

Q2 2016 Outlook & Review

A QUARTERLY MARKET PERSPECTIVE FROM QMA'S ASSET ALLOCATION GROUP

KEY POINTS

Economic Outlook

Global economic growth is likely to remain sluggish as it has been over the past few years, rather than breakout into a more robust expansion.

Emerging economies should continue to struggle, while developed economies, led by the United States, should fare a bit better on the margin.

Most indicators that have historically turned ahead of recessions are not signaling anything ominous on the horizon, and we believe a recession in the United States is still unlikely in 2016.

While we currently expect just one more Fed rate increase this year, we are closely monitoring the inflation backdrop. If inflation meaningfully rises above certain key targets, the Fed could be pressured to move more than the market currently expects.

While we are sanguine on the European growth outlook, the migrant crisis and the upcoming June vote on whether Britain stays in the EU are notable downside risks.

Japan's anemic recovery has been challenged this year as consumer confidence has fallen sharply and recent Yen strength has diminished the outlook for exports. With the economy clearly weakening, we expect further stimulus from the Bank of Japan (BOJ) at the upcoming April meeting.

Our outlook on slowing growth across the emerging economies has not changed as China struggles to manage its slowdown, while Brazil and Russia remain in recession.

Investment Outlook

Despite having reigned in risk to start the year, we have been adding to risk assets on the margin as we believe economic growth will be sustained and recent headwinds will eventually dissipate.

On a tactical basis, we have a slight overweight in stocks versus bonds as the level of current government bond yields offer a low bar for stocks to outperform. While the odds of a bear market are low, stocks still face several headwinds, so we expect equity returns will be limited going forward.

Monetary stimulus in Europe and Japan, and fiscal stimulus in China should support global stock prices and market sentiment going forward. On a longer term horizon, the capacity for further policy measures, cheaper valuations, and a positive outlook for earnings growth lead us to favor European and Japanese stocks relative to the US. These markets significantly underperformed the US in the first quarter and caution is warranted heading into Q2, but we are sticking with this call.

We remain cautious towards emerging market equities. While EM equities performed well during the quarter, uncertainty on oil prices, the USD, Fed policy, and geopolitics all present risks to the outlook there.

Corporate bond spreads have narrowed significantly over the last several weeks. We still favor US high yield corporate bonds as we believe overall defaults will stay contained in the midst of continued economic growth.

We see TIPS as an intriguing fixed income segment over the longer term as the US labor market continues to tighten, which hints at inflation upside through wages, and break-evens on TIPS remain low.

Real estate remains attractive given solid fundamentals, though current valuations are somewhat elevated. We continue to like preferred stocks as an attractive yield opportunity.

Economic Outlook

Global economic growth is likely to remain sluggish, as it has been over the past few years, rather than breakout into a more robust expansion. As detailed in our *Q1 2016 Outlook & Review*, we expect emerging economies will continue to struggle under the weight of a host of structural macro economic problems, while developed economies, led by the United States, should fare a bit better. Although economic data in the US stumbled at the start of the year, putting jittery markets into panic mode, we believe a recession in the United States is still unlikely in 2016.

US real GDP growth went from a recent high of 3.9% in Q2 2015, to just 1.4% to close out 2015, prompting recession fears as the Citi Economic Surprise Index, which was already in negative territory, fell to levels not seen since 2014. The question was, and is, are recession fears overdone? We believe they are. Most indicators that have historically turned ahead of recessions are not signaling anything ominous on the horizon. For example, initial unemployment claims remain at very healthy levels (Chart 1). Second, most data over the last month have exceeded expectations, prompting a sharp rebound in the Citi Economic Surprise Index. We expect US growth to remain in the 2-2.5% range for 2016, similar to the last several years—not too hot or too cold. However, the upcoming presidential election may pose risks to this outlook in the latter part of year as the more probable outcome comes into focus.

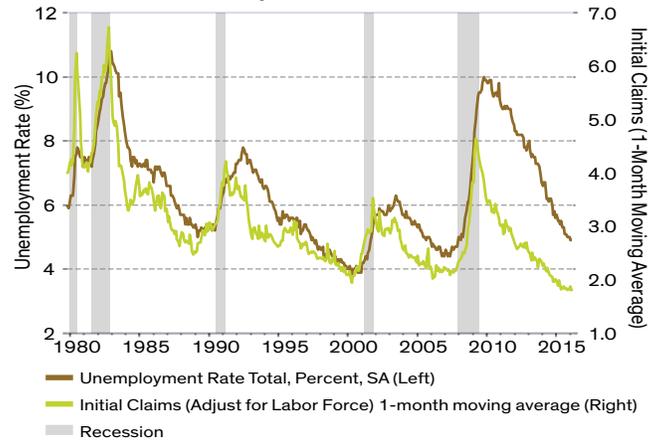
Turning to the Fed, in the March 2016 meeting, the committee cited global economic and financial risks, and low inflation, as reasons to leave rates as is. In addition, the Fed's expectations on where rates are headed this year have shifted downward, closer, but still not as low as what the market is pricing in (Chart 2). While we currently expect one more rate increase this year, we are closely monitoring the inflation backdrop. The fall in oil prices is keeping overall inflation at bay, but in our view, it is the labor market that is the key to determining where inflation is heading. As slack in the labor market continues to diminish, a clear upward trend in average hourly earnings is progressing, helping to pull core inflation (both CPI and the Fed's preferred PCE measure) along with it (Chart 3). Though the Core PCE price deflator still remains below the Fed's 2% target, this bears close watching. If inflation meaningfully rises above this level, the Fed could be pressured to move rates higher and quicker than the market currently expects.

On the international front, the latest uptick in manufacturing and composite PMIs, along with other indicators, suggests that the Eurozone economic recovery remains intact. Growth continues to be supported by monetary policy, along with low oil prices. While we are sanguine on the growth outlook, the migrant crisis and the upcoming June vote on whether Britain stays in the EU are meaningful downside risks, not only to economic growth, but the future of the EU itself.

Japan's anemic recovery has been challenged this year as consumer confidence sharply fell and strength in the Yen has diminished the outlook for exports. With the economy clearly weakening, we expect further stimulus from the BOJ at the upcoming April meeting. Our outlook on slowing growth across the emerging economies has not changed as China struggles to manage its slowdown, while Brazil and Russia remain in recession.

1 / HEALTHY US LABOR MARKET

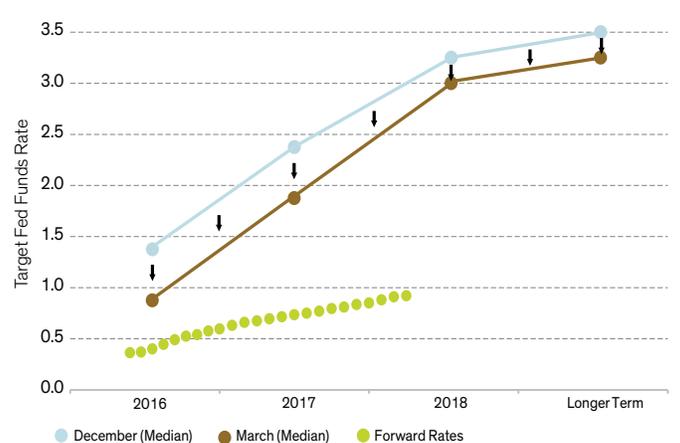
October 1979 - February 2016



As of 2/29/2016.
 Source: Thomson Reuters Datastream, QMA.

2 / A MORE DOVISH FED

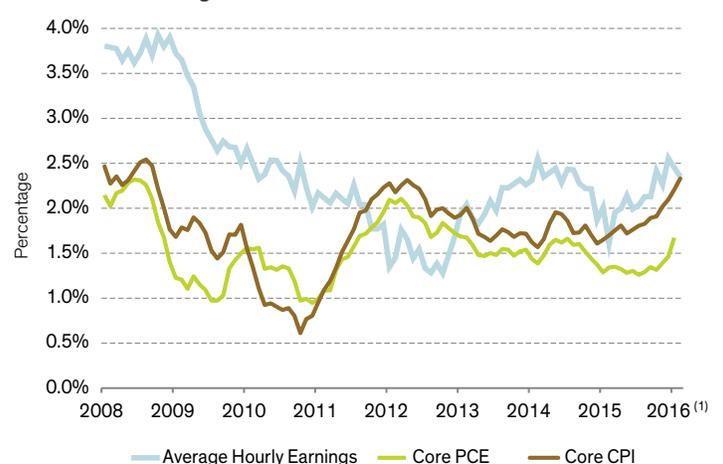
March vs. December Fed "Median Dot Plot"



As of 3/31/2016.
 Source: QMA, Federal Reserve.
 Projections are not guaranteed.

3 / EMERGING INFLATION PRESSURES?

Measures of Wage and Price Inflation



⁽¹⁾As of 2/15/2016.
 Source: Thomson Reuters Datastream, QMA.

Investment Outlook

Looking back upon our *Q1 2016 Outlook & Review*, we cautioned investors that 2016 may be another unrewarding year for equities with increased volatility and the possibility of one or two 10% corrections. The bleak outlook for earnings and profit margins underpinned our view as a rising dollar, declining oil prices, and subdued global growth presented stark headwinds. This contributed to a 10.5% decline in global equities to start the year. As quickly as it had dropped, the market rebounded into quarter end, driven by a wave of positive economic surprises, a cooling USD, and oil prices bouncing off their lows. As shown in Chart 4, Gold was the big winner in the quarter, with EAFE in local currency the laggard. Given the heightened volatility and sharp movements across markets, the question remains; where do we go from here?

On a tactical basis, we have a slight overweight in stocks versus bonds as the level of current yields for government bonds offer a low bar for stocks to outperform. The global expansion is sluggish yet steady. US recession fears appear to be overdone and accordingly, the chances of a bear market are low. However, we remain cautious as we expect equity returns to be limited, going forward, as several headwinds remain.

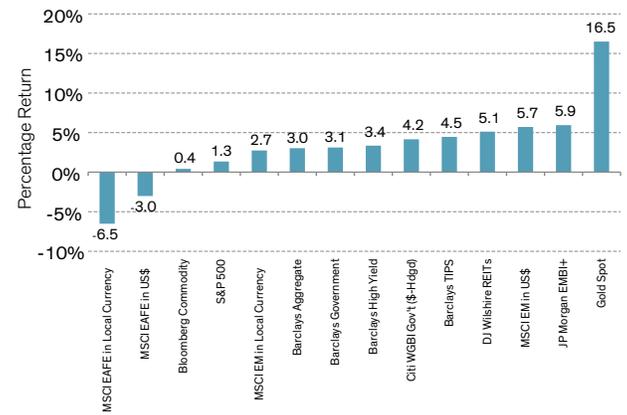
In the US, many of the same challenges facing equity markets at the beginning of the year remain in place. The earnings environment for stocks remains poor as Q1 earnings are expected to have shrunk by nearly -7% since last year. Earnings have been challenged by the major decline in energy prices along with the stronger USD (Charts 5 and 6). Though we think these negative headwinds will prove transitory and may dissipate later into the year, they remain risks for stocks in the short term. Equities are likely to consolidate in the near term, but may trend higher later this year on the back of corporate earnings upgrades and economic resiliency. Furthermore, expectations for Fed policy have turned more dovish following the latest FOMC meeting and comments from Janet Yellen. This has boosted risk assets in the short term, however, a probable rate hike in the summer may serve as a headwind.

Globally, fiscal and monetary support in developed markets should remain catalysts for higher stock prices and improving market sentiment going forward. Negative interest rate policies are designed to encourage spending. Despite these recent policy initiatives, the Euro and Yen have strengthened as of late, challenging these markets. In addition, uncertainty of a “Brexit” and slowing growth in Japan have led us to reduce our tactical overweight towards EAFE stocks. On a longer term horizon, the capacity for further policy measures, cheaper valuations, and a positive outlook for earnings growth have led us to favor European and Japanese stocks relative to the US, though caution is warranted heading into Q2.

We remain cautious towards emerging market equities. Structural growth concerns remain in place and market sentiment continues to pivot around a few key catalysts that are hard to predict, including: energy prices, movements in the USD, and the outlook for China policy and growth. Commodity producers have benefitted from the rebound in oil prices though the fundamentals of the energy sector still pose downside risks which will likely keep volatility high in these markets. Likewise, the EM equity performance has been a major beneficiary of the pullback in the greenback which has also helped forward earnings estimates in these markets on the margin. In addition, recent policy easing in China appears to be stabilizing growth and improving sentiment. However, China may be boosting short term growth at the

4 / GOLD THE BIG WINNER IN Q1

Q1 Market Returns



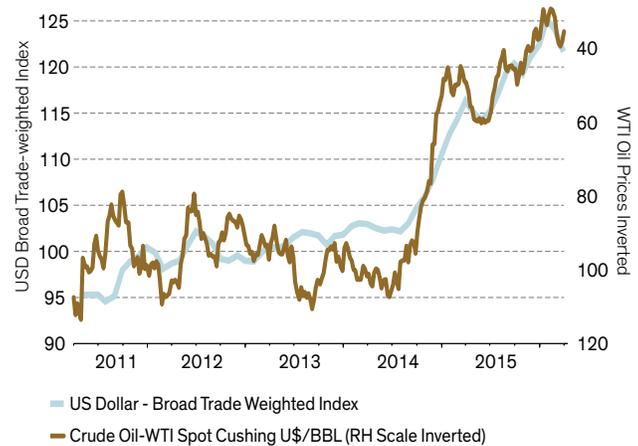
As of 3/31/2016.

Source: Bloomberg. An investment cannot be made in an index.

Past performance is not a guarantee or a reliable indicator of future results.

5 / USD AND OIL REMAIN MAJOR RISK FACTORS

Oil Prices and USD

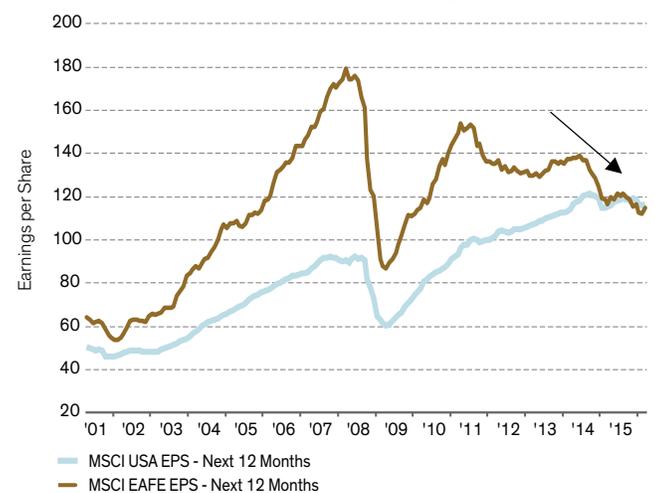


As of 3/31/2016.

Source: Thomson Reuters Datastream, QMA.

6 / GLOBAL PROFIT RECESSION

MSCI USA vs. MSCI EAFE Forward Earnings per Share



As of 3/31/2016.

Source: FactSet Research Systems.

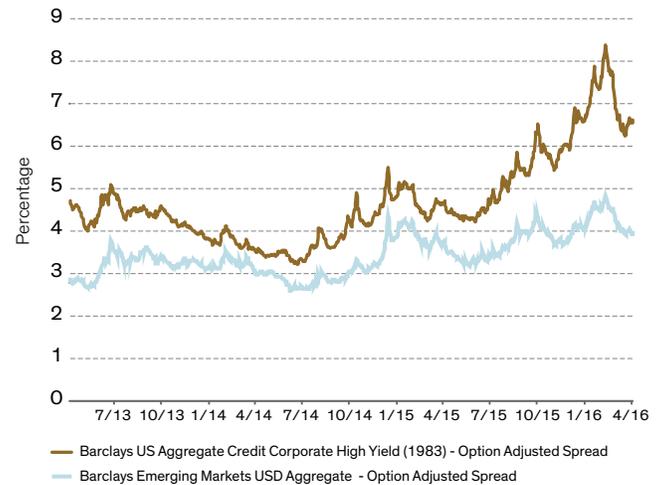
expense of addressing longer term structural issues. While EM equities have performed well this year, quick reversals in oil prices, the USD, Fed policy, and geopolitical uncertainties all present risks to the outlook.

Bond markets have provided recent signals for a positive outlook in risk assets as corporate bond spreads have narrowed over the last several weeks (Chart 7). This change in credit sectors has been most stark on high yield debt markets where spreads have narrowed over 180 bps since February highs. These improvements run parallel with our view that overall defaults will remain low as the economic recovery continues. Treasuries remain expensive and offer little value though they should continue to serve as an excellent diversifier in periods of heightened market volatility. We see TIPS as an intriguing fixed income segment over the longer term as the US labor market continues to tighten, which hints at inflation upside through wages, and break-evens remain low.

Despite reigning in risk to start the year, we have been adding to risk assets more recently as we believe economic growth will be sustained and headwinds related to oil and the dollar will lessen. We look for developed equity market returns to be limited, but should outpace bonds and cash over the remainder of the year. We will monitor emerging markets closely, looking for an improvement in the growth outlook and sustained momentum before increasing exposure. Additionally, real estate remains attractive given solid fundamentals, though current valuations are somewhat elevated. We continue to like preferred stocks as an attractive yield opportunity given the underlying balance sheet strength of the financial sector.

7 / FIXED INCOME SPREADS NARROW

Option-Adjusted Spreads



As of 4/5/2016.

Source: Thomson Reuters Datastream, QMA.

An investment cannot be made in an index.

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For more information

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Since 1975, QMA has served investors by combining experienced judgment with detailed investment research with the goal of capturing repeatable long-term outperformance. Today, we manage approximately \$113 billion* in assets globally for a worldwide institutional client base, including corporate and public pension plans, endowments and foundations, multi-employer pension plans, and sub-advisory accounts for other financial services companies.

*As of 12/31/2015.

Special Risks

Foreign investments may be volatile and involve additional expenses and special risks, including currency fluctuations, foreign taxes and political and economic uncertainties. Emerging and developing market investments may be especially volatile. Investments in securities of growth companies may be especially volatile. Due to the recent global economic crisis that caused financial difficulties for many European Union countries, Eurozone investments may be subject to volatility and liquidity issues. Value investing involves the risk that undervalued securities may not appreciate as anticipated. Small and mid-sized company stock is typically more volatile than that of larger, more established businesses, as these stocks tend to be more sensitive to changes in earnings expectations and tend to have lower trading volumes than large-cap securities, creating potential for more erratic price movements. It may take a substantial period of time to realize a gain on an investment in a small or mid-sized company, if any gain is realized at all. Diversification does not guarantee profit or protect against loss.

Emerging markets are countries that are beginning to emerge with increased consumer potential driven by rapid industrial expansion and economic growth. Investing in emerging markets is very risky due to the additional political, economic and currency risks associated with these underdeveloped geographic areas. Fixed-income investments are subject to interest rate risk, and their value will decline as interest rates rise. Unlike other investment vehicles, U.S. government securities and U.S. Treasury bills are backed by the full faith and credit of the U.S. government, are less volatile than equity investments, and provide a guaranteed return of principal at maturity. Treasury Inflation-Protected Securities (TIPS) are inflation-index bonds that may experience greater losses than other fixed income securities with similar durations and are more likely to cause fluctuations in a Portfolio's income distribution. Investing in real estate poses risks related to an individual property, credit risk and interest rate fluctuations. High yield bonds, commonly known as junk bonds, are subject to a high level of credit and market risks. Investing involves risks. Some investments are riskier than others. The investment return and principal value will fluctuate and when sold may be worth more or less than the original cost.

IMPORTANT INFORMATION

Source of Outlook: QMA, Thomson Reuters Datastream, Federal Reserve, Bloomberg, FactSet Research Systems.

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The **Barclays US Aggregate Bond Index** is composed of US investment-grade fixed-rate bond market, including government and credit securities, agency mortgage pass-through securities, asset-backed securities, and commercial mortgage-based securities. Source: Barclays. **Barclays US TIPS Index** includes all publicly issued, US Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade, and have \$250 million or more of outstanding face value. **Barclays Intermediate Government/Credit Index** is comprised of US-dollar denominated fixed-income securities that are rated investment grade (BBB or higher by Standard and Poor's), including US government, corporate, and sovereign debt, which have 5-7 years to final maturity. The **Barclays US Treasury Index** measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. The US Treasury Index is a component of the US Aggregate, US Universal, Global Aggregate and Global Treasury Indices. The US Treasury Index was launched on January 1, 1973. Source: Barclays. **Barclays EM USD Aggregate Index** is a flagship hard currency Emerging Markets debt benchmark that includes fixed and floating-rate US dollar-denominated debt issued from sovereign, quasi-sovereign, and corporate EM issuers.

Bloomberg Commodity Index is a broadly diversified index that allows investors to track commodity futures through a single, simple measure. The index is composed of futures contracts on physical commodities.

Citi World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds. **Dow Jones Wilshire REIT Index**- Measures US publicly traded Real Estate Investment Trusts. The index is a subset of the Dow Jones Wilshire Real Estate Securities Index (WRESI). The indexes are weighted by both full market capitalization and float-adjusted market capitalization.

J.P. Morgan Emerging Market Bond Index (EMBI) - a benchmark index for measuring the total return performance of international government bonds issued by emerging market countries (Brady Bonds).

The **S&P 500 Index** is an unmanaged index of 500 common stocks, weighted by market capitalization, representing approximately 75% of the New York Stock Exchange. The value-weighted index represents about 75% of the NYSE market capitalization and 30% of the NYSE issues.

The **MSCI USA Index** is designed to measure the performance of the large and mid cap segments of the US market. With 633 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US. The **MSCI World Index** is a free-float adjusted market capitalization index that is designed to measure global developed market equity performance. The index is net of foreign withholding tax using the Luxembourg tax rate. The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index designed to measure equity market performance in the global emerging markets. The index is net of foreign withholding tax using the Luxembourg tax rate. The **MSCI EAFE (Net) Index** is invested in Europe, Australasia, and the Far East. Dividends are reinvested monthly, weighted by each country's aggregate market capitalization. The **10-Year US Treasury note** is a debt obligation issued by the United States government that matures in 10 years. A 10-year Treasury note pays interest at a fixed rate once every six months and pays the face value to the holder at maturity.

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