Strategy
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A Slower and Shallower Path for the Fed Funds Rate

Is Another Argument in Favor of Separately Managed Accounts

Abstract

- *Three C's - China, commodities and central bank actions – contribute to a slower and shallower path for higher rates*
- *Many market pundits continue to argue for one or two rate hikes this year, but most debt investors now accept that the fed funds will return to the normal range of 3-4% over a longer timetable*
- *The new slower interest rate expectation bodes well for high quality SMAs for liquidity investors*

Introduction

The Federal Open Market Committee's (FOMC) decision in April surprised no one. The market had priced in zero percent probability of any rate hike.

Last December, the Federal Reserve did something unprecedented and extraordinary – it kick-started a round of federal funds rate increases for the first time in a dozen years. By lifting the benchmark rate from the 0% lower bound, the Fed successfully boosted short-term interest rates by roughly 0.25%, and at the same time it overcame market skepticism.

For investors who had endured the zero interest rate environment since 2008, the Fed's move brought welcome, although insufficient, relief. For those hopeful for a steady climb back to normal interest rate levels, these past four months have been a major disappointment. One third of the year has passed and three Fed meetings are now behind us, but the fed funds rate remains at a standstill. Since the December Fed meeting, the two-year Treasury note yield actually declined by 17 basis points to 0.84% immediately following the April Fed meeting. The 10-year note yield dropped by an even higher margin of 45 basis points to fall to 1.85%. What were the reasons for the Fed to hit the pause button, and why have rates gone in the opposite direction?

For investors who are not in the capital markets on a day-to-day basis, this research commentary provides some background color behind the Fed pause, it discusses the likely future fed funds path under current market conditions, and it refreshes our calculations of yield pickups over money market funds for a group of separately managed model portfolios.

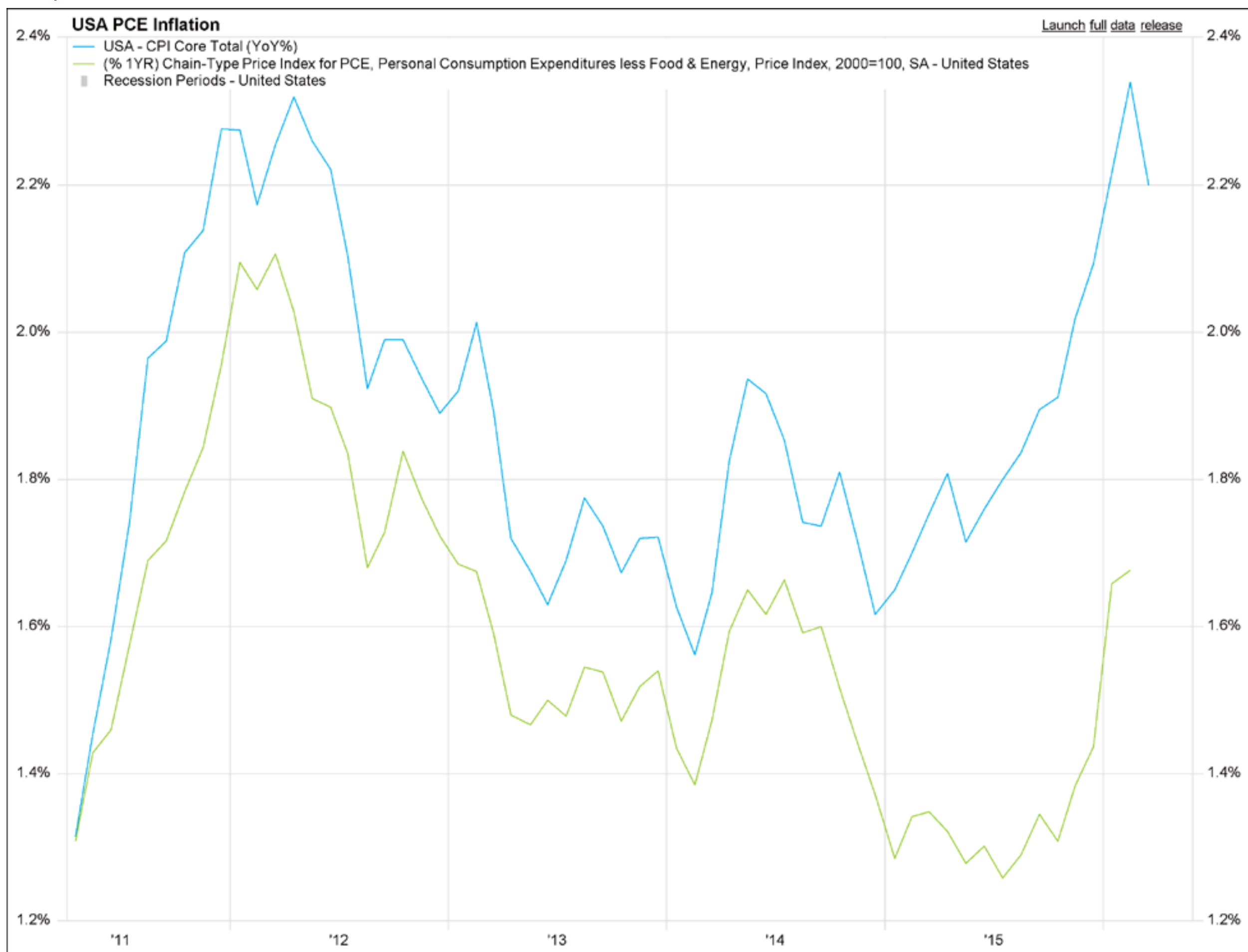
The Fed's Dual Mandate and Conditions for Higher Rates

The Federal Reserve Act states the central bank's statutory objectives for monetary policy: maximum employment, price stability and moderate long-term interest rates. As stipulated in the January 2012 FOMC minutes, the Fed has a target inflation of 2% (as measured by the annual personal consumption expenditures (PCE) index). The Fed believes this explicit goal

helps to keep prices and long-term interest rates stable and promote maximum employment.

The level of maximum employment is influenced by non-monetary factors that impact the structure and dynamics of the jobs market. During the March 2016 FOMC meeting, Fed officials estimated the long-run normal rate of full unemployment to be 4.8%[1].

Graph 1: US Inflation Indicators (Core PCE and Core CPI)

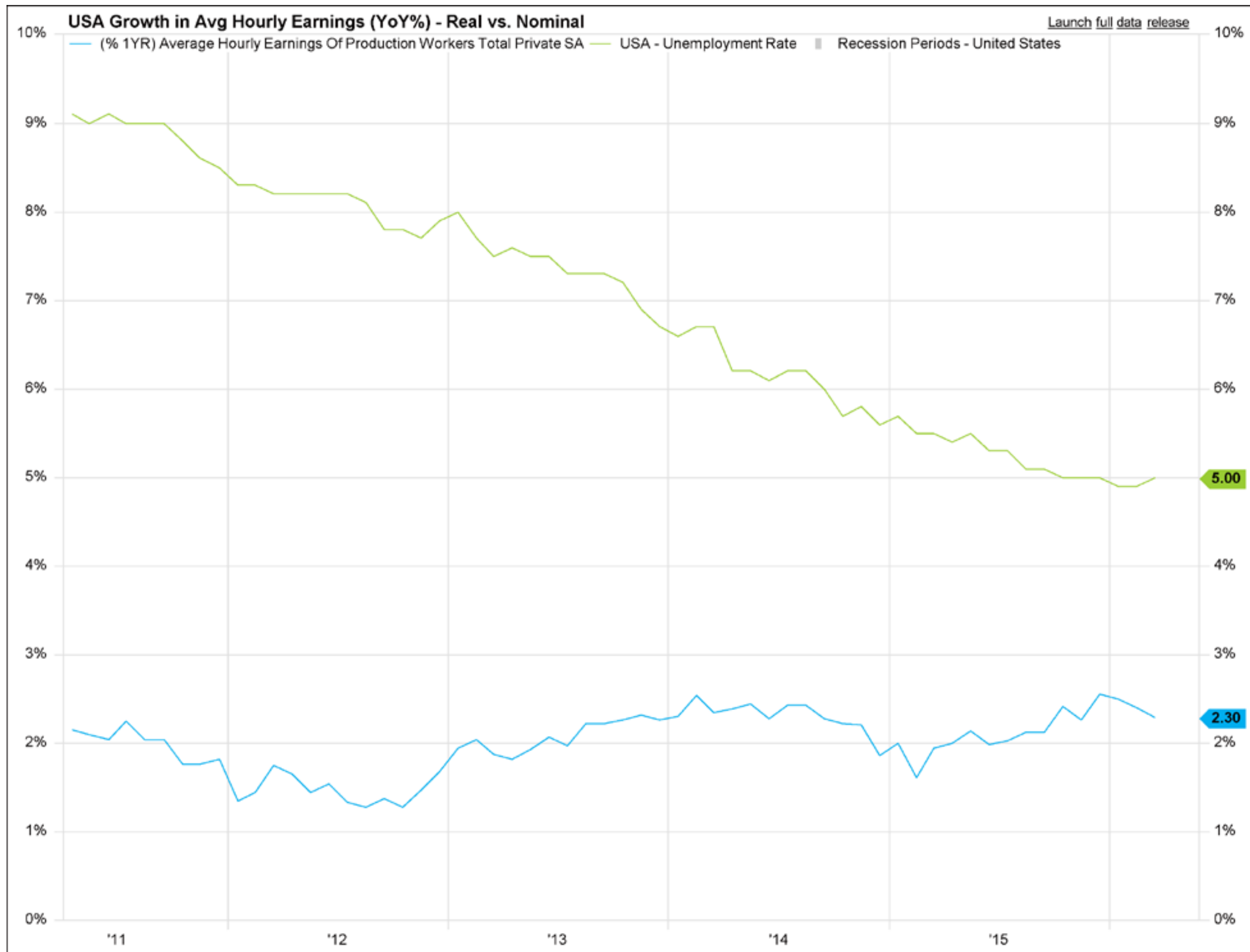


Source: FactSet

Graph 1 shows that the Core Consumer Price Index (CPI), the general inflation indicator and the Core PCE Index (the measure favored by the Fed) have all displayed a downward trend since early 2012. However, the trends began to reverse direction in the middle of 2015. As of March 2016, the Core CPI annual growth rate stands at 2.2% and the Core PCE Index at 1.7%, levels within range of the Fed's long-run target of 2.0%. This upturn in inflation indicators warranted the Fed's decision in the December meeting and suggests that the Fed should continue with its upward rate bias.

[1] See Current FAQs: What are the Federal Reserve's objectives in conducting monetary policy?, https://www.federalreserve.gov/faqs/money_12848.htm

Graph 2: US Unemployment Rate and Hourly Wage Growth



Source: FactSet

The employment picture has also improved dramatically. The economy added 2.74 million jobs in 2015, and for the first three months of 2016, payroll growth averaged 209,000 per month. Graph 2 shows a steady decline in the unemployment rate over the last five years to levels consistent with the Fed's definition of maximum employment, which stands at 5.0% as of March 2016. Hourly wages, another indicator closely watched by the Fed for upward labor cost pressures, has also stood above 2.0% in recent months.

If the state of both inflation and employment seem to satisfy the Fed's conditions for additional rate hikes, why has the Fed not moved in the past three FOMC meetings since December? The answers have more to do with economic and market conditions outside of the United States. These developments worried the Fed enough for it to name "international" concerns as reasons for caution in its official statement, something it has rarely done in the past.

The Three C's that made the Fed Pause

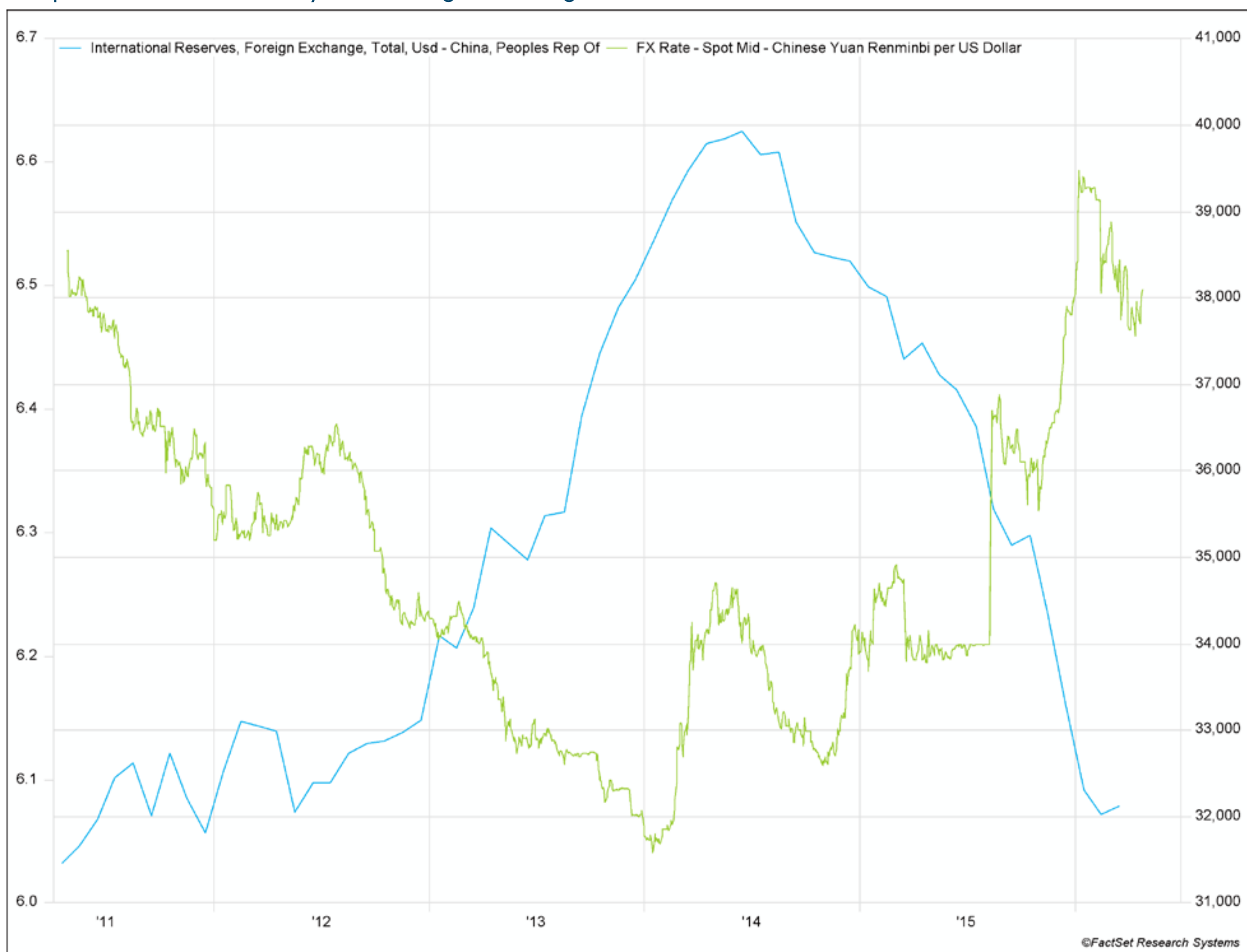
The external factors that stood in the Fed's path can be summarized by three C's: China, commodities and central bank actions.

China – From Engine of Global Growth to Source of Global Pains

Please recall that in the first trading week of the New Year, a new stock market circuit breaker in China shut down its major stock exchanges, an event that triggered subsequent trading halts, the suspension of the circuit breaker itself and a scramble by the government to stabilize its stock market at all costs. At one point, more than 90% of the country's listed firms ceased trading and Public Security personnel were dispatched to investigate and arrest suspected "malicious" short-sellers.

At the same time, China also was faced with rapid depreciation of its currency and accelerated capital flight by international firms, institutional investors and private citizens. Its foreign exchange reserves depleted at a monthly rate of more than $100 billion to $3.2 trillion in January, dangerously close to the psychologically important $3.0 trillion level that defends against further weakening.

Graph 3: China's Currency and Foreign Exchange Reserves



Source: FactSet

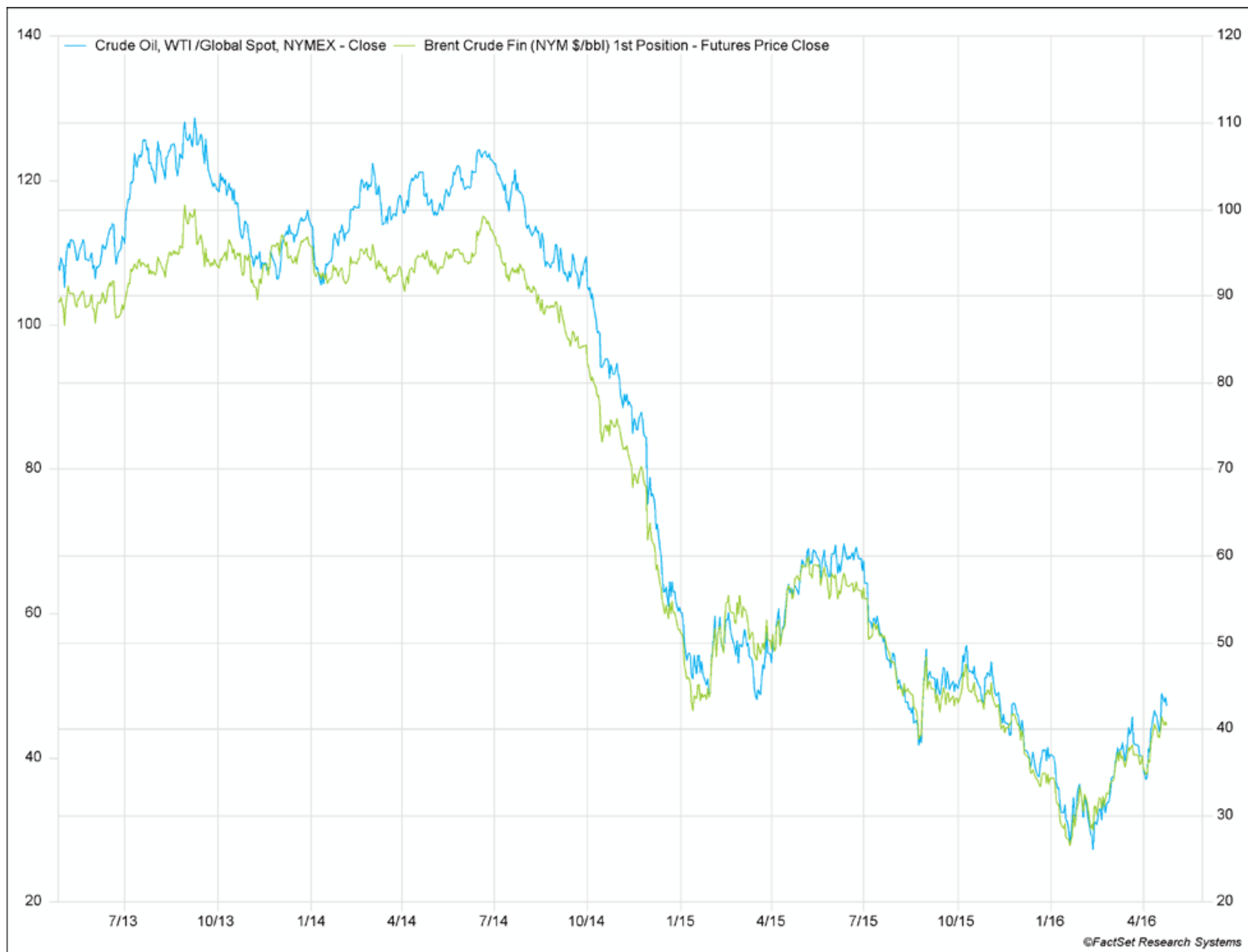
To make the situation worse, market volatility coincided with a slowdown in Chinese economic activity. Its GDP grew 6.9% in 2015, the slowest pace since 2009, and it's further expected to slow to 6.5% in 2016. The problem is especially evident in export industries and industrial sectors hurt by a weak currency and excess capacity. The latest turn of events also calls into question the Chinese government's efforts to restructure its state-owned enterprises and the country's rapidly growing and deteriorating portfolios of non-performing loans.

As a major international trading partner and manufacturing base for the developed world, China's market volatility and growth slowdown played a key role in the Fed's decision to assess the impact on the US economy before it resumes rate hikes.

Commodities — the End of a Super Cycle

Since both demand and prices peaked in 2011, basic materials have been on a steady decline for over five years. Spot prices for silver have declined by nearly two thirds and copper prices have been chopped in half. And, of course, the big story has been the capitulation of crude oil prices.

Graph 4: Crude Oil Prices (WTI and Brent)



Source: FactSet

Crude oil prices, as measured by West Texas Intermediate (WTI) spot rate, declined from over $100 a barrel in 2014 to $26.19 on February 11, 2016. The dramatic fall came after major oil-producing countries failed to reach agreement to halt production. The multi-year low in oil also coincided with the growth jitters out of China and other major oil consuming countries.

The collapse of commodity prices, while benefitting certain parts of the economy, puts strong downward pressure on inflation expectations, so much so that, for a brief period early this year, market participants were seriously worried that the Fed might have to impose negative interest rates in order to curb deflation.

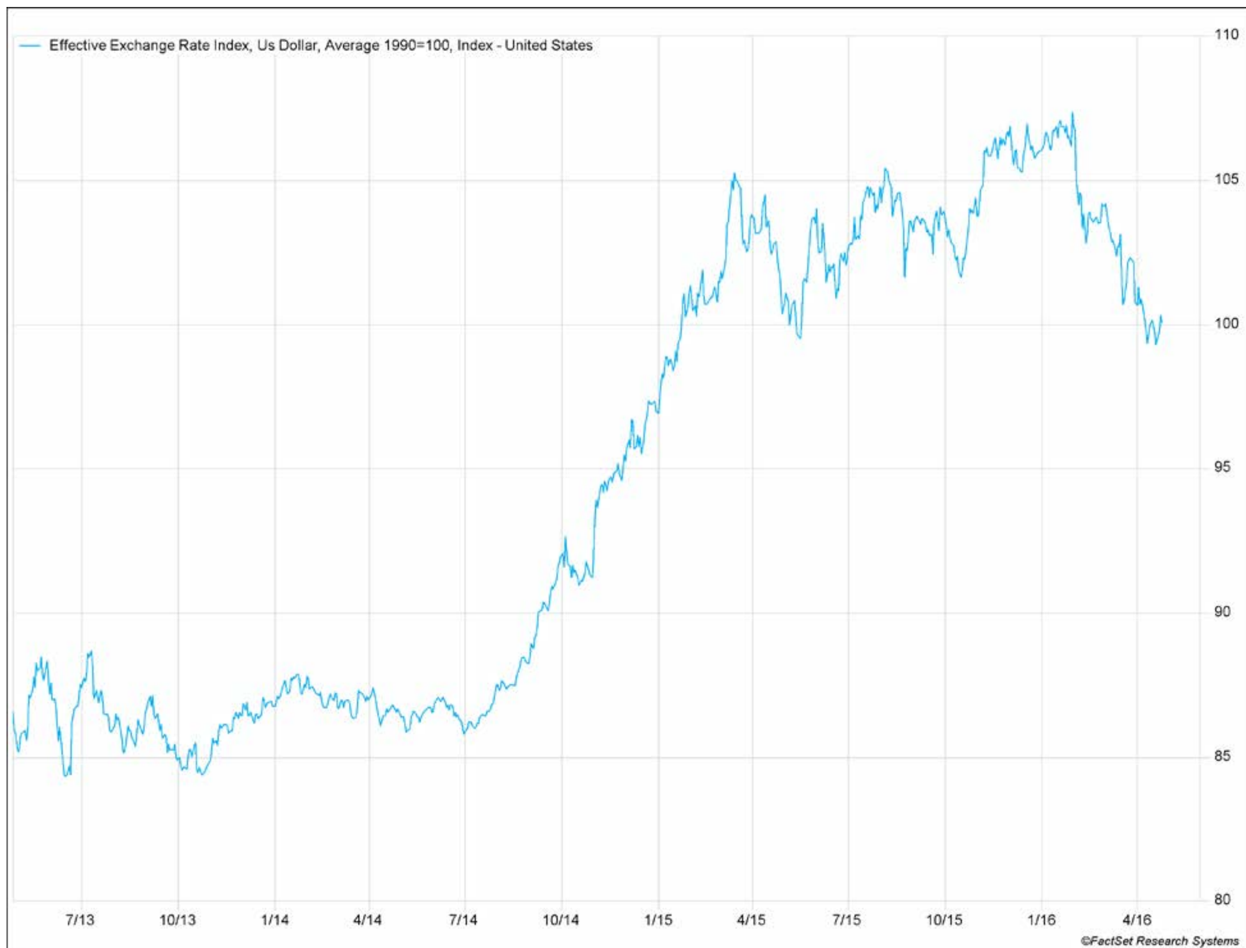
Central Bank Policies and Quantitative Easing

While the US is on the path towards economic recovery and interest rate normalization, the rest of the world has made less progress. Their central banks continue on a path of monetary easing bias, which sharply contrasts with the Fed's current stance regarding monetary policy.

For example, the European Central Bank (ECB) announced a new round of quantitative easing on March 10, 2016 by cutting its deposit rate by 0.10% to send it further into the negative territory (-0.40%). It also raised the amount of bonds it buys each month from €60 billion to €80 billion, and it included corporate bonds as eligible securities. The Bank of Japan (BoJ) also took its interest rates below zero on January 29 for the first in its history, becoming the fifth central bank to impose negative interest rates after the ECB, the Swiss National Bank, the Riksbank of Sweden and Danmarks Nationalbank.

Even for countries still experiencing decent growth such as the United Kingdom, Canada and Australia, growth pressure, the commodities downturn, and currency devaluation from major trading partners have caused their respective central banks to delay rate increases, and for some, to reverse directions and cut rates. Their actions have made the Fed's rate hikes increasingly out of step with the rest of the world, and have caused the dollar to strengthen against major other currencies. Recent disappointing quarterly corporate earnings were partially caused by reduced export activity by US-based multinational corporations.

Graph 5: Effective Exchange Rate Index for the US Dollar



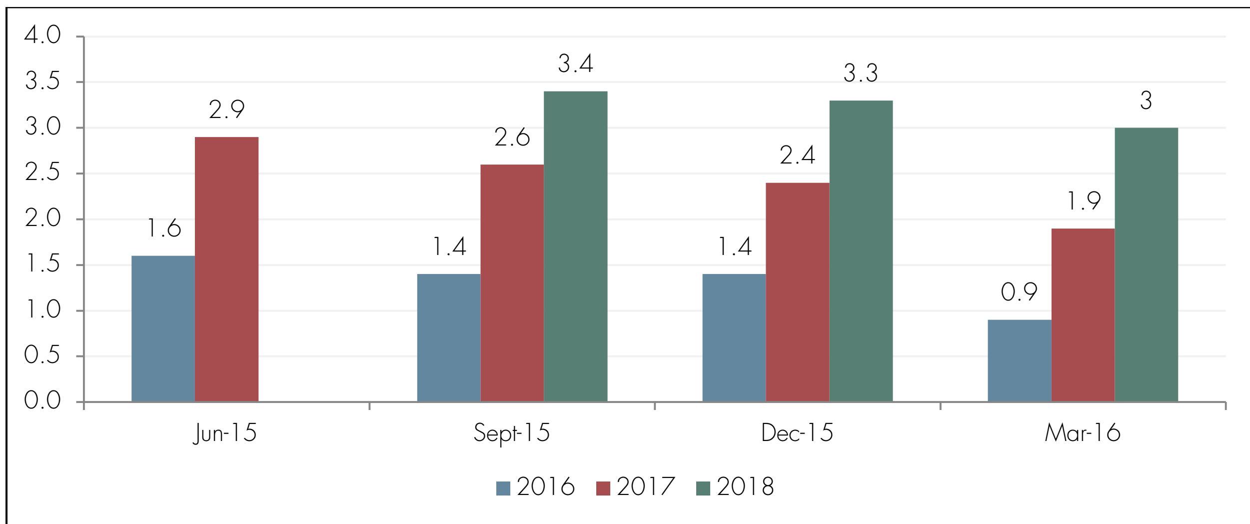
Source: FactSet

Graph 5 shows the dollar index strengthening from 84 in October 2013 to 107 in January of this year, a growth rate of 27% in a little over one year. A stronger dollar has a tightening effect on the economy similar to interest rate increases.

Slower and Shallower Rate Increases

Having examined the three C's that are acting as headwinds for the Fed, one may have more appreciation for the FOMC's decision to stay on the sidelines for the time being. Still, the significantly more dovish stance that the Fed has adopted since the March FOMC meeting fails to match the market's expectation for an even slower and shallower path towards higher rates.

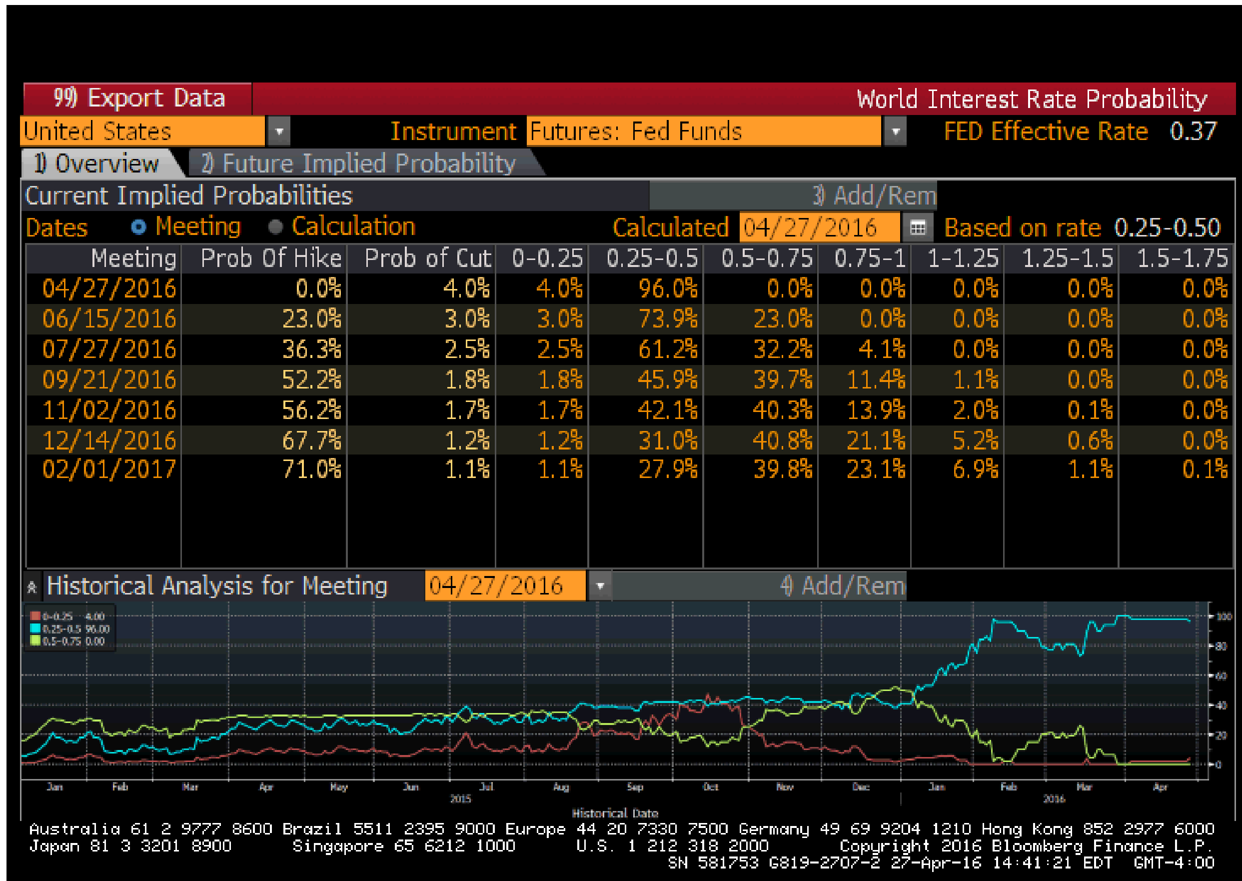
Graph 6: FOMC's Median Fed Funds Rate Projections at Quarter-end Meetings



Source: Federal Reserve's economic projections accompanying FOMC statements

Graph 6 shows the median year-end fed funds rate projections by Fed officials over the last four quarter-end FOMC meetings when such information is typically updated. At the December meeting, their median 2016 forecast of 1.4% suggested four increases of 0.25% from the 0.25-0.50% level. By the March meeting, however, the projected rate had dropped by a full 0.50%, implying that only two hikes are in the forecast for this year.

Graph 7: Probability of Fed Funds Rate Hikes



Meeting	Prob Of Hike	Prob of Cut	0-0.25	0.25-0.5	0.5-0.75	0.75-1	1-1.25	1.25-1.5	1.5-1.75
04/27/2016	0.0%	4.0%	4.0%	96.0%	0.0%	0.0%	0.0%	0.0%	0.0%
06/15/2016	23.0%	3.0%	3.0%	73.9%	23.0%	0.0%	0.0%	0.0%	0.0%
07/27/2016	36.3%	2.5%	2.5%	61.2%	32.2%	4.1%	0.0%	0.0%	0.0%
09/21/2016	52.2%	1.8%	1.8%	45.9%	39.7%	11.4%	1.1%	0.0%	0.0%
11/02/2016	56.2%	1.7%	1.7%	42.1%	40.3%	13.9%	2.0%	0.1%	0.0%
12/14/2016	67.7%	1.2%	1.2%	31.0%	40.8%	21.1%	5.2%	0.6%	0.0%
02/01/2017	71.0%	1.1%	1.1%	27.9%	39.8%	23.1%	6.9%	1.1%	0.1%

Source: Bloomberg

Graph 7 shows the probability of various scenarios for the fed funds rate based on actively traded futures contracts. The figures (recorded following the April 27 FOMC announcement) show a 41% probability of one 0.25% rate hike and 20% probability of two hikes by year-end. Added together, the data in the graph indicate that the market is currently expecting at least one rate hike in 2016.

The Calm after the Storm

After two months of volatility, financial markets appear to have reached a period of relative calm. China continues to be a worrisome element, especially with its credit-driven growth initiatives, but its currency and foreign exchange reserves appear to be stabilizing. After hitting a trough of $26.21 a barrel, the WTI crude oil price is hovering around $45, lessening deflationary worries. The ECB and the BoJ are holding steady on rates, while the Bank of England is focused on providing market liquidity and preparing for event risk surrounding the June 2016 UK referendum on its European Union membership.

On the domestic front, the latest batch of economic releases and corporate earnings continue to point to a lackluster, but sustained, economic recovery. Fourth quarter GDP grew 1.4% and the projected growth rate for the first quarter is 0.6%. The consensus inflation outlook for the first quarter PCE Index is 1.9%, close to the long-run Fed target. April payrolls are projected to add 200,000 new jobs, in line with the recent trend, and the unemployment rate is forecasted to be unchanged from the March reading of 0.5%.

The Fed continues to suggest that the path towards higher interest rates will be cautious and gradual, but with these positive developments, they cannot afford to stay on the sideline for long. Many market pundits continue to

argue for one or two rate hikes this year, although most debt investors now accept that the fed funds rate will return to the normal range of 3-4% over a longer timetable.

Portfolio Implications from the "Slower and Shallower" Scenario

In our March 2016 newsletter, we presented a scenario analysis on weighted average maturity (WAM) in order to gauge the impact of higher rates on separately managed accounts (SMAs). Our conclusion was that a laddered portfolio of agency and corporate securities with modest WAMs could outperform the government money market fund proxy with negligible concerns for unrealized losses.

Our model scenarios tested agency and corporate portfolios with 3, 6, and 12-month maximum maturities, representing 1.5, 3 and 6-month WAMs, and factored in moderate spread widening assumptions over a 12-month period.

This month, we re-ran these model tests under 0, 1, and 2 hike scenarios. The results are presented as yield over the Fed reverse repurchase agreement (RRP) yield, a proxy for government money market funds, for the various agency and credit model portfolios.

Table 1: Yield Outperformance over RRP

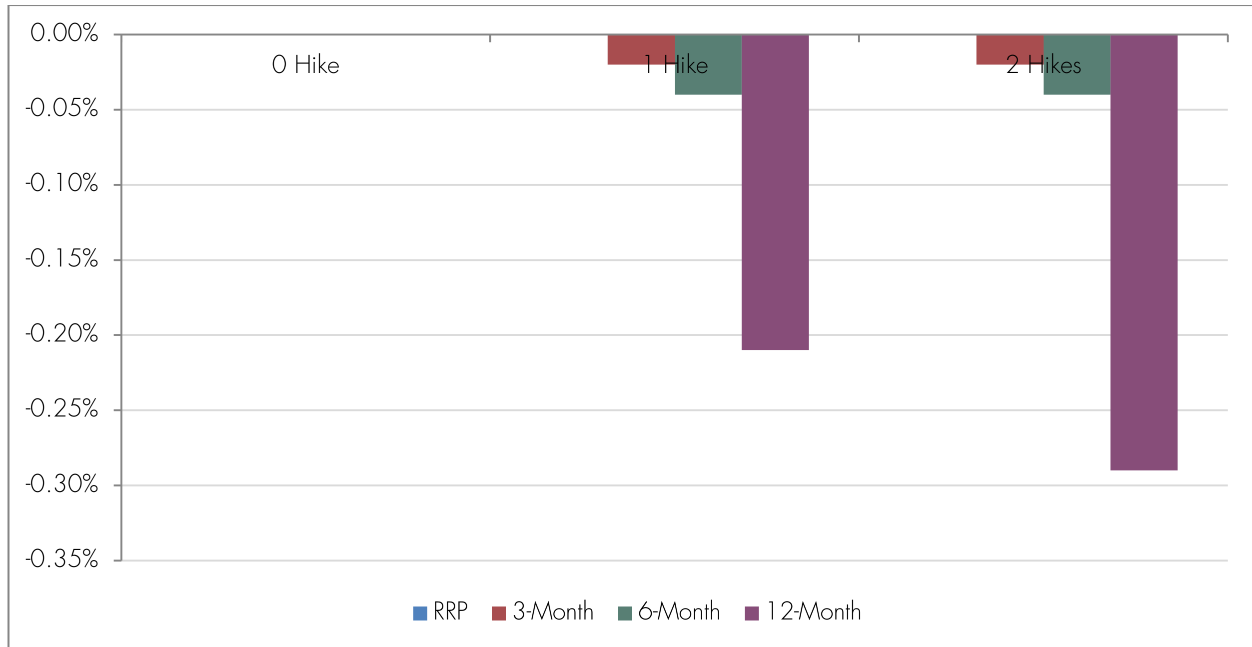
Agency Portfolio		0 Hike	1 Hike	2 Hikes
Constant Spread	3-Month	0.10%	0.05%	0.02%
	6-Month	0.22%	0.14%	0.08%
	12-Month	0.37%	0.23%	0.12%
Widening Spread	3-Month	0.10%	0.06%	0.04%
	6-Month	0.22%	0.16%	0.10%
	12-Month	0.37%	0.23%	0.12%

Credit Portfolio		0 Hike	1 Hike	2 Hikes
Constant Spread	3-Month	0.28%	0.24%	0.20%
	6-Month	0.39%	0.31%	0.25%
	12-Month	0.55%	0.41%	0.30%
Widening Spread	3-Month	0.28%	0.25%	0.24%
	6-Month	0.39%	0.34%	0.30%
	12-Month	0.55%	0.40%	0.30%

Source: See CAG's March 2016 article for model portfolios and source details

At the shorter end of the yield curve, yield pickup for the 3-month agency portfolio ranges between 0.02% and 0.10%. Yield pickup in the longer, 12-month corporate portfolio ranges 0.30% to 0.55%. Table 1 also shows improved yield pickup over the next 12 months with slower pace of rate hikes.

Graph 8: Maximum Unrealized Loss from Interest Rate Hikes in Corporate Portfolios



Source: See CAG's March 2016 article for model portfolios and source details

Lastly, Graph 8 shows that, for investors concerned with unrealized losses in a rising interest rate environment, expected unrealized losses in the most aggressive model portfolio (consisting of corporate securities with a 12-month maximum maturity) is less than 0.30% over 12 months.

Conclusion — A Steady and Cautious Fed Supports Conservative SMA Portfolio Strategies

The first four months of 2016 felt like a rollercoaster ride for many capital markets participants. International developments, along with the collapse of oil prices, a wave of currency devaluation and negative interest rates, a stock market correction and a brief hint of potential negative interest rates in the US, led to vastly reduced expectations for the fed funds rate increases. While the Fed and the market still have a ways to go before they bridge their gap in rate projections, a slower and shallower path towards higher rates is the new consensus of the day.

We believe this new set of expectations, while disappointing for many who crave a faster end to the yield-starved short-term rate environment, continues to bode well for high quality SMAs for liquidity investors. Fewer rate hikes in the medium-term horizon reduce unrealized loss risk and allow for a moderately longer portfolio WAM. Our revised model portfolio scenario tests suggest a 30-55 basis point pickup over money market funds for a laddered corporate portfolio with a 12-month maximum maturity and 6-month WAM.

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