borrowing rose along with US household borrowing through 2007. At that point, US household borrowing started to contract, but Canadians kept right on piling up the loans. Household debt in Canada is currently running at over 160 percent of disposable income.

This figure has generated concern among Canadian authorities. The rise in debt is likely related to the rise of housing prices (and subsequent need for larger mortgages by home buyers) as well as to low interest rates and financial innovation.

Figure 2 shows a key measure of household financial vulnerability. It compares estimates of debt-service payments as a percentage of disposable personal income in the United States and Canada. Canadian households typically have had to pay a larger share of income in debt service, except for a few years in the mid-2000s. After the US mortgage crisis, the debt-service ratio plunged in the United States and is now at a level last recorded in the early 1980s. The Canadian debt-service ratio also fell during the financial crisis, but it has stabilized at historically high levels of around 15

Household debt in Canada is currently running at over 160 percent of disposable income.

percent. Canada's Office of the Parliamentary Budget Officer projects that the debt-service ratio will rise to 17 percent by 2020, based on rising house prices and rising interest rates over the next few years.<sup>6</sup> That's a historically unprecedented level, and much higher than anything experienced in the supposedly profligate United States during the height of the housing bubble.

Canada's conservative financial system may help to insulate the country from any shock

involving consumer debt. Also, it's quite possible that much of the run-up in debt is specific to higher housing prices in Toronto and Vancouver, and therefore not systemic. But Canadian households' love of debt is certainly a potential risk factor for the Canadian economy and therefore worth watching.

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#### Endnotes

1. Deloitte's comprehensive description of tax changes can be found at <http://www2.deloitte.com/ca/en/pages/tax/articles/2016-2017-federal-budget-highlights.html>.
2. Statistics Canada, "Labour force survey, February 2016," March 11, 2016, <http://www.statcan.gc.ca/daily-quotidien/160311/dq160311a-eng.htm>.
3. A comprehensive study of condominium ownership found that foreigners owned 3.5 percent of the units in Toronto and Vancouver, up from around 2.3 percent in the previous year. Foreign ownership rates were higher, however, in the more expensive central city areas of both cities. See Canadian Mortgage and Housing Corporation, "Housing market insight: Canada," December 2015, [http://www.cmhc-schl.gc.ca/odpub/esub/68469/68469\\_2015\\_M12.pdf?fr=1454452380816](http://www.cmhc-schl.gc.ca/odpub/esub/68469/68469_2015_M12.pdf?fr=1454452380816).
4. See, for example, Tamsin McMahon, "How mortgage fraud is thriving in Canada's hot housing market," *Globe and Mail*, October 30, 2015, <http://www.theglobeandmail.com/report-on-business/economy/housing/mortgage-fraud-on-the-rise-among-brokers-trying-to-help-clients-qualify/article27051297/T>.
5. "Mortgage lender Home Capital cuts ties with 45 brokers for bogus documentation," *CBC News*, July 30, 2015, <http://www.cbc.ca/news/business/mortgage-lender-home-capital-cuts-ties-with-45-brokers-for-bogus-documentation-1.3173659>.
6. Office of the Parliamentary Budget Officer, *Household indebtedness and financial vulnerability*, January 19, 2016.

## Brexit or not to Brexit?

By Ian Stewart

**R**ISING risk aversion, financial market stress, and weakness in emerging markets have continued to weigh on the United Kingdom's growth prospects. The manufacturing sector, in common with the experience in most industrialized economies, has slowed appreciably. Business confidence has weakened, and the risk appetite among the chief financial officers of the United Kingdom's largest businesses has dropped to the lowest level since the euro crisis (figure 1). Meanwhile, consumer activity remains fairly buoyant, with a tightening labor market, cheap finance, and rising real incomes supporting household spending.

The overall effect of these changes has been to reduce expectations for the United Kingdom's growth in 2016 to around 2.0 percent, with activity more dependent on consumer activity and with a smaller impetus from manufacturing, exports, and investment.

The list of potential risks facing the United Kingdom remains long. But according to the latest Deloitte survey of chief financial officers, the principal uncertainty is the outcome of the referendum on the United Kingdom's

membership in the European Union, which will take place on June 23.<sup>1</sup>

The last referendum on the United Kingdom's membership in what was then the European Economic Community (EEC) was held in 1975, just two years after the United Kingdom joined the EEC. The vote was an overwhelming victory for EEC membership, with the electorate voting 67.2 percent to 32.8 percent to stay in. Since then, the European Union has grown from 9 to 28 members, expanded into Central and Eastern Europe, and created the single currency. The euro crisis has accelerated the pace of integration within the euro area through initiatives such as the European Fiscal Compact and the European Stability Mechanism.

The current referendum debate encompasses the free trade and cost of living arguments of 1975 but ranges wider. In particular, questions of security, safety, borders, and the free movement of





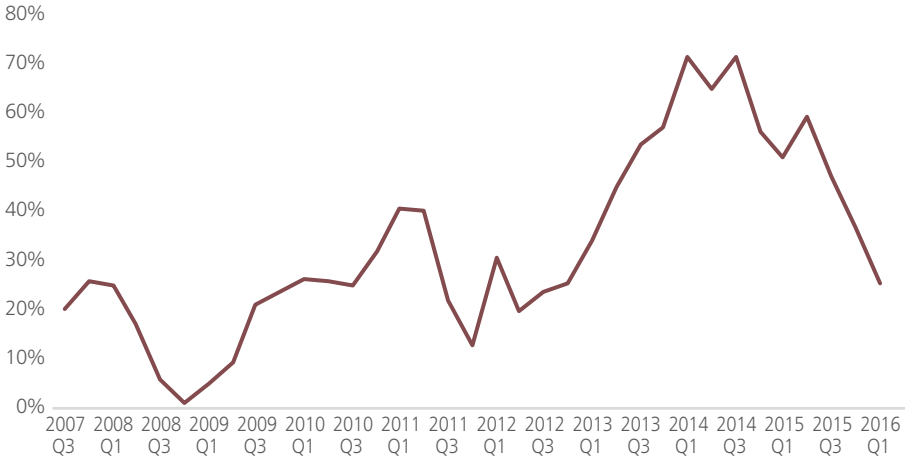
people are likely to loom large. The economic backdrop to the United Kingdom’s 1975 referendum was domestic economic and political weakness. British voters in 1975 looked enviously at the prosperity and stability of Germany. Today, the euro area is grappling with sluggish growth, the fallout from the euro crisis, and an influx of refugees and migrants. The European Union is on the back foot. Meanwhile, the burning platform of the United Kingdom’s

economic failure and political instability, which helped win the 1975 referendum, is absent.

UK voters have consistently been among the most euro-sceptic in Europe. Nonetheless, in the last 40 or so years, the UK public has been more likely to support staying in the European Union than leaving. Since Ipsos MORI started polling the public in 1977, on average 47 percent of UK voters have supported membership, and 40 percent have opposed it, with an average of 12 percent remaining undecided.<sup>2</sup>

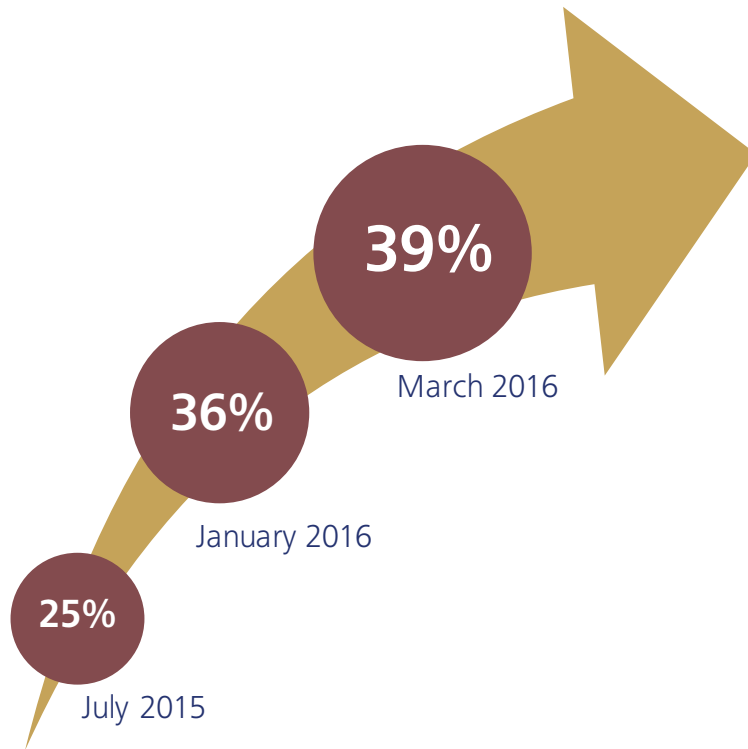
**Figure 1. Falling CFO risk appetite**

*Deloitte CFO Survey: “Is this a good time to be taking greater risk onto your balance sheets?”*



Source: Deloitte LLP, *The Deloitte CFO Survey: 2016 Q1*, April 2016, <http://www2.deloitte.com/uk/en/pages/finance/articles/deloitte-cfo-survey.html>.

Graphic: Deloitte University Press | DUPress.com

**Figure 2. The odds of a Brexit are nontrivial and rising***Implied probability of a Brexit, based on political betting odds*

Source: Deloitte LLP.

Graphic: Deloitte University Press | DUPress.com

The opinion polls showed a strong lead for the “remain” camp in the first half of 2015 (figure 2). But this has been eroded by the migration crisis. By late March 2016, on average the polls showed a much reduced lead for the “remain” camp, with some individual polls showing a majority for those favoring a “leave” vote. Bookmakers betting odds in late March implied a roughly 40 percent probability of a UK exit from the European Union.<sup>3</sup>

The salience of migration in today’s debate marks a significant difference from 1975. The Maastricht Treaty of 1992 established the right of people to live and work anywhere in the European Union. The European Union’s enlargement into Central and Eastern Europe in 2004 led to a marked rise in immigration into the United Kingdom and pushed migration up on the list of UK voters’ concerns. More recent migration from North Africa and the Middle East and the breakdown of the European Union’s Schengen agreement have added new concerns. Since last year, YouGov’s polls show voters rating immigration as the most important issue facing Britain (figure 3).<sup>4</sup>

Yet, whatever the polls say about migration, the bedrock economic issues of “what will it mean for jobs” and “am I better off in the European Union” are likely to prove decisive. As in the Scottish referendum and last year’s UK general election, fear of the unknown will be a significant factor. The current, pervasive sense of geopolitical and economic uncertainty tends to heighten the appeal of the status quo, especially for the 10–20 percent of the population in the “don’t know” camp.

One of the major challenges for the anti-EU campaign groups is that there is no agreement on an alternative to EU membership. Any settlement would depend on what the United Kingdom seeks to achieve following a vote to leave the European Union, and what its former EU partners and other countries are prepared to concede. The most frequently talked-of options are the Norwegian and Swiss models or operating under the rules of the World Trade Organization (WTO).



Outside the European Union, Norway is a member of the European Economic Area, giving it full access to the Single Market and the ability to opt out of certain elements of the European Union, such as the Common Fisheries Policy. The downside is that Norway has to accept almost all EU legislation, including on the free movement of people, and it makes significant contributions to the EU budget while having no direct say in EU decision making or regulations.

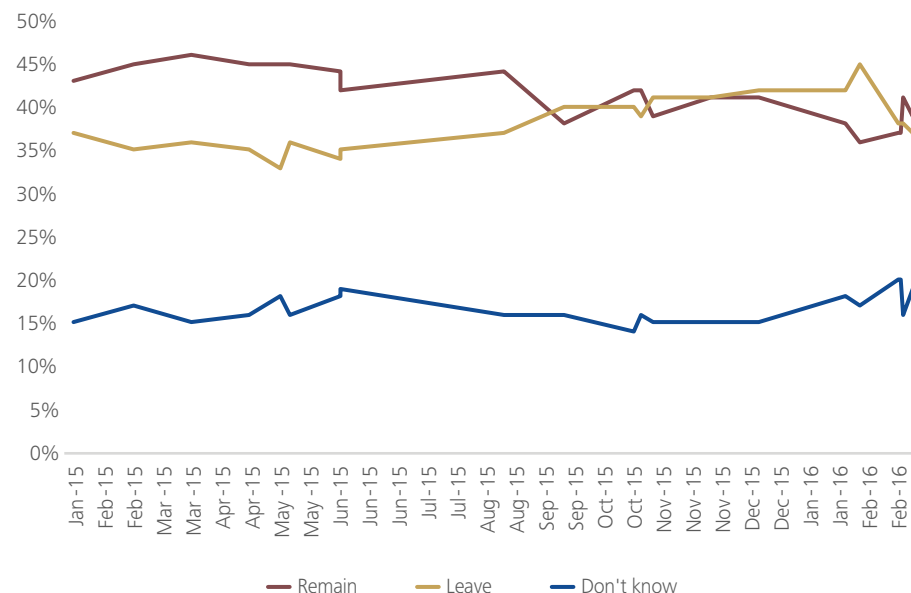
Switzerland’s membership in the European Free Trade Agreement (EFTA) offers a more distant relationship with the European Union. As an EFTA member, Switzerland has been free to negotiate the terms of its relationship with the European Union and the rest of the world on a bilateral basis. Budget contributions to the EFTA secretariat are minimal. In practice, Switzerland has signed up for a high proportion of EU regulation, including the free movement of people, and has to make contributions to a number of large EU programs in return for access to the Single Market.

At the other end of the spectrum, the United Kingdom could opt for the most distant economic relationship with the European Union and forego preferential access to EU markets along Swiss or Norwegian lines. As a member of the WTO, the United Kingdom would acquire the “most favored nation” status and would be free to negotiate its own free-trade agreements with the European Union and other countries. This is the experience of countries such as Australia, which obviously is not subject to EU regulations and budget contributions, but does not have unfettered, tariff-free access to the Single Market.

These examples only illustrate the experience of other nations outside the European Union. The United Kingdom is a much larger, more populous nation than Norway and Switzerland, and there is no precedent for the departure of a nation from the European Union. Much would depend on whether the negotiations that follow a vote to leave would be harmonious or fractious. In such negotiations, the United Kingdom would face a trade-off between autonomy and accepting regulation to gain access to

**Figure 3. Pro-EU sentiment has softened over the last year**

*YouGov opinion poll: “Should the UK remain a member of the EU or leave the EU?”*



Source: YouGov.

Note: YouGov is an online poll. Generally online polls have consistently shown a larger “leave” vote than telephone polls.

Graphic: Deloitte University Press | DUPress.com

In the referendum, voters will be choosing between a known, if evolving, relationship with the rest of Europe and leaving the European Union. A vote to leave would be the start of a long and complex process of negotiation as the United Kingdom seeks to create a new position in the world.

EU markets. A more distant relationship with Europe would give greater control over borders and regulations but could also mean more restricted access to EU markets.

In the referendum, voters will be choosing between a known, if evolving, relationship with the rest of Europe and leaving the European Union. A vote to leave would be the start of a long and complex process of negotiation as the United Kingdom seeks to create a new position in the world.

If the United Kingdom votes to leave the European Union, there is a formal period of two years during which all existing EU rules and regulations apply as the United Kingdom negotiates its exit. In practice, creating a new

set of trading arrangements and an independent legal and regulatory framework would take much longer. A vote to exit would create a period of great uncertainty and risk aversion. Most attempts to model these effects suggest that UK asset prices, particularly sterling, would fall, possibly sharply, and growth would weaken appreciably. In time, as a new settlement comes into being, these effects would moderate.

Aside from the short- to medium-term disruption, which is likely to be considerable, the debate is about whether the United Kingdom's growth in the long term would be much altered by leaving the European Union. The answer depends on the imponderables of the United Kingdom's post-EU trading arrangements

and its ability to exploit the freedom available outside the European Union.

In the meantime, the EU referendum remains a central and growing preoccupation for the business community, which, by and large, favors continued membership within the European Union. The most likely outcome remains that the United Kingdom will stay in the European Union. But opinion polls are fallible and volatile. External events, such as economic news, migration, or terrorism, have the potential to shift public opinion.

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#### Endnotes

1. Deloitte LLP, *The Deloitte CFO Survey: 2016 Q1*, April 2016, <http://www2.deloitte.com/uk/en/pages/finance/articles/deloitte-cfo-survey.html>.
2. Ipsos MORI, "European Union membership—trends," December 18, 2015, <https://www.ipsos-mori.com/researchpublications/researcharchive/2435/European-Union-membership-trends.aspx>.
3. Jemima Kelly, "Bookmakers shorten Brexit odds after Brussels attacks," *Reuters*, March 22, 2016, <http://uk.reuters.com/article/uk-britain-eu-bookmakers-idUKKCN0WO20B>.
4. YouGov, <https://yougov.co.uk/>.

EXIT



# Impact of negative interest rates: Living in the unknown

By Akur Barua and Dr. Rumki Majumdar

It seems strange when a lender pays interest to a borrower instead of the other way round—but that's precisely what is happening in parts of Europe and Japan. In June 2014, the European Central Bank (ECB) cut the interest rate on its deposit facility to below zero. Three further cuts followed, the latest one in March 2016 (to -0.4 percent). Central banks in Switzerland, Sweden, and Denmark have also pushed interest rates into negative territory. Then in January 2016, the Bank of Japan (BOJ) joined the chorus, unexpectedly announcing that it would charge banks for excess reserves.

Negative interest rates join the long list of unorthodox policies by central banks to counter deflation and revive economic growth. The question is, have negative interest rates been successful? Data from the Eurozone suggest that the ECB scored some initial successes. But, with banks, households, and businesses still recovering from

the global financial crisis and the sovereign debt crisis, gains for the ECB have been limited. In Japan, it's a bit early to take a call. The confusion surrounding the subzero rate cut, however, does not augur well for the BOJ's long fight against deflation.

Why are central banks defying convention to cut policy rates below zero?

## The need to counter deflation

With inflation still below the respective targets of the ECB and BOJ, and downward pressure on inflation expectations, both central banks have taken recourse to unorthodox policies. First came quantitative easing (QE) and then negative interest rates.



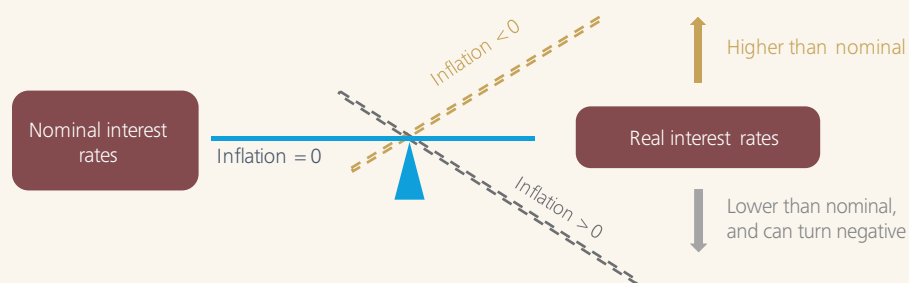
## UNDERSTANDING THE REAL AND NOMINAL ASPECTS OF INTEREST RATES

Negative interest rates imply that in the process of borrowing and lending, lenders pay interest while borrowers receive it, the opposite of what normally happens. Wouldn't a lender prefer to hold onto funds rather than pay the borrower? Indeed, from that argument, it would be rational to assume that interest rates have a zero lower bound. In reality, interest rates do turn negative—but we have been talking about real interest rates and not nominal interest rates so far. The real interest rate is defined as the nominal interest rate adjusted for inflation as shown in the equation below:

$$\text{Interest rate}_{real} = \text{Interest rate}_{nominal} - \text{Inflation}$$

If inflation is higher than the nominal interest rate, the real rate goes below zero. In such a scenario, borrowers benefit at the expense of lenders because, despite paying nominal interest, the borrower's purchasing power increases (figure 1).

**Figure 1. The relationship between the real interest rate, nominal interest rate, and inflation**



Source: Deloitte Services LP.

Graphic: Deloitte University Press | DUPress.com

In recent times, however, it is the nominal interest rate that has turned negative. Central banks such as the ECB and the BOJ have started charging interest on commercial banks' excess reserves. The zero lower bound for nominal interest rates appears to have been breached.

## HOW NEGATIVE POLICY RATES CAN BOOST CREDIT GROWTH

Central banks pay interest on the excess reserves—those above the minimum level required—of commercial banks. Normally, banks prefer not to hold reserves in excess of the minimum requirement because the interest rates offered by central banks are lower than money market rates. However, when financial risks rise and money market rates are low, most commercial banks choose to hold higher reserves with the central banks. This often results in a credit freeze. The thinking behind negative interest rates on excess reserves is that banks will likely be forced to cut down on excess reserves and lend instead of incurring costs. This, in turn, will likely boost domestic demand.

Central banks are hoping that as interest rates fall below zero, banks will reduce their excess reserves and lend more. The resultant rise in liquidity and aggregated demand will push prices up. The ECB and BOJ are also concerned that low inflation, or deflation, could raise real interest rates. Negative interest rates, they believe, will stem any rise in real rates. (See the sidebars “Understanding the real and nominal aspects of interest rates” and “How negative policy rates can boost credit growth” to better understand these phenomena.)

### Checking capital inflows and preventing currency appreciation

The BOJ has made no bones about its desire to weaken the Japanese yen to boost exports. Negative interest rates appear to be yet another gambit after strong QE pushed the yen lower in 2013 and 2014. Eurozone exports also have benefitted from a weaker euro. A depreciating currency props up import prices, thereby helping to fight deflation. Sweden, Denmark, and Switzerland opted for negative interest rates to prevent sharp capital inflows due to interest rate differentials with the Eurozone. Rising inflow, especially during the Eurozone sovereign debt crisis, led to sharp currency appreciation in these countries, denting their export competitiveness.

## Negative interest rates have yielded mixed results

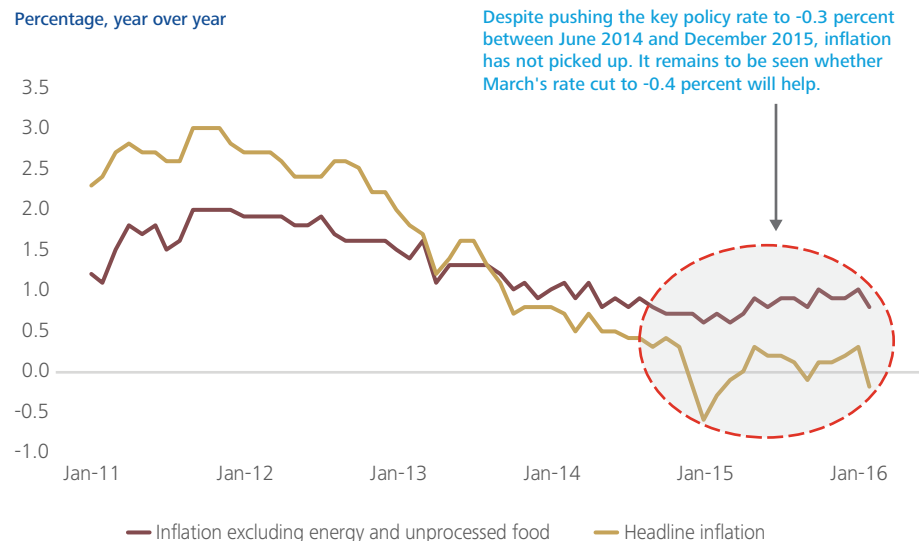
### Inflation has not been impacted much by negative interest in the Eurozone

Since June 2014, when the ECB first cut interest rates below zero, inflation hasn't gone up. In February 2016, inflation was -0.2 percent, lower than what it was in June 2014 (0.5 percent). While low energy prices have weighed on consumer prices, a look at core inflation indicates that negative interest rates have not helped much either in the fight against deflation (figure 2). In Japan, it is too early to assess the impact of negative interest rates on inflation. Current trends, however, indicate that despite QE since 2010, the BOJ has so far not been successful in propping up prices.

### Moderate impact on credit growth so far

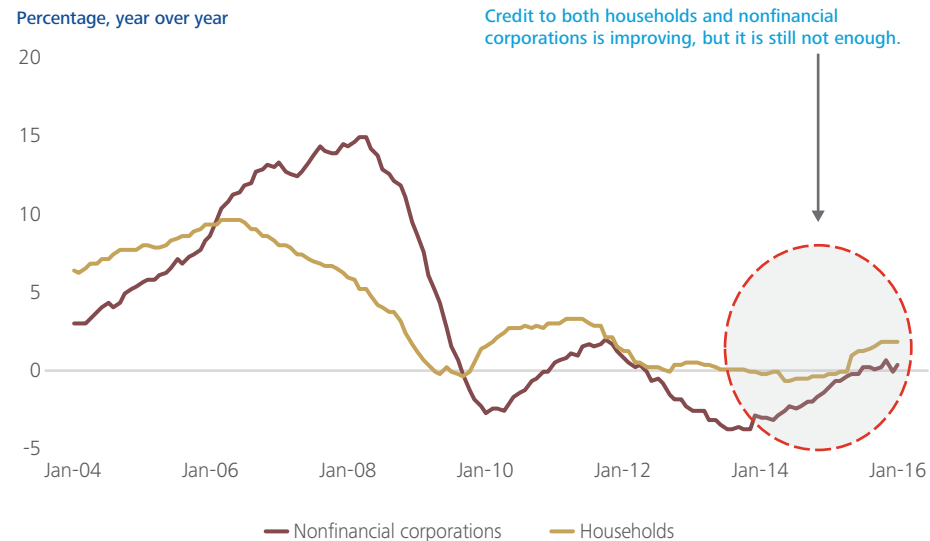
QE and negative interest rates have aided credit growth in the Eurozone. Credit to both households and nonfinancial corporations has picked up since the second half of 2015 (figure 3). However, growth is much slower than before the global financial crisis. Also, there is a clear divergence in the Eurozone, with troubled economies such as Spain and Italy faring worse than Germany (figure 4). In Japan, the BOJ has

**Figure 2. In the Eurozone, inflation has not been impacted much by negative interest rates**



Source: Haver Analytics; Deloitte Services LP economic analysis.  
 Graphic: Deloitte University Press | DUPress.com

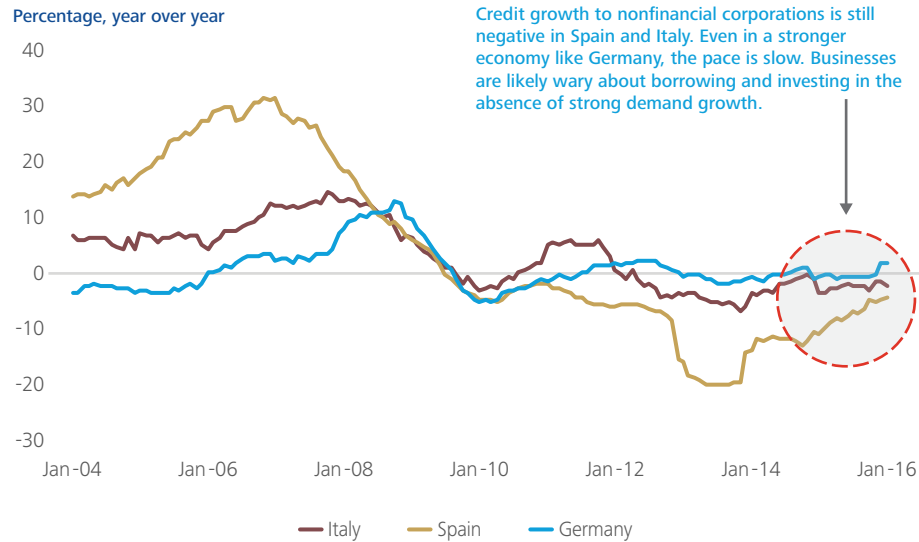
**Figure 3. Although credit growth is recovering in the Eurozone, it is subdued**



Source: Haver Analytics; Deloitte Services LP economic analysis.  
 Graphic: Deloitte University Press | DUPress.com

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**Figure 4. Credit growth to nonfinancial corporations in the Eurozone is negative in troubled economies**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

been able to revive credit growth from negative territory using QE. But with the pace of growth still slow, it is evident that, without strong demand, low borrowing costs alone will not help.

### Despite low borrowing costs, households are not going on a credit binge

In the Eurozone, households appear wary of borrowing given a weak labor market and slow wage gains (figure 5). For example, unemployment was 10.3 percent in January 2016; the rate was higher than the average in Italy, Spain, Greece, and Portugal.<sup>1</sup> In this scenario, households are more intent on repairing their balance sheets. For example, despite easy monetary policy for the last five years, household debt as a share of disposable personal income has gone down, albeit marginally.<sup>2</sup> In Japan as well, households are unlikely to raise credit-fueled spending soon, even if lending rates go down further due to negative interest rates.

### With demand weak, businesses are not increasing spending

For businesses, borrowing and investment options are restricted by low domestic demand growth. In the Eurozone, although domestic demand growth has been recovering since Q1 2014, it has been volatile (between 0 and 0.8 percent). The same is true for Japan, where businesses are holding onto spending decisions in the absence of strong domestic and foreign demand (figure 6).



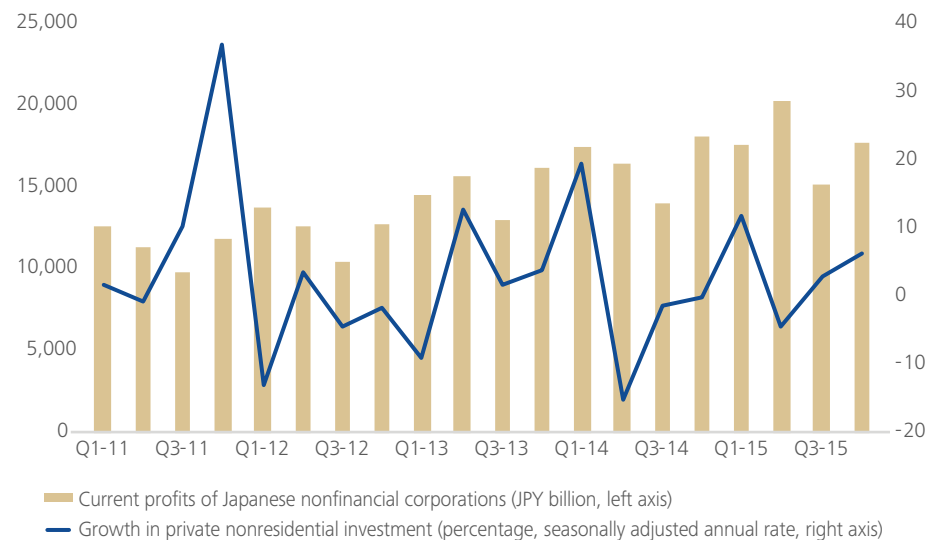
**Figure 5. Household spending growth is still negative in Japan**



Source: Haver Analytics; Deloitte Services LP economic analysis.

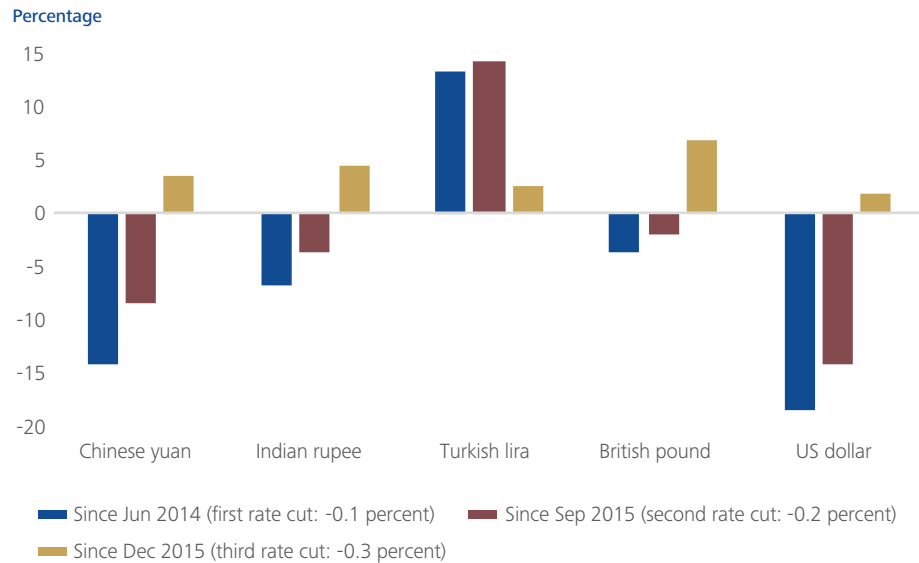
Graphic: Deloitte University Press | DUPress.com

**Figure 6. In Japan, despite high corporate profits, investments have been volatile**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

**Figure 7. Change in the value of the euro relative to other currencies**

Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

Also, as currency depreciation stalls, lately export competitiveness has been hit (figure 7). Investors are flocking to the yen in particular, searching for a safe asset amid global uncertainty. Between January 29 (when the BOJ introduced negative interest rates) and March 22, 2016, the yen gained 8.3 percent against the US dollar.

### In the Eurozone, a weak banking sector has not helped

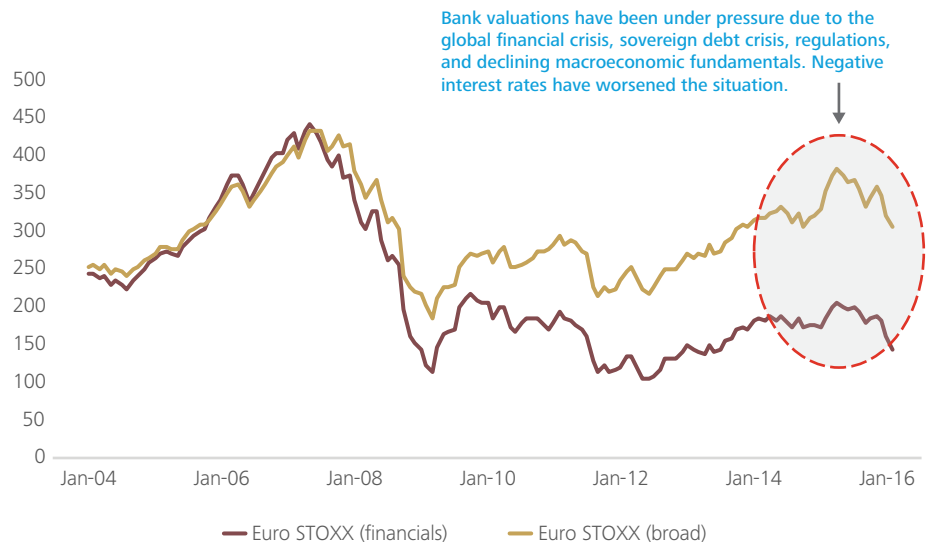
For negative interest rates to make an impact, the banking system's response is critical. Unfortunately, banks are under pressure in the Eurozone due to slow asset growth, economic uncertainty, and rising non-performing assets. Negative interest rates have added to their discomfort by denting banks' interest income. For example, net interest income as a share of banks' total income fell to 58.7 percent in 2014 from 67.6 percent in 2008.<sup>3</sup> Bank valuations have suffered as a result (figure 8).

### Some troubling trends have emerged

#### Reserves are on the rise in the Eurozone despite negative interest rates

For the ECB, a big worry is that banks have been increasing their excess reserves. This defeats the very purpose of negative interest rates. Between June 2014 and January 2016, excess reserves shot up more than 400 percent (figure 9). This shows that banks in the Eurozone still prefer to park extra funds and pay the ECB rather than lending in the current environment of market uncertainty and subdued economic growth. Cross-border lending, which would have helped, has been hit due to differential risks within the Eurozone and cautious national regulators.<sup>4</sup>

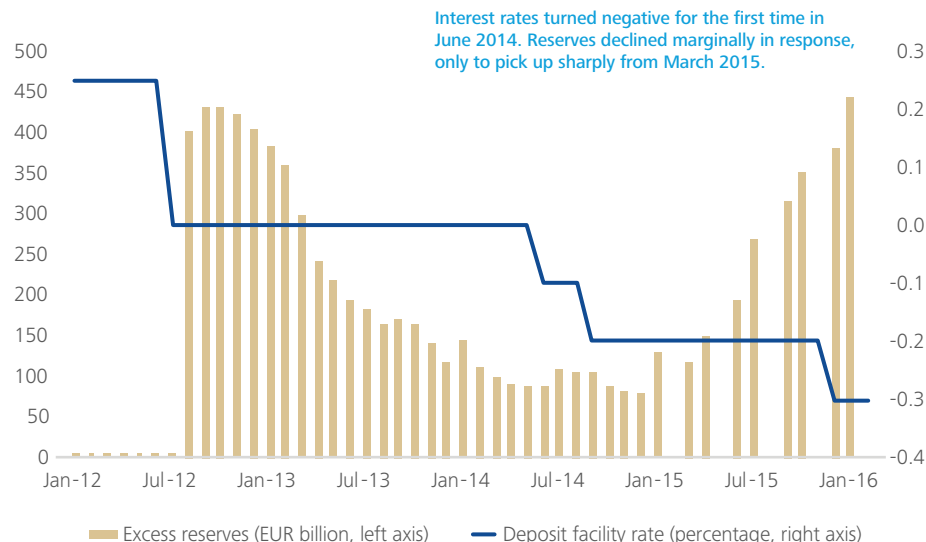
**Figure 8. Valuations for Eurozone banks and financial institutions are under pressure**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

**Figure 9. Despite negative interest rates, excess reserves with the ECB are rising**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Note: The gaps in data since December 2014 are due to the fact that the ECB changed the frequency of the minimum reserve period to a six-week cycle.

Graphic: Deloitte University Press | DUPress.com

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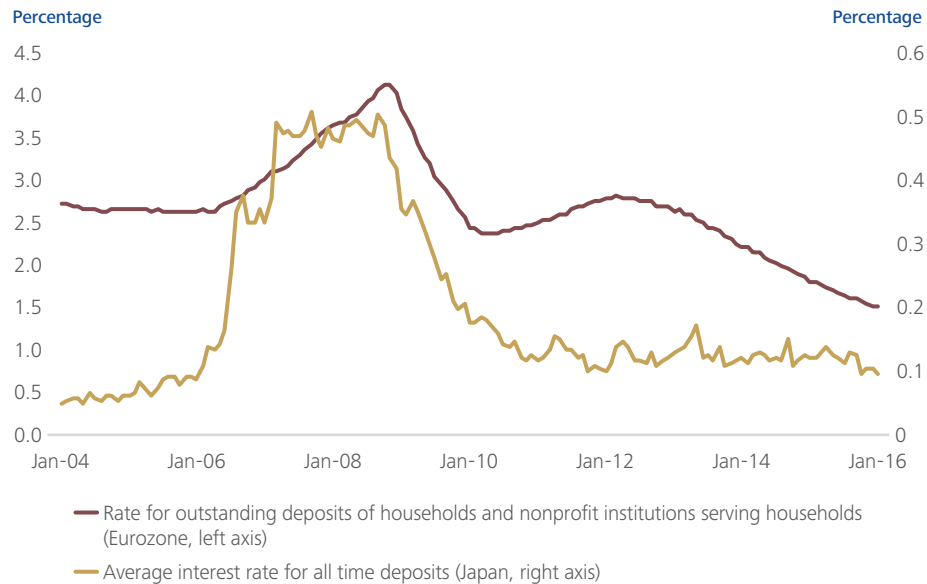
### **There's a floor to lending and deposit rates**

Although negative policy rates have lowered banks' lending and deposit rates, there is a limit to which both can fall. For example, after the ECB cut rates to -0.3 percent in December 2015, the cost of borrowing for nonfinancial corporations and households was unchanged.<sup>5</sup> Deposit rates are also at an all-time low (figure 10). Banks will be reluctant to cut rates further because it might force people to keep cash at home instead of putting it in a bank.<sup>6</sup>

### **If negative rates don't push up inflation, real yields will rise**

With nominal interest rates below zero, real rates will rise if inflation does not pick up. In February 2016, the real yield on 10-year Eurozone bonds was higher than the nominal yield (figure 11). In Japan, real yields for 10-year sovereign bonds are back in positive territory. As governments are saddled with high debt, any sustained rise in real yields will be worrying.

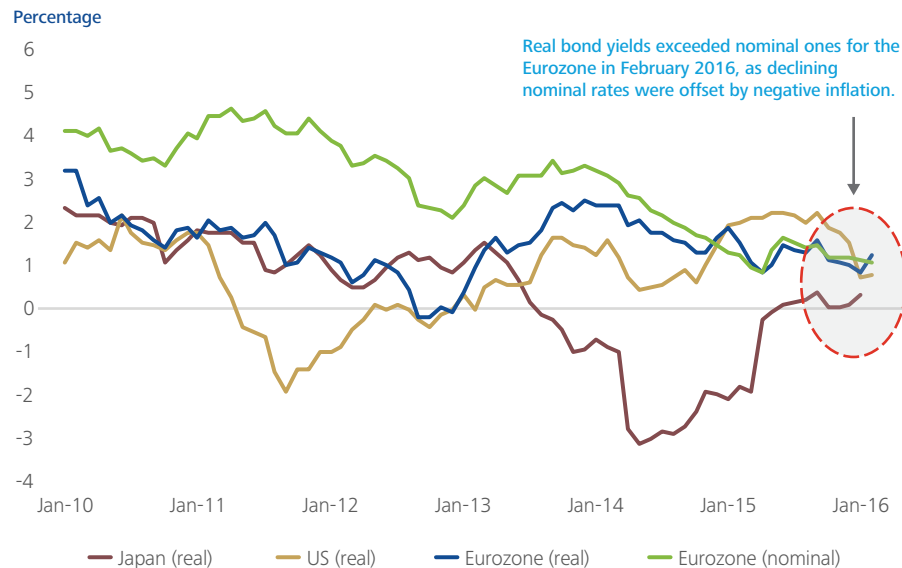
**Figure 10. Deposit rates have gone down, but there is a floor**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

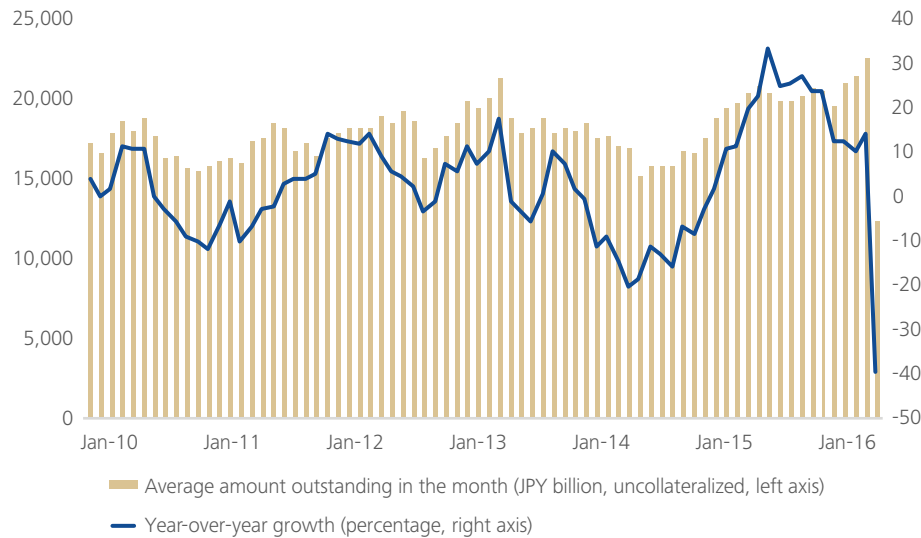
**Figure 11. Real yields in the Eurozone and Japan have risen of late**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

**Figure 12. Money markets in Japan were jolted in February after negative policy rates were introduced**



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

## Negative interest rates have hit money markets in Japan

In Japan, negative interest rates are denting money market liquidity as market participants struggle to cope with negative rates. In February 2016, for example, the average amount outstanding in money markets (uncollateralized) fell by a staggering 39.5 percent (figure 12). This is primarily due to the unexpected nature of the rate cut (below zero) in January.<sup>7</sup>

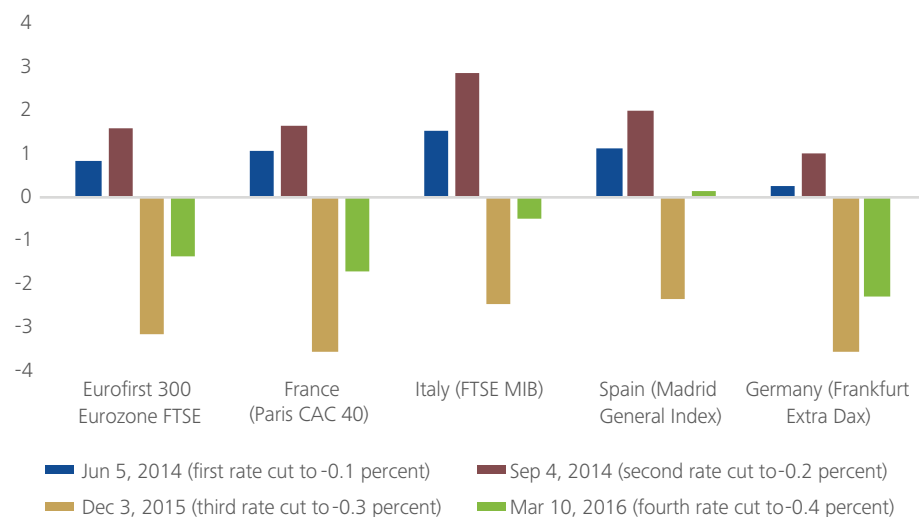
### Yearning for a return to normal?

In the Eurozone, equity markets cheered the first two rate cuts (below zero) but were more muted in response to the third and the fourth (figure 13). In Japan, while markets reacted positively on January 29, the euphoria was short-lived, with businesses and policymakers still trying to make sense of the BOJ's latest policy decision.<sup>8</sup> In fact, there is a debate within the BOJ itself on whether to carry on with negative interest rates.<sup>9</sup>

The worry is that with interest rates negative, the ECB and the BOJ are left with fewer policy tools to counter any new headwinds. Surely, central banks cannot push rates below zero much further. In the Eurozone, monetary policy alone, without structural reforms and coordinated fiscal policy, cannot tackle challenges in a diverse region. Negative interest rates also add to the confusion in global financial markets due to a wide swathe of unorthodox monetary policies across the world since 2008. It's no surprise, then, that economists and policymakers are increasingly calling for an end to such policies and a return to more transparent policy coordination.<sup>10</sup> It might be worth heeding that call.

**Figure 13. Negative interest rates have lost their sheen in Eurozone equity markets**

Gains over the previous day, percentage



Source: Haver Analytics; Deloitte Services LP economic analysis.

Graphic: Deloitte University Press | DUPress.com

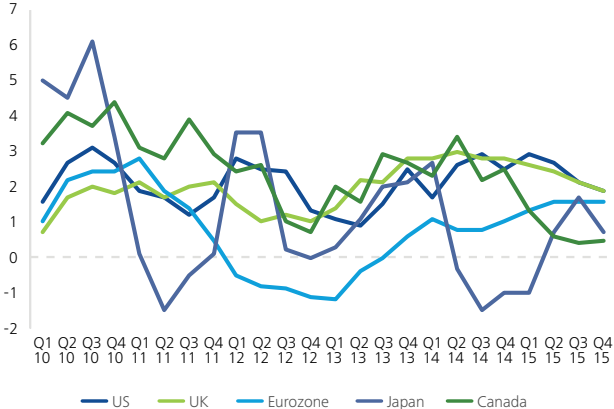
The worry is that with interest rates negative, the ECB and the BOJ are left with fewer policy tools to counter any new headwinds. Surely, central banks cannot push rates below zero much further.

## Endnotes

1. Haver Analytics, March 2016.
2. Ibid.
3. Ibid.
4. Yalman Onaran, "ECB doing whatever it takes can't make Euro-area banks lend," *Bloomberg*, March 21, 2016, <http://www.bloomberg.com/news/articles/2016-03-21/ecb-doing-whatever-it-takes-can-t-push-euro-area-banks-to-lend>.
5. Haver Analytics, March 2016.
6. Jun Hongo and Miho Inada, "Japanese seeking a place to stash cash start snapping up safes," *Wall Street Journal*, February 22, 2016, <http://www.wsj.com/articles/japanese-seeking-a-place-to-stash-cash-start-snapping-up-safes-1456136223>.
7. Leika Kihara, "BOJ stuns markets with surprise move to negative interest rates," *Reuters*, January 29, 2016, <http://www.reuters.com/article/us-japan-economy-boj-decision-idUSKCN0V70A7>.
8. Leika Kihara, "Bank of Japan scrambles to find positives in negative rates," *Reuters*, March 13, 2016, <http://www.reuters.com/article/us-japan-economy-boj-insight-idUSKCN0WG04E>; Stanley White, "Japan economy minister: Need more data to measure impact of negative interest rates," *Reuters*, February 17, 2016, <http://www.reuters.com/article/us-japan-economy-ishihara-idUSKCN0VQ0VQ>.
9. Leika Kihara, "BOJ board debated rolling back negative interest rates at March meeting," *Reuters*, March 24, 2017, <http://in.reuters.com/article/us-japan-economy-boj-idINKCN0WQ023>.
10. Raghuram Rajan, "New rules for the monetary game," *Project Syndicate*, March 21, 2016, <https://www.project-syndicate.org/commentary/new-monetary-policy-rules-needed-by-raghuram-rajan-2016-03>.

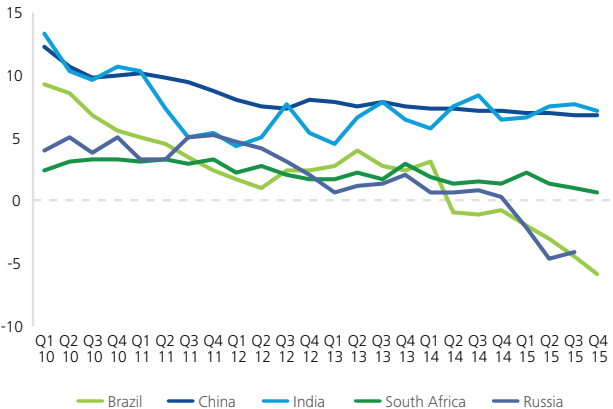
# Economic indices

**GDP growth rates (percentage, year over year)**



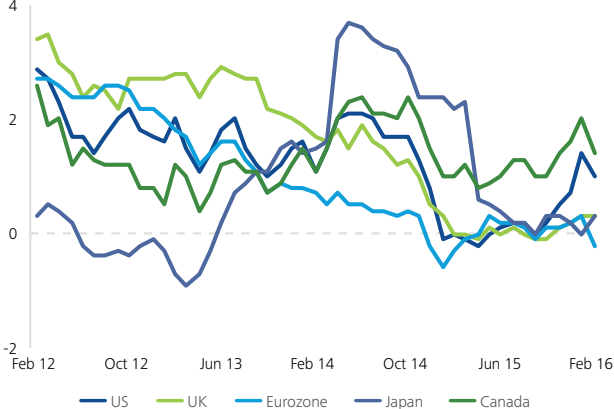
Source: Bloomberg, Haver Analytics.  
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**GDP growth rates (percentage, year over year)**



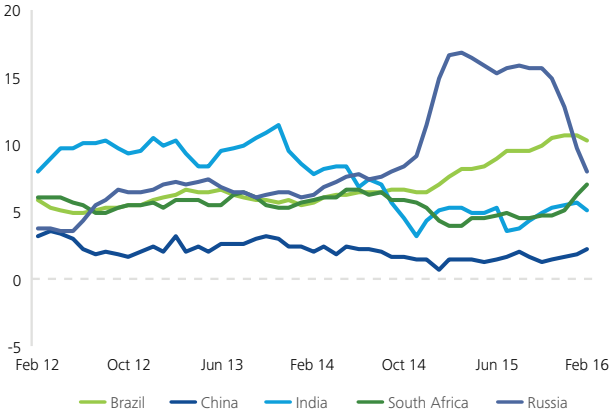
Source: Bloomberg, Haver Analytics.  
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**Inflation rates (percentage, year over year)**



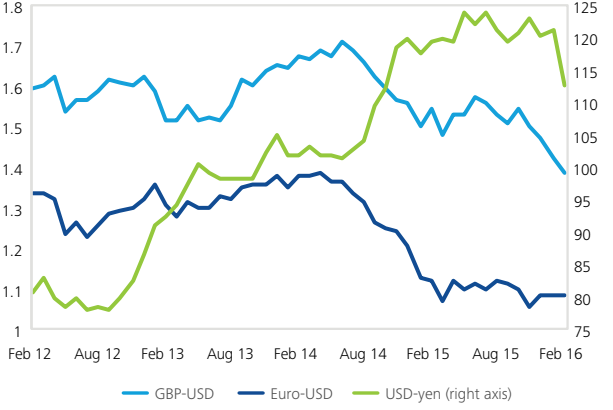
Source: Bloomberg, Haver Analytics.  
Graphic: Deloitte University Press | DUPress.com

**Inflation rates (percentage, year over year)**



Source: Bloomberg, Haver Analytics.  
Graphic: Deloitte University Press | DUPress.com

**Major currencies vs. the US dollar**



Source: Bloomberg.  
Graphic: Deloitte University Press | DUPress.com



Yield curves (as of March 25, 2016)\*

	US Treasury Bonds & Notes	UK Gilts	Eurozone Govt. Benchmark	Japan Sovereign	Canada Sovereign	Brazil Govt. Benchmark	China Sovereign	India Govt. Bonds	South Africa Sovereign	Russia**
3 Months	0.28	0.48	-0.42	-0.11	0.46	15.03	2.06	7.17	7.20	10.09
1 Year	0.61	0.42	-0.41	-0.14	0.54	13.58	2.17	7.28	-	9.79
5 Years	1.38	0.88	-0.31	-0.22	0.72	14.12	2.75	7.56	8.97	9.39
10 Years	1.90	1.45	0.18	-0.08	1.27	14.20	2.88	7.51	9.36	9.28

Composite median GDP forecasts (as of March 25, 2016)\*

	US	UK	Eurozone	Japan	Canada	Brazil	China	India	South Africa	Russia
2016	2.1	2	1.5	0.7	1.5	-3.5	6.5	7.4	0.7	-1.5
2017	2.3	2.2	1.6	0.6	2	1	6.3	7.7	1.4	1.2
2018	2.1	2.2	1.6	0.7	2.1	1.5	6.4	7.8	2	1.5

Composite median currency forecasts (as of March 25, 2016)\*

	Q2 16	Q3 16	Q4 16	Q1 17	2016	2017	2018
GBP-USD	1.41	1.45	1.47	1.46	1.47	1.52	1.55
Euro-USD	1.08	1.08	1.09	1.09	1.09	1.1	1.16
USD-Yen	115	117	119	118	119	121.5	120
USD-Canadian Dollar	1.35	1.35	1.33	1.33	1.33	1.3	1.25
USD-Brazilian Real	4	4.09	4.15	4.18	4.15	4.02	4.13
USD-Chinese Yuan	6.63	6.7	6.7	6.7	6.7	6.8	6.75
USD-Indian Rupee	68	68.23	68.5	68.35	68.5	67.75	63.75
USD-SA Rand	16	16.09	16.35	16.35	16.35	16.15	15.76
USD-Russian Ruble	72.9	72	71.9	70.5	71.9	68.25	69.6

\*Source: Bloomberg ‡MICEX rates †Source: OECD

Note: A rising composite leading indicator (CLI) reading points to an economic expansion if the index is above 100 and a recovery if it is below 100. A CLI that is declining points to an economic downturn if it is above 100 and a slowdown if it is below 100.

OECD composite leading indicators (Amplitude adjusted)†

	United States	United Kingdom	Euro area	Japan	Canada	Brazil	China	India	South Africa	Russian Federation
Jan 13	100.0	99.9	98.7	99.7	99.6	100.5	100.7	99.4	100.7	99.5
Feb 13	100.1	99.9	98.8	99.9	99.5	100.3	100.8	99.3	100.7	99.5
Mar 13	100.2	100.0	98.9	100.1	99.5	100.1	100.8	99.2	100.7	99.4
Apr 13	100.3	100.0	99.0	100.4	99.5	99.9	100.9	99.1	100.7	99.4
May 13	100.4	100.1	99.2	100.6	99.6	99.7	100.9	99.0	100.6	99.4
Jun 13	100.5	100.3	99.3	100.8	99.6	99.5	101.0	98.9	100.6	99.5
Jul 13	100.5	100.5	99.5	100.9	99.7	99.2	101.0	98.8	100.6	99.6
Aug 13	100.5	100.8	99.7	101.1	99.8	99.1	101.0	98.7	100.6	99.8
Sep 13	100.5	101.0	99.9	101.2	100.0	98.9	101.0	98.6	100.6	100.0
Oct 13	100.5	101.2	100.1	101.4	100.0	98.8	101.0	98.6	100.5	100.2
Nov 13	100.6	101.3	100.3	101.4	100.1	98.7	100.9	98.5	100.5	100.4
Dec 13	100.6	101.4	100.4	101.5	100.1	98.6	100.9	98.5	100.4	100.6
Jan 14	100.6	101.4	100.4	101.4	100.1	98.4	100.8	98.5	100.3	100.8
Feb 14	100.6	101.4	100.5	101.2	100.2	98.4	100.7	98.5	100.2	101.0
Mar 14	100.7	101.5	100.5	101.0	100.2	98.4	100.6	98.6	100.1	101.2
Apr 14	100.7	101.5	100.4	100.8	100.3	98.5	100.5	98.6	100.0	101.5
May 14	100.8	101.5	100.4	100.6	100.3	98.6	100.4	98.7	100.0	101.7
Jun 14	100.8	101.5	100.3	100.3	100.4	98.7	100.3	98.8	100.1	101.9
Jul 14	100.8	101.4	100.2	100.2	100.4	98.8	100.2	98.9	100.2	101.9
Aug 14	100.8	101.3	100.1	100.1	100.5	98.8	100.0	98.9	100.3	101.9
Sep 14	100.8	101.2	100.1	100.0	100.4	98.8	99.9	99.0	100.3	101.6
Oct 14	100.8	101.1	100.1	100.0	100.4	98.7	99.7	99.1	100.4	101.3
Nov 14	100.7	101.0	100.1	100.0	100.3	98.5	99.6	99.1	100.4	101.0
Dec 14	100.7	100.9	100.2	100.1	100.3	98.3	99.4	99.2	100.3	100.6
Jan 15	100.6	100.9	100.3	100.1	100.2	98.1	99.2	99.3	100.2	100.3
Feb 15	100.5	100.8	100.4	100.2	100.1	97.9	99.0	99.3	100.2	100.2
Mar 15	100.4	100.7	100.5	100.2	100.0	97.8	98.9	99.4	100.1	100.2
Apr 15	100.3	100.6	100.5	100.2	99.9	97.8	98.8	99.5	100.1	100.3
May 15	100.2	100.5	100.5	100.2	99.9	97.8	98.7	99.6	100.1	100.3
Jun 15	100.0	100.3	100.5	100.2	99.9	97.8	98.5	99.6	100.0	100.2
Jul 15	99.9	100.1	100.5	100.2	99.8	97.8	98.3	99.7	99.9	100.0
Aug 15	99.7	99.9	100.5	100.1	99.7	97.8	98.1	99.8	99.7	99.8
Sep 15	99.5	99.7	100.6	100.0	99.6	97.9	97.9	99.9	99.6	99.5
Oct 15	99.3	99.5	100.6	99.9	99.5	97.9	97.8	99.9	99.6	99.1
Nov 15	99.2	99.3	100.6	99.8	99.3	97.8	97.8	100.0	99.5	98.7
Dec 15	99.0	99.2	100.6	99.6	99.2	97.8	97.7	100.0	99.5	98.4
Jan 16	98.9	99.1	100.5	99.5	99.1	97.7	97.6	100.1	99.5	98.0

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