



Global Macroeconomic Outlook September 2016

Global Economic Outlook¹

The IMF continues to downgrade growth expectations due to weaker growth in the U.S. and uncertainties related to the recent vote by the U.K. to leave the European Union.

- Compared to their April report, the IMF reduced their 2016 global growth forecast by 0.1%, to 3.1%, and lowered its 2017 forecast by the same amount, to 3.4%.
- In advanced economies, the IMF outlook for 2016 fell from 1.9% to 1.6% and from 2.0% to 1.8% for 2017. Despite the subdued market reaction to the “Brexit” vote, risks to growth and investment remain, particularly for the U.K. Also weighing on advanced economy growth in 2016 is lower than expected economic activity in the U.S. during the first half of the year.
- Growth projections for emerging economies increased slightly in 2016 (4.2% versus 4.1%) and remained the same for 2017 (4.6%). Economic environments within emerging market countries remain uneven. Expectations for continued low interest rates have recently helped emerging markets, while low commodity prices, a slowdown in China, and low demand from developed economies remain headwinds.
- Inflation expectations have generally trended up, but remain below long-term averages.

	Real GDP (%)			Inflation (%)		
	IMF 2016 Forecast	IMF 2017 Forecast	Actual 10 Year Average	IMF 2016 Forecast	IMF 2017 Forecast	Actual 10 Year Average
World	3.1	3.4	3.7	2.9	3.3	4.0
U.S.	1.6	2.2	1.4	1.2	2.3	2.0
European Union	1.9	1.7	1.1	0.3	1.3	1.9
Japan	0.5	0.6	0.5	-0.2	0.5	0.5
China	6.6	6.2	9.6	2.1	2.3	2.9
Emerging Markets (ex. China)	2.7	3.6	4.5	6.0	5.8	7.4

¹ Source: IMF. World Economic Outlook. October 2016 edition. “Actual 10 Year Average” represents data from 2006 to 2015. Data after 2015 is an estimate.

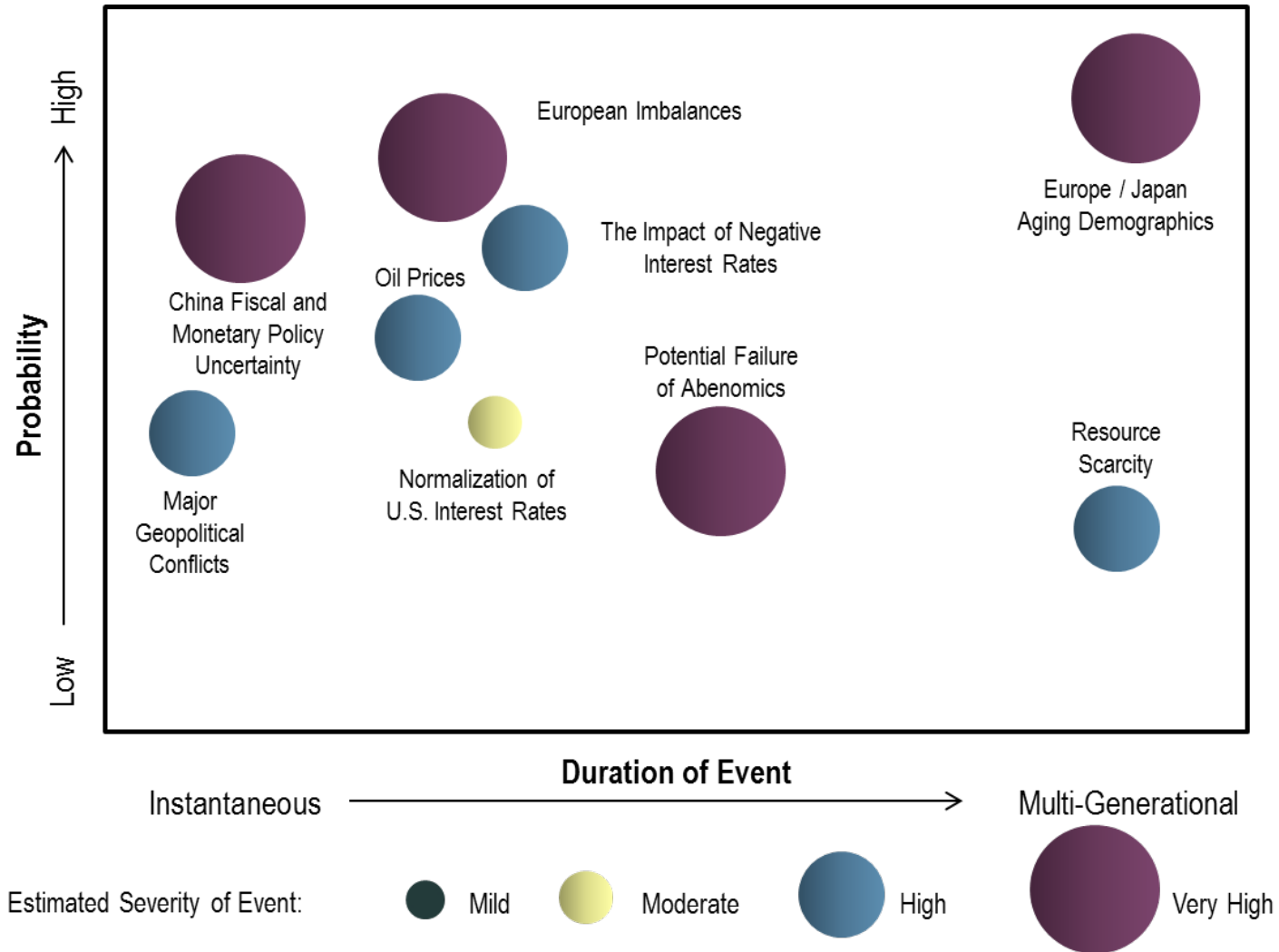
Global Economic Outlook, Continued

Given the length and breadth of historic monetary stimulus from major central banks, questions remain on how much longer they will continue these policies. There is the potential for increased fiscal stimulus globally.

- Expectations for a rate increase by the Federal Reserve have varied widely this year. Going into the year expectations were for up to four increases in 2016 with none materializing thus far. After expectations for a rate increase fell post “Brexit” they have since increased in light of declining unemployment and signs of increased prices.
- The European Central Bank (ECB) continues to keep interest rates at record lows with the bank deposit rate at -0.4% and its key interest rate at close to 0%. The ECB’s bond-buying program is scheduled to start winding down next year. In recent comments, Mario Draghi, the ECB president, said that they would provide more clarity later this year on whether they would extend the program.
- The Bank of Japan (BOJ) recently shifted the focus of its stimulative efforts to influencing interest rates while keeping its asset purchases at the same level. To date, the impact of the BOJ’s policies has hurt banks as the spread between short- and long-term rates have narrowed. Their focus now will be on steepening the yield curve.
- Driven by government spending and a hot property market, China’s economy grew by 6.7% in the third quarter matching the prior quarter. Given that the economy appears to be on stable footing, it is likely that the government will turn to addressing the growing debt issues.

Several issues are of primary concern: 1) declining growth in China, along with uncertain fiscal and monetary policies; 2) continued economic sluggishness in Europe, and risks related to the U.K.’s exit from the European Union; 3) weakening economic activity in the U.S.; 4) divergent growth in emerging economies; 5) uncertainties related to global elections and referendums.

Macroeconomic Risk Matrix



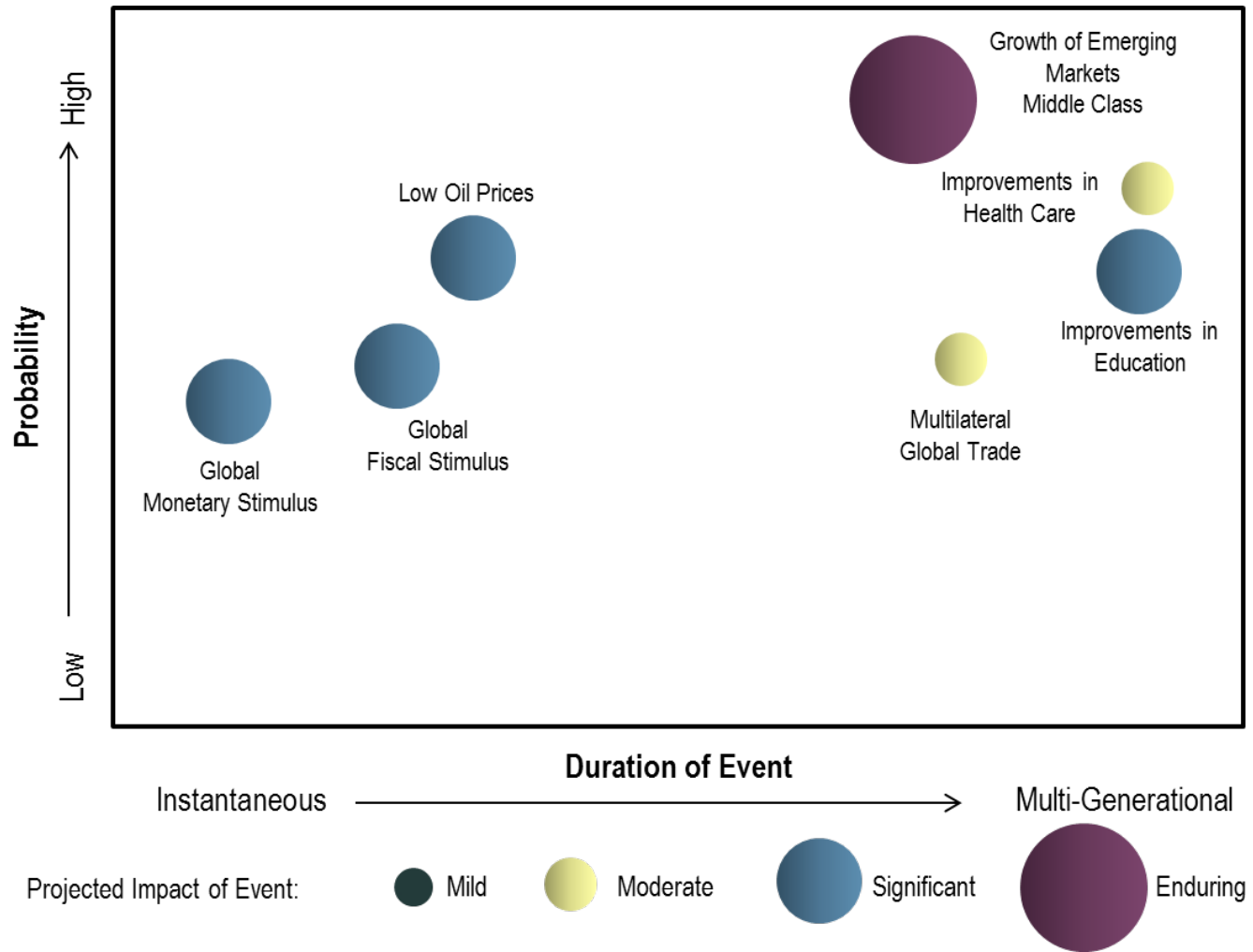
Macroeconomic Risk Overviews

Low Oil Prices	Although oil prices recently increased, they remain historically low. An extended period of low oil prices will hurt countries such as Iran, Russia, and Venezuela that depend heavily on oil export revenues. Low prices will continue to hurt oil exploration and production (E&P) companies, and companies that support the oil industry. Recently, the stress of low oil prices has particularly affected E&P companies, with bond defaults ticking up. The risk of increased geopolitical tensions also exists with depressed oil prices.
European Imbalances	The crisis is rooted in structural issues in the Eurozone related to the combination of a single currency combined with 17 fiscal authorities. In the broader European Union, tensions exist, as highlighted in the recent U.K. referendum, related to policies on immigration, laws, and budgetary contributions. Additional countries leaving either group, particularly the Eurozone, could set a dangerous precedent, especially if they ultimately experience growth. The massive influx of refugees into Europe from the Middle East and North Africa exacerbates economic stress.
Potential Failure of Abenomics	Japan is engaged in a historic stimulus program, referred to as “Abenomics” to fight its decades of deflation. The plan includes monetary, fiscal, and structural components. If Japan overshoots with its policies, or dramatically changes them unexpectedly, it could prove disruptive to markets and growth.
Europe/Japan Aging Demographics	In Japan and Europe, birth rates have declined for decades, resulting in populations becoming older and smaller relative to the rest of the world. These demographic trends will have a negative long-term impact on GDP growth and fiscal budgets, amplifying debt problems.
Major Geopolitical Conflicts	Recently Iraqi forces began to move into Mosul, the largest second city in the country, in an effort to retake it from ISIS control. It is likely that the battle will be hard fought with many casualties. The recent attacks in the U.S., Europe, and Turkey further highlight the continued threat of terrorism. Within Europe, this complicates the refugee crisis, as countries try to balance maintaining open borders with preventing terrorists from entering their countries. Other unresolved geopolitical issues remain, including the civil war in Syria and North Korea’s nuclear aspirations.

Macroeconomic Risk Overviews, Continued

China Fiscal and Monetary Policy Uncertainty	China's recent policies, first to support its equity markets and then to devalue its currency, created heightened volatility in global markets. The process of transitioning from a growth model based on fixed asset investment by the government, to a model of consumption-based growth will be difficult. Similar measures responding to slowing growth or to support stock prices could prove disruptive and decrease confidence in China's government. China's abandonment of its support of the yuan, and a resulting major devaluation of the currency, could prove particularly disruptive to global markets and trade. The growing mountain of debt, particularly in the corporate sector, remains another key risk.
Normalization of U.S. Interest Rates	After the Global Financial Crisis, the U.S. injected massive amounts of liquidity into the financial system in an effort to prevent depression-like declines in economic activity. Additionally, the central bank reduced short-term interest rates to record lows. Expectations have recently increased for the Fed to resume interest rate hikes later this year. Once they resume tightening, this could weigh on growth globally, particularly in emerging economies.
Resource Scarcity	The growing world population, urbanization, and a growing middle class, particularly in emerging economies, could all lead to a scarcity of resources, including food, water, land, energy, and minerals. As demand continues to grow and supply declines, certain commodity prices may skyrocket, hurting the living standards of many and increasing the risk of geopolitical conflicts.
The Impact of Negative Interest Rates	Recently monetary policies amongst major central banks have diverged. The U.S. stopped its bond-buying program and increased interest rates last year, while in Europe and Japan, rates are expected to remain low, with deposit rates in negative territory. The hope of negative interest rates is to stimulate economic activity, but they could have unintended consequences. If banks absorb the impact of negative interest rates, that could weigh on profit margins and lending, while charging customers to hold their cash may lead to funds being withdrawn from banks. Both results could lead to less lending, not more, and ultimately a decline in economic activity.

Positive Macroeconomic Trends Matrix



Positive Macroeconomic Trends Overviews

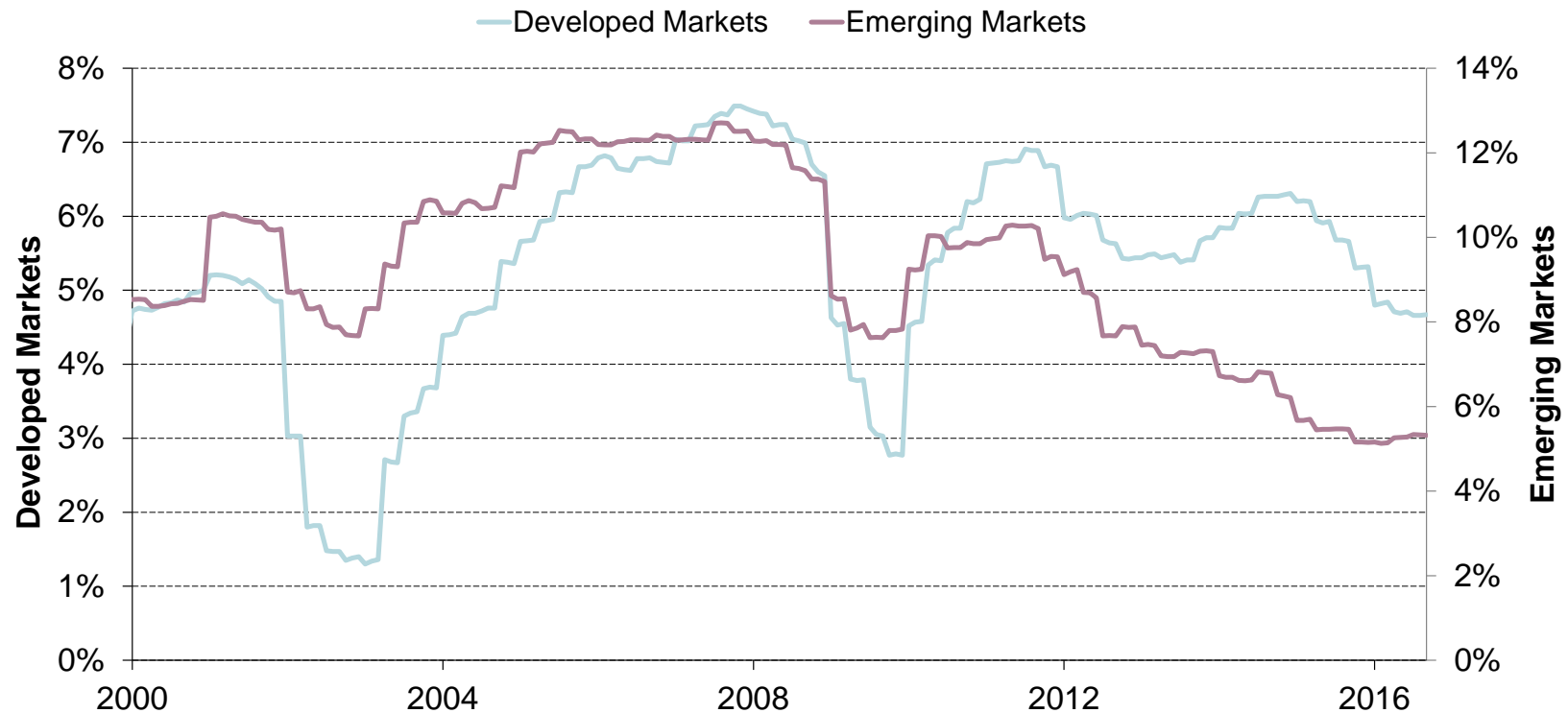
Low Oil Prices	<p>Although oil prices have recently increased, they remain low from a historical perspective. Low oil prices will likely have a positive impact on global growth, particularly for energy importers like China, Japan, and India. Consumers should benefit from falling oil prices, in the form of lower prices for gasoline and heating oil.</p>
Growth of Emerging Markets Middle Class	<p>In emerging economies, the size of the middle class is projected to grow significantly over the next twenty years. This growing middle class should increase consumption globally, which in turn will drive GDP growth and create jobs.</p>
Multilateral Global Trade	<p>Increased trade and investment, and access to foreign capital and export markets for corporations, should lead to greater global growth. The recent U.K. vote to leave the European Union, along with anti-trade sentiment in the U.S. and elsewhere, could weigh on trade going forward.</p>
Improvements in Education/Healthcare	<p>Literacy rates and average life spans have increased globally, particularly in the emerging economies. Higher literacy rates will drive future growth, helping people learn new skills and improve existing skills. When people live longer, it increases incentives for long-term investments in education and training, resulting in a more productive work force and ultimately more growth.</p>
Global Monetary Stimulus	<p>Developed market central banks embarked on a massive monetary stimulus campaign in the aftermath of the Global Financial Crisis. The U.S., European, and Japanese central banks continue to maintain interest rates at record lows. Japan and Europe continue asset purchase programs, while the U.S. ended its program and increased interest rates once in December of 2015. Additionally, many emerging market central banks have reduced interest rates to stimulate growth. Given continued slow growth and low prices globally it is likely central banks will continue to maintain loose monetary policy. If central banks continue to provide liquidity and keep interest rates low, this should stimulate growth.</p>
Global Fiscal Stimulus	<p>Given the slow growth globally, and the limited room for additional monetary stimulus, there could be a shift to fiscal stimulus. With interest rates so low, borrowing for infrastructure investments is affordable. If productive investment options are not available, reducing taxes is an option. Increased fiscal stimulus could help growth while reducing the reliance on monetary policy.</p>

Global Nominal Gross Domestic Product (GDP) Growth¹



- Global growth prior to the Global Financial Crisis, and in the period immediately following it, was much higher than current levels.
- A sustained downward trend in growth will weigh on incomes and corporate profits and lead to continued low levels of inflation and interest rates.

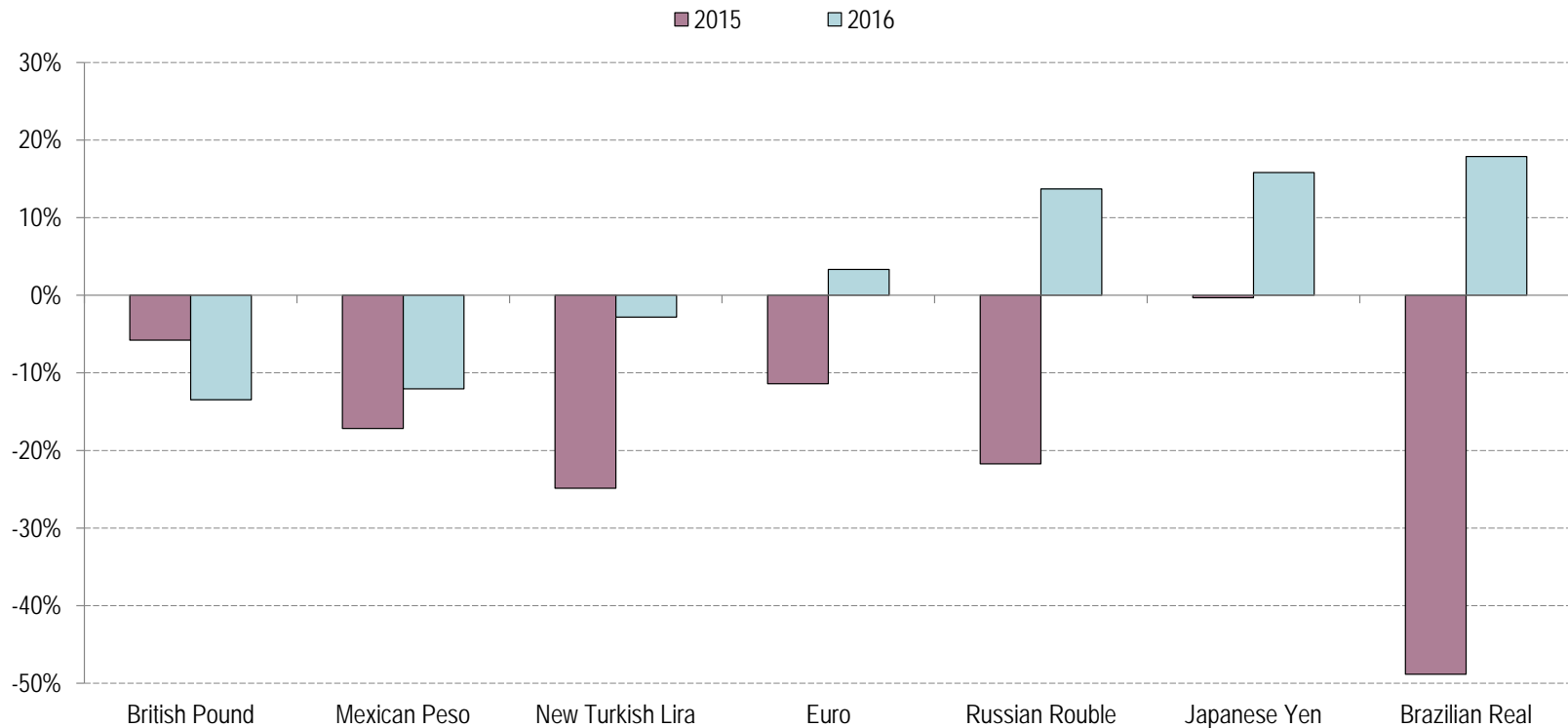
¹ Source: Oxford Economics. Updated October 2016. GDP data after 2015 are estimates.

Corporate Profits¹

- Corporate profits rose from their lows in 2009 largely driven by cost cutting, but have recently started to decline.
- Continued weakness in corporate profits could result in lower investment by companies ultimately leading to lower employment, wages, and overall economic growth.

¹ Source: Oxford Economics.

Major Currency Values versus the U.S. Dollar¹



- The U.S. dollar remained overall weaker in 2016 through the end of the third quarter with varied results across currencies. If the Federal Reserve begins to increase interest rates, or there is increased demand for safe haven assets, the dollar could experience renewed strength.
- The British pound declined further recently to historic lows given fears of a so-called “hard exit” from the European Union.

¹ Source: Thomson Reuters. Data is as of September 30, 2016.

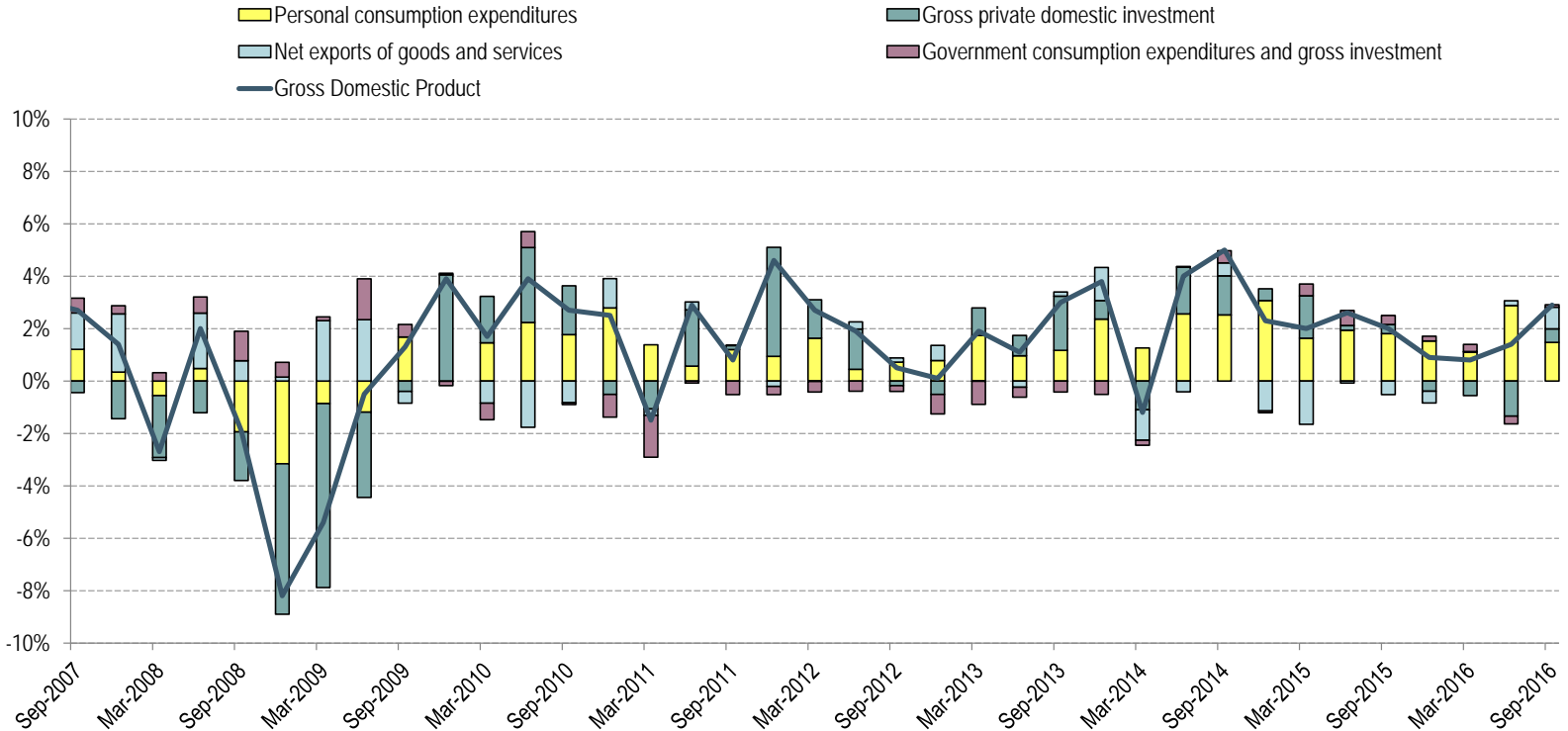
Probability of Federal Funds Rate Increase¹

Federal Reserve Meeting Date	Probability of Rate Increase As of 12/31/2015 (%)	Federal Reserve Meeting Date	Probability of Rate Increase As of 6/30/2016 (%)	Federal Reserve Meeting Date	Probability of Rate Increase As of 9/30/2016 (%)
1/27/2016	0	7/29/2016	0	11/2/2016	17
3/16/2016	51	9/21/2016	0	12/14/2016	59
4/27/2016	56	11/2/2016	0	2/1/2017	61
6/15/2016	75	12/14/2016	9	5/3/2017	66
7/29/2016	79	2/1/2017	9	3/15/2017	68
9/21/2016	87	5/3/2017	13	6/14/2017	72
11/2/2016	90	3/15/2017	14	7/26/2017	72
12/14/2016	93	6/14/2017	23	9/20/2017	75
2/1/2017	95	7/26/2017	22	11/1/2017	76
		9/20/2017	31	12/13/2017	79
		11/1/2017	32		
		12/13/2017	40		

- Market expectations for rate increases by the Federal Reserve have varied widely since the end of 2015.
- After the probability of a rate increase declined post “Brexit,” expectations have since increased with markets predicting an above 50% chance of an increase later this year.
- Once the Fed resumes its tightening it is likely they will take a gradual approach with a lower end trajectory than in prior cycles.

¹ Source: Bloomberg.

U.S. Real Gross Domestic Product (GDP) Growth¹

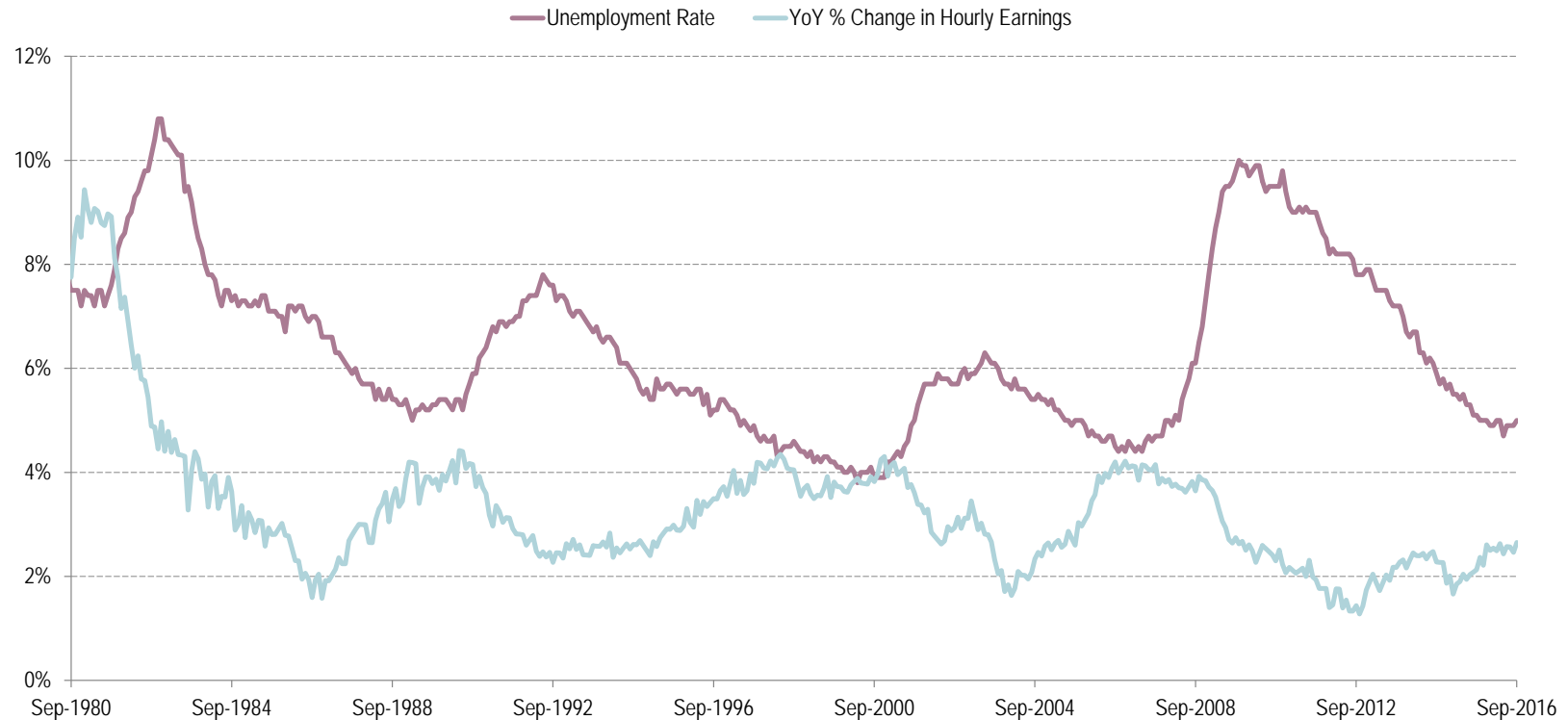


- In the third quarter, U.S. GDP grew at an annualized rate of 2.9% slightly ahead of expectations and more than double the rate in the prior quarter. Over the trailing twelve months, GDP grew by 1.5%.
- A decline in consumer spending was offset by increases in inventory investment and exports.

¹ Source: U.S. Bureau of Economic Analysis. Data is as of the third quarter of 2016 and represents the first estimate.



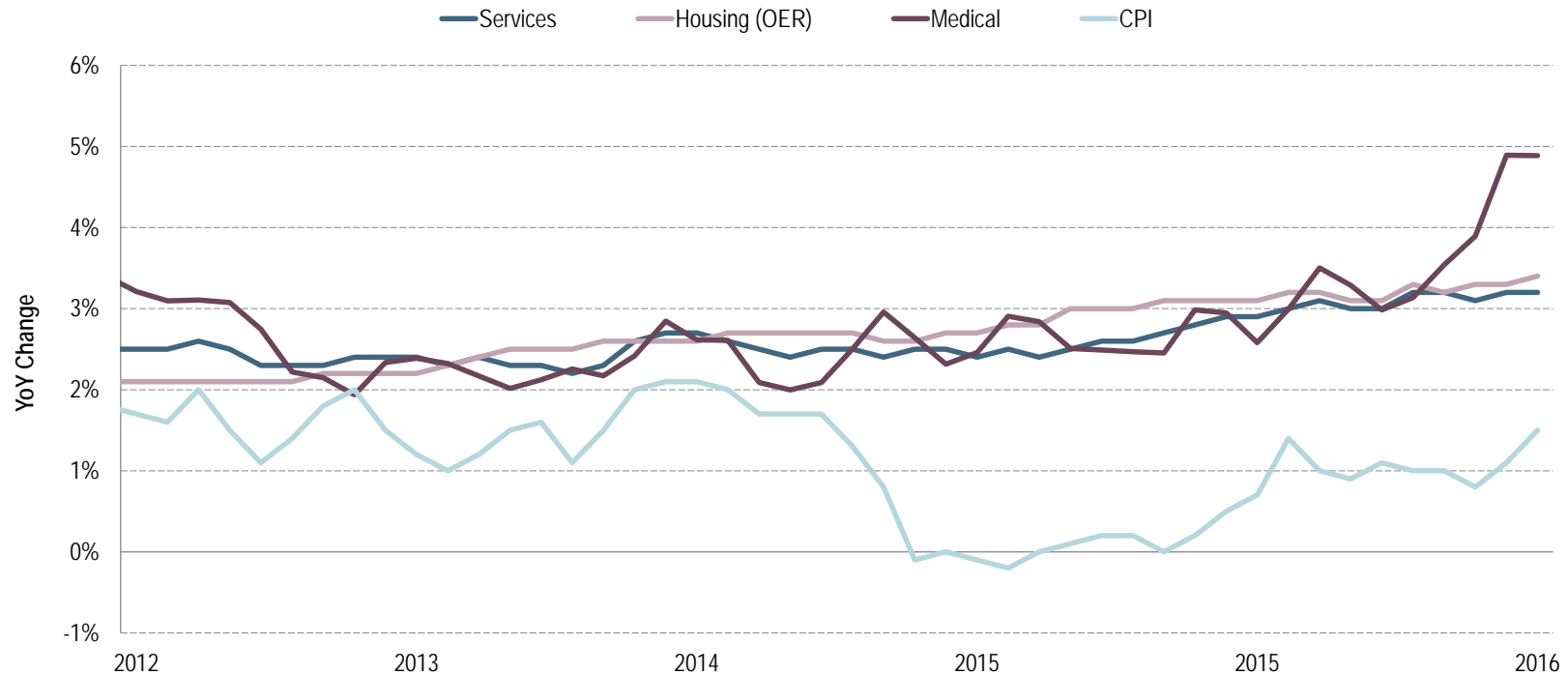
U.S. Employment & Wages¹



- Unemployment is now half the level of its 10% peak in 2009 and wages have recently increased.
- Despite the recent rise in wages, the increase is more subdued than in prior recoveries.
- Weak wage growth could continue to weigh on prices and growth.

¹ Source: Bureau of Labor Statistics. Data is as of September 30, 2016.

U.S. Inflation Components¹

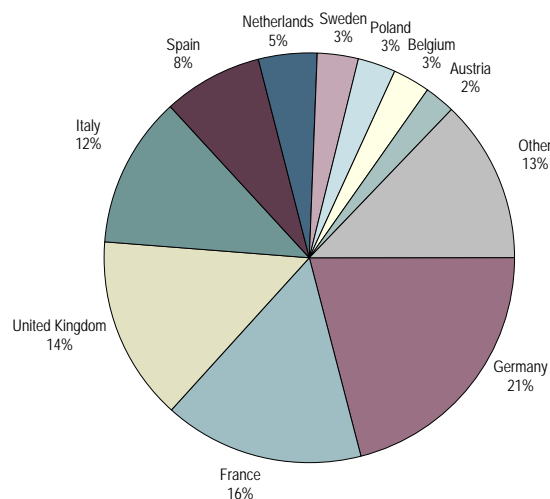


- Inflation in the U.S. increased recently, but remains low.
- The main driver of depressed prices has been the fall in oil, a trend that could reverse as the impact of oil's decline falls out of the inflation calculation and the recent rise is captured.
- Other components of inflation, including housing, medical, and services, are already tracking much higher.

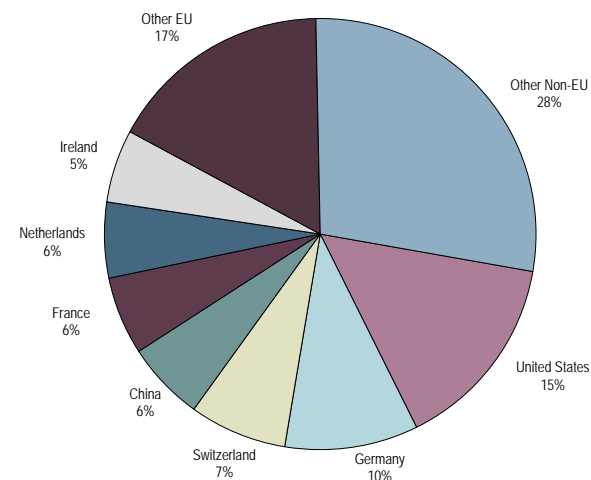
¹ Source: Bloomberg; Bureau of Labor Statistics. Data is as of September 30, 2016.

European Union Overview

Aggregate European Union GDP¹



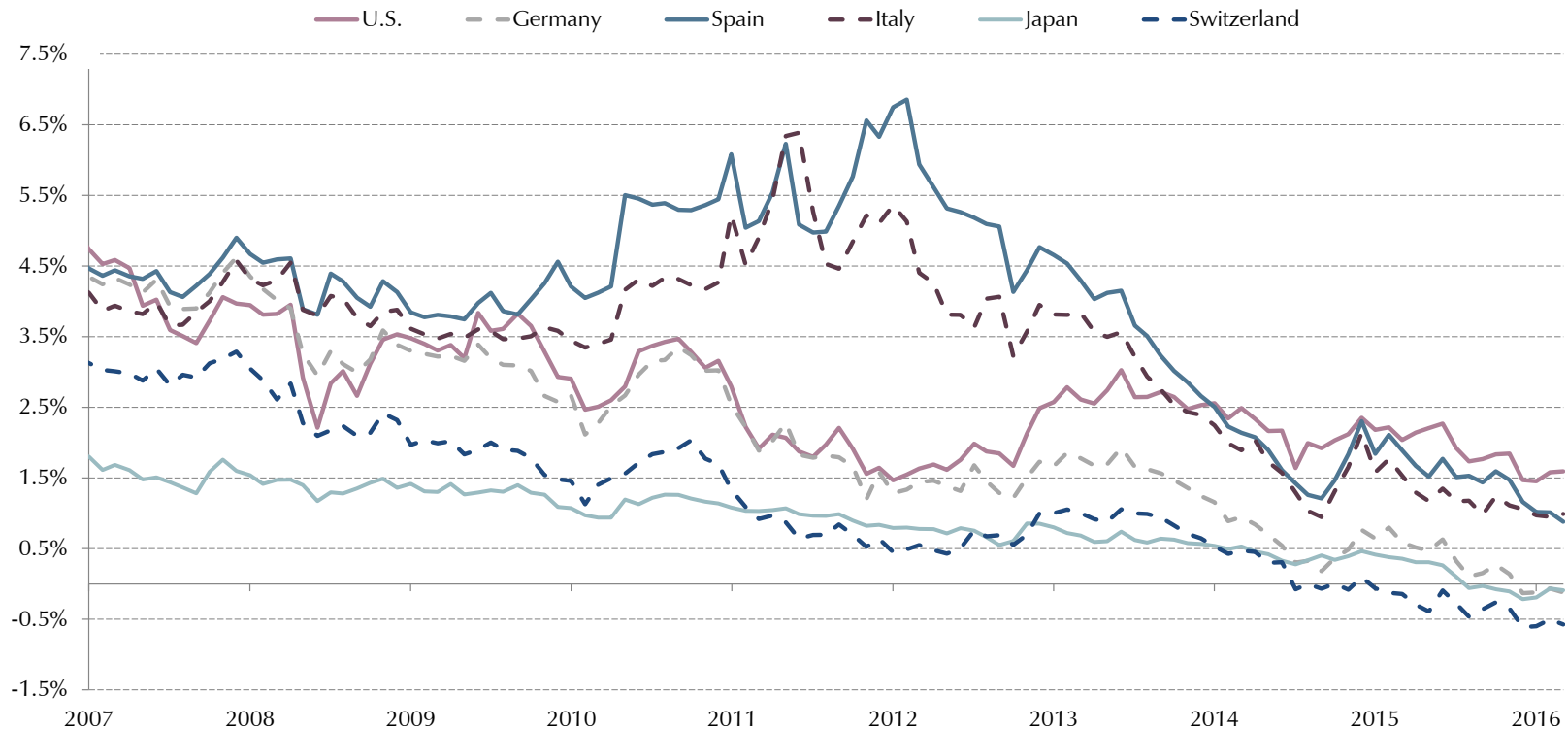
United Kingdom Export Destinations²



- The European Union is made up of 28 countries and is an economic/political union. The U.K. makes up approximately 14% of its GDP and exports a majority of its goods to other member countries.
- In late June, the U.K. held a referendum on whether or not to stay in the European Union. The result was a vote in favor of leaving.
- Recently, the new Prime Minister, Theresa May, stated that she plans to trigger the exit clause (Article 50 of the Lisbon Treaty) in March of next year, beginning the two years of formal exit negotiations.
- Concerns over a potentially “hard exit” from the European Union recently led to the pound declining further to historic lows. Persistent weakness in the currency could weigh on consumption and imports.

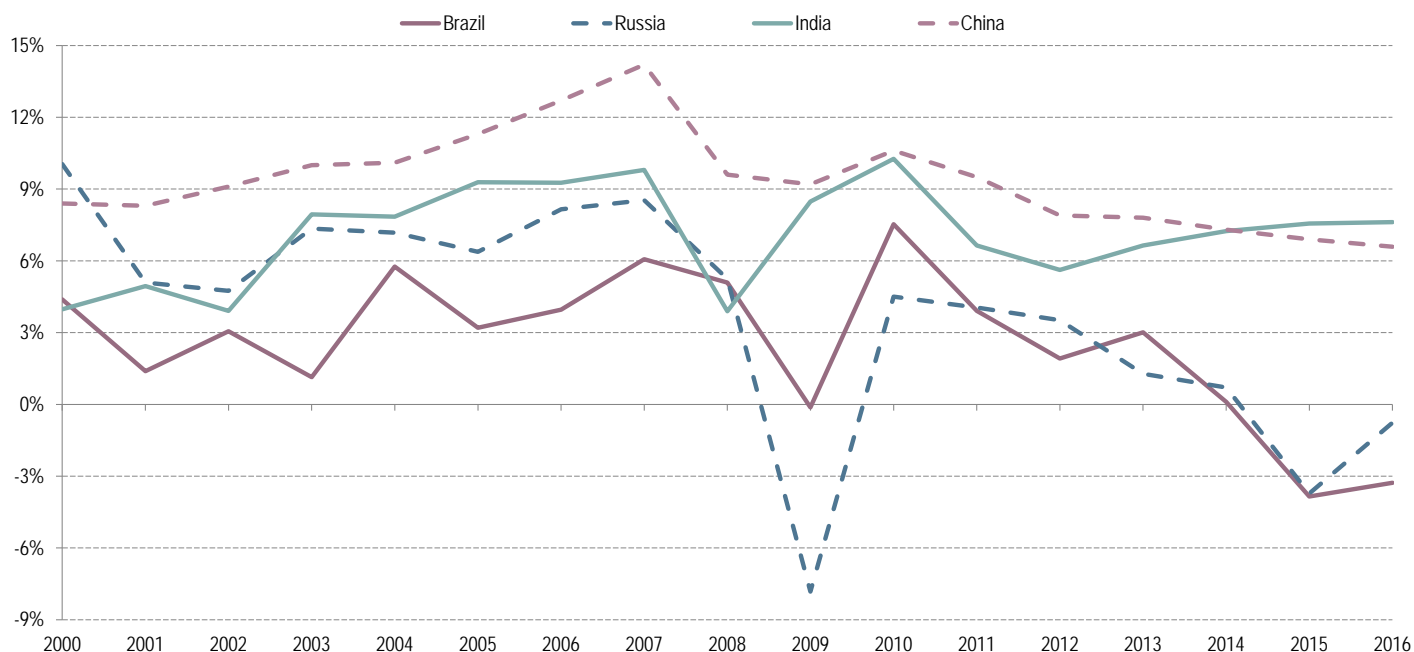
¹ Source: Eurostat. Represents 2013 data.

² HM Revenue and Customs, National Statistics. Represents 2015 data.

10-Year Government Bond Yields¹

- In light of central banks' stimulative efforts, yields remain low, or negative, forcing investors into riskier, higher yielding, asset classes.
- Recently, the amount of negative yielding debt has declined as investors question how long central banks will continue with loose monetary policy.
- During the quarter, the entire U.S. yield curve increased as expectations grow for a Fed rate increase later this year.

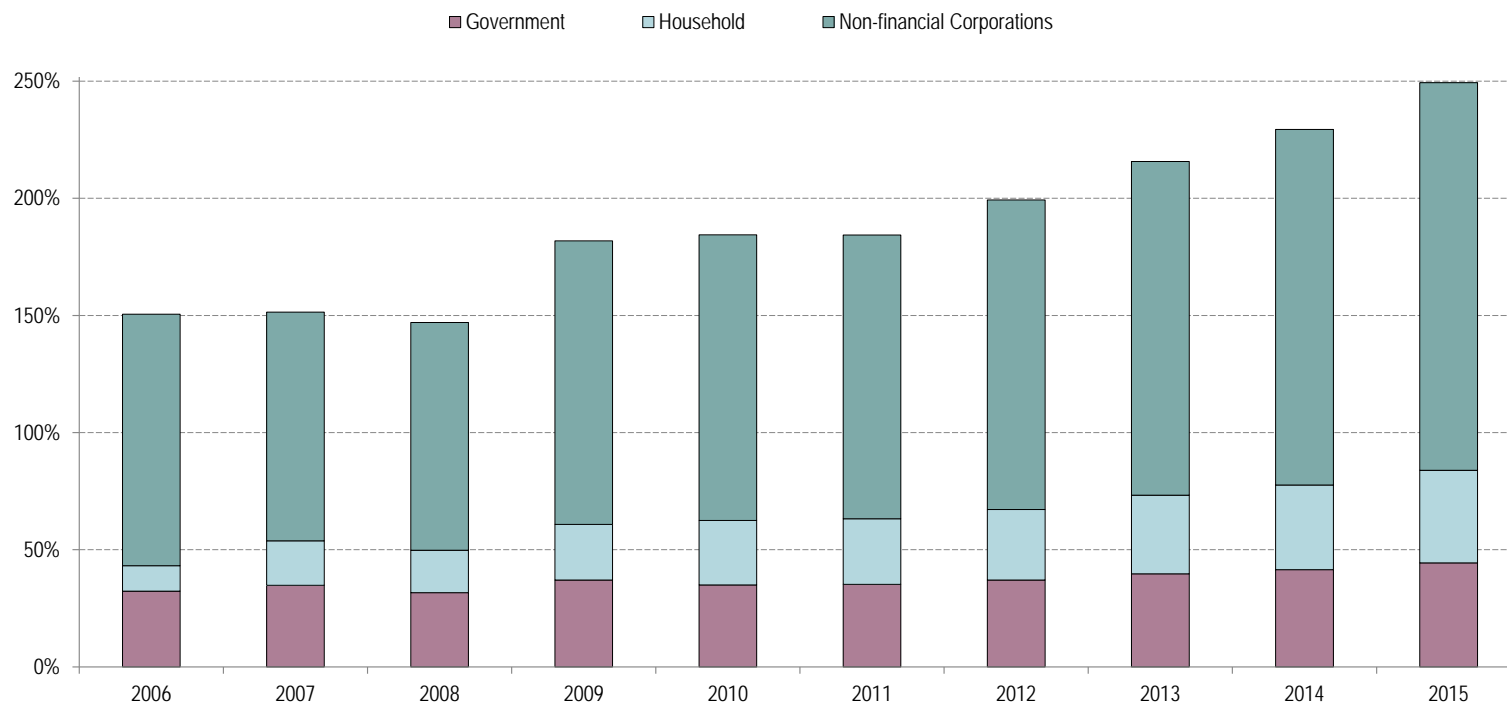
¹ Source: Bloomberg. Data is as of September 30, 2016.

Emerging Market GDP¹

- Growth in emerging economies remains uneven and has trended downward since 2010.
- China's economy has slowed as they transition from a growth model based on investment, to one of consumption, while India remains a bright spot.
- Brazil and Russia remain in recession as the decline in commodity prices has weighed heavily on their economies.

¹ Source: IMF. World Economic Outlook. October 2016. GDP data estimates start after 2014.

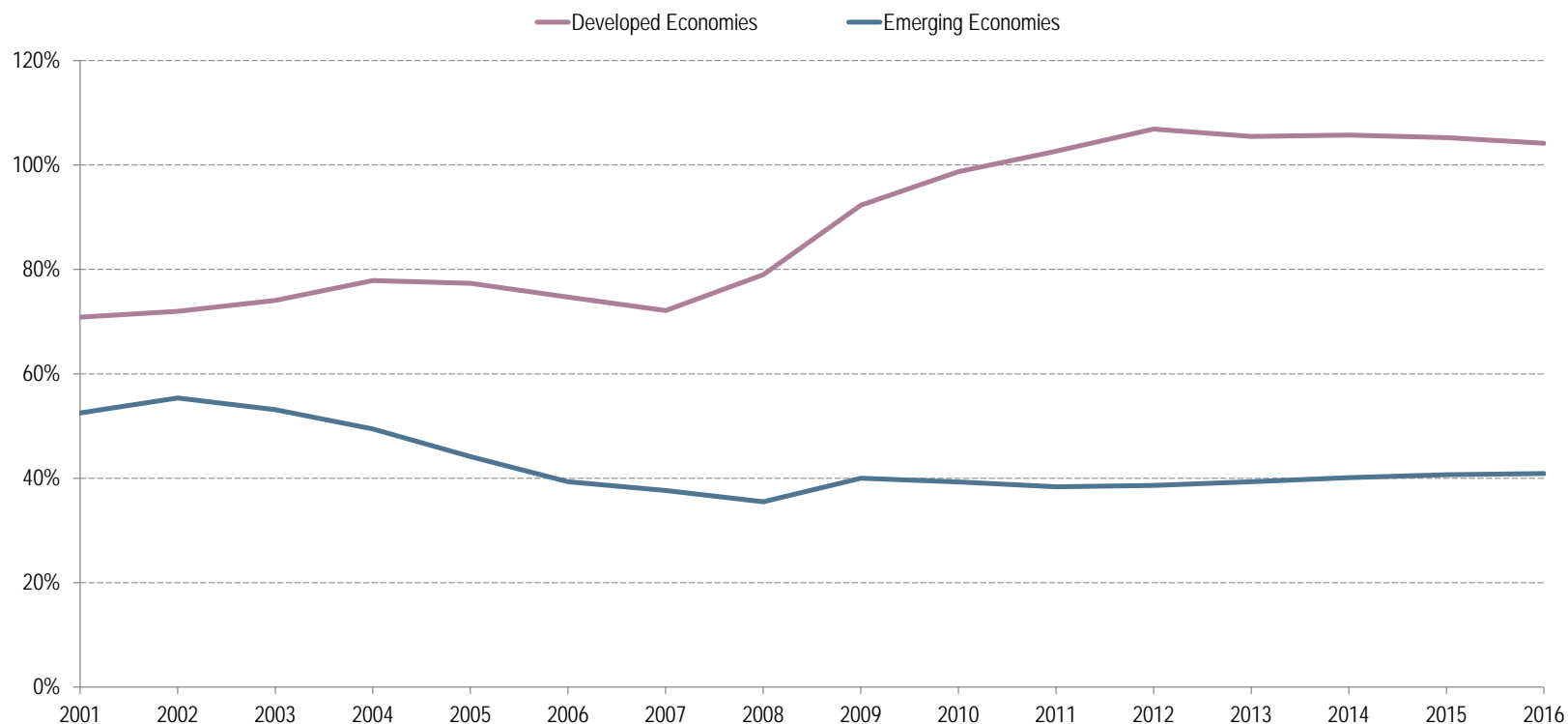
China Debt to GDP¹



- Debt in China has surged since the stimulus plan started in 2008 and reached 250% of GDP by the end of last year. This level is similar to developed market economies, but is much higher than other emerging economies.
- The dramatic rise in corporate debt has been the main driver of the increase.
- China's elevated debt levels could lead to slower growth, increased defaults, and in a worst-case scenario, a financial crisis.

¹ Source: Bank of International Settlements.

Government Debt as a % of GDP¹



- Emerging market equities have lagged U.S. equities, a trend that has shown signs of reversing as emerging markets have led returns in 2016.
- The long-term growth thesis remains in place for emerging markets. Lower debt levels, improving demographics, and opportunities for improving productivity should help bolster emerging economies' growth.

¹ Source: IMF, World Economic Outlook, October 2016.

Summary

Five primary concerns face the global economy: 1) declining growth in China, along with uncertain fiscal and monetary policies; 2) continued economic sluggishness in Europe, and risks related to the U.K.'s exit from the European Union; 3) weakening economic activity in the U.S.; 4) divergent growth in emerging economies; 5) uncertainties related to global elections and referendums.

- Given China's size and contribution to global growth, a slowing of its economy could have a meaningful impact, particularly on countries that depend on its trade. The growing mountain of debt, particularly in the corporate sector, remains a key concern. Another unexpected devaluation of the yuan could prove disruptive to capital markets, weigh on domestic demand, and hurt countries with competing exports.
- The recent decision of the U.K. to leave the European Union further weighs on the fragile recovery in Europe. Going forward, the U.K.'s negotiation of trade deals will be a key issue with a wide range of potential outcomes. Uncertainty related to the outcome of negotiations should weigh on foreign investment and consumption. Any additional moves to leave the European Union or the Eurozone could be disruptive to markets and growth.
- Slowing growth globally and the eventual increase of interest rates could weigh on economic activity in the U.S. Corporate profits remain vulnerable as revenues have declined and wages have increased. This pressure on margins could lead to lower investment and ultimately hurt wages, employment, and growth. Renewed dollar strength should weigh particularly on multinational companies and domestic exporters.
- Growth in emerging market economies will likely remain uneven, with commodity export-dependent economies particularly hurt by a sustained slowdown in global growth and prices. Capital could also be attracted away from emerging markets when the U.S. Federal Reserve further increases interest rates.
- There are a variety of elections and referendums scheduled in the near-term. Uncertainties related to the outcomes have weighed on investment. Economic growth would be hurt by antitrade policies and likely lead to volatility in financial markets and lower business investment.