The U.S. economic engine that could…barely

Fundamentally, the U.S. economy continues to grow albeit not at an encouragingly vigorous pace. First-quarter growth in GDP terms is challenged once again, as it’s been for several years. We expect positive growth for the year but recognize that there will be quarterly volatility. Projections from the Atlanta Fed for the just-completed first quarter are currently below 0.5%. However, as we move forward into the second quarter, our core narrative continues to focus on signs of relative strength in the U.S. economy, due in part to the rippling effects of the dollar’s modest downtrend for much of 2016. Also, oil prices have not just stabilized but moved significantly higher. This has helped to bring credit spreads down as credit fears associated with the energy sector have dissipated. The dollar’s weakness of course helps domestic manufacturing and exports this cycle (Figure 1).

Regional purchasing manager reports from Chicago and Milwaukee are now also signaling a turning point. The services side of the economy is also showing signs of a tipping point as the March ISM Non-Manufacturing Index reading of 54.5 (anything above 50 indicates expansion) reversed a four-month slide. Finally, the
employment situation shows that firms were not deterred by the shaky start to the year in financial markets as they continued to hire new workers. If these were the only issues before us, we would be hard pressed not to adopt a more aggressive positioning. Alas, we are also confronting a series of risks that forces us to maintain our cautionary outlook.

Other ankle weights on our outlook

Our first concern centers on stalled or reversing global growth. The International Monetary Fund cut its outlook for global economic growth in its most recent update in January, only slightly trimming expectations for the developed world while giving sharper near-term downgrades to emerging markets, especially commodity producers. It also highlighted several downside risks to its forecast, which would disproportionately affect those emerging economies. Among the developed world, the Japanese economy appears at risk of falling back into recession after GDP declined during the last quarter of 2015. Expectations elsewhere, particularly in Europe and China, are also not improving. And recent efforts to ease credit conditions by the Bank of Japan and the European Central Bank have counterproductively resulted in their currencies strengthening.

The next soft spot in our outlook pertains to earnings growth. An oft-expressed view these days— that corporate performance could be broken down between “energy and everybody else”—is losing ground. Issues such as limited or no productivity growth, restricted organic growth, rising wages, a continued sluggish overall economic expansion, and poor capital investment are not limited to the energy sector and are resulting in lower earnings estimates across many sectors. Our current expectation is for earnings to be down 9.6% overall for the first quarter, but even without the energy sector, we’re left with a 3% decline. If there is one bright spot in this outlook it is that the problems in the energy sector may be bottoming, which should give us better comparisons year over year going forward. Nonetheless, as we look at market conditions, we see little evidence that earnings growth is strong enough to support any multiple expansion, which leaves the market dependent upon earnings growth, limited as it appears to be, for any upward momentum.

We also expect inflation to be more of a concern throughout 2016 and feel the Federal Reserve has been cavalier in discounting the potential influence of this threat, thereby creating another unknown as to future Fed policy. Yet again, we see a divergence between the Fed and markets. As shown in Figure 2, U.S. Treasury inflation breakeven rates have moved up dramatically in the 2-year maturity as markets sense a near-term buildup of inflationary pressure. Fed Chair Janet Yellen was
dismissive of recent price acceleration in non-energy items and her overall assessment of the economy appears quite “dovish”—that is, not willing to risk growth by raising interest rates. This has become even more obvious as over half of the 12 Fed bank presidents have taken the opposite (“hawkish”) stance in public comments following the March meeting. They are focused on the likelihood that inflation will become a peskier problem later in the year. Our view is that inflation will indeed be higher this year than forecasted by the Fed. Ultimately, we believe the central bank will be forced to raise rates a bit more quickly than implied by its published guidance and Yellen’s statements. This raises the risks that financial markets remain meaningfully out of sync with a possible path of short-term interest rates.

The June 23 vote in Great Britain over its potential exit (“Brexit”) from the European Union has the potential to trigger significant market volatility as well as raise longer-term issues over the union’s viability. Polls lean toward the British deciding to stay put but the outcome is still unsure, particularly if the terrorist issues facing the continent are seen as a threat to Britain’s security. Indeed, the continuing terrorist threat could quickly reshape economic and market expectations, should the threat materialize again over the short term. As investors, it is virtually impossible to gauge the likelihood of such an outcome, but there is no doubt that risk is growing as these attacks become larger and more sophisticated.

As if all of this weren’t enough, the European Central Bank (ECB) is another weight that may keep markets from rising. The March 10 meeting resulted in aggressive easing in which it reduced borrowing rates for European banks, cut deposit rates further into negative territory, and announced a program to buy large quantities of private corporate debt. The moves brought the anticipated impact of a sharp devaluation of the euro, only to be more than reversed within an hour when ECB President Mario Draghi conducted his press conference and effectively put a floor under future interest rate changes. The wild intraday experience further highlights both the unpredictability of central bank policy and the impact on markets.

Our positioning

For the past several months, we have been looking to neutralize exposures to markets and believe that, despite evidence of a firming U.S. economy, a breakout of any significance will not be in the offing. Furthermore, with the many risks we have described, market gains from here may be short-lived. This leaves us feeling that we should continue to hold most risk exposures close to benchmark levels as we await better conditions.

On a more granular level, we do plan to eliminate our hedged European position for two reasons. First, as the U.S. dollar is no longer appreciating or likely to take off as in recent years, we feel a hedged position no longer makes sense. Second, the aforementioned Brexit risk could set off a significant change in the European investment landscape.

And speaking of bought and sold positions, I recommend you read this issue’s “In Focus” article by Portfolio Manager Clem Miller on central bank easing, with a quarter-by-quarter analysis of how it has affected our recent decision making. With that, I leave you, until next month.

Best,

Tony
Investment positioning

Portfolio targets effective 4/1/16 for high-net-worth clients with nontraditional assets

<table>
<thead>
<tr>
<th>Stocks</th>
<th>Aggressive Current</th>
<th>Aggressive Change this month</th>
<th>Growth &amp; Income Current</th>
<th>Growth &amp; Income Change this month</th>
<th>Conservative Current</th>
<th>Conservative Change this month</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. large-cap non-sector*</td>
<td>23.0%</td>
<td>30.0%</td>
<td>---</td>
<td>16.3%</td>
<td>22.6%</td>
<td>---</td>
</tr>
<tr>
<td>U.S. large-cap core ETFs *</td>
<td>23.0%</td>
<td>19.6%</td>
<td>---</td>
<td>16.3%</td>
<td>13.6%</td>
<td>---</td>
</tr>
<tr>
<td>U.S. small-cap stocks</td>
<td>13.8%</td>
<td>12.3%</td>
<td>---</td>
<td>8.2%</td>
<td>5.0%</td>
<td>---</td>
</tr>
<tr>
<td>Developed international stocks</td>
<td>19.5%</td>
<td>19.9%</td>
<td>-2.0%</td>
<td>12.7%</td>
<td>10.4%</td>
<td>---</td>
</tr>
<tr>
<td>Emerging markets stocks</td>
<td>9.7%</td>
<td>5.3%</td>
<td>2.0%</td>
<td>3.6%</td>
<td>2.0%</td>
<td>---</td>
</tr>
<tr>
<td>Total stocks</td>
<td>89.0%</td>
<td>87.0%</td>
<td>0.0%</td>
<td>57.0%</td>
<td>53.6%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

| Nominal bonds/cash                          |                    |                              |                         |                                 |                     |                              |
| Cash                                        | 2.0%               | 1.0%                         | ---                     | 2.0%                            | 2.0%                | -5.4%                        |
| Core muni                                   | 0.0%               | 0.0%                         | ---                     | 30.0%                           | 23.4%               | 5.4%                         |
| High-yield munis & corporates              | 0.0%               | 0.0%                         | ---                     | 2.0%                            | 5.0%                | ---                           |
| Non-core interest rate-sensitive            | 0.0%               | 0.0%                         | ---                     | 0.0%                            | 4.0%                | ---                           |
| Total nominal bonds/cash                    | 2.0%               | 1.0%                         | 0.0%                    | 34.0%                           | 34.4%               | 0.0%                         |

| Real assets                                 | 4.0%               | 7.0%                         | 0.0%                    | 4.0%                            | 7.0%                | 0.0%                         |

| Nontraditional                              | 5.0%               | 5.0%                         | 0.0%                    | 5.0%                            | 5.0%                | 0.0%                         |

| Totals                                      | 100.0%             | 100.0%                       | 0.0%                    | 100.0%                          | 100.0%              | 0.0%                         |

| Forecasted performance                      |                    |                              |                         |                                 |                     |                              |
| Expected return                             | 7.2%               | 7.1%                         | ---                     | 5.5%                            | 5.3%                | ---                           |
| Expected standard deviation                 | 16.0%              | 15.5%                        | ---                     | 10.7%                           | 10.1%               | ---                           |
| Strategy yield                              | ---                | 1.9%                         | ---                     | 1.9%                            | ---                 | 2.2%                         |

* Large-cap allocations are broken down into the portion designated for use with active or passive managers (U.S. large-cap non-sector) and the portion using our Sector Allocation Strategy (U.S. large-cap core ETFs). Current positions are shown on page 6 in the graph “Our sector inputs and allocations.”

Source: Wilmington Trust Investment Advisors, Inc. (WTIA)

Our reference portfolios are developed from our long-term economic outlook, reflecting our highlighted themes as well as the insights of our investment and economic professionals, reference portfolios serve as a baseline strategic allocation for long-term investors.

Note: Rounding errors may cause the allocation subtotals of some asset classes to differ slightly from the building blocks of their allocations.

The expected returns presented constitute the informed judgments and opinions of Wilmington Trust about likely future capital market performance. No assurance can be given as to actual future market results or the results of Wilmington Trust’s investment products and strategies. Strategy forecasts are derived from the expected return and volatility assumptions in Wilmington Trust’s Capital Markets Forecast 2016–2026, which is available upon request. A summary of the calculations used to develop these numbers can be found in the disclosures section under forecasted performance. Return projections are pre-tax and pre-fees. Volatility (standard deviation of return) estimates are based on pre-tax return projections.

There is no assurance that forecast results will be realized or that any investment strategy will be successful.

Please see disclosures for information about our asset allocation strategies, risk assumptions, performance forecasts, fee assumptions, and other important information.

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Major themes

<table>
<thead>
<tr>
<th>Investment themes</th>
<th>Current positioning</th>
<th>Potential tipping points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer healthcare &amp; technology</td>
<td>Through our sector approach, our underlying sector allocations favor both technology and healthcare. However, we are reducing our overweights due to the upcoming elections, political uncertainty, and credit concerns.</td>
<td>Regulations restricting growth, profitability, or the ability to innovate new products; too-rich valuations.</td>
</tr>
<tr>
<td>Minimal inflation pickup in sight</td>
<td>Real assets are positioned to benefit from market opportunities in U.S. Treasury inflation-protected securities (TIPS) but the limited inflation threats are supported by no allocation to commodities.</td>
<td>Further wage growth acceleration, which would portend higher inflation; evidence that slack in the labor market is disappearing; a pickup in global investment that reverses commodity price declines; a dramatic drop in the U.S. dollar.</td>
</tr>
<tr>
<td>Income a main component of returns</td>
<td>Current exposures include high-yield bonds and REITs which have the potential to provide high income levels. Active managers aim to reduce high-yield credit concerns and manage around riskier sectors such as materials and energy.</td>
<td>Dividend growth does not keep pace with GDP growth; dramatic, longer-term collapse in credit conditions; yields remain at current levels.</td>
</tr>
<tr>
<td>Emerging markets to reemerge</td>
<td>Within international stocks, we favor developed markets. Underweighting emerging market stocks with no exposure to emerging market debt.</td>
<td>Indications that commodity markets are taking a greater toll making a recovery difficult; signs that economies are not shifting from old to new.</td>
</tr>
</tbody>
</table>

Q&A

Q. In 2016, markets saw the worst start to a New Year on record, but how did that volatility stack up historically?
A. There was no one event on which to pin the beginning of 2016’s market plunge. A number of uncertainties converged to hit markets hard in January: slowing global growth; falling oil demand; Fed tightening; and a presidential election year. The Chicago Board Options Exchange Volatility Index ("VIX"), which shows the market’s expectation of 30-day volatility, reached a high of 27.6 on January 20. Looking back to August 2015, the VIX was almost double that, reaching 48.0 when markets were reacting to China and the significant drop in oil prices. Both instances pale in comparison to the record-high 80.9 in November 2008, in the wake of Lehman Brothers’ collapse, marking the beginning of the financial crisis.

There is a similar story in the fixed income market looking at the Merrill Lynch Option Volatility Estimate Index. The high in January was 81.8, but in August 2015 it was 94.5 and significantly higher at 264.6 in October 2008. So while volatility may not currently be at historic proportions, stringent post-crisis regulations that reduced liquidity also resulted in heightening overall instability. In other words, there is a new normal in town. And with all the uncertainty now surrounding global growth, as well as Fed and foreign central bank policy, expect a sequel to the kind of whipsaw rockiness we witnessed in the first quarter of this year.

Have a question? Please submit it to your advisor who will forward it to the editor. All questions may be edited and are published anonymously.
**ASSET CLASS OVERVIEW**

**Stocks**

**AS OF MARCH 31, 2016**

<table>
<thead>
<tr>
<th>Stock Market</th>
<th>Month to date</th>
<th>Year to date</th>
<th>Trailing 12-month return</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>6.8%</td>
<td>1.4%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>8.0%</td>
<td>-1.5%</td>
<td>-9.8%</td>
</tr>
<tr>
<td>MSCI EAFE</td>
<td>6.5%</td>
<td>-3.0%</td>
<td>-8.3%</td>
</tr>
<tr>
<td>MSCI EM</td>
<td>13.2%</td>
<td>5.7%</td>
<td>-12.0%</td>
</tr>
</tbody>
</table>

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance is no guarantee of future results.

**U.S. stocks**

Stock markets rebounded from their mid-February lows as the prospects of a recession in the U.S. faded, relieving the pressure from global macroeconomic issues early in the year. A trading range appears to have developed for the S&P 500 index since the fourth quarter of 2014 between 1830 and 2130. Since then, earnings growth has come to a virtual standstill due to the drop in energy prices, a stronger dollar, and the slowing of worldwide economies, as central banks’ easing policies to promote growth have proven less effective.

We expect modestly positive returns from the U.S. market by year-end from current levels. We also expect domestic economic strength—coupled with greater stability for oil prices and the U.S. dollar—to support modest earnings growth. We expect some potential for multiples to expand as investors see less risk of recession. Our year-end 2016 target for the S&P 500 is 2093 ($135 times 15.5x forward P/E). This would produce a 2.9% return from the current level of 2035, excluding dividends.

The final outcome is a portfolio with a balanced view and late cycle tilt. Our preferred sectors from the model are telecom, financials, and industrials, where we see reasonable valuations relative to the broader market.

The macro view still has a very pro-cyclical tilt, which reflects a higher oil price forecast than now discounted in the market. The quant model favors telecom, financials, and technology but not energy and materials, offsetting the positive view from the macro side. The fundamental view is more positive on healthcare, financials, and technology—all of which have reasonable valuations given their long-term growth potential.

We view large and small cap as equally attractive, but acknowledge that a stronger case can now be made for small caps after their relative underperformance has enhanced valuations. Still, the volatility of the market and the prospects of slow growth continuing moderate the appeal of smaller companies.

**International**

March was surprising, in that emerging markets (EM) returned about 10%, roughly twice that of developed country stocks. Brazilian stocks surged by almost 30%, on the increasing likelihood of the impeachment of the country’s market-unfriendly president. Russian stocks rose by over 15%, as the oil price rose. Chinese stocks did not disappoint, returning over 7%. EM stocks also benefited from the perception that the Fed will be slow to further increase rates.

Among developed countries, eurozone stocks returned almost 6%, outperforming U.S., U.K., and Japanese stocks.

**Our sector inputs and allocations, as of 3/31/2016**

<table>
<thead>
<tr>
<th>GICS sector</th>
<th>Sector rank</th>
<th>Our Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecom</td>
<td>1</td>
<td>Macroeconomic</td>
</tr>
<tr>
<td>Financials</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Industrials</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Technology</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Energy</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Healthcare</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Materials</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Discretionary</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Utilities</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Staples</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Sources: Bloomberg, WTIA

Benchmark: Russell 1000  Current allocation

0% 5% 10% 15% 20% 25%
U.S. Treasuries

U.S. Treasuries have moved slightly lower in yield over the course of the month. The major catalyst affecting the market was the Federal Reserve’s March 16 statement which suggested that its committee members expect only two rate hikes over the course of 2016 compared to four hikes previously. This change in the Fed’s forecast for interest rate hikes led to outperformance for the 5-year portion of the yield curve. Since the Fed announcement, the 5-year U.S. Treasury note has declined by 17 basis points, while the 2-year and 30-year portion of the curve is only down 11 and 10 basis points, respectively.

Investment-grade corporates

Risk premiums for investment-grade (IG) credit declined significantly during March, and the option-adjusted spread of the Barclays U.S. Credit Index tightened. The strong performance can be attributed to a number of factors that occurred during the quarter, such as the continued ascent of oil prices from their February 11 lows. This helped the energy sector to considerably outperform the IG market. In addition, the European Central Bank announced plans to purchase non-bank financial corporate bonds issued by European-domiciled companies. Although the program will not include direct purchases of debt issued by U.S.-domiciled companies, it should have a positive impact on the U.S. corporate bond market. Finally, the Fed left interest rates unchanged during the March meeting. Although this outcome was widely anticipated by markets, the dovish statement provided further support for IG risk through the month’s end. The new issue market remains active and the pipeline of new deals strong.

High-yield corporates

The recent rally in the high-yield (HY) credit markets led to renewed appetite for lower-quality leveraged loans, reversing a trend we saw earlier this year. In the most liquid portion of the loan market, single-B loans are now outperforming higher-quality BB loans on a year-to-date basis. This contrasts to the HY bond markets, where BBs are still the best-performing group for the year. We think the current outperformance of single-B vs. BB loans should continue, given that the ratio of single-B to BB spreads remains elevated. Many BB loans have traded up significantly since mid-February, leaving limited upside at current levels. Single-B credits are now more attractive than BB credits.

Municipals

Municipal credit spreads are less sensitive to economic pressures than taxable spreads. This provided municipals with a tail wind in the first half of the quarter, only to see that advantage erased in the last 45 days. Barring event risk, we expect spreads to hover at recent tight levels. Fund flows continue strong although we are approaching tax season, when redemptions traditionally increase. HY spreads have paralleled IG tightening. As Puerto Rico gets closer to its sizable May through July debt burdens, the U.S. Congress appears closer to providing legislative aid.

International

International non-U.S. dollar (USD) bonds were slightly positive in USD terms during March, as Japanese long bond yields moved further into negative territory and the yen strengthened. USD-denominated emerging markets bonds were also positive. Even though U.S. Treasury yields increased, spreads narrowed on the bonds of Russia, Indonesia, and Venezuela as oil prices rose, as well as those of Brazil, on the prospect its market-unfriendly president would be impeached.

Sources: FactSet, Bloomberg.

Investing involves risks and you may incur a profit or a loss. Past performance is no guarantee of future results.
Nontraditional

**Real assets**

Global-listed real estate shot up in the middle of February on the stock market bounce, in addition to the growing expectation of more delays in the Fed hiking cycle. The rally has continued with all regions showing strength in March.

**Inflation-linked bonds**

Inflation-linked bonds (ILBs) have seen strong performance in 2016, due mainly to falling real yields as investors sought high-quality assets. Inflation expectations remain soft, well below the Fed’s 2% target, though they moved upward in March which has added to returns. We continue to believe that expectations, especially in the U.S., are too low.

**Commodities**

After falling to almost $26 a barrel in early February, oil prices bounced over 40% on hopes of tightening supply. While commodities outside of energy have seen much less dramatic price movements, most sectors have seen gains and the major commodity indices passed into positive territory for the year during March.

**Hedge fund strategies**

**Equity hedge funds**

Equity hedge funds were slightly down in February with wide divergence between sub-strategies. Technology- and healthcare-focused managers had the most trouble while energy and materials managers saw gains. Equity managers generally brought down risk levels in response to January’s and the first half of February’s sharp selloffs.

**Event-driven hedge funds**

Event driven was negative in February with losses concentrated in activist and distressed managers. Merger arbitrage was the top performing sub-strategy for the month and is positive year to date.

**Macro hedge funds**

Macro was the top-performing strategy in February, as managers were able to capitalize on the volatility seen in many asset classes, including stocks, currencies, and commodities. Systematic strategies saw the highest returns.

**Relative-value hedge funds**

Relative-value (RV) strategies were negative in March. The largest losses were experienced by managers specializing in structured products, such as commercial mortgage-backed securities and collateralized loan obligations, which saw pronounced price declines.

**Other**

**Private markets**

According to a survey published in Prequin Investor Outlook: Alternative Assets H1 2016, more private markets investors showed satisfaction with current infrastructure funds, as 76% of respondents said their investments met or exceeded expectations. Appetite also appears to be growing with 48% intending to commit more and institutional investors’ target allocations increasing from 4.3% to 5.7%, over the period of 2011 to 2015.
Aside from stimulating the economy, another potential positive outcome of QE is that it can boost stock returns. When central banks buy large quantities of bonds, market supply drops, prices go up, and their yields fall. As a result, investors may turn to stocks for greater potential returns, because they attach a higher present value to future corporate earnings as part of a process called “multiple expansion.”

In 2Q 2013, the Bank of Japan (BOJ) launched its QE program and, in 2Q 2015, the European Central Bank (ECB) followed suit. Because our own Federal Reserve had scaled down and subsequently ended its QE program, this so-called “QE divergence” created an opportunity to profit from buying Japanese and eurozone stocks.

However, QE can often lead to currency weakness. Therefore, the QE divergence trade would work for U.S. dollar-based investors only when the investments in Japanese and eurozone stocks are protected, or “hedged,” against yen and euro weakening. Fortunately, there are currency-hedged exchange-traded funds (ETFs)—WisdomTree Japan Hedged Equity ETF (DXJ) and iShares Currency Hedged MSCI Eurozone ETF (HEZU)—for Japanese and eurozone investing.

Rather than purchase these ETFs for client portfolios at the time those central banks each launched QE, we did so in mid-2015. Our logic was that as long as Japan’s and the eurozone’s central banks could be expected to extend and expand QE, one could reasonably expect those ETFs to generate relatively strong performance.

However, the market impact of QE divergence has proven more fleeting than we expected. The stock and currency markets have grown increasingly skeptical of the ability of the BOJ and ECB to use QE—or negative interest rates—to stem disinflation and boost anemic levels of economic growth. Consequently, the ETFs’ returns, especially for DXJ, have proven disappointing.

Impact of BOJ–Fed divergence

Figure 1 illustrates the degree to which BOJ–Fed QE divergence, measured in terms of relative central bank balance sheet growth, impacted the return spread of DXJ over SPY, an ETF that tracks the S&P 500 index, which is typically considered to represent the broader U.S. stock market.

DXJ outperformed SPY during 4Q 2012 through 2Q 2013. This outperformance, triggered by the election of Prime Minister Shinzo Abe, anticipated the BOJ’s 2Q 2013 QE launch. In 3Q 2013, once investors had taken profits from the QE anticipation trade, DXJ began to underperform SPY. Investors, including Japanese investors, were not yet convinced that the BOJ’s QE bond purchases would suffice to boost inflation and growth. Such underperformance persisted through 1Q 2014, even as the BOJ continued to ramp up its easing.

By 2Q 2014, the BOJ was engaged in a massive expansion of QE, in an all-out effort to boost the economy. As a result, DXJ generally outperformed SPY through 2Q 2015. We were likewise optimistic about further QE expansion. However, as early as 3Q 2015, it
Figure 1
Japan: Effect of BOJ minus Fed QE divergence on return spread on DXJ minus SPY return spread
(Percentage difference)

Source: Bloomberg

Figure 2
Eurozone: Effect of ECB minus Fed QE divergence on HEZU minus SPY return spread
(Percentage difference)

Source: Bloomberg
appeared that the BOJ was becoming less convinced of
the eventual success of QE in meeting inflation targets,
and was taking a cautious, wait-and-see approach
toward further monetary easing. Investors became
disappointed with the BOJ’s timidity. As a result, DXJ
underperformed SPY in 3Q 2015.

DXJ underperformance worsened further, as 1Q 2016
was marked by global market turmoil surrounding
China, oil prices, and U.S. recession fears. Global
markets treated the yen as a “safe haven” currency. As a
result, the yen’s value markedly strengthened, leading to
a plunge in DXJ. Even a surprising BOJ move to take
interest rates into negative territory did not weaken the
yen—contrary to economic theory. Given our concerns
that the yen might strengthen further, we exited the
DXJ position.

Impact of ECB–Fed divergence
Look now at Figure 2, which portrays the degree to
which ECB–Fed QE divergence, measured in terms of
relative balance sheet growth, impacted the return
spread of HEZU over SPY.

HEZU outperformed SPY by over 15% during
1Q 2015, as investors anticipated impending ECB
QE. During 2Q 2015, the quarter when the ECB
actually launched QE, investors took profits from the
anticipation trade, and HEZU slightly underperformed
SPY. Many investors came to the conclusion that the
ECB may be “pushing on a string”—expanding the
money supply even though credit demand remained
weak and eurozone governments were uncooperative in
expanding fiscal stimulus.

Our introduction of a position in HEZU was based on
the expectation that the ECB’s first round of QE, which
many considered too timid, would ultimately need to
be extended and expanded. The ECB did indeed
expand QE, but not until March 2016, much later
than investors had anticipated. Sustained QE between
2Q 2015 and 1Q 2016 appears to have had no
significant effect on the HEZU–SPY return spread, and
HEZU has slightly but consistently underperformed
SPY since 2Q 2015.

Shoulda, coulda, woulda
Looking back at our experience with the currency-
hedged ETFs, there is of course 20/20 hindsight:

• The ideal entry point for the DXJ trade would have
been in 4Q 2012, after Abe’s election. The ideal time
to have exited that trade would have been 3Q 2013,
shortly after QE was launched.

• Another good DXJ entry point would have been in
2Q 2014, as the BOJ began expanding its QE
program. A good point for exiting that trade would
have been at the beginning of 2Q 2015, when
investors began to take note of the BOJ’s increasing
timidity.

• The 1Q 2016 global market turmoil and the yen’s
strengthening were unlikely events that could
not have been reasonably anticipated, and we were
hurt by that quarter’s DXJ plunge.

• The ideal time to have bought HEZU was in
4Q 2014, as ECB President Mario Draghi began
signaling that QE was planned. The ideal time to
have sold HEZU would have been in the weeks
immediately prior to the scheduled launch of QE.

Moving forward
Over the course of the next six to twelve months,
we expect:

• BOJ and ECB to become increasingly circumspect
regarding QE extension or expansion.

• Further QE extension or expansion to produce only
marginal multiple expansion.

• Corporate earnings growth and dividend yields to
return as the primary drivers of stock returns, and we
will likely favor eurozone over Japanese stocks.

• The yen and euro to fluctuate within trading ranges of
105–120 yen per U.S. dollar and 1.05–1.20 U.S.
dollars per euro.

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Glossary

Barclays Ba U.S. High Yield Index
Measures the performance of a subset of Barclays U.S. Corporate High Yield Index with issues rated Ba, the highest speculative-grade quality rating.

Barclays Inflation-Linked Bond Index
Measures the performance of publicly issued U.S. Treasury inflation-protected securities (where par value is adjusted semi-annually based on measures of broad inflation) that have at least one year to maturity on index rebalancing date.

Barclays U.S. Aggregate Bond Index
Measures the performance of the U.S. market of taxable, fixed-rate, investment-grade bonds with at least one year to maturity.

Barclays U.S. Corporate High Yield Index
Measures the performance of taxable, fixed-rate bonds issued by U.S. companies rated below investment-grade quality rating (i.e., speculative grade or high yield) with at least one year to maturity.

Barclays U.S. Credit Index
Measures the performance of U.S. investment-grade corporate and government agency bonds with at least one year to maturity.

Cambridge Associates U.S. Private Equity Index
Measures the performance of a broad range of private equity funds (e.g., buyout, growth equity, sector focus, and mezzanine funds) based on end-to-end calculation of data compiled from over 1,100 U.S. private equity funds formed since 1986, including fully liquidated funds.

Commodities
A basic, physical good used in commerce—such as corn, gold, beef, oil, and natural gas—that is interchangeable with similar types of goods. Investment exposure in commodities may be obtained directly, through futures or other derivatives, or by investment in companies with business exposure to one or more commodities.

(CBOE) Volatility Index® (VIX®)
A key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. Since its introduction in 1993, VIX has been considered by many to be the world’s premier barometer of investor sentiment and market volatility. Several investors expressed interest in trading instruments related to the market’s expectation of future volatility, and so VIX futures were introduced in 2004, and VIX options were introduced in 2006.

Exchange-traded fund (ETF)
A security that tracks an index, a commodity, bonds, or a basket of assets like an index fund. Unlike mutual funds, an ETF trades like a common stock on a stock exchange. ETFs experience price changes throughout the day as they are bought and sold.

DXY Index
Measures the value of the U.S. dollar relative to the currencies of several significant trading partners.

Global Industry Classification Standard (GICS)
Developed in 1999 by Standard & Poor’s and MSCI Barra in response to the global financial community’s need for a complete, consistent set of global sector and industry definitions.

Gross domestic product (GDP)
Often cited as an indication of the economy’s overall health, GDP measures the value of all finished goods and services produced over a certain period, expressed on an annualized basis.

Hedge funds
A nontraditional investment, these funds afford their managers more latitude to pursue their insights than traditional, long-only investing. Hedge fund strategies include trading across financial markets, employing leverage and taking concentrated or short positions. Some common examples of types of hedge fund strategies include:

- **Event-driven**
  Strategies that seek to take advantage of pricing inefficiencies that may occur before or after a corporate event, such as a bankruptcy, merger, acquisition, or spinoff.

- **Macro**
  Strategies that seek to take advantage of movements in broad economic variables and the impact these can have on capital flow across equity, bond, currency, and commodity markets.

- **Relative-value arbitrage**
  Describes a basket of strategies using an array of related securities; purchasing the side that is expected to appreciate while shorting the related security that is expected to depreciate, e.g., stocks of the acquiring versus the acquired companies in an acquisition, convertible bonds versus stocks of the same issuer, etc.

- **High-yield (speculative-grade) credit**
  Bonds of issuers deemed to be at risk of (or in) default on interest and/or principal payments, as reflected in their quality ratings. Such issuers typically offer higher yields to compensate investors for higher credit risk.

Hedge Fund Research Institute (HFRI)
**Fund of Funds Composite**
Benchmark designed to reflect the results of over 800 domestic and offshore fund of funds using a broad range of hedge strategies. The index is equal-weighted among reporting funds, which must have at least $50 million in assets or have been active for 12 months. Funds report returns net of fees. The broad index is used to illustrate the results of hedge funds of funds generally, with sub-indexes focusing on specific strategies.

**HFRI Fund Weighted Composite Index**
Encompasses over 2000 funds, to the increasingly specific-level of the sub-strategy classifications. The funds are weighted based on the asset size of the underlying indices.

**HFRI Equity Hedge Index**
Index of hedge funds that mainly manage their portfolios through both long and short positions in equity securities and derivatives.
**Glossary continued**

**Investment-grade credit**
Bonds of issuers deemed to have at least adequate protection of their capacity to meet financial commitments, as reflected in their quality ratings. Such issuers tend to offer lower interest rates than more speculative issuers as a result of the higher credit quality implied by such ratings.

**iShares Currency Hedged MSCI Eurozone ETF (HEZU)**
An exchange-traded fund provides broad exposure to exporters and local Europe-focused companies, while hedging exposure to fluctuations between the euro and the U.S. dollar.

**ISM Non-manufacturing Index**
An index that tracks economic data, it is based on surveys of more than 400 non-manufacturing firms' purchasing and supply executives, within 60 sectors across the nation, by the Institute of Supply Management.

**J.P. Morgan Global High Yield Index**
Consists of fixed income securities of domestic and foreign issuers with a maximum credit rating of BB+ or Ba1. This index seeks a high level of current income by investing primarily in a diversified portfolio of debt securities that are unrated or rated below investment grade. Capital appreciation is a secondary objective.

**J.P. Morgan Leveraged Loan Index**
Designed to mirror the investable universe of U.S. dollar institutional leveraged loans, including U.S. and international borrowers.

**J.P. Morgan U.S. Liquid Index**
Market-weighted index that measures the performance of the most liquid issues in the investment-grade, U.S. dollar-denominated corporate bond market.

**MSCI ACWI ex USA Investable Market Index**
Captures large-, mid-, and small-cap representation across 22 developed market countries outside the U.S. and 23 emerging markets countries. With over 6,000 constituents, the index covers approximately 99% of the equity opportunity set outside the U.S.

**MSCI EAFE Index**
Measures the performance of global developed equity markets in Europe, Australasia, and the Far East, excluding U.S. and Canada.

**MSCI Emerging Markets Index**
Measures stock market performance in the global emerging markets, covering over 800 securities across 23 markets and representing roughly 13% of world market capitalization.

**Nontraditional assets**
(also referred to as alternative investments)
Seek risk exposures and return drivers that are different from traditional, long-only financial market investments. Exposure may be sought by targeting particular assets, such as real estate or commodities, or through strategies with more latitude to pursue manager insights, such as trading across financial markets and/or taking short positions (i.e., hedge strategies).

**Private equity**
Nontraditional asset that pursues investment in equity or debt securities of operating companies, typically with the intent to exert control over the management of company and often targeting a particular industry, financial condition, and/or stage of development.

**Quality ratings**
Used to evaluate the likelihood of default by a bond issuer. Independent rating agencies analyze the financial strength of each rated issuer. Moody’s ratings range from Aaa (highest quality) to C (lowest quality). Bonds rated Baa and better are considered “investment grade.” Bonds rated Ba and below are “speculative grade” or “high yield.” Similarly, Standard & Poor’s ratings range from AAA to D. Bonds rated BBB– and below are considered “investment grade” and bonds rated BB+ and below are “speculative grade.”

**Speculative grade (also “high yield”)**
Bonds of issuers deemed to be at risk of or in default of interest and/or principal payments, as reflected in their quality ratings. Such issuers tend to offer higher interest rates than investment-grade bond issuers as a result of the lower credit quality implied by such ratings.

**Russell 1000 Index**
Measures the performance of the 1,000 largest companies in the Russell 3000 Index, representing approximately 90% of U.S. equity market cap.

**Russell 2000 Index**
Measures the performance of the 2,000 smallest companies in the Russell 3000 Index, representing approximately 8% of U.S. equity market cap.

**Russell 3000 Index**
Measures the performance of the 3,000 largest U.S. companies based on total market capitalization, representing approximately 98% of the investable U.S. equity market.

**Russell Midcap Index**
Measures the performance of the 800 smallest companies in the Russell 1000 Index, representing approximately 25% of U.S. equity market cap.

**S&P 500 Index**
Measures the performance of approximately 500 widely held, typically large-cap, common stocks listed on U.S. exchanges, as selected by S&P.

**S&P Developed Property Index**
Measures an investable universe of publicly traded companies in developed markets that are engaged in real estate-related activities such as property rental, development, or management.

**S&P Municipal Bond Index**
Measures the performance of U.S., fixed-rate bonds exempt from federal income tax, though they may be subject to the alternative minimum tax, with par outstanding of at least $2 million. The index includes bonds of all quality ratings, including non-rated and defaulted bonds, and from all sectors of the municipal bond market.
Glossary continued

**Treasury inflation-protected securities (TIPS)**
A security issued by the U.S. Treasury that has both a fixed interest rate component and a par value that rises with inflation, as measured by the Consumer Price Index. Interest on TIPS is paid semiannually.

**UBS Bloomberg CMCI (Constant Maturity Commodity Index)**
Diversifies across both a broad range of commodities (27 futures contracts across a number of sectors, such as precious metals, agricultural and livestock) and investment maturities for each individual commodity. It is the first commodity index to include a time dimension.

**WisdomTree Japan Hedged Equity ETF (DXJ)**
An exchange-traded fund that aims to provide exposure to the Japanese stock market, while hedging exposure to fluctuations between the yen and the U.S. dollar.
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Any positioning information provided does not include all positions that were taken in client accounts and may not be representative of current positioning. It should not be assumed that the positions described are or will be profitable or that positions taken in the future will be profitable or will equal the performance of those described.

Indexes are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses, such as management fees and transaction costs that would reduce returns.

An overview of our asset allocation strategies:

Wilmington Trust offers five model asset allocation strategies each for taxable and tax-exempt investors with particular sets of risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. Each strategy can be implemented with or without allocations to hedge funds. Reference portfolios are maintained for each strategy and, on a quarterly basis, we publish the results of all of these strategy models versus benchmarks representing static investments without tactical tilts.

Model strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international large-cap, developed international small-cap and emerging market stocks, inflation hedges (including global inflation-linked bonds and commodity-related and global real estate-related securities), investment-grade bonds (corporate or municipal), high-yield corporate bonds and floating-rate notes, and cash equivalents. Directional and absolute return hedge funds are distinct to the strategies with hedge funds. Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.

Forecasted performance: Expected results are hypothetical and do not represent the performance of client accounts or actual investment products. “Expected returns” for each strategy are derived from our forecast returns for the underlying assets as described in the Capital Markets Forecast 2016–2026 and weighted based on their current allocation percentage. Forecasts are subject to a number of assumptions regarding future returns, volatility, and the interrelationship (correlation) of asset classes. Actual events may differ from underlying assumptions, which are subject to various uncertainties. No assurance can be given as to actual future market results. Expected returns for the individual asset classes are based on factors including, for equity-based securities, dividend growth rates and dividend yield changes. For fixed income securities, expected returns are calculated based on principal impacts from changes in the underlying U.S. Treasury curve, yield spread changes vs. the U.S. Treasury curve, and the interest income that could be earned. Estimates of default rates are also taken into consideration. “Expected standard deviations” are forecast from the trailing 10-year rolling standard deviation of the asset class and “Expected yield” is based on the current expected dividend or interest income and is expressed as a percentage of the underlying principal value.

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Fee assumptions:
No adjustments are made for advisory fees, transaction costs, or any other expenses. In the course of implementing a given asset allocation, clients could select among a number of investment vehicles or strategies, each of which will have such fees and expenses. These expenses have the effect of reducing returns at a compound rate over time, and would reduce the results shown. In cases where Wilmington Trust, or an affiliate, provides advisory, brokerage, or other services to such an investment vehicle, Wilmington Trust may benefit directly or indirectly from those advisory, brokerage, or other fees. Investors should develop a thorough understanding of the fees, expenses, and other costs of any investment prior to committing funds.

Impact of fees:
The following is a hypothetical example of the impact over time of fees charged to a client’s account. It is not meant to suggest actual fees, which may vary, and does not reflect actual returns. Assuming an initial investment of $1,000,000 account value and an average annual return of 10%, an annual fee of 100 basis points (i.e., 1.00%) would result in account level fees of $10,641 the first year, $35,351 over three years, and $65,458 over five years. A schedule of Wilmington Trust’s fees is available upon request.

Actual results will vary from forecast results:
In the course of implementing a given asset allocation, clients could select among a number of investment vehicles or strategies, each of which would contribute differently to overall results. The returns for individual clients will vary depending upon the performance of each actual investment vehicle or activity, any restrictions, inception date, timing of rebalancing, actual expenses and fees, and other factors.

Risk assumptions:
All investments carry some degree of risk. This publication uses the return volatility, as measured by standard deviation, of asset classes as a proxy for illustrating risk. Volatility serves as a collective, quantitative estimate of risks present to varying degrees in the respective asset classes (e.g., liquidity, credit, and default risks). Certain types of risk may be underrepresented by this measure. Investors should develop a thorough understanding of the risks of any investment prior to committing funds.

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