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What Will Happen When The Fed Increases Rates?


Charles L. Curry
Executive Vice President
Co-Chief Investment Officer
Fixed Income Portfolio Manager
ccurry@piedmontinvestment.com


Noel McElreath, CFA
Senior Vice President
Fixed Income Portfolio Manager
nmcelreath@piedmontinvestment.com

Concept Introduction

With many investors and pundits believing that the Federal Reserve will begin to increase interest rates from the current zero interest rate policy (ZIRP) in mid-to-late 2015, we sought to consider the potential impacts on two asset classes. While we think the verdict is still out on whether the Fed Funds target rate is raised in or by September, we believe estimating the market's reaction when it happens will be a worthwhile exercise.

Research and Analysis

Piedmont's fixed income team initially focused on all tightening cycles since the 1970s but quickly concluded that some past tightening cycles will be a significantly less reliable guide, given all the unusual differences between the market and environment today versus other times in the modern era. Because of this, we have decided to concentrate on the 1994-1995 and 2004-2006 tightening cycles (referred to 94/95 and 04/06 throughout this paper), as we believe significant capital markets developments (increased technology, volume, and coverage) since the mid-1990s make comparisons with earlier cycles more difficult.

Given the plethora of data available, we wanted to narrow down the outcomes of our research. Therefore, we chose to look at spreads and returns for several fixed income sectors and returns for the Russell 2000 Index over the recent tightening cycles to help us determine what might happen once the Fed begins to move.

Tightening Cycle	Fed Funds Beg	End	Chg.	# of Mos.	Δ in Spread 2s/30s	10s/30	Total Return (% ann) IG Corp.	HY Corp.	R2000
12/76 - 03/80	4.75	20.00	15.25	40	--	--	-2.13	--	--
05/83 - 08/84	8.50	11.75	3.25	16	-101	-37 *	3.23	--	-3.38
12/86 - 02/89	5.88	9.75	3.87	27	-159 *	-45 *	5.91	9.13	4.74
02/94 - 02/95	3.00	6.00	3.00	13	-144	-35	-0.74	1.27	-3.45
06/04 - 06/06	1.00	5.25	4.25	25	-278 *	-65 *	3.10	8.05	12.38
Average - all			**5.92**	**24**	**-170**	**-46**	**1.87**	**6.15**	**2.57**
Average - 94/95 & 04/06			**3.63**	**19**	**-211**	**-50**	**1.18**	**4.66**	**4.46**

* Curve inverted during the tightening cycle.

Source: Bloomberg, Piedmont Investment Advisors.

It's Different This Time Around

The Federal Reserve's dual mandate is maximum employment and price stability (control inflation). Obviously, an extended period of a ZIRP is unprecedented in US monetary history. In fact, the average Fed Funds target rate since 1971 has been 5.60%, with only 43 months below 3.00% prior to the latest easing cycle beginning in 2008 (nearly 40 years). Currently, the Fed Funds target rate has been 0.00%-0.25% since December 2008 (75 months), which is unprecedented in any modern recovery—not only in the absolute low level, but also that it has remained unchanged for so long.

The last two rate tightening cycles were very different in both the economic environment before the Fed started tightening, as well as in the manner in which the Fed tightened. However, despite differing economic environments, the direction as well as rate of change of the following metrics supports a comparative analysis. Given the dual mandate imperative, we chose to begin our inquiry by looking at inflation, employment and related indicators.

Economic Environment Prior to Tightening Cycles

	94/95*	04/06*	Current**
Core CPI	2.9%	1.7%	1.6%
Unemployment rate	6.6%	5.6%	5.7%
Employed Workers / Working Age Pop.	57.5%	59.1%	56.4%
Consumer confidence	94.3	90.2	95.4
Real GDP	5.4%	2.3%	2.2%

* Data as of month prior to tightening
** Latest data available as of March 2, 2015

Source: Bloomberg, Piedmont Investment Advisors.

CPI: As 94/95 began, core CPI inflation (ex-food and energy) was significantly higher (and rising) posting a reading of 2.9% for January 1994. During 04/06, inflation was actually very low as rates began to rise. Core CPI readings came in at an average of 1.1% from November 2003 to January 2004, before climbing fairly quickly to 1.7% after the Fed began to move.

Conversely, core CPI in December 2014 was 1.6% and has struggled to break out of this range. Note that since 2000 the Fed has focused on core PCE (personal consumption expectations) instead of core CPI primarily because they believe it better captures the changing composition of spending. Prior to 2000 the Fed focused on core CPI. Market observers often point to low-inflation figures and relative lack of wage gains as a reason the Federal Reserve will not raise rates, but the Fed itself considers the low inflation numbers transitory. That being said we believe the low inflation numbers give the doves on the FOMC committee cause to stay lower for longer. On the other hand, we have noted very high job openings (as measured by the JOLTS survey) as well as recent anecdotal indications of wage increases at large employers (Walmart and T.J. Maxx). We believe wage increases, combined with a strong US dollar, will create wage inflation and therefore giving the hawks a reason to increase rates.

Labor: The unemployment rate is much lower now than it was when the Fed began raising rates in 94/95 and in-line with where it was in 04/06. But in 04/06 it never peaked at a significantly high level, just

6.3% (June 2003), versus 7.8% prior to 94/95 (June 1992) and 10.0% in the current cycle (October 2009).

We like to look at an additional measure of employment—the number of employed workers (BLS nonfarm payrolls) divided by the number of people in the working-age population (versus the BLS Labor Participation Rate, which only counts people actively looking for work). This measure dampens the unevenness of the labor economy by eliminating volatility from people moving in and out of the labor force. Generally, both of these measures peaked around the 1997-2000 period before trending downward. In the case of the overall employed versus the entire working age population, we have seen a steady increase since the bottom reached during this latest cycle, whereas the BLS participation rate has been more volatile as a function of the previously described uneven nature of the labor force. Admittedly, labor participation is impacted by demographics as well as increased productivity and technological efficiency. As of January 31, 56.4% of the eligible population is working, below both 94/95 and 04/06. The long-term average (since 1960) is 54.7% but the average since 1990 is 58.4%.

Confidence: Much of the recovery to this point had been felt on Wall Street, with asset prices leading the charge due to the accommodative Fed policies. Now, however, the recovery seems to finally have moved to Main Street with consumers feeling more positive about the future than at any time since the crisis—a benefit as the American economy is still highly reliant on consumer spending. In our opinion, this can form a stronger base for a continued recovery with a feedback loop between consumers and business. Consumer confidence is soaring (January was the highest level since February 2004) and has been steadily increasing more or less for 18 months. In both prior tightening cycles, consumer confidence was fairly volatile leading into the Fed's decision. We believe the long recovery has been due in part to the fact that the economy seems to be moving in fits-and-starts versus constant growth. While we have recently posted the two strongest back to back quarterly GDP readings since 2003 (4.6% in 2Q14 and 5.0% in 3Q14), continued economic growth was much more consistent heading into both 94/95 and 04/06.

What Happened the Last Two Times?

	94/95 Tightening Cycle			04/06 Tightening Cycle			
	Beginning	End	Change	Beginning	End	Change	Current*
Fed Funds Target Rate	3.00%	6.00%	3.00%	1.00%	5.25%	4.25%	0.00%-0.25%
# of Months	13			25			---
OAS							
IG Corp Credit	67 bp	71 bp	4 bp	99 bp	94 bp	-4 bp	132 bp
HY Corp Credit	329 bp	336 bp	7 bp	405 bp	320 bp	-85 bp	439 bp
Mortgages	99 bp	44 bp	-56 bp	49 bp	57 bp	8 bp	17 bp
ABS	59 bp	51 bp	-8 bp	63 bp	59 bp	-4 bp	76 bp
CMBS	--	--	--	81 bp	71 bp	-10 bp	125 bp
Annualized Return							
IG Corp Credit			-0.74%			3.10%	
HY Corp Credit			1.27%			8.05%	
Mortgages			2.01%			3.55%	
ABS			2.53%			2.98%	
CMBS			--			2.96%	
Treasuries			-0.66%			2.76%	
TIPS			--			3.63%	
Russell 2000			-3.45%			12.38%	

* As of February 28, 2015

Source: BAML, Barclays, Bloomberg, Piedmont Investment Advisors.

So what actually happened when the Fed started raising rates in the two prior cycles? Given our earlier assessment, the difference in results was somewhat surprising. Let's take a closer look. **94/95**: In an unanticipated move, the Fed began raising rates in February 1994, with the first increase of 25bps bringing the Fed Funds target rate to 3.25%. The Fed continued in a relatively measured manner, increasing the target rate steadily to 6.00% by February 1995. Rates moved higher, although the curve significantly flattened. The 2s/30s spread went from 211bps to 68bps by the time the Fed was done (with a low of 18bps). Spreads widened for the most part, but not significantly. Investment grade corporate OAS increased 4bps in the tightening cycle and high yield corporate OAS increased 7bps. The more defensive sectors, such as ABS and mortgages, were the best performing sectors during the tightening period. Interestingly, the Russell 2000 Index, which you would normally expect to outperform while rates are raised, had the worst performance over this period. Within corporate bonds, high yield corporates outperformed investment grade corporates. **04/06**: Unlike 94/95, there was little surprise when the Fed began raising rates this time. The Fed moved a little more slowly than in previous cycles, raising the Fed Funds target rate from 1.00% in May 2004 to 5.25% by June 2006. The short-end of the curve moved up, while the long-bond actually declined during the tightening period. In fact, the curve actually inverted (2s/30s) in early 2006 for a short period of time. Both investment grade and high yield corporate OAS tightened during the Fed's cycle, -4bps and -85bps respectively. In contrast, OAS for mortgages widened 8bps during the period. In this cycle the Russell 2000 Index and high yield corporate bonds had the best performance while Treasuries had the worst performance. Excess returns were positive on average for all subsectors of the fixed income index over this period.

What Will Happen This Time?

Now that we have looked at the economic backdrop of the most recent tightening cycles, as well as what happened once the Fed began raising rates, we are ready to hazard a guess on what we believe will happen this time around. During the past seven years, the markets have had the unprecedented tailwind of a zero interest rate policy. That in concert with the massive liquidity provided by central banks globally underscores the difficulty in assessing the market impact of tightening. Therefore we expect:

(1) The curve will move higher.

The front-end of the curve has been essentially pegged to zero ever since the onset of the 2008 financial crisis. At some point, the Fed must "take the punchbowl away" and let the strengthening economy function on its own. Presumably, short rates will rise and the curve will reflect market sentiment and expectations on the domestic economy. While we think the move may be relatively muted given the lower inflation and growth backdrop during this tightening cycle, the forward term premium will by definition have to take into account higher rates in the front end, unless recession is imminent and the curve inverts. Clearly, with the front-end at zero, a true inversion is implausible.

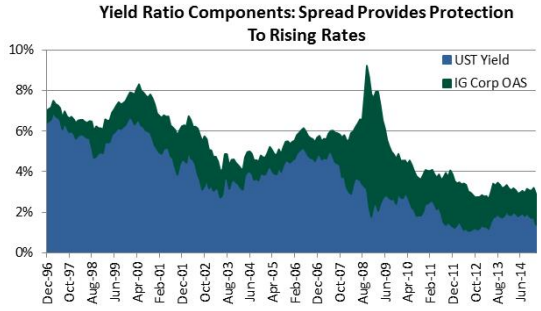
(2) The curve will flatten.

The short-end of the curve will most likely increase more than the long end, causing the curve to flatten. The current 2s/30s spread (197bps) is actually a bit steeper than the long-term average (145bps since 1981), but it has gotten progressively flatter over the past 18 months. Nominal GDP over time represents a proxy for ten year yields. A fed tightening can have a slowing impact on a theoretically overheating economy. Untethered short rates should rise faster than long rates resulting in a flattening curve.

(3) Corporate OAS will tighten.

As we have noted, corporate spreads and other risk premia tend to decrease (i.e. demand less compensation for a given level of credit risk) as the FOMC begins to normalize interest rate policy. Business, economic, and financial conditions are generally improving and sustainable before the Fed contemplates rate increases, suggesting that the conditions for outperformance of risky assets (equities, corporate bonds, etc) are in place. Over time, we have also looked at yield ratios (i.e. the amount of a risk asset's yield coming from the underlying risk-free rate as compared to the amount that comes from the credit risk premium). These tend to decrease in the same way. In this case, while the overall yield cushion against rising rates is low, the yield ratio is still reasonable high for corporate bonds as compared to historical levels. This suggests that corporate bonds could well outperform equivalent duration Treasuries as rates move higher. Even at the low absolute level of yields, a slow and measured rate increase campaign by the Fed should allow the relative income of corporate bonds to at least partially outweigh the overall increase in rates. A faster or larger than expected increase could have the opposite effect, but we believe the Fed will be very deliberate and circumspect given the lack of monetary operations available to the FOMC should the economy take a turn for the worse.

(4) Asset classes leveraged to an improving economy will outperform, but believe there is some protection in spread products given high yield ratios.

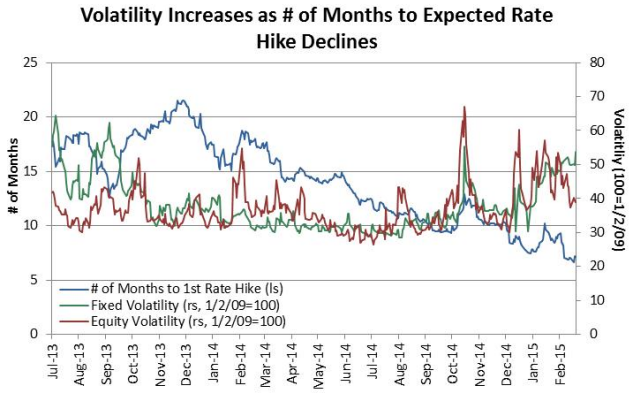


Source: Bloomberg, BAML, Piedmont Investment Advisors.

The US economy has strengthened and we believe that it has mostly de-coupled from the weakness in the global economy. While we have not seen sustained growth in all parts of the economy, we believe it is coming and riskier assets—such as the Russell 2000 Index and high yield corporates—will be the beneficiary. At the same time, with so much of the yield in fixed products coming from the spread, we believe there is somewhat of a cushion versus other rising rate environments when more yield came from Treasuries thus making them attractive to investors.

(5) Volatility will increase.

Reduced deal inventory is one of many reasons for increased volatility in the markets. As the expected number of months to the first Fed rate hike gets lower, volatility is increasing as investors are trying to decide when it will actually happen. Once the Fed begins to raise rates, there will be speculation regarding the "next" raise which we believe will lead to sustained volatility in both the fixed and equity markets.



Source: Bloomberg, Deutsche Bank Securities, Piedmont Investment Advisors.

Conclusion

While no one knows exactly what will happen at the end of such an anomalous and accommodative Fed cycle, there is a wide dispersion of opinions regarding this issue. We at Piedmont contend that by looking at the two most recent tightening cycles and current economic data, concomitant with our standard market surveillance and analysis, we are able to posit a reasonable conclusion to this vexing issue. **We are looking for the Fed-induced "risk-on/risk-off" cycle to end and for a normal business cycle to ensue. We expect positive corporate excess returns, a higher but flatter curve, and tighter spreads, with increased volatility at least initially.** When the rate hikes start is still up in the air, but ultimately we believe the Fed's approach will be both incremental and prudent with the goal of slowing but not stalling a growing economy