



2015 Investment Outlook: Rougher waters ahead

Executive summary



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- Diverging central bank monetary policies and political risk in Europe will lead to increased volatility in equities, fixed income and currencies
- U.S. equity market returns are likely to be more modest in 2015 thanks to full valuations and rising interest rates
- International equity markets will benefit from expansionary monetary policy and weakening currencies, though U.S. investors will need to be mindful of currency risk
- Market interest rates are set to rise once the Fed makes its first move, but the increase is likely to be capped by the relative attractiveness of U.S. rates versus other developed markets, low inflation, and more demand than supply for investment-grade assets
- Higher yield, but higher risk parts of the bond market, such as emerging market debt and high yield, offer the best cushion against interest rate hikes as defaults are likely to remain low, but selectivity is key

Asset class preferences

Equities ↑	Bonds ↓
Large Cap* ↓	Government Debt ↓
Mid Cap* ↑	United States ↓
Small Cap* ↑	Eurozone ↑
Growth* ↑	Core ² ↓
Value* ↓	Periphery ³ ↑
Developed Markets ↓	Treasury Inflation-Protected Securities (TIPS) ↓
United States ↓	Munis ↑
Europe ↑	Corporate (IG) ↑
Japan ↑	Residential Mortgage-Backed Securities (RMBS) ↑
Emerging Markets ↑	High Yield ↑
Cyclical Sectors ¹ ↑	Emerging Markets ↑

Data as of December 31, 2014. * = change in rating. ↑ = overweight; ↓ = underweight. ¹ Materials, Industrials, Consumer Discretionary, Financials, Information Technology. ² Core = Austria, Belgium, Finland, France, Germany, Luxembourg, Netherlands, Slovakia. ³ Periphery = Cyprus, Ireland, Italy, Malta, Slovenia, Spain. Please note the forecasts above concern asset classes only, and do not reflect the experience of any product or service offered by TIAA-CREF. These forecasts are for informational purposes only and should not be considered investment advice or constitute a recommendation to purchase or sell securities. Market forecasts are subject to uncertainty and may change based on varying market conditions, and political and economic developments. Past performance is not an indicator of future results.



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Global asset returns

	Market Value (\$tr)	Relative P/E (%)*	Dividend Yield (%)	Total Return (%)			
				Fourth Quarter 2014		Full Year 2014	
				Local	USD	Local	USD
Equities							
Global (ACWI)	\$36.9	-3.6%	2.4%	3.0%	0.5%	9.9%	4.7%
World ex-US	17.6	-15.9	3.0	1.2	-3.8	6.5	-3.4
Small/Mid Cap	12.1	6.7	2.0	4.3	1.7	8.6	3.6
Growth	18.7	5.1	1.6	4.3	1.8	11.0	5.8
Value	18.1	14.6	3.3	1.7	-0.8	8.7	3.6
High Dividend	9.7	7.3	4.0	1.1	-2.0	8.7	2.0
Developed Markets	33.1	-0.4	2.4	3.4	1.1	10.4	5.5
United States	19.3	11.4	1.9	4.8	4.8	13.4	13.4
Europe	8.2	3.8	3.3	0.0	-4.3	5.2	-5.7
Japan	2.6	-14.2	1.8	6.7	-2.4	9.8	-3.7
Asia ex-Japan	1.5	0.3	4.0	3.1	-1.5	5.8	-0.3
Emerging Markets	3.8	-13.9	2.8	0.1	-4.4	5.6	-1.8
Asia	2.5	-18.1	2.4	2.1	-0.2	8.1	5.3
Latin America	0.6	8.0	3.7	-6.1	-13.4	-0.6	-12.0
Europe, Middle East and Africa	0.7	-10.3	3.3	-0.8	-10.1	3.3	-14.7
Bonds							
	Market Value (\$tr)	Duration (Years)	Yield (%)	Fourth Quarter 2014		Full Year 2014	
				Local	USD	Local	USD
Multiverse	\$46.2	6.5	2.0%	2.0%	-1.2%	7.3%	0.5%
Intermediate (1-10 Years)	36.7	4.4	1.8	1.0	-1.9	4.7	-1.7
Long (10+ Years)	9.6	14.4	2.6	5.8	1.7	18.3	9.4
Government	23.2	7.2	1.1	2.7	-1.8	8.1	-0.8
United States	6.3	5.5	1.4	1.9	1.9	5.1	5.1
Eurozone	6.7	7.1	0.8	2.8	-1.6	13.1	-0.7
Core	4.1	7.4	0.5	2.9	-1.5	11.6	-2.0
Periphery	2.6	6.5	1.4	2.6	-1.7	15.6	1.5
Japan	6.0	8.6	0.3	2.3	-6.4	4.5	-8.4
Agency	2.9	5.0	1.9	0.7	-2.1	5.1	-1.4
Inflation-Linked	2.3	12.1	-0.2	2.7	2.6	9.3	9.0
Securitized	6.8	5.5	2.2	1.7	0.7	6.2	3.3
Corporate (Investment Grade)	7.6	6.3	2.6	1.8	0.1	7.6	3.1
Municipal	1.3	4.7	2.1	1.4	1.4	9.1	9.1
High Yield	2.1	4.2	6.7	-1.6	-2.5	2.6	0.0
Emerging Markets	3.4	5.6	5.5	-0.1	-3.2	4.6	1.1
Currencies							
	Exchange Rate			Change (%)			
				Fourth Quarter 2014		Full Year 2014	
Euro	\$1.21/€			4.4%		13.9%	
Pound	\$1.56/£			4.0		6.2	
Yen	¥120/\$			9.3		14.1	
Canadian Dollar	CAD1.16/\$			3.6		9.0	
Swiss Franc	CHF0.99/\$			4.0		11.7	
Emerging Market Basket†	NM			6.1		10.3	

ACWI = MSCI All Country World Index. IG = Investment grade. EM = Emerging markets. All returns are in local currency unless otherwise indicated. Equity categories are for the respective MSCI index. Bond categories are for the respective Barclays index, except for emerging markets, which are for Bank of America Merrill Lynch indexes. *Relative P/E compares current 12-month forward P/E (price/earnings) ratio versus median value since 1987 (except Latin America since 1992, EMEA since 1997, Small/Mid Cap and High Dividend since 1999, and Japan since 2000). † Weighted average of currencies in MSCI Emerging Markets and JP Morgan GBI-EM indexes. It is not possible to invest in an index. Performance for indexes does not reflect investment fees or transactions costs. Data as of December 31, 2014. Sources: MSCI, Barclays, Bank of America Merrill Lynch and TIAA-CREF Asset Management.

United States

Equities

The increased volatility in the markets (equities, fixed income and currencies) over the last several months is a precursor of what will likely occur for at least the first half of 2015 as we approach the initial interest-rate hike from the U.S. Federal Reserve (Fed). The widening difference in monetary policy between the United States and the rest of the world is driving fund flows and fundamentals, leading to wider swings in asset values (see Figure 1).

We believe this volatility will lead to opportunity, however, in particular for U.S. equities, which after strong gains since March 2009 are now more than fairly valued (see table, inside front cover). Any drop in share prices should provide a good entry point as the outlook for the market is still positive. A steady recovery in the U.S. economy will support earnings growth, though at this stage it will be modest given that margins are at historic highs. Lower energy prices and a stronger dollar will enable companies to squeeze more costs out of their income statement, but U.S. equities will be hard-pressed to match their gains of 2014.

Growth stocks may slightly outperform value stocks in the year ahead as they did in 2014. The challenge faced by value stocks is simply that valuations are not particularly low, leaving little room in the current environment for much price appreciation. The forward multiple for the Russell 3000 Value Index is currently 26% above its average since

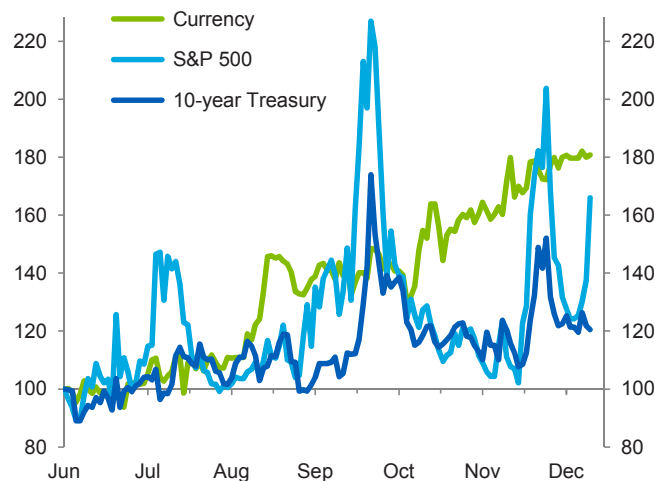
1979. Growth stocks, on the other hand, are more reasonably valued (though not cheap), and earnings growth expectations have been rising. The median long-term EPS growth rate for the Russell 3000 Growth Index has risen from 12.7% as of December 2009 to 14.7% today.

Mirroring the preference for growth over value, cyclical sectors such as consumer discretionary and industrials should benefit from accelerating economic growth. U.S. technology companies continue to innovate far more than their international counterparts, while the boost to the healthcare sector from mergers and acquisitions (M&A) has probably not yet run its course. Headwinds for value sectors, on the other hand, center on rising interest rates; value stocks have historically struggled in Fed tightening cycles. Financial sector stocks make up a large component of the value index, and bank stocks should theoretically benefit from rising interest rates. Demand for longer-dated Treasuries, however, is likely to lead to a flattening yield curve, dampening the impact on bank profitability. Investment banking shares may also see lower gains as M&A activity slows, reflecting higher financing costs.

Fixed income

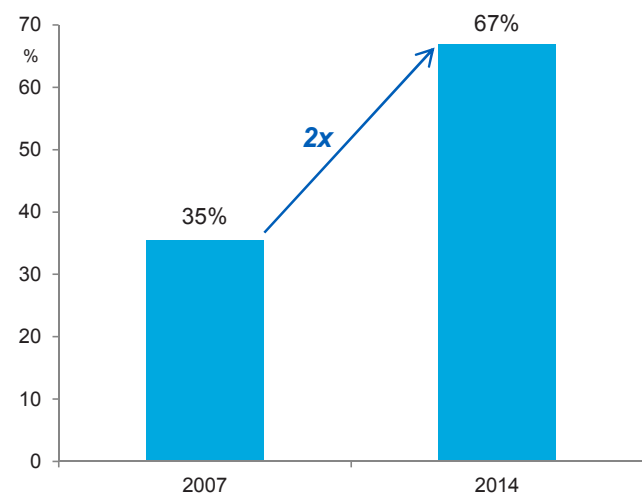
The pressure for higher Treasury yields from rising U.S. economic growth rate expectations and an imminent hike in interest rates by the Fed has been moderated by falling inflation expectations and strong investor demand relative to supply. Thanks to downgrades of previously top-rated

Figure 1: Volatility indices



Last data: December 31, 2014. June 30, 2014 = 100.
Sources: CBOE, Deutsche Bank, TIAA-CREF Asset Management.

Figure 2: Share of U.S. Treasuries in global, AAA government bond index



Last data: December 31, 2014. Sources: Barclays, TIAA-CREF Asset Management.

sovereign issuers (such as the United Kingdom and France) and dwindling supply (from Germany), the share of U.S. Treasuries in the Barclays Global AAA Treasury index has increased dramatically, from just 35% in 2007 to 67% today (see Figure 2). Demand, meanwhile, has continued to rise from investors seeking either long-dated assets to match liabilities, safe-haven assets in what is still a turbulent financial world, or yield. U.S. Treasuries offer a 1.4% average yield compared to just 0.7% for the remaining members of the “AAA club.” In addition, a strengthening dollar makes investing in the U.S. more attractive for foreign investors.

The 32 basis point (bps) drop in U.S. 10-year Treasury yields in the last quarter of 2014 may be the last hurrah for the fixed-income bull market, however. While investor demand will stay strong, deflationary pressures will wane once oil prices stabilize and wage pressures mount. We believe the Fed will raise interest rates this year, which will focus investors’ minds on the risks in their fixed-income portfolios. Our forecast is for the 10-year Treasury to reach 2.75% by year-end.

The higher coupons available on high-yield debt have been insufficient to generate greater returns than low-yielding investment-grade debt, as high-yield spreads widened by 100 bps over the course of the year. This underperformance was almost entirely due to the fall in oil prices and the worries about the viability of energy companies, however (see Figure 3). While the energy sector will struggle if oil prices remain at current levels, we believe that worries about the high-yield universe as a whole are overdone and

that the asset class will perform substantially better this year. The energy sector accounts for 13% of the Barclay’s U.S. high-yield index, so in our view the decline was excessive. We believe defaults for non-energy companies will remain low given that U.S. economic growth is solid and corporate earnings are rising. Current spreads for the high-yield index (excluding energy companies) of more than 480 bps are generous, certainly compared to most fixed-income alternatives.

Europe

Equities

The combination of higher valuations and higher margins for U.S. equities in comparison to those for European equities argues for greater expected returns over the medium term for investments in Europe, in local currency terms. The question is what catalysts will emerge to drive the higher returns.

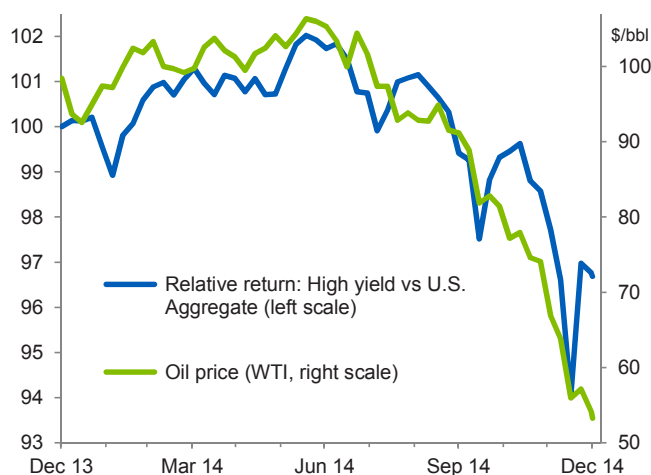
The biggest barrier to more robust equity market returns is the anemic economic recovery. While economists are increasing their GDP growth forecasts for the United States, they have been lowering them for the eurozone, as the “imminent” recovery is always just around the corner. The primary reason for this ever-delayed recovery is resistance to economic liberalization, notably in key countries such as Italy and France. Despite minimal growth over the last year, there is no broad consensus in much of Europe that change is necessary.

The rise of populist, anti-austerity parties is a source of potential volatility. A win by Syriza in Greece’s January elections could set an unwelcome precedent for other countries, and the upcoming U.K. election could also rattle markets.

Other factors will be more supportive, however. Margins have begun to recover in a few sectors and if this accelerates, earnings can rise more quickly than in the United States. The challenge for European CEOs is to increase profitability when nominal revenue growth is dampened by low inflation, expected to be just 0.6% in the eurozone in 2015. Low inflation means that keeping costs constant results in a smaller reduction *in real terms* than when inflation is higher. This is one reason central bankers target a preferred rate of inflation of around 2%, as this gives economies more flexibility.

The prospect of quantitative easing (QE) in the eurozone has already boosted equity markets as investors anticipate a rally analogous to the ones seen in the U.S. and Japan during their rounds of QE. There are several means by which QE can support economic growth and equity markets. The increase in the money supply should raise inflation expectations while

Figure 3: High yield relative performance and oil prices



Last data: December 31, 2014. Relative return indexed to 100 as of June 30, 2014. Sources: Barclays, Dow Jones, TIAA-CREF Asset Management.

debt purchases lower market interest rates, leading to a fall in real (inflation-adjusted) rates. The newly printed cash can also drive commercial bank lending by lifting bank reserves. The European Central Bank (ECB) has tried to encourage lending by charging banks for holding their cash deposits, in contrast to the Fed, which is paying banks 0.25% on excess reserves. Additionally, the ECB has offered commercial banks cheap funding through its Targeted Longer-Term Refinancing Operation (TLTRO). These measures may be starting to pay dividends, with credit growth beginning to recover for parts of the region (see Figure 4).

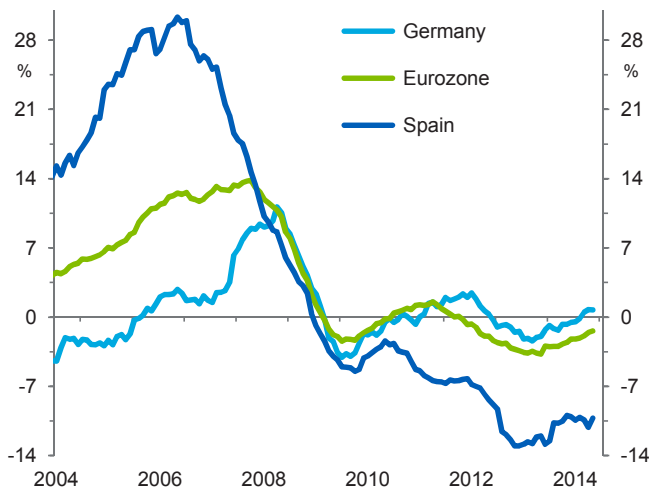
The most important means by which QE can help will be through currency depreciation, which should raise inflation and lead to either higher corporate sales or increased profitability. The euro declined 14% versus the dollar in 2014, and we forecast that it could fall another 10% and reach just \$1.10/€ by the end of 2015. The impact on eurozone exports is partially limited, as about 45% of eurozone-country exports are to other eurozone members, but the share of exports to GDP is commensurate to the ratio in the U.K. and greater than it is for Japan or the United States.

How big an impact QE will have on the eurozone economy will depend on the program's scale and its duration. Current expectations of a €1 trillion increase in the ECB's balance sheet would only return it to the level it reached in 2012. This may not be enough given the depths of the problems faced by the region. Even at the peak in 2012, the increase in eurozone money supply was less than half that of the United States and the United Kingdom. Consequently, investors anticipating a surge in eurozone economic growth or equity markets in 2015 are likely to be disappointed. We expect European equities to outperform those in the U.S. (in local currency terms), but a big payoff is not in the cards.

Fixed income

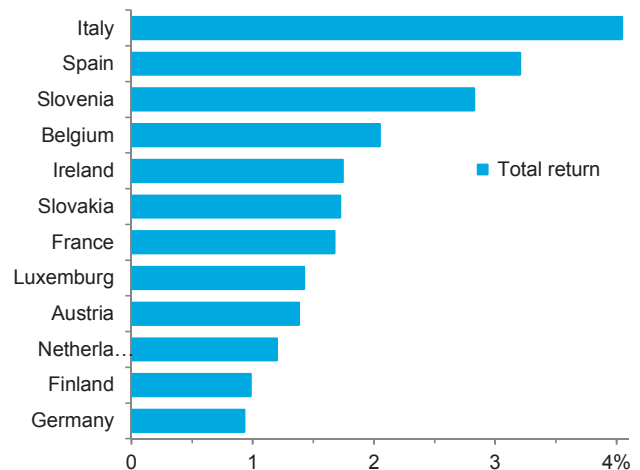
Peripheral eurozone government debt may well see some of the highest total returns in 2015 relative to other types of fixed-income as the ECB embarks on QE. Yields on core eurozone debt are already so low that there is little scope for further price appreciation. But if yields were to decline to half the levels as of December 31, 2014, the projected returns could top 3% in several countries (see Figure 5).

Figure 4: Credit growth



Last data: November 2014. Sources: ECB, TIAA-CREF Asset Management.

Figure 5: Potential QE-induced returns*

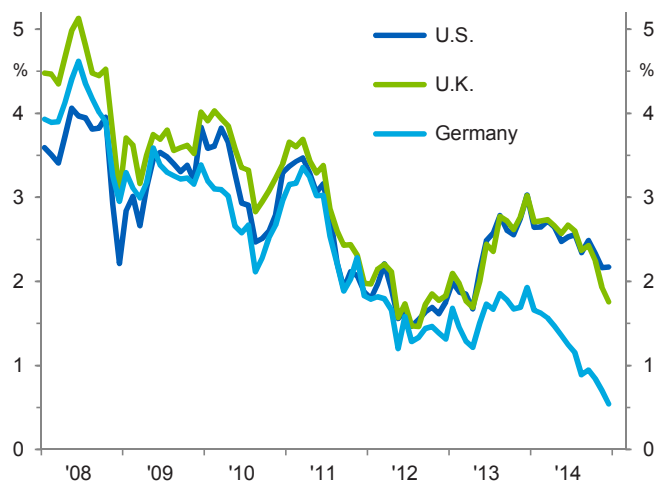


Last data: December 31, 2014. *Assumes a 50% decline in December 31, 2014, interest rates. Please note the forecasts above concern asset classes only, and do not reflect the experience of any product or service offered by TIAA-CREF. These forecasts are for informational purposes only and should not be considered investment advice or constitute a recommendation to purchase or sell securities. Market forecasts are subject to uncertainty and may change based on varying market conditions, political and economic developments. Past performance is not an indicator of future results. Sources: Barclays, TIAA-CREF Asset Management.

U.K. government bonds are either one of the more attractive European fixed-income investments or one of the more risky. The duration of the Barclays Sterling Gilts Aggregate Index is 10.6 years. The question for investors today is whether U.K. yields are going to more closely track eurozone interest rates—which we expect to decline, or U.S. interest rates—which we expect to rise (see Figure 6). If they were to follow the trajectory of eurozone rates, potential returns would be commensurate with Italy's.

One factor supporting lower rates is the Bank of England's recently scaled-down rhetoric over an increase in domestic interest rates. The unemployment rate in the U.K. has been unchanged for the last three months, moderating wage pressures, and the fall in oil prices will keep inflation lower than expected. Swaps markets are currently forecasting no increase in the U.K. base rate a year from now, while they were expecting a 25 bps hike six months ago. Eurozone demand for higher-yielding gilts should also remain strong. Though foreign investors hold a smaller share of the gilt market than they do of the U.S. Treasury market (29% versus 49%, respectively), they are the most active marginal investors.

Figure 6: 10-year government bond yields



Last data: December 31, 2014. Sources: Bloomberg, TIAA-CREF Asset Management.

Japan

Equities

Recent election results, which gave another mandate to Prime Minister Shinzo Abe and his program of economic reform, are one of several factors supporting the view that despite the short-term challenges faced by the economy, Japan's equity market is one of the most attractive among developed markets. Along with all oil importers, Japan will benefit from cheaper fuel, but particularly so as the country's imports have jumped dramatically since the Fukushima disaster in 2011 and the closure of the nuclear power plants. The privatization of the country's postal system is advancing, and the proceeds will be directed to domestic spending.

Even after topping all other major equity markets in the fourth quarter and delivering a robust 9.8% gain for the year (both in local currency terms), Japanese equity valuations are still below historical averages. The market continues to be driven by foreign investor interest and a depreciating currency (the yen dropped 14% relative to the dollar in 2014). Yet there are three risks to a repeat of the equity market's performance in 2015: an economic slowdown, an end to yen weakness, and failure to drive through further economic reforms.

The economy technically fell back into recession in the third quarter of 2014, though this was only because of inventory drawdowns, which do not reflect the underlying strength of the economy. Excluding inventories, growth was (just) positive for the quarter. Recent economic data shows continued weakness. Retail sales and industrial production both disappointed in November. Investors should take the longer view, however. The reforms implemented so far and promised for the future, such as cutting corporate tax rates, are ones that will lead to higher growth rates, even if they take time to materialize.

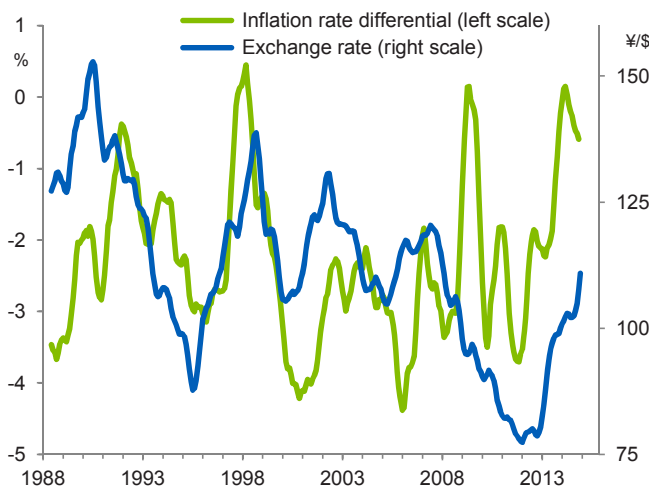
The yen has already lost more than a third of its value since 2011, much more than other major currencies. The reasons we believe that the yen can continue to weaken are that it is still above levels reached during previous periods of depreciation in 1998, 2002 and 2007. The Bank of Japan will continue printing at least ¥8–¥12 trillion a month, and with the country finally having escaped from deflation, differences in inflation rates support further yen declines (see Figure 7).

Since his re-election, Prime Minister Abe has focused as much on controversial constitutional reform as on economic reform, raising worries he will waste political capital. There is still the inevitable opposition to reform from parties who benefit from the current situation. For example, the privatization of the Japanese Post Office was first proposed by Prime Minister Junichiro Koizumi in 2005 but was ultimately stymied by reactionary forces. The difference between then and now is that there is a broad consensus, both within the ruling Liberal Democratic Party and the general population, of the need for structural change. Not all of Abe's reforms will be implemented, but a concerted effort is being made. In Europe, by contrast, five years after the crisis only fitful reforms have been proposed and in several countries the likelihood of even these being implemented is limited.

Fixed income

Yields on Japanese government bonds (JGBs) hit historical lows in December, driven by aggressive purchases by the Bank of Japan. Ongoing QE could drive yields even lower, which would produce a modestly positive return given the longer duration of the Barclays Japanese government bond index compared to the eurozone aggregate (8.6 years versus 7.1 years, respectively), but the return will likely be swamped by the depreciation of the currency.

Figure 7: Japanese-dollar exchange rate and difference in inflation rates



Last data: December 31, 2014. Sources: BLS, Japan Ministry of Internal Affairs and Communications, TIAA-CREF Asset Management.

Emerging Markets

Equities

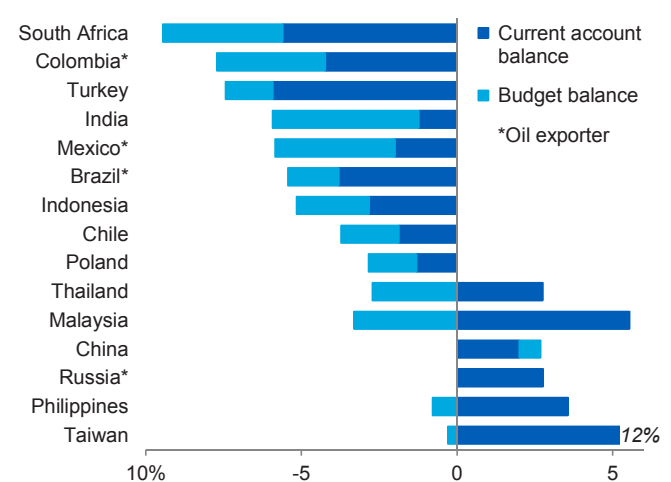
Emerging markets already faced a challenging year as the prospect of rising U.S. interest rates presage higher funding costs. Countries with both a current account deficit and a budget deficit (“twin deficits”) are most at risk (see Figure 8). They may need to raise interest rates to maintain their attractiveness to foreign investors, dampening economic growth. The situation is even more difficult for oil-exporting countries, where deficits are going to rise thanks to the drop in oil prices. Conversely, oil importers will see some relief.

Valuations reflect this outlook. Forward multiples for the MSCI Emerging Markets Index are 14% below the long-run median, but this is almost entirely due to Asia (the other regions are near fair value). The apparent discount in Asia is itself almost entirely due to China. Excluding China, the index P/E is just 5% below average. The China discount is itself concentrated in the financial sector, as investors worry about non-performing loans. Outside of financials, the market is trading at an above-average multiple.

Slower growth in China has been a prime cause of lackluster economic activity more broadly across emerging markets. As China has slowed, the growth rate of the country's imports has fallen from around 20% year-on-year before the financial crisis to practically zero over the last six months.

Figure 8: Twin deficits – current account and budget

Percent of GDP, trailing four quarters



Last data: December 31, 2014. Sources: FactSet, TIAA-CREF Asset Management.

We do not anticipate a deceleration in Chinese GDP growth over the next year, but neither is an acceleration likely. The government is still trying to manage a controlled deflation of the property market, where prices have risen by 22% over the last five years. With commodity demand likely to remain weak, we look to markets whose indexes are more exposed to consumer demand — both in developed and emerging markets — for higher earnings growth.

Figure 9 shows those markets in which the energy and materials sectors weigh heavily in their respective indexes (and hence may be markets to avoid), and those markets in which consumer sectors have a larger weight (and hence are likely more attractive). The one caveat for the consumer-demand-sensitive markets is that any country which may need to raise interest rates over the course of the year (such as South Africa) is likely to see household spending weaken as a result.

Fixed income

The majority of the losses suffered by U.S.-dollar-denominated emerging-market debt in 2014 was concentrated in the countries exposed to the fall in

oil prices (see Figure 10). The high-yield part of the market performed particularly poorly, as Venezuelan bonds make up a significant share of the high-yield issuance. Even though oil exporting countries account for 25% of the J.P. Morgan EMBI index, and Russia will likely fall into a recession this year, we do not anticipate any significant increase in defaults as Russia in particular has sufficient foreign currency reserves to continue making payments on its external debt. Spreads for investment-grade instruments have widened only modestly, and with levels now around 245 bps over comparable U.S. Treasuries, they appear attractive to us.

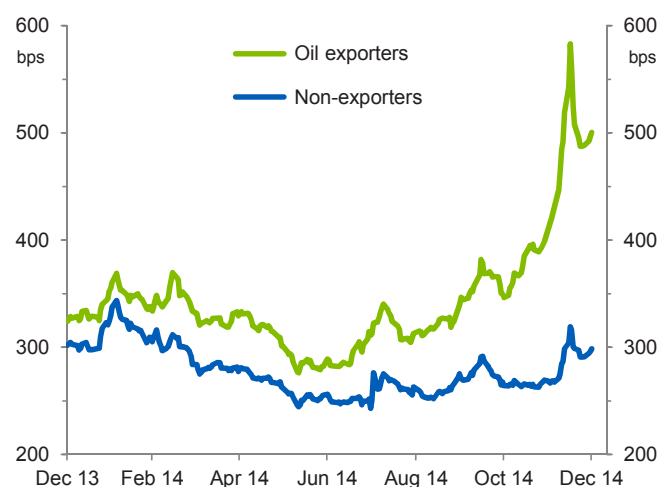
The depreciation of emerging market currencies against the dollar is a risk, however, and we do expect a modest pickup in high yield defaults. Nonetheless, issuers that are exporters and have local currency costs may actually see an increase in profitability, while others have hedged their exposure. Potential downgrades due to increased leverage is already reflected in yields in some cases. These nuances highlight why an active, as opposed to passive, investment strategy is crucial for emerging market assets generally.

Figure 9: Emerging equity market sector share

Market	Share of Energy and Materials	Market	Share of Consumer Sensitive*
Russia	62%	Taiwan	64%
Peru	37%	Korea	57%
Colombia	35%	India	41%
Thailand	29%	South Africa	35%
Hungary	27%	Hungary	27%

*Consumer Discretionary, Technology, and Health Care. Data as of December 31, 2014. Sources: MSCI, TIAA-CREF Asset Management.

Figure 10: Emerging-market debt spreads



Last data: December 31, 2014. Sources: Barclays, TIAA-CREF Asset Management.

Conclusion

Gradually rising interest rates will prevent a repeat of 2014's investment-grade fixed-income returns. Investors should stay diversified in less-correlated corporate bonds, higher-risk assets such as high yield and select emerging markets. Historically, an environment of modest (albeit underwhelming) growth coupled with low inflation has been very supportive of U.S. credit.

Equity markets have performed well since March 2009 thanks to a reduction in deep discounts and economic recovery. Nearly six years later, however, there are fewer opportunities for equivalent gains as valuation gaps have closed and interest rates are rising. Stronger U.S. economic growth is less likely to be reflected in domestic equity markets, while internationally, growth is improving at a tepid pace. Tightening monetary policy in the United States, combined with rising political risk and unorthodox measures to combat deflation in the eurozone, means volatility for equities, fixed income and currencies, is set to rise.

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