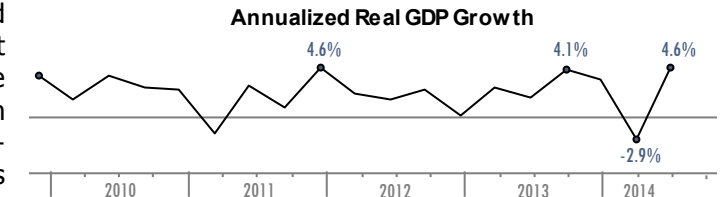


# MARKET Recap

## The Economy: “Any Port in a Storm”

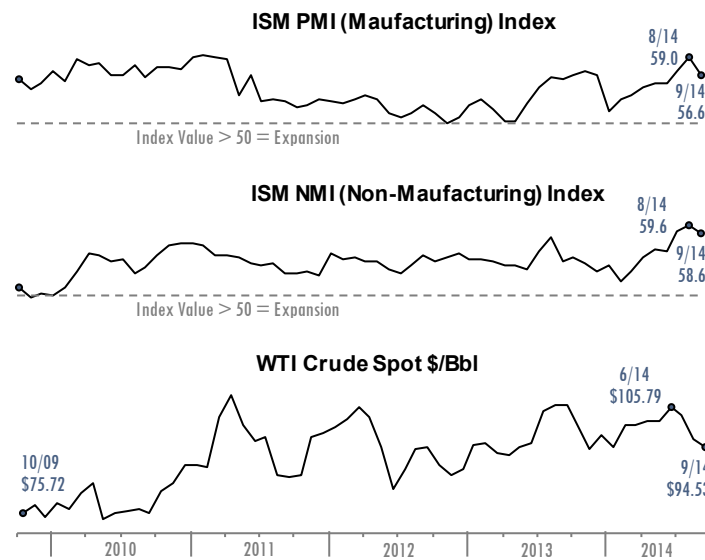
The US economy surged in the second quarter as measured by gross domestic product although, as we discussed last quarter, the sudden volatility in this measurement is due largely to changes in inventories. Reality is likely in between the extremes; the consensus estimate of a 46-member forecast panel surveyed by the National Association for Business Economics is that third quarter growth will come in at a 3.0% annualized pace.

Activity measures continued to show robustness through the third quarter, with unemployment falling below the longer-term average to 5.9% and underemployment falling to 11.8%. The Institute of Supply Management’s key index of manufacturing activity peaked at levels near the post-crisis high in August, then declined in September. Service-sector indicators similarly peaked in August and showed a more modest September fall-off. Comparable data from Europe tells a different story, confirming the widely-held belief that Europe’s recovery has run its course in the near-term and the region may be edging toward a triple-dip recession.



World-wide capital flight into the US accelerated in the third quarter, with the Dollar Index surging 7.82%. The surge is remarkable not so much for its magnitude and suddenness; a peek at the longer-term data shows that volatility is no stranger to this basket of major currencies. Rather it is interesting that foreign capital-holders are willing to invest in the US in spite of prospects for slower growth and rising interest rates. For the time being there seems to be no better option, between geopolitical unrest and poorer prospects in Europe and (possibly) China.

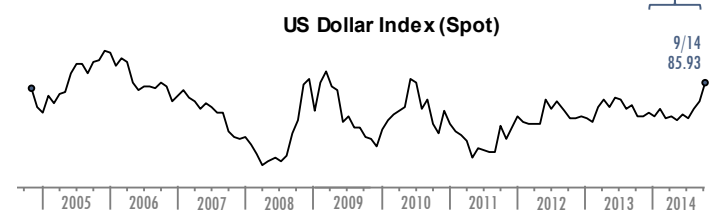
Currency is ultimately a zero-sum game, creating winners and losers on both sides of every major shift. The decline in September’s manufacturing indicators may be entirely unrelated to currency, and one must resist the temptation to read meaning into a single data point – but the relationship is consistent. An increase in the US dollar relative to other currencies eventually puts pressure on American producers by making domestic goods more expensive relative to imports. Currency markets move much faster than consumer buying behavior, but corporate purchasing managers have become remarkably efficient at rescaling their operations in anticipation of changes.



In the near-term, a stronger dollar is providing an offset to inflation as global manufacturing inputs priced in dollar terms are rendered cheaper; most notably, crude oil retreated from post-crisis highs. This plays into the Fed’s strategy to move slowly on rate hikes. It will also likely create some headwinds for large US multinationals in the fourth quarter, due to revenue exposure to foreign currencies coupled with potentially weaker demand for product in Europe. It is tempting to think of the US as a pure import economy, but that is not entirely accurate. The balance of trade for services, as opposed to goods, is still positive for the US despite some degree of service-sector offshoring, and the US is still the largest manufacturer in a number of key sectors.

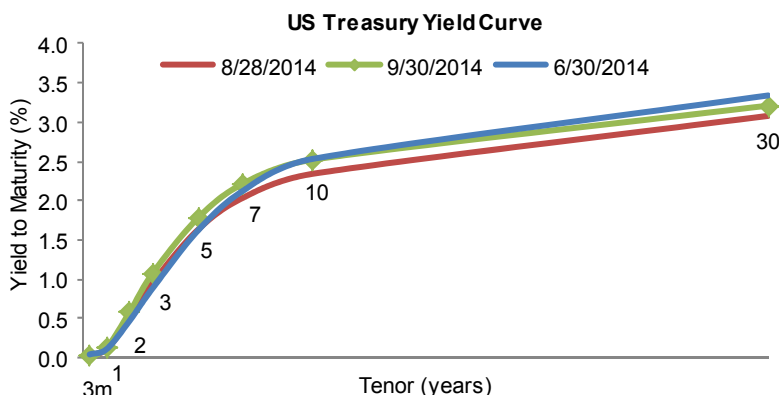
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## The US Bond Market

During the third quarter, the yield curve continued its trend from Q1 and Q2 through August before reversing in September. The 30-year rate closed at 3.08% on August 28<sup>th</sup>, its lowest since May 2013. Treasury bill rates remained mostly unchanged. Compared to the end of June, we saw the curve steepen on the short end up to the 3-year benchmark and flatten on out to the end of the curve. As economic indicators improved and tensions in Ukraine eased, the 10-year rate rose steadily through most of September, hitting a high of 2.63% on September 18<sup>th</sup> from the August 28<sup>th</sup> low of 2.34%. Signs of global economic weakness and turmoil in the Middle East halted the advance of rates towards the end of September. While 30-year rates have been threatening to break below 3%, where they spent most of 2012, 2-year and 3-year benchmark rates have been creeping up. Over the past year they have increased steadily by a total of 25 and 44 basis points respectively as the eventual hike in the Fed Funds rate seems to be nigh.

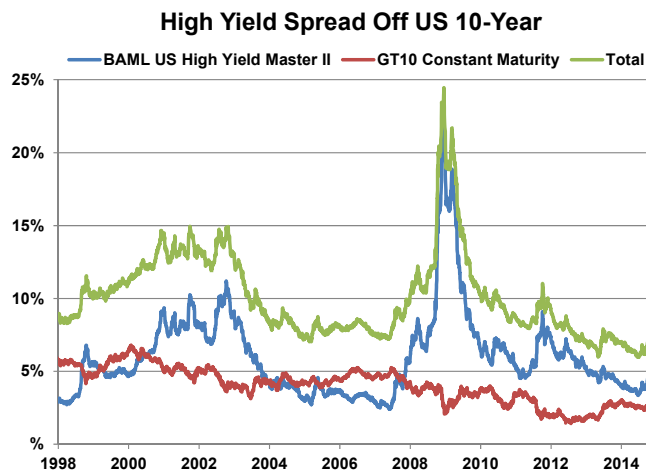


Bond Indices - Total Returns	
	3Q14
BarCap Aggregate	0.17%
BarCap Interm. Gov't	0.02%
BarCap Long Gov't	2.63%
BarCap Interm. Credit	-0.11%
BarCap Long Credit	0.17%
BarCap High Yield	-1.87%

FOMC meetings in July and September produced only minor revisions in the statement, noting that while the unemployment rate is approaching a normal range, other labor market indicators suggest a significant underutilization of labor resources. This is a simple, but useful, clarification and does not point to any change in Fed policy or projections as shown in the minutes of the July meeting. As expected, purchases of agency mortgage-backed securities and longer-term Treasury securities remain on track to end with the next FOMC meeting at the end of October. The July FOMC minutes indicated that Security Open Market Account (SOMA) holdings will be reduced gradually and predictably as normalization is undertaken. While most meeting participants anticipate that MBS in SOMA will be held to maturity, some participants felt that the MBS holdings should be sold off or that the option to do so should be kept open. Returns on fixed income securities were stagnant in Q3, with long-dated government paper the only strong performer.

High yield spreads widened, but remain below both historic averages and current credit spreads. High-yield issuance for Q3 totaled \$69 billion (\$247 billion YTD). Issuance in August was impeded by widening spreads and fell to a three year low, totaling just over \$3 billion. The spread on the BAML US High Yield Master II Index (BAMLHY) exceeded 400 bps for the first time since February. After bottoming out at a low of 335 bps on June 23<sup>rd</sup>, the spread rose to 440 bps at quarter-end.

Investment in high-yield debt has benefited from a strong trend toward tighter spreads throughout the past three years. Over this time period the BAMLHY Index shows high-yield spreads have fallen roughly 500 bps while the 10-year Treasury rate has increased 50 bps. Market participants continue to look to an uncertain future that may include increasing rates coupled to strong economic growth, or possibly a stagnant economy warranting continued low rates. Either scenario may be painful for high-yield investors as losses stem from universally rising rates or widening spreads.



## The US Stock Market

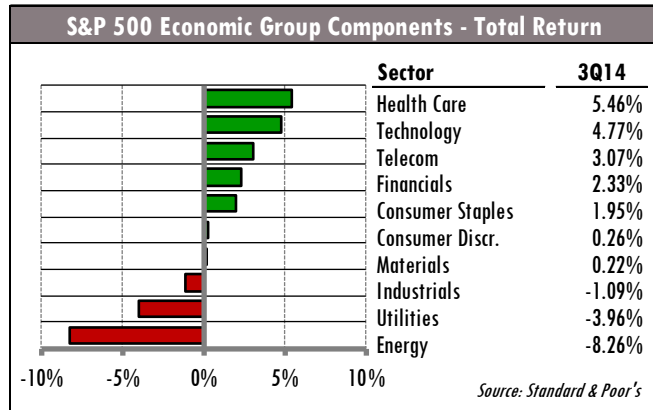
US stocks experienced mixed and volatile performance during Q3; while stocks fell in July, stronger economic data (particularly in the manufacturing and housing segments) and expectations of further ECB easing drove markets to record highs by the end of August. In September, equities erased much of August's gains. Stocks fell on growing speculation that the Federal Reserve may raise rates sooner than mid-2015 as a result of stronger economic data and, separately, continued concerns over geopolitical conflicts.

Growth stocks outperformed value stocks as a result of strong performance in the healthcare and technology sectors and weak results from utilities. Large-cap stocks strongly outperformed mid- and small-cap stocks, which has also been the case year-to-date. Additionally, mid- and small-cap stocks suffered their first quarterly losses since Q2 2012. Weakness

among small-caps in a strong equity market, often an indicator of a coming broader correction, has led to growing concerns over US equity valuations as a whole.

Healthcare was the top performer in the large- and mid-cap segments as biotechnology and pharmaceutical stocks continued their rally on M&A activity and strong earnings growth. Among large-cap stocks, technology was driven higher by hardware, storage & peripherals, and internet software & services. Apple (currently 3.44% of the S&P 500 index) had a significant effect on the sector's performance, rising 8.92% on anticipation of release of the iPhone 6 and other new devices. Facebook and Yahoo also drove the tech sector higher, returning 16.1% and 20.8% respectively.

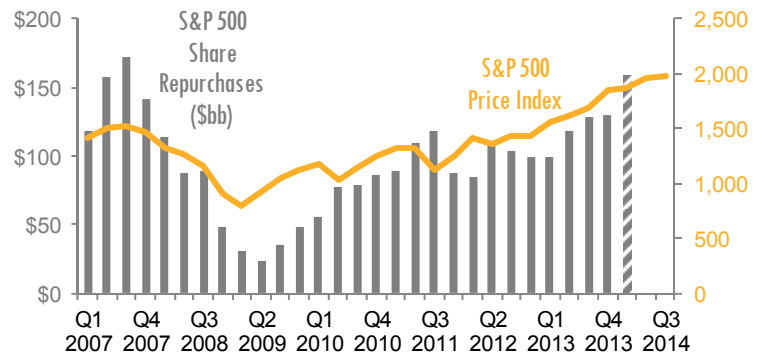
Stock Indices - Total Returns			
<b>Largecap Stocks</b>	<b>3Q14</b>	<b>Midcap Stocks</b>	<b>3Q14</b>
S&P 500	1.13%	S&P Midcap 400	-3.98%
Russell 1000	0.65%	Russell Midcap	-1.66%
Growth	1.49%	Growth	-0.73%
Value	-0.19%	Value	-2.65%
<b>Broad Markets</b>		<b>Smallcap Stocks</b>	
Russell 3000	0.01%	S&P Smallcap 600	-6.73%
Growth	0.88%	Russell 2000	-7.36%
Value	-0.87%	Growth	-6.13%
		Value	-8.58%



Energy was the worst-performing sector across all market cap segments. Falling crude prices were the main driver of losses as high levels of supply, particularly from the US and Libya, more than offset effects from conflicts in Russia and the Middle East. Additionally, natural gas and coal prices declined over the last three months, aiding losses in the sector. Utilities experienced poor performance; this dividend-heavy sector suffered the majority of negative performance in September over growing speculation of earlier-than-anticipated interest rate increases. REITs, another interest rate sensitive sub-sector, also sold off during this period but experienced outsized gains for the year.

Since the financial crisis 6 years ago, the prevalence of corporate stock repurchases (or share buybacks) has grown significantly. With this growth has come much debate over the underlying reasons behind repurchase decisions. Corporations argue that it is another form of returning cash to shareholders, like dividends, and some investors believe that it keeps corporations from hoarding cash and reduces the chance for poor investment decisions. Other investors believe that stock buybacks are simply a way for management to create temporary increases in share prices and EPS, driven by leverage. Additionally, it can be seen as a sign to many that companies are finding fewer investment opportunities and experiencing slowing growth. Regardless of your stance, it is clear that share repurchases have played a significant role in market performance since the crisis and may continue to do so for some time. With corporate cash at all-time highs (\$1.35 trillion in cash and marketable securities as of Q2), CFOs still have plenty of capital to deploy into buying back outstanding shares. However, with so much repurchased already, one wonders how long the trend can actually last. Due to the high correlation with market performance, particularly around the financial crisis, it will be important to monitor levels of stock buybacks going forward.

Since the financial crisis 6 years ago, the prevalence of corporate stock repurchases (or share buybacks) has grown significantly.



3/31/14 share repurchase data is estimated.

## Overseas Markets

Overseas markets were down for the quarter as a slew of geopolitical issues confronted the globe. In Europe, continued economic sluggishness and Scotland's secession vote had investors on-edge. A slowdown in China, along with a drop in housing prices and a protest in Hong Kong weighed on performance. Markets also experienced currency flight as investors sought the safety of the US dollar.

The quarter was marked by a scramble for dollars by investors worldwide, leading to a sharp rise in currency volatility. The 7.8% jump in the Dollar Index was its biggest quarterly rise since Q3 2008, during the global financial crisis, when there was a global rush into the safety of the dollar. The volatility of the world's reserve currency, which is used to price assets globally, hit the value of commodities and emerging market currencies. The dollar rose significantly against a number of developed and emerging currencies over the course of the quarter. A stronger dollar and rising volatility likely spell trouble for emerging markets as skittish investors will be less inclined to take risks and are more apt to put their cash in the perceived relative safety of the United States.

In Europe, continued anemic growth, a backlash against austerity and news that a Portuguese bank was near collapse roiled the developed and peripheral markets. Early in Q3, bank Espirito Santo International missed a payment on short-term debt, sending stock markets tumbling, driving bond yields higher, and reviving concerns of the overall health of Europe's banking system. Portuguese government bonds tanked, sending the benchmark 10-year yield to levels not seen since before June's ECB meeting, in which the central bank launched an aggressive package of liquidity measures. The 10-year borrowing costs for government paper shot up over 30 bps to 3.97% in 2 days while the PSI 20, Portugal's benchmark stock index, slumped 4.2%. Bond yield movement was particularly troubling as yields in peripheral eurozone countries had come down notably since the height of the sovereign-debt crisis due to the ECB's Outright Monetary Transactions (OMT) program. The program has never actually been used, but it promises to help struggling governments that ask for aid by buying sovereign bonds in the secondary market. While the issues with Espirito Santo were mostly isolated, the effects were somewhat widespread with Greek debt demand down and borrowing costs for Spain and Italy on the rise.

Foreign Stock & Bond Indices - Total Returns			
MSCI Broad Indices	3Q14	Barcap Global Indices*	3Q14
World Index	-2.16%	Global Aggregate	-3.14%
EAFE (Developed)	-5.88%	Pan-Euro	-4.84%
Emerging Markets	-3.50%	Asian-Pacific	-6.58%
		Eurodollar	0.27%
		Euro-Yen	-7.05%
		Other Currencies	-5.02%
MSCI Regions	3Q14		
Europe	-7.00%	*Unhedged	
Japan	-2.30%		
Pacific ex-Japan	-5.90%		
Latin America	-5.48%		

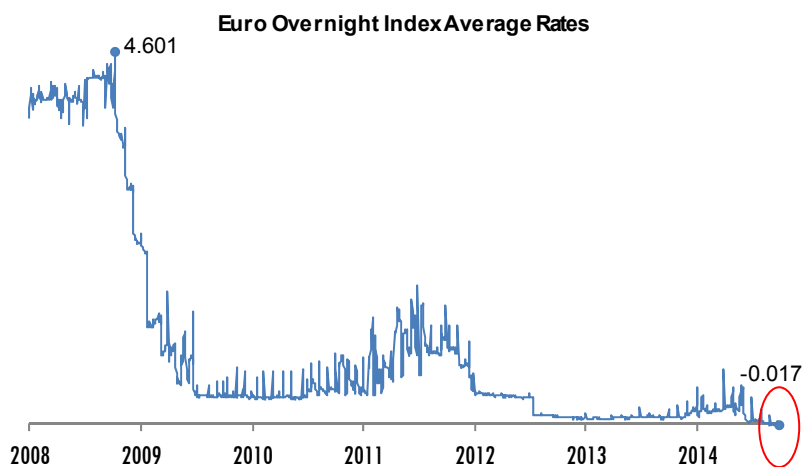
Currency	9/30 FX Rate	% Δ From Q2
USD/EUR	0.7922	8.44%
USD/JPY	109.6855	8.30%
USD/RUB	39.5768	16.48%
USD/CNY	6.1382	-1.06%
USD/GBP	0.6165	5.44%
USD/BRL	2.4517	11.23%

Deflation continues to be a worry in Europe as the annual rate of inflation fell further below the ECB's target in July to its lowest level since October 2009. The decline is seen as a setback to the ECB, which in Q2 launched a series of measures including a cut in its key lending rate to just 0.05% and a negative rate of 0.2% on deposits held at the central bank. These measures are designed to boost growth and start to move the inflation rate back towards its goal of just below 2.0%. While it is too soon to discern any impact, the drop in the rate at which consumer prices are increasing underscores the severity of the threat confronting policy makers. According to Eurostat, July's consumer prices were just 0.4% higher than a year earlier, as the inflation rate slowed from 0.5% in June. For 10 straight months the inflation rate has been below 1.0%.

In September, ECB President Mario Draghi provided a more pessimistic view of the eurozone economy than he had earlier in the quarter, telling a committee of the European Parliament that economic growth was losing momentum. Expectations were already rising that the central bank would take further steps to jolt the economy as fewer commercial banks than expected took advantage of cheap four-year loans offered by the ECB to help restore the flow of credit. The program was a crucial part of the central bank's plan to increase its monetary stimulus by €1 trillion (about \$1.3 trillion) with some analysts believing that the central bank can't meet its goal without large-scale purchases of government bonds, similar to those used by the Federal Reserve to revive the US economy. It remains unclear as to whether additional stimulus will benefit the eurozone.

In August, China's exports grew 9.4% year-over-year according to the country's General Administration of Customs, down from a 14.5% rise in July. Shipments slightly exceeded the median forecast of 15 economists surveyed by *The Wall Street Journal*, who had predicted a 9.2% increase. Meanwhile, imports fell by 2.4%, after a 1.6% drop in July. Economists had expected a 2.7% increase in August. The trade surplus with the rest of the world widened to a record of \$49.8 billion in August, from \$47.3 billion in July. Economists had predicted a surplus of \$42 billion.

Foreign direct investment in China fell to its lowest level in more than four years in August, its third consecutive monthly decline, yet another sign that the world's second-largest economy is losing steam. The slowdown comes at a time of growing weakness in the industrial production, fixed asset investment, manufacturing and real estate sectors. Foreign investment declined from the US, Europe, Japan and Southeast Asia. In August, China attracted \$7.2 billion of foreign direct investment, down 14% from a year earlier, its lowest level since July 2010. FDI in the January-August period, meanwhile, fell 1.8% compared with the year earlier to \$78.34 billion. The National Bureau of Statistics reported that industrial production in August grew at its slowest pace since the global financial crisis in 2008, sending jit-



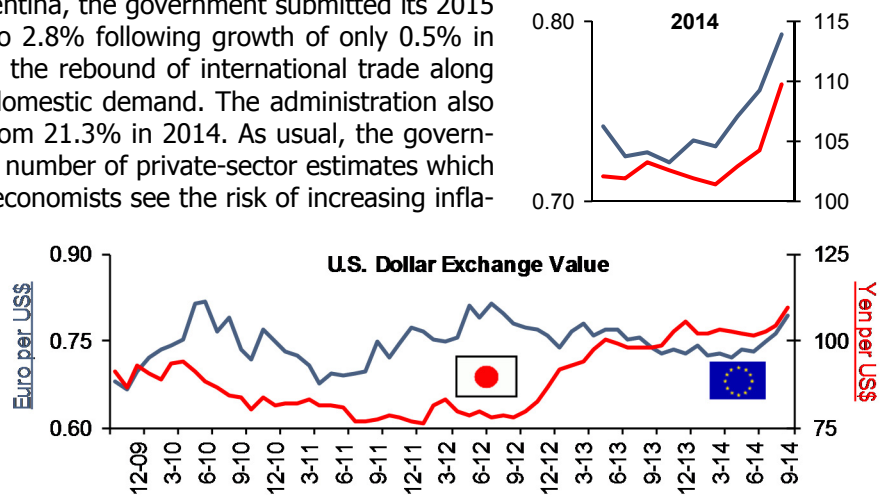
ters through regional markets. China's Commerce Ministry said that there has been no evidence of capital flight from the world's second-largest economy, but they are watching cross-border capital flows closely.

Hong Kong is in the midst of pro-democracy protests dubbed the "Umbrella Revolution". The protesters are calling for a reversal of a decision by China's central government in Beijing to screen all candidates in Hong Kong's first direct elections, which are scheduled for 2017. On Tuesday, September 30<sup>th</sup>, the protestors also called for the resignation of Hong Kong's chief executive, Leung Chun-ying, a demand he rejected, resulting in more protestors joining the cause and the continued blocking of city streets that has led to some business and school closures. Mainland China is taking a hands-off approach to the protests, and Beijing feels confident that Hong Kong authorities will appropriately handle the situation. Thus far the protests have disrupted the tourism and retail industries in Hong Kong, but it is too soon to tell what kind of long-term impact these demonstrations will have on Hong Kong's overall economy.

News out of Japan was that the Q2 economic contraction was a little worse than originally reported with a revised quarterly drop in GDP to 1.8% from the originally reported 1.7% decrease. On an annualized basis, GDP shrank by 7.1%, compared to the preliminary report of a 6.8% contraction. However, the result was in line with a Reuter's survey of economists, which had correctly projected the 1.8% quarterly drop. The GDP decrease was primarily attributed to the hike in the nationwide consumption tax on April 1. A recent and rapid weakening of the yen against the US dollar has also impacted Japanese firms in different ways. The export industry, particularly automakers, has benefited greatly from the weakening yen, while food product and other manufacturers importing raw materials have been beset by rising costs. Price hikes due to rising import costs are feared to impose an additional burden on household budgets. Food and drink makers have been hit particularly hard with the weakening currency, complaining about a decline of about ¥6 per dollar in the past month. In late September the yen plunged to the ¥109 level for the first time in just over six years. As import prices of such materials as soybeans and cheese have risen, makers who use them are forced to bear an additional burden as a result of the currency's drastic depreciation.

The MSCI emerging market index was down 8.7% since the beginning of September. As the US dollar continued to surge (the currency is currently sitting at a four year high), many investors continued to pull out of EM equities in an effort to de-risk amidst ongoing economic weakness overseas and prospects for a Fed rate hike. Fears of slowing global economic growth have likely fueled the selloff in EM as well.

The Brazilian government cut its economic growth forecast for 2014, a reflection of the sluggish expansion seen this year. GDP is expected to grow 0.3% in 2014. Forecasted inflation expectations were also raised to 6.3% for the year, up from 5.6%. Indicators released earlier this year have pointed to slowing growth, and many economists are predicting that Brazil will suffer a recession at some point during the year. With inflation above the 6.5% ceiling of the central bank's target range and growth continuing to slow, there are concerns that Brazil is entering a period of stagflation. With upcoming elections in October, the news comes at a bad time for President Dilma Rousseff, who has been losing ground against her main challenger in recent opinion polls. In Argentina, the government submitted its 2015 budget bill, forecasting a rebound in growth to 2.8% following growth of only 0.5% in 2014. The increase in growth is predicated on the rebound of international trade along with the continuation of policies to stimulate domestic demand. The administration also forecast inflation easing to 14.5% next year from 21.3% in 2014. As usual, the government budget offered a far rosier picture than a number of private-sector estimates which show inflation well above 35%. In fact, many economists see the risk of increasing inflation, especially in the event of a currency devaluation. Some believe that Argentina has entered into recession due to raging inflation, currency shortages that have led to import restrictions, and a downturn in trade with a sluggish Brazil. Argentina's prospects were also hurt by a default in July in a dispute with a group of creditors over bonds that the country stopped paying in 2001.



## Focus On: *Trends and Issues for Target-Date Funds*

While they're not the only possible solution available to help participants allocate their defined contribution plan assets, target-date funds (TDFs) pervade the landscape. Never before has a product innovation been developed and deployed so quickly, and even today the industry continues to innovate. For the fiduciary, it can be difficult to keep up. Even if one is aware of all of the variations of target-date options, you still face the challenge of deciding which implementation is right

for your plan and participants. Should you choose a “to” or “through” fund? Active or passive management? Custom or proprietary allocation? Does a model portfolio or managed account make more sense for your participants?

Broadly speaking, innovations fall into three categories: glidepath construction, risky asset composition, and implementation structure. Variations in each area result in a proliferation of product choices.

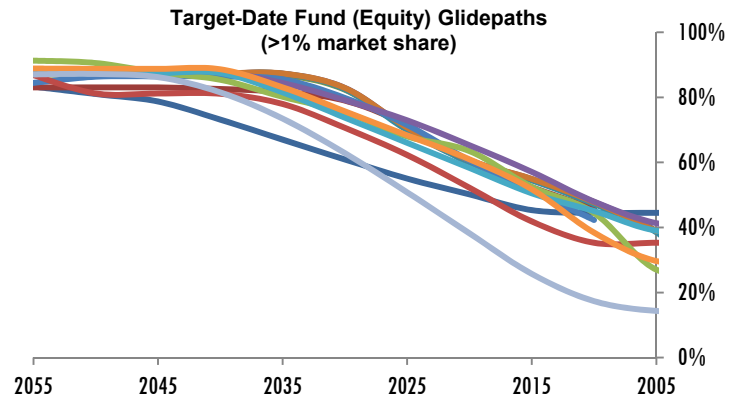
**Asset Allocation**

All TDFs are designed to provide a high level of diversification through an efficient, optimally-allocated portfolio.

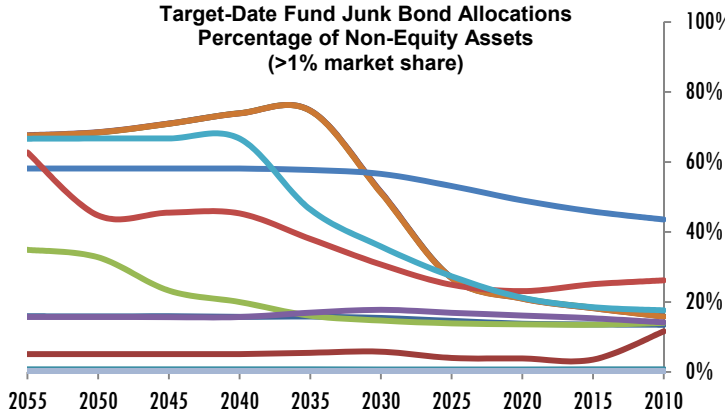
Asset class weights are regularly rebalanced and adjusted to reflect a declining level of equity exposure over time, with these changes to strategic allocation commonly summarized and illustrated through the target-date glidepath. Each glidepath is constructed with a target equity allocation “to” or “through” the target-date. “To” funds tend to be more conservative; they are designed to reach the allocation with the least amount of equity exposure on the target-date. “Through” funds typically have a higher equity allocation at the target date and continue to wind down the equity allocation for a specified number or range of years after the target-date.

Investors must keep in mind that, except for custom implementations as discussed below, the glidepath strategy may change over time. Most recently, there has been a trend toward increasing equity exposure in the longer-dated series; large fund complexes announcing these revisions include Fidelity, PIMCO, JP Morgan, and BlackRock. In each case their rationale is grounded in research on participant savings behavior and long-term market expectations, but we note also that these strategy changes follow a year of very strong stock market performance. To the extent that fiduciaries evaluate TDFs by comparing returns to peer groups (a practice we strongly discourage), the resulting competitive pressure will tend to force fund managers to increase equity exposure in bull markets. The risk is obvious; in addition to underperformance in the event of a bear market, participants may disengage entirely should the stock markets crash. For a discussion of participant engagement risk, see our Focus Article from 3/31/2007, available on our website.

In addition to differences in strategic allocation, TDFs vary in tactical allocation. More than half of assets under management in target-date mutual funds are 80-85% actively-managed, with just under a third 90-100% passively-managed. While passively-managed mutual funds have attracted more net asset flows than actively managed-funds since 2012, actively managed funds still hold 67% of target-date mutual fund assets under management today, down from 90% in 2005. Beyond the tactical component arising from active management, TDF suites are increasingly adding a tactical component to their allocation strategies. That is, rather than adhering strictly to the allocation described by the glidepath, many TDF managers have the flexibility to adjust the allocations both to the broad asset classes and to their components to reflect their short- and mid-range macro views of the markets.



**Target-Date Fund Junk Bond Allocations**  
Percentage of Non-Equity Assets  
(>1% market share)



While glidepaths provide a sense of how the level of overall equity exposure decreases over time, they show only one piece of a much larger picture. The composition of the equity and non-equity components of a strategy can vary widely among the various TDF suites and lead to dramatic differences in portfolio volatility and exposure to risk factors. For instance, the array of assets not counted towards equity weight in the glidepath may include US Treasuries, TIPS, high-yield, developed foreign and EM debt, the composition of which may vary in terms of duration, credit quality and currency. Among TDFs with greater than 1% market share, glidepaths appear fairly homogenous. However, a closer look reveals highly varied glidepaths for underlying bonds when categorized by credit quality.

**Implementation Alternatives**

There are, broadly speaking, three different TDF implementations: unitized funds, model portfolios, and managed accounts. Unitized funds are self-contained investment vehicles, such as mutual funds or collective trust funds, with a target-date objective. Model portfolios are programs used to allocate plan assets automatically among the available investment options in the retirement plan using recordkeeping technology, without implementing a separate fund suite.

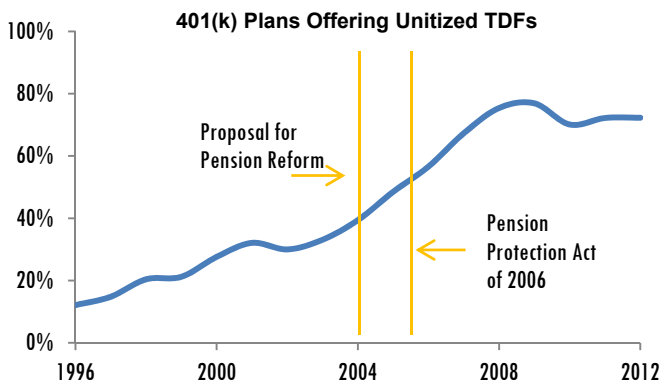
Managed accounts provide plan participants with a professionally-managed, customized portfolio that often considers more factors than just the participant's age and appetite for risk.

The first target-date funds, or "lifecycle" funds, were introduced in the early 1990s as a unitized investment option in defined contribution plans to address the extreme allocations and the relatively high fees commonly seen in DC plans, according to Congressional testimony by BGI in 2009. While the strategies steadily gained in popularity through that decade and into the early 2000s, the passage of the Pension Protection Act of 2006 with its classification of target-date funds as a qualified default investment alternative (QDIA) further accelerated their growth in defined contribution retirement plans.

While existing TDF funds (eventually) offered platform-independence and now have transparent performance history over the better part of a decade or more, some plan sponsors seek solutions tailored to their specific plan demographics that allow independent selection of funds and glidepath design. These custom target-date fund (CTDF) series typically come with an associated increase in resource costs – both in time (whether staff or consultant) and fees, but larger corporations can offset this by taking advantage of sliding fee schedules and low-cost institutional shares. CTDFs will commonly

use funds in the DC investment line-up as the universe of investment options, though DB plan funds and other options may be used in addition or alternatively.

Currently, a small minority of plan sponsors offer custom unitized target-date solutions. While the interest in CTDFs has certainly increased over the last several years, we remain skeptical that the potential benefits of customization outweigh the time and significant commitment of resources it takes to administer the strategies. With so many pre-packaged target-date offerings, and given that they are constantly evolving, it seems unlikely that most plan sponsors require a custom solution to fit the needs of their plan populations.



However, model portfolio programs provide an interesting step towards semi-customization, in a manner that is much more accessible to most plan sponsors. Implemented by DC recordkeepers, model portfolios are unique to their individual platforms. Most recordkeepers now offer some form of model portfolio support, either in a target-risk, target-date, or hybrid format. By substituting recordkeeping technology for the unitized fund structure, recordkeepers are able to deliver a less expensive overall solution (often free) which takes full advantage of the retirement plan's existing lineup of funds. Because plan assets remain aggregated in the core investment options (instead of directed to a TDF suite), the plan and, by extension, participants, benefit from economies of scale. Fiduciaries are also relieved of additional oversight burden on the underlying strategies, as they are already monitored. However, this more efficient design can be a double-edged sword. To add an asset class or strategy to the program, it must be added as a stand-alone investment option. Accordingly, plan sponsors may be reluctant to include more esoteric or riskier strategies which may be appropriate in smaller allocations, lest participants "over-allocate" to the strategy on a stand-alone basis.

Model portfolio programs and unitized funds are both designed for mass implementation. Their asset allocation models are not tailored to the needs of an individual participant. Managed accounts, in contrast, offer a custom individual implementation through a discretionary asset manager, who must be a fiduciary to the plan when serving as a QDIA. Participants who use a managed account service are encouraged to provide the third-party advisor with additional information such as risk tolerance and other asset holdings outside of their DC plan. As a result of the individual attention these accounts tend to be more expensive, with advisory "wrap" fees typically ranging from 15 to as much as 100 basis points. These additional fees, which are imposed on top of the expense ratios participants already pay for the funds in which they invest, can only be justified with the proposition that the advisor adds value through the customized and dynamic nature of the implementation. In practice, managed accounts are typically more attractive to older participants closer to retirement who often have higher account balances and therefore more at stake. Plan fiduciaries should approach managed accounts with caution – in our opinion, they need to offer much more than a simple glidepath to justify the added layer of fees.

### Participants' Misuse and Misunderstanding of TDFs

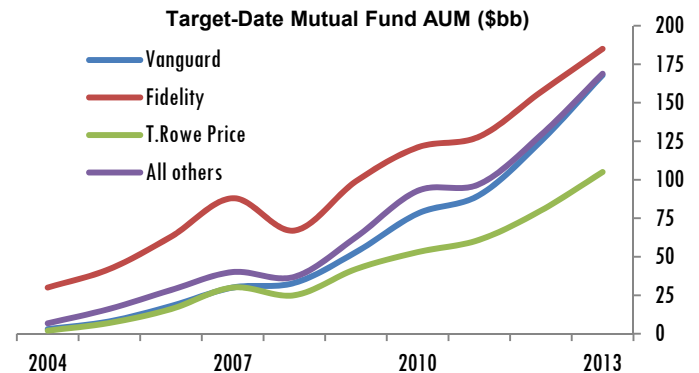
Despite their apparent ease of use, TDFs do require some plan participant education and discipline to be effective. Over 60% of plan participants investing in TDFs also invest in other plan options, contrary to the intended use, with an average allocation to TDFs of 35%, according to Financial Engines & Aon Hewitt. Even if a single target-date mutual fund suite is the only plan investment option, some participants are bound to invest in multiple target-date funds or in vintages that do not match their expected investment horizon. Model portfolios can address this by forcing participants to choose between allocating all or none of their assets with the allocator. Managed accounts should provide the best mitigation of improper

use, yet participants who fail to engage and update the account managers with changes to their financial profile will be subject to both the additional wrap fee and an inappropriately allocated portfolio.

In addition, a survey by Siegel & Gale LLC found that nearly two-thirds of participants believe that TDFs provide a guaranteed source of income in retirement. Participants often do not realize that even short-dated TDFs may face significant losses, as they did in 2008 when the 2010 vintages experienced losses as high as 41%. Furthermore, the glidepath may fool even relatively sophisticated plan participants into believing their TDFs are low risk. However, the underlying composition of broad asset class building blocks, such as the average duration of fixed income assets and exposure to emerging markets, are often not automatically reduced as the targeted retirement date approaches. Finally, participants should be aware that TDFs have a relatively brief track record (i.e., only just reaching 2 decades for the first suites with most having a track record of 10 years or less) and may present unforeseen problems over the long term.

### Manager Concentration

Together, Fidelity, Vanguard and T. Rowe Price manage almost three quarters of unitized target-date mutual funds. These funds, and in fact all funds with market share greater than 1%, are closed architecture, meaning they invest entirely in their own firm's proprietary funds. This raises a potential issue as it is unlikely that a single firm would excel at managing all of the diverse strategies included in many target-date funds. Furthermore, firm-wide beliefs and investment biases may reduce the benefits of diversification. And finally, in using proprietary funds, a firm could potentially divert assets to undeserving funds, for example, to seed a new fund that lacks the track record necessary to attract investors.



Target-date funds are more popular with younger generations. As the baby boom generation stops paying into 401(k) plans the share of funds being directed to target-date strategies is likely to increase. This could potentially lead to a huge concentration of retirement funds in a handful of firms, which could negatively impact the performance of those funds and pose a significant systemic risk. CTDFs, model portfolios and managed accounts mitigate this concentration of assets into a handful of firms, but to-date have not accumulated enough assets to have a significant effect.

### Finding the Right Target-Date Strategy for Your Plan

By considering all implementations of target-date funds, a plan sponsor can help participants successfully achieve their retirement goals. Participants receiving help through TDFs, including managed accounts, or online advice realized a 3.32% higher median annual return, net of fees from 2006 to 2012, according to Financial Engines & Aon Hewitt. Each class of target-date strategy offers unique strengths and weaknesses. Model portfolios and managed accounts provide greater flexibility in customization and prevent inefficient or partial implementation of an asset allocation strategy by plan participants. They can also aid plan oversight by using the plan's existing, vetted lineup and allowing performance issues to be addressed through marginal changes to underlying strategies as opposed to complete replacement of the TDF suite. However, the effort and expense of managed accounts can outweigh the benefits, since model portfolios are tied into a specific recordkeeper and cannot be transported seamlessly like unitized funds.

The powerful growth in popularity of target-date strategies has, in some cases, outpaced an appreciation of what needs to be done to realize their potential benefits while escaping hazards both obvious and unforeseen. It is unclear whether target-date strategies will ultimately provide the superior performance over the long-term of which they seem capable. What is clear is that in many cases the potential benefits and pitfalls of target-date strategies are not being fully communicated or considered. New financial innovations, especially those as ubiquitous as TDFs have become, require careful and exhaustive review of how they are being implemented by every party involved: asset managers, recordkeepers, plan sponsors and plan participants. While target-date strategies are marketed as a simple and easy solution for participants to use and plan sponsors to implement, the reality is that both parties need to perform extensive due diligence in order to realize the many potential benefits that target-date strategies have to offer.

