GIOA Update

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NEWS *from the* GOVERNMENT INVESTMENT OFFICERS ASSOCIATION

The Recent History of Fed Rate Hike Cycles

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Every economic cycle is different, as the length of expansions has varied widely over the years, and the shocks that end them have been different and usually unexpected. In fact, it always seems that the forces impacting the economy at any given point in time are wholly new from anything seen before. Thus, it is far from shocking that we hear the "this time is different" mantra so frequently. However, whether it is an attempt to justify sky-high equity valuations or some new theory to describe an oddity in a business cycle, more often than not, the "this time is different" chorus turns out to be wrong.

Currently, there is a version of the "this time is different" notion with regard to the looming Federal Reserve rate hike cycle. Many commentators have been arguing that the peak of the next Fed tightening campaign will be dramatically lower than in prior episodes, perhaps as low as 2% or 3%. Only, in this case, we have heard the chorus before, and the track record shows a fairly consistent story across the last several episodes.

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There are two historical regularities over the past few Federal Reserve rate cycles. The first one is that the peaks of the last several rate cycles have reached similar levels. In the tightening campaign of 1994-95, the Fed was coming off of an extended period when it had held the policy rate at 3%, the lowest setting since the 1960s. Concerns

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about the prospects of rapid job growth and rising commodity prices leading to inflation convinced the Federal Reserve, over the course of roughly a year, to raise rates by 300 basis points to a high of 6%. After a few rate cuts and several years of steady policy, the Fed eventually took the fed funds rate to 6.5% in 2000 before the dot-com bust led to a recession. Finally, in 2004, the Federal Reserve started from an even lower rate level of 1% and hiked rates by 25 basis points for 17 consecutive FOMC meetings (the now-infamous "measured pace"), eventually stopping at a peak of 5.25%. Thus, the last three tightening cycles have all ended within a range of just over 100 BPs, between 5% and 6½%.

The other thing that these three rate hike cycles have in common is that before the Fed began to move, financial market participants were expecting far less tightening than they ultimately received. At the beginning of 1994, just before Chairman Greenspan and company began to raise rates, the 12-month Eurodollar futures contract was yielding between 3.5% and 4%, suggesting that market participants were expecting less than 100 basis points of rate hikes over the course of the next year (when they were hit with 300 BPs of increases). Even the Fed was guilty of underestimating its ultimate actions, as the FOMC noted in its August 16, 1994 press release, when it raised the fed funds rate to 4.75%, that "these actions are expected to be sufficient, at least for a time, to meet the objective of sustained, non-inflationary growth" (three months later, the Committee implemented a whopping 75 basis point rate hike in November 1994).

In late June 1999, just before the Federal Reserve began to raise rates again after having eased in 1998 in response to the Russian debt crisis, the Long-Term Capital Management failure, etc., the 12-month Eurodollar futures contract had built in 50 to 75 basis points of expected rate hikes over the next year. However, the FOMC ended up hiking by 175 basis points over the course of about 11 months.

Finally, despite the fact that the Federal Reserve was engaging in forward guidance and communicating much more robustly than it ever had before, financial market participants still grossly underestimated the magnitude of the eventual rate cycle that began in 2004. Just three months before the rate hikes began, the 12-month Eurodollar futures contract had virtually no tightening priced in at all. When the Federal Reserve actually began to move at the end of June, this contract had moved up by only about 100 basis points, even though the Fed's measured pace worked out to 200 basis points per year. More importantly, from the time that the fed funds rate reached 2%, some analysts began to suggest that 'this would be the last rate hike for a while.' And yet, the FOMC continued to raise rates by 25 basis points every meeting, right through 2005 (even after Hurricane Katrina) and the first half of 2006, finally reaching the eventual peak of 5.25%.

There are valid reasons to believe that the peak of the next rate hike cycle could be lower than the 5.25% to 6.50% range that characterized the last three cycles. The aging of the population is slowing the

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Inflation has been low and is widely expected to remain so for the foreseeable future.

growth of the labor force and productivity gains in recent years have been unusually slow, both of which suggest that the underlying growth rate of the economy has moderated (which may point to a lower long-run equilibrium interest rate). Inflation has been low and is widely expected to remain so for the foreseeable future.

Having said that, the financial markets appear amazingly complacent. Three-month Eurodollar futures contracts indicate that the benchmark three-month LIBOR rate is not expected to reach 2% until the end of 2017 and will not exceed 3% until the end of 2020! In light of the extreme accommodation that the Federal Reserve has provided, near-zero policy rates for 6½ years and $2½ trillion in excess reserves, it does not require an overly optimistic forecast to draw up a scenario where the Fed has to take policy rates considerably higher than currently expected to tamp down consumer price inflation and/or frothy asset prices. Perhaps this time really will be different, but recent history would suggest that financial market participants exercise caution before reaching that conclusion.

Government Investment Officers Association

12th Annual Conference "Market Madness"

Monte Carlo Resort & Casino
Las Vegas, Nevada — March 23–25, 2016

Online Registration for the 2016 GIOA Conference will be available soon, but in order to become acquainted with what GIOA has to offer, we invite you to visit the "Events" page at **www.GIOA.US** to view last year's agenda, attendee lists, and the posted presentations. The 2016 conference agenda will be available early Fall, but we will again offer NASBA eligible CPE credits and will include an all-day Pre-Conference Workshop for government members only on Wednesday, a Welcome Reception for all attendees that evening, and a "NCAA Basketball" Party on Thursday evening. The main sessions run all day Thursday and conclude Friday at 11:00 am.

Hotel Reservations Call **1.800.311.8999** or visit **https://resweb.passkey.com/go/XGIOA16** to make your reservation. There's a limited block of rooms and a deadline of February 22, 2016, so please book early. You need to mention the group code XGIOA16 to receive the room rate of $78 for a standard room or $130 for a Monaco Suite (both with a $25 resort fee).

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Economic Data Resets Rate Expectations

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Economic backdrop

The Federal Open Market Committee (FOMC) may have removed the word "patient" from its statements, but investors in the capital markets—including money market investors—will likely have to keep it in their lexicon in the near term. During April, economic data prompted rate watchers to reassess when the Fed's first rate increase would take place. Many are speculating the FOMC will not announce its first rate hike since 2006 until late in the fourth quarter of 2015.

The mosaic of economic reports released in April included first quarter GDP that grew only 0.2%, missing an already lowered estimate by a full 0.8%. Transitory factors such as the weather and West Coast port shutdowns, combined with softness in longer-term variables, including exports, nonresidential fixed investment, and commercial real estate, weighed heavily on economic growth during the winter months. While consumer spending rose by 1.9%, slightly better than projected, increased consumer activity was not sufficient to offset the global headwinds and the transitory elements that nearly stalled growth in the world's largest economy.

As a result of weakness in first quarter growth, several economists lowered their 2015 estimates for GDP from approximately 3.0% to a 2.0% to 2.5% range. Weak economic growth, a strong dollar, and soft energy and material prices continued to suppress inflationary expectations even though wages began to show signs of growth. While achieving the Fed's 2.0% targeted inflation level may prove to be challenging near term, a rebound in second quarter economic growth may firm inflationary expectations.

Unfortunately, U.S. prices are not likely to receive any assistance from the eurozone. April's economic reports out of Europe were less than impressive. German consumer price index numbers were negative after showing strong growth last month. The European Commission reported consumer confidence across the euro area stayed flat at –4.6%. While this may seem like an underwhelming figure, considering where the number has been, consumer confidence is actually improving.

Rates marching higher

First quarter economic weakness further shifted out the market's expectations on the timing of the Fed's rate hike to late into the fourth quarter of this year. Even with the extended rate expectations, the pace of London Interbank Offered Rate (LIBOR) increases should quicken over the next six months. Over the prior six months, three-month LIBOR has increased five basis points (bps) to about 28 bps.[1] Looking forward, three-month LIBOR may continue to journey higher at an accelerated pace as we near the expected date of policy tightening. As a result, liquidity investors will likely not have to wait until the Fed changes policy to benefit from higher rates.

The FOMC statement released in late April indicated that the committee continues to expect that, with

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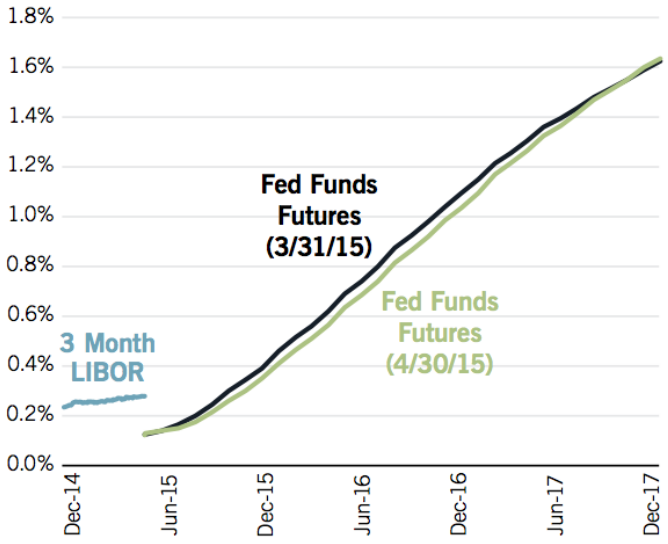
KEY TAKEAWAYS

- **The Federal Reserve expects the economy to return to moderate growth after nearly stalling in the first quarter.**
- **Market participants now expect the Fed's first rate hike since 2006 to occur sometime in the fourth quarter of 2015.**
- **The Securities and Exchange Commission (SEC) states that it is not appropriate to advertise a 60-day prime money market fund, subject to a floating NAV, as a stable NAV fund.**
- **Fidelity's money market funds are positioned for higher rates and eventual implementation of 2014 regulations.**

Exhibit 1 LIBOR Relative to Fed Funds Futures

Three-month LIBOR could journey higher at an accelerated pace in current rate environment



Source: Bloomberg Finance L.P., as of Apr. 30, 2015.

appropriate policy accommodation, economic activity will expand at a moderate pace, allowing the labor markets to move toward levels judged consistent with the committee's dual mandate of full employment and 2% inflation. Once the committee sees further improvement in the labor market and is reasonably confident that inflation will move back to its 2% objective over the medium term, it will have more flexibility regarding policy changes. While there is a strong desire to get off the current zero-interest-rate policy, the Fed is seeking to align with market expectations to avoid a market surprise that may disrupt economic growth.

Money market reform update

During April, the SEC staff released responses to 53 frequently asked questions, or FAQs, related to the 2014 money market fund regulatory changes.

One interesting SEC response addressed money market funds (MMF) that limit the maturity of their holdings to a maximum of 60 days. The SEC said an MMF subject to a floating net asset value (NAV) may not be advertised as a fund that seeks to maintain a stable NAV by limiting its portfolio's assets to securities with a remaining maturity of 60 days or less and valuing those securities using amortized cost. In addition, a floating NAV MMF limiting its portfolio's assets to securities with a remaining maturity of 60 days or less may not use "maturity shortening" provisions (i.e., put features or floating rates) when determining the maturity date of its securities.

Fund strategy

Although capital markets have moved out their expectations for the first rate increase since 2006, floating rate securities in the money market funds continued to benefit from the progressive march to higher LIBOR rate settings. During April, however, prime fund investments were focused on securities with three- to four-month maturities. This was in anticipation of the Fed tightening rates during the summer, which now appears unlikely to occur. Looking forward, we will continue to maintain prudent levels of liquidity as the period of regulatory modification and adaptation continues. Seeking value in an environment that is likely to have ongoing supply challenges requires discipline and patience. Disciplined investing assists in supporting our money market funds' objectives of principal preservation, liquidity, and yield.

Endnote

[1] Source: Bloomberg Finance L.P.

The CAMEL Investment Strategy — Preparing for Fed Liftoff

BY ELLIS PHIFER, CFA, CMT | RAYMOND JAMES
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In the current environment of depressed interest rates, a lot of attention has been focused on managing interest rate risk. In addition to evaluating portfolio performance in parallel shocks, we believe it is important to understand the impact of likely non-parallel shifts, which is why we created the Camel Strategy. The Camel Strategy is a guide for positioning the portfolio for a Fed move based on the behavior of the curve during the last two increases in the Federal Funds Target Rate. The strategy is called the Camel Strategy because the resulting curve shift looks like the hump of a camel's back, with most of the move in the belly of the curve. In this piece we will briefly discuss the strategy and how to best position your portfolio.

We believe that the FOMC is on pace to initiate an increase in the Fed Funds Target Rate this year. We refer to the move as the "Fed Liftoff", taking cue from the FOMC, instead of "tightening" because we view the move as the removal of the "extraordinary" Fed policy and not a tightening of monetary policy which is normally intended to slow down a heated economy. Fed official commentaries indicate a move could come as early as the June 2015 meeting, while the futures market currently suggests a move in December. Most market participants only look at the time period after a Fed move when trying to gauge the markets response. We think it is also helpful to include the period leading up to the move, because the markets are likely to begin pricing in action before it actually occurs.

To some extent this has already started to occur. In the last year, the front end of the curve has sold off, acknowledging the possibility of a Fed Liftoff, while the rest of the curve has rallied due to a flight to quality.

The table below shows the shifts in the yield curve during the 1994 and 2004 Federal Funds Target Rate increases. These historic parallels give us good examples of what the changes in the curve might look like. For the Camel Strategy, we combine these two sets of shifts to get the average move in the six months both before and six months after the Fed moves, as well as an average total move. The average total move is the curve shift that we use in our Camel Strategy.

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Yield Curve Shifts During FOMC Rate Moves

				2004					
From	6Mo Prior	6Mo After	Total Move	6Mo Prior	6Mo After	Total Move	6Mo Prior	6Mo After	Total Move
Funds	0.25	1.00	1.25	0.25	1.00	1.25	0.25	1.00	1.25
3Mo	0.14	1.15	1.29	0.39	0.96	1.35	0.27	1.06	1.32
6Mo	0.15	1.42	1.57	0.60	0.97	1.57	0.38	1.20	1.57
1Yr	0.15	1.42	1.57	0.80	0.77	1.57	0.48	1.10	1.57
2Yr	0.22	1.57	1.79	0.85	0.41	1.26	0.54	0.99	1.53
3Yr	0.22	1.57	1.79	0.77	0.17	0.94	0.50	0.87	1.37
5Yr	0.08	1.41	1.49	0.55	(0.14)	0.41	0.39	0.64	0.96
7Yr	0.22	1.57	1.79	0.44	(0.26)	0.18	0.33	0.66	0.99
10Yr	0.01	1.23	1.24	0.32	(0.32)	-	0.17	0.46	0.62
20Yr	0.01	1.23	1.24	0.21	(0.42)	(0.21)	0.11	0.41	0.52
30Yr	(0.19)	1.04	0.85	0.22	(0.42)	(0.20)	0.02	0.31	0.33

Now that we have a single curve shift to estimate the behavior of the curve, we can calculate the total return on a variety of securities and points on the curve to find out how to best position for a Fed Liftoff. Total Return is a measure of return over a period of time. It captures the income from the security, reinvestment of cash flows, as well as the changes in price, similar to the holding period return of a stock. By including the change in price we get a single metric to look at both the risk and return of the security. We will use total return to find the best way to position the structure of your portfolio as well as specific asset classes that are projected to perform well.

From a portfolio structure standpoint, conventional wisdom suggests a barbell structure is the best way to position for a flattening curve. We have found that this is not true for the Pre/Post Fed Liftoff Scenario. For investors with a short duration of around 3 units, a ladder from 1- to 5-years is the best structure, followed by a bullet allocation in the 3-year. The ladder and bullet portfolio structures pick up 8bps and 7bps in total return (12 month horizon), respectively, to a barbell structure. For investors with a longer duration of around 5 units, a 5-year bullet structure offers the best performance. The bullet structure returns 20bps more than a similar duration ladder and 35bps more than a duration-neutral barbell of a 2-year and 10-year. The bullet allocation also outperforms in a -100, basecase, and +100 total return shock. This is likely because most of the steepness in the curve is found between the 1-year and 5-year.

From a security allocation standpoint securities that have resetting coupons generally perform the best. Floating securities such as short-reset ARMs, SBAs, and floating agency debentures have coupons that will begin resetting shortly after the Fed Liftoff and offer the lowest price sensitivity. Hybrid ARMS offer more yield initially, but the coupons are locked out and take longer to reset. Agency Step-Ups also tend to perform well, because like the floaters, they have coupons that increase, limiting the impact of rising rates. Finally, amortizing securities perform better than similar non-amortizing securities, because they return cash flow to be reinvested at higher rates.

There will likely be a lot of volatility in the next twelve months and more attention on the portfolio will be needed. We expect the curve to sell-off slightly with most of the move on the front end, causing the curve to hump. The portfolio should be setup with a ladder or bullet allocation, while security section should be focused on resetting coupons and amortizing products.

FUN FACT$

- The Mint didn't become part of the Department of the Treasury until 1873, before that they reported directly to the President.
- A dime has 118 ridges around the edge, a quarter has 119.
- Each day, more than $40 Trillion Dollars changes hands worldwide.
- On average, the life span of an American dollar bill is eighteen months.
- There are 293 ways to make change for a dollar.
- A stack of dollar bills one mile high would be worth 14.5 million dollars.
- A modern coin-counting machine can count 2,500 coins a minute.
- A bank note-counting machine can tally up 100 bills in 4 seconds.

Pension Obligation Bonds: Not as Bad as They Sound

MARK BAKER | SNW ASSET MANAGEMENT

Insufficient pension funding and opaque accounting rules creates angst for public pension recipients, budgetary stress for states and uncertainty for public debt investors. While there are other options, pension bonds address two central deficiencies in the management of state pension system: highly variable and inconsistent funding and the lack of transparent accounting.

Here in the State of Washington, Governor Inslee's proposed fiscal year 2015-17 budget allocates $210.0 million for K-12 pension funding. If fiscal year 2014 is any indication, the new biennium's budgeted contribution for the Teachers and School Employees Retirement Systems will fall short of the required pension payment contribution. The Public Employees Retirement System was also underfunded in fiscal year 2014 receiving only 68.5% of the annual payment required. Recent underfunding by the State has resulted in these pension plans having only 83.9% of the assets needed to pay future pension benefits. The underfunding of the State's pension plans should concern public employees because it jeopardizes their future pension payments. State lawmakers should also be concerned because underfunding can quickly erode aggregate pension funding ratios and creates greater budget uncertainty. Eventually, variable and inconsistent pension funding can lead to significant budgetary stress. Just look to Illinois and New Jersey as current examples. Each of these states neglected their required annual pension payments and now must reduce benefits, curtail public services and/or raise taxes in an attempt to catch up. Pension obligation bonds limit the uncertainty of pension funding due to their transparent and stable payment timeline.

Eventually, variable and inconsistent pension funding can lead to significant budgetary stress.

Financial transparency is integral to fixing pension liability mismanagement. Estimates of future pension costs are almost always much larger than current pension liabilities. As such, current governmental accounting standards mask future pension costs because the total pension liability disclosure is not required. Issuance of pension bonds comes with clear accounting and would be preferable to the current system. Better financial disclosure applied to pension bonds is a win for both bondholders and pensioners because it improves their chances of receiving future payments and forces politicians to be more honest about the State's source of pension funding. Specifically, pension bonds provide funding for the investments that are needed to fully satisfy current and future pension entitlements. Moreover, pension bonds do not increase total debt outstanding but convert existing off balance sheet liabilities from a footnote in a State's financial statement to a line item on the balance sheet and income statement that fully reflects the true cost of the obligation. This transparency can reduce budgetary pressure, which could otherwise weaken the financial health and negatively impact funding for K-12 schools, roads and bridges and public universities.

Public employees who are promised a pension and holders of public debt who are promised a full return of money loaned should be asking the same question: What is the likelihood of receiving future payments in full, and just as promised? Public pension recipients and bond investors should work together in demanding an end to nondisclosure and highly variable and inconsistent funding of pension plans, which pose a risk to our shared future. Ultimately, the public will benefit from stable service delivery, improved financial health of states and greater public involvement through more transparency.