

Q4 2016 Outlook & Review

A QUARTERLY MARKET PERSPECTIVE FROM QMA'S ASSET ALLOCATION GROUP

KEY POINTS

Economic Outlook

The world's developed economies will probably remain lackluster. Worldwide, real growth is unlikely to exceed 3%, far from the pre-crisis norm of 4-5%.

Three theories have been advanced to explain the economy's anemic performance. The secular stagnation thesis blames an excess of savings and a dearth of investment. A second explanation attributes it to the financial crisis, and a third points to a slower rate of technological innovation.

The secular stagnation thesis appears to describe current conditions best—low real rates, sluggish aggregate demand, slow growth, and subpar inflation.

Another factor that may hinder growth is political uncertainty. In Europe, the process of disentangling the UK from the EU is likely to be economically disruptive.

The Brexit vote may be a sign of more disruption to come. Italy will hold a referendum on constitutional reform on December 4th, and Germany and France will have elections in 2017. If Euroskeptic forces gain ground, investors may once again question the viability of the euro and the European Union, which is likely to raise risk premia in markets.

In the US, political factors are also in play. The November election could mean a continuation of the status quo, or could come with policy changes that may impact the markets and economy in unexpected ways.

After several years of subpar growth, emerging market economies have perked up, primarily as a result of China's massive policy stimulus. But with China's accompanying credit binge, there may be a consequential day of reckoning on the horizon. However, easing monetary policy among emerging market central banks and an expected recovery from downturns in Russia and Brazil are supportive.

Investment Outlook

In the current environment, we think a modestly defensive investment strategy, with an overweight position in cash, is appropriate. Markets are likely to serve up opportunities to deploy this cash at more attractive asset prices than exist today.

In the US, equity multiples are above average, and earnings growth has been dismal and may remain disappointing.

Within equities, we favor the United States over Europe and Japan, despite their lower valuation multiples, because in the US secular stagnation is less entrenched.

Within US equities, we would remain focused on yield, quality, and defensive characteristics. One exception to this is the energy sector, where we think a modest rise in oil prices will be beneficial.

In emerging markets, stocks are up strongly year-to-date, and this outperformance could persist a while longer. Corporate fundamentals in these markets have not improved, and China's debt bubble is growing. But Chinese officials are likely to continue the stimulus in the near term.

Despite our concerns, stocks have become an attractive income play in a world of ultra-low rates. But while the next recession may not be on the immediate horizon, the fallout may be unusually nasty for financial markets when it does arrive. Central banks have limited room to maneuver, and few countries have the capacity for significant fiscal stimulus.

Entering 2016, we favored fixed-income risk assets, especially high-yield bonds. But valuations have significantly worsened while corporate health has deteriorated. Although the global search for yield may fuel outperformance for a while longer, risks are now much higher.

Opportunities also exist in other corners, such as US preferred shares and master limited partnerships (MLP), but in general very little value exists among the major asset classes.

Economic Outlook

Given the headwinds presented by aging demographics and weak productivity growth, the world's developed economies will probably remain lackluster on both a real and nominal basis (Chart 1). Worldwide, real growth is unlikely to exceed 3%, far from the pre-crisis norm of 4-5%.

Three primary theories have been advanced to explain sustained disappointing growth. First, a secular stagnation thesis, proposed by Lawrence Summers, former US Treasury Secretary, posits that economic sluggishness is a result of an excess of savings and a dearth of investment. A second explanation is put forward by economist Kenneth Rogoff, who argues that economic weakness in the wake of a financial crisis is normal. Economies remain soft for several years as balance sheet damage resulting from excess debt is gradually repaired. A third explanation comes from economist Robert Gordon, the author of *The Rise and Fall of American Growth*. Gordon proposes that the US economy has stagnated because the rate of technological innovation has slowed, hindering productivity growth. Gordon believes that the innovation that boosted productivity and launched the American economy of the 20th century is unlikely to be repeated going forward.

While some combination of these three explanations is probably at work, the secular stagnation thesis appears to describe current conditions best—low real interest rates, sluggish aggregate demand, slow growth, and subpar inflation.

The excess savings cited by the secular stagnation thesis appear to be due to aging demographics, deleveraging, and a larger share of income earned by the wealthy. The dearth of investment may be due to a slower-growing labor force, which requires less capital to equip and house, and to the rise of the “sharing economy,” in which many business models require less capital. These factors have depressed the neutral real policy rate and appear to have even pushed it below zero in some developed economies.

The forces of secular stagnation appear to be greater in Europe and Japan than in the United States. The Bank of Japan and the European Central Bank are still employing unconventional policies, and policy rates are negative. In contrast, the Federal Reserve is attempting to normalize rates, though it is unlikely to implement as many hikes in 2017 and the following years as is implied by its current “dot plot” (Chart 2). Doing so would spark a rise in the dollar, which would put additional pressure on an economy that seems set to grow at less than a 2% pace for calendar year 2016.

Another factor that may hinder growth is political unrest, which can introduce uncertainty as well as prevent much needed structural reforms. In the UK, for example, the economy has so far absorbed the impact of the “leave” referendum relatively well, but the process of separating has not yet begun. Article 50, which details what must happen for a country to exit the EU, won't be triggered until March 2017, and that will set the clock ticking. Disentangling these two complex political and economic entities is likely to be disruptive for the UK economy.

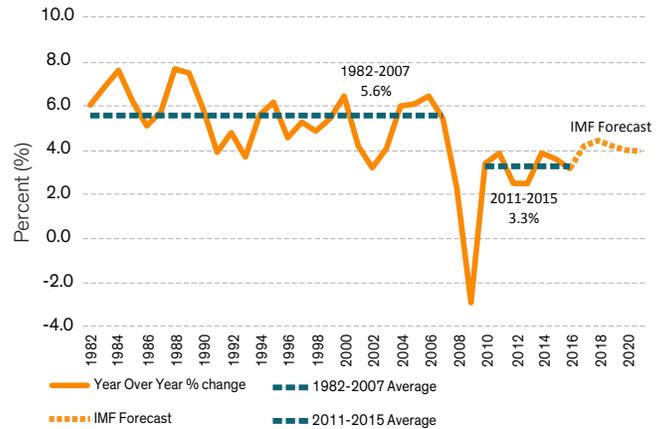
In the meantime, similar Euroskeptic forces may gain ground in other EU member countries. Italy will be having a referendum on constitutional reform on December 4th, and Germany and France will have elections in 2017. If Euroskeptic parties in these countries win more support, investors may once again question the viability of the euro and the European Union, which is likely to raise risk premiums in these markets.

In the US, political factors are also in play. The November election could mean a continuation of the status quo, or could come with policy changes that may impact the markets and economy in unexpected ways.

After several years of slowing growth, emerging economies have perked up a bit, primarily as a result of China's massive policy stimulus, which has also generated a recovery in commodity prices (Chart 3). China will likely continue this stimulus in the near term, but with China's accompanying credit binge, there may be a consequential day of reckoning on the horizon. However, emerging market growth should be boosted by expected recoveries from recession in Brazil and Russia and more monetary policy easing among emerging market central banks.

1 / NOMINAL GDP GROWTH AT A PERMANENTLY LOWER PLATEAU?

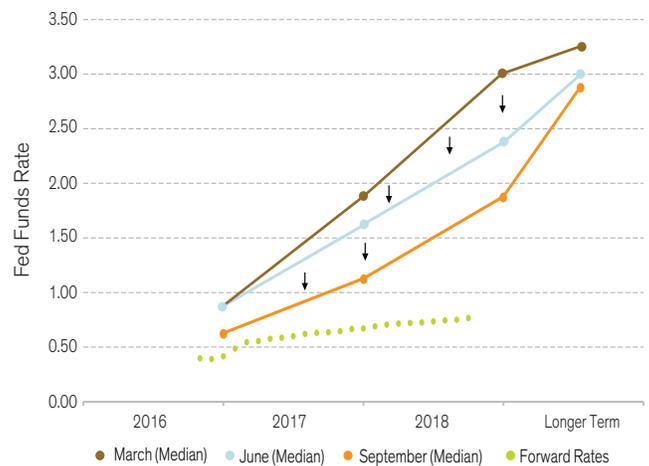
US, EU, and Japan Nominal Growth



As of February 2016. Source: IMF, QMA. Forecasts are not guaranteed.

2 / FED FORECASTS STILL TOO HIGH

Fed Dot Plot Chart



As of 9/30/2016. Source: Federal Reserve, Datastream, QMA. Forecasts are not guaranteed.

3 / EMERGING MARKETS GDP PERKS UP A BIT

Emerging Markets GDP and GDP Tracker



As of 9/30/2016. Source: Capital Economics.

Investment Outlook

In the current environment, we think a modestly defensive investment strategy, with an overweight position in cash, is appropriate. Markets are likely to serve up opportunities to deploy this cash at more attractive asset prices than exist today. Cash yields next to nothing, but it provides dry-powder in the event that markets pull back. And with more than 30% of the world's sovereign bond markets exhibiting negative yields, the opportunity cost of holding cash is low (Chart 4).

In the US, equity multiples are above average, and earnings growth has been dismal. Earnings are expected to improve, but persistent low nominal GDP growth and historically high and declining corporate profit margins mean that analyst earnings estimates are likely to disappoint in the near term.

Within equities, we favor the United States over Europe and Japan despite their lower valuation multiples. Secular stagnation forces are more entrenched in these two economies, and so we believe the US deserves its valuation premium. Within US equities, we would remain focused on yield, quality, and defensive characteristics despite elevated valuation in these areas. One exception to this is the energy sector. We think oil markets are coming into supply/demand balance and that prices should exhibit an upward trend as we move into 2017.

In emerging markets, stocks are up strongly year-to-date, and this outperformance could persist a while longer. Corporate fundamentals in these markets have not improved, and China's debt bubble continues to inflate. But Chinese officials are unlikely to pull back on stimulus in the near term. Moreover, low multiples relative to other markets mean this rally may have legs. Further, a benign Fed, a well-behaved US dollar, and monetary easing among emerging market central banks should also be supportive. Accordingly, we closed our emerging market underweight earlier this year.

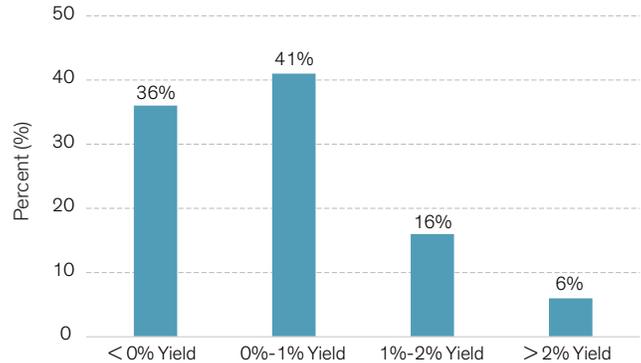
Despite our caution, stocks have become an attractive income play in a world of ultra-low rates (Chart 5). But while the next recession may not be on the immediate horizon, the fallout may be unusually nasty for financial markets when it does arrive. Central banks have limited room to maneuver, and few countries have the capacity for significant fiscal stimulus.

Entering 2016, we favored fixed-income risk assets, especially high-yield bonds. But spread product has performed strongly this year, and valuations have deteriorated significantly. Meanwhile, corporate health continues to weaken. Firms continue issuing debt to buy back equity, despite weak profits and cash flow (Chart 6). Although the global search for yield may fuel outperformance in these assets for a while longer, we are in a much higher risk stage of the rally. We would therefore be trimming exposure in emerging market debt and high-yield bonds in favor of US non-sovereign investment-grade debt.

We still like real estate, given the favorable supply/demand balance, but we admit that valuation is elevated. Opportunities also exist in other corners, such as US preferred shares and master limited partnerships (MLP), but in general it's a tough environment. Very little value exists among the major asset classes.

4 / A WORLD OF ULTRA-LOW RATES

Distribution of Outstanding Sovereign Debt



As of 6/30/2016.
Source: Bloomberg, Bianco Research.

5 / EVERY EQUITY SECTOR IS NOW A YIELD PLAY

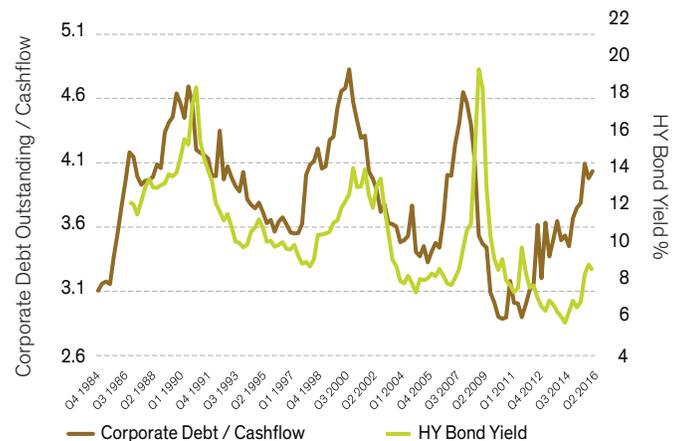
Dividend and Treasury Yields

	Current	10-years Ago
S&P 500	2.2%	2.0%
Consumer Discretionary	1.7%	1.3%
Consumer Staples	2.8%	2.5%
Energy	2.8%	1.8%
Financials	2.2%	2.9%
Health Care	1.7%	2.0%
Industrials	2.4%	2.1%
Materials	2.3%	2.6%
Information Technology	1.6%	0.8%
Telecommunications	4.7%	3.4%
Utilities	3.6%	3.6%
Real Estate	3.1%	3.5%
5Y Treasury Note Yield	1.1%	4.6%
10Y Treasury Note Yield	1.6%	4.6%

As of 9/30/2016.
Source: Datastream, Factset, QMA.

6 / WORSENING CORPORATE HEALTH

Corporate Debt / Cashflow vs High Yield Bond Yields



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

Author

Edward Campbell, Managing Director and Portfolio Manager

For more information

To learn more about QMA's asset allocation capabilities, please contact Stephen Brundage, Managing Director and Portfolio Strategist, at Stephen.Brundage@qmassociates.com or 973.367.4591.

About QMA

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 \$112 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 6/30/2016.

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.

In Europe, certain regulated activities are carried out by representatives of PGIM Limited, which is authorized and regulated by the Financial Conduct Authority (Registration Number 193418), and duly passported in various jurisdictions in the European Economic Area. Quantitative Management Associates LLC (QMA), which is an affiliate to PGIM Limited, is a SEC-registered investment adviser, and a limited liability company. PGIM Limited's Registered Office, Grand Buildings, 1-3 Strand, Trafalgar Square, London WC2N 5HR.

QMA's investment team operated for many years within one of Prudential Financial, Inc.'s (PFI) asset management companies, known today as PGIM, Inc. QMA's predecessors began managing domestic equity accounts for U.S. tax-exempt clients in 1975. In 2004, QMA became a registered investment adviser with the SEC under the Investment Advisers Act of 1940 and the quantitative management business of PGIM, Inc. was transferred to QMA. No changes in investment professionals or process occurred as a result of this change in legal structure.

QMA is a wholly-owned subsidiary of PGIM, Inc. the principal asset management business of PFI of the United States of America. PFI of the United States is not affiliated in any manner with Prudential plc, which is headquartered in the United Kingdom.

These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of Quantitative Management Associates LLC ("QMA") is prohibited. QMA is the primary business name of Quantitative Management Associates LLC. Certain information contained herein has been obtained from sources that QMA believes to be reliable as of the date presented; however, QMA cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. QMA has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. Past performance is not a guarantee or a reliable indicator of future results. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. QMA and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of QMA or its affiliates.

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Certain information contained herein may constitute "forward-looking statements," (including observations about markets and industry and regulatory trends as of the original date of this document). Due to various risks and uncertainties, actual events or results may differ materially from those reflected or contemplated in such forward-looking statements. As a result, you should not rely on such forward-looking statements in making any decisions. No representation or warranty is made as to future performance or such forward-looking statements.

QMA affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. QMA personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to QMA's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in QMA's Form ADV Part 2A.

These materials are not intended for distribution to, or use by, any person in any jurisdiction where such distribution would be contrary to local or international law or regulation.

Copyright 2016 QMA. All rights reserved.

QMA-20161010-323