



Commentary from Pacific Asset Management, the manager of the Pacific Funds<sup>SM</sup> Fixed Income Funds.

## Preparing for Liftoff

Nearly a decade has passed since the Federal Reserve (Fed) last embarked on a tightening cycle, and the potential implications of the next cycle are a focus for capital markets. In this commentary, we reflect on previous cycles, and discuss the potential path of the next round of policy tightening.

### Off The Zero Bound

The Fed's forward guidance has made clear their intent to move away from the Zero Interest Rate Policy (ZIRP), potentially in September or December 2015. Maintaining zero policy rates was considered a necessary condition following the 2008–2009 crisis and the financial and economic risks that followed. Given the length of the current economic expansion and reduction in systemic risks, policymakers now view the long term potential costs of ZIRP as outweighing the benefits.

**Table I: Recent Fed Tightening Cycles**

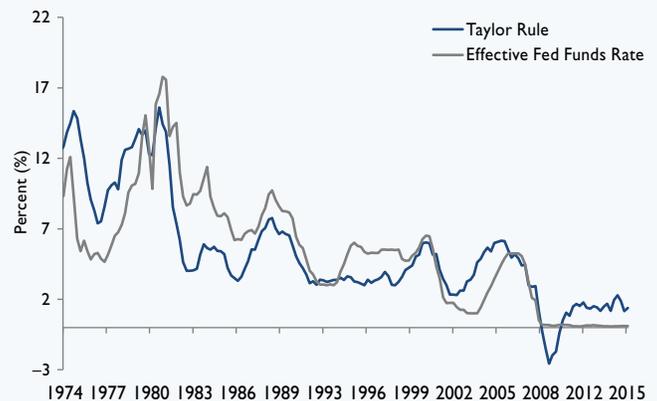
Start	End	Days	Fed Funds Rate (%)	
			Start	End
May 83	Aug 84	477	8.50	11.75
Dec 86	Sep 87	262	5.87	7.25
Mar 88	Feb 89	332	6.50	9.75
Feb 94	Feb 95	362	3.00	6.00
Jun 99	May 00	321	4.75	6.50
Jun 04	Jun 06	729	1.00	5.25

Source: St. Louis Federal Reserve.

Conventional thought suggests that a Fed tightening cycle will generally lead to higher U.S. Treasury yields across the maturity spectrum. As a result, this would lead to the underperformance of longer duration securities, and thus, investor preference to shorten portfolio duration in anticipation. If one were to reflect on the past six tightening cycles, all but one cycle has seen short-duration corporate bonds

## Rate Guideposts

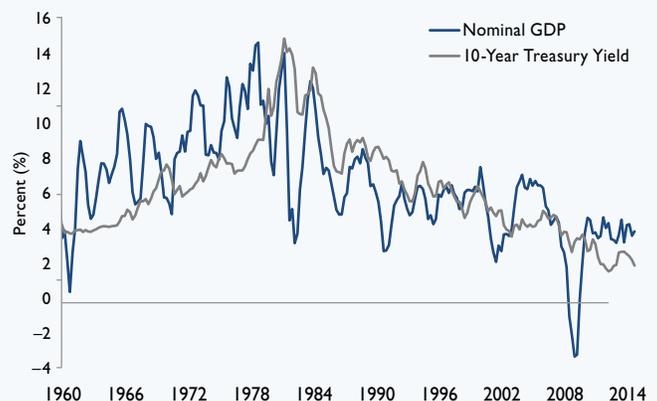
**Taylor Rule Currently Suggests a Target Rate of Approximately 2% Given Weakness in Growth and Inflation Expectations**



Source: St. Louis Federal Reserve, as of April 1, 2015.

The Taylor Rule provides an estimate of a neutral rate based on the output gap and current inflation.

## Higher U.S. Yields Need Higher Growth



Source: St. Louis Federal Reserve, as of April 1, 2015.



outperform intermediate- and longer-duration corporates (Table 2). It is also worthwhile to note that in the more recent cycles, all credit maturities produced positive total returns across the curve despite many doomsday warnings of capital losses surrounding bonds.

**Table 2: Total Returns of Credit Indexes in Tightening Cycles**

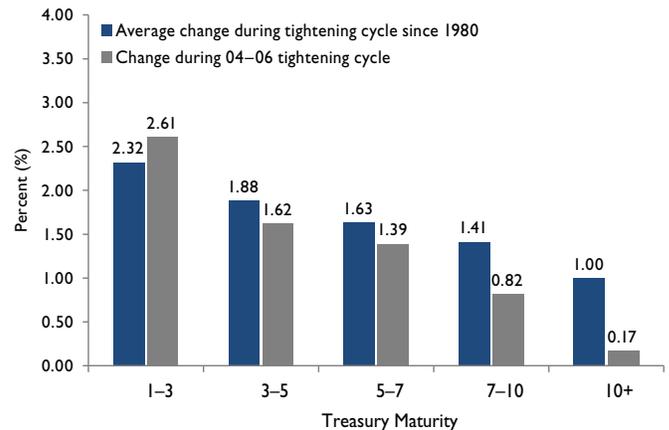
Tightening Cycle	1-3 Year Credit	Intermediate Corporate	Corporate
May 83–Aug 84	1.10	-0.94	-4.62
Dec 86–Sep 87	3.58	0.15	-2.76
Mar 88–Feb 89	6.02	4.46	4.62
Feb 94–Feb 95	3.88	2.20	-0.91
Jun 99–May 00	4.25	1.18	0.69
Jun 04–Jun 06	2.29	2.64	2.94

Source: Barclays indexes, periods in excess of twelve months annualized.

### The 2004–2006 Cycle: Greenspan’s Conundrum

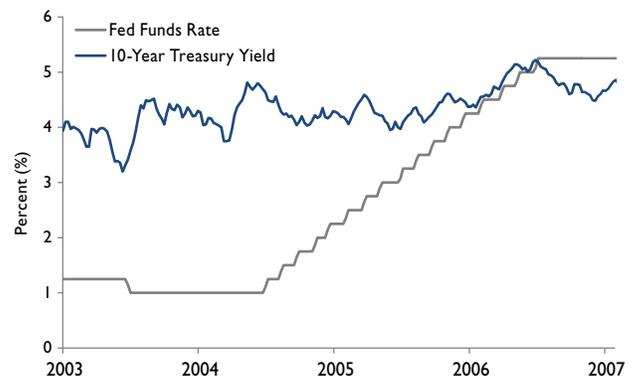
The 2004–2006 tightening cycle saw a unique environment, one in which longer duration securities outperformed for the first time in 30 years (Table 2). Many may remember this period categorized in 2005 by Chairman Greenspan as a “conundrum”, referring to the fact that longer duration U.S. Treasury yields had failed to increase in the face of a 150 basis point increase in the Fed Funds target rate. Despite the 2004–2006 cycle being the longest in thirty years (over 2 years) as well as the largest increase in the Fed Funds rate (+4.25%), short-duration securities underperformed. There were two primary factors: First, the low absolute yield levels of short-duration bonds in 2004 meant lower coupons to offset higher short-term rates. 1–3 year U.S. Treasury yields doubled during the two year period, from 2.61% to 5.23%. Second, U.S. real gross domestic product (GDP) growth was around 3–4%, despite a booming housing market. This seemed to anchor intermediate- and long-maturity Treasury yields (Chart 1). Ultimately, there was limited negative impact from duration exposure in fixed-income portfolios.

**Chart 1: The 2004–2006 Cycle Saw Limited Movement in Longer-Maturity Treasury Yields**



Source: Barclays, average based on change in Treasury yields during Fed tightening cycles since 1980.

**Chart 2: Curve Flattening—Longer-Term Treasury Yields Were Anchored as The Fed Raised in 2004–2006**



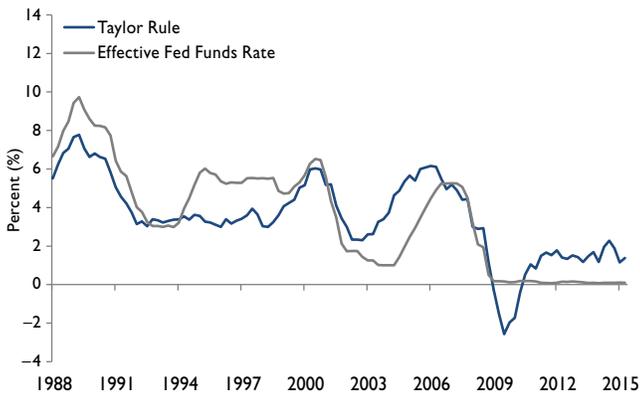
Source: Barclays, St. Louis Fed.



### What Could 2015–2017 Look Like?

In determining the speed and size of the upcoming tightening cycle, we look at two factors that are likely to influence policy. First, U.S. growth and inflation outlooks do not warrant a substantial or rapid increase in the Fed Funds rate. While reduced systemic risks warrant a removal of ZIRP, the current expansion has been stuck at 2% real GDP for the past few years with inflation levels below target. A tightening of monetary policy to a historically neutral 4% level would have a significant contractionary effect given the economic and structural challenges of the post Great-Recession environment. One common yardstick for Fed Funds is the Taylor Rule, which provides an estimate of a neutral rate based on the output gap and current inflation. The Taylor Rule currently estimates neutral Fed Funds rate to be approximately 2% (Chart 3). This is evidence of the slack in U.S. economic output and should prevent the Fed from materially hiking rates.

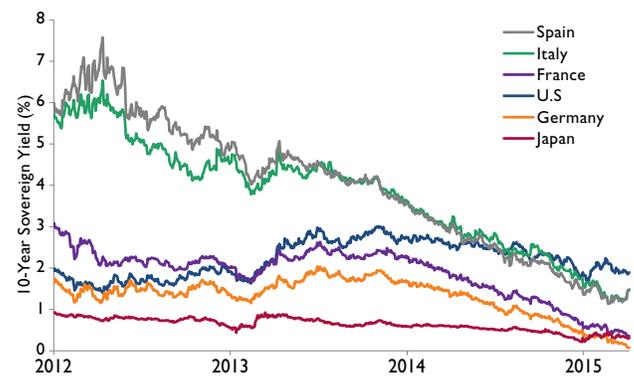
**Chart 3: While A Historically Neutral Fed Funds Rate May Have Been 4%, Today’s Environment May Make That Closer To 2%**



Source: St. Louis Federal Reserve, as of April 1, 2015.

Second, global central bank policy, disinflation pressures and economic risks abroad may constrain the Fed and Treasury yields. With global central bankers engaging in aggressive quantitative easing (QE), sovereign yields have plunged to levels not seen in modern economic history (Chart 4). This weighs down U.S. Treasury yields by driving capital flows to more attractive sovereign securities. Furthermore, the U.S. economy is not an island, and low global growth rates may weigh on U.S. GDP. The world is pushing down the U.S. yield curve, providing incentive to a slower pace of policy from Fed officials. Given these factors, we may very well see a repeat of the last cycle, where intermediate and longer duration securities outperform.

**Chart 4: U.S. Treasury Yields Are Among The Highest In The Developed World**



Source: Barclays, as of April 1, 2015.

### Bottom Line

The ability for the Fed to hike policy rates or for Treasury yields to move to previously seen levels will be limited by growth, disinflation pressures, and global monetary policy. We are not advocating for an extension in duration. Instead, we believe a focus on intermediate credit, in particular BBB rated bonds, remains our preferred investment grade area.

Pacific Asset Management  
May 2015

**I-3 year Credit** is based on the Barclays 1–3 Year U.S. Government/Credit Bond Index which is the 1 to 3 year component of the U.S. Government/Credit Bond Index. The U.S. Government/Credit Bond Index is the non-securitized component of the U.S. Aggregate Bond Index. The U.S. Government/Credit Bond Index includes Treasuries, government-related issues, and corporates.

**Corporate** is based on the Barclays U.S. Corporate Index which includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be registered with the Securities and Exchange Commission (SEC).

**Intermediate Corporate** is based on the Barclays U.S. Intermediate Corporate Bond Index, which is the intermediate component of the Barclays U.S. Corporate Bond Index. The Barclays U.S. Corporate Bond Index is a broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate, taxable corporate bond market.

**The Taylor Rule** provides an estimate of a neutral rate based on the output gap and current inflation.

Indexes are unmanaged and cannot be invested in directly.

## About Pacific Asset Management

Founded in 2007, Pacific Asset Management specializes in credit-oriented fixed-income strategies. Pacific Asset Management is a division of Pacific Life Fund Advisors LLC, an SEC-registered investment adviser and a wholly owned subsidiary of Pacific Life Insurance Company (Pacific Life). As of March 31, 2015, Pacific Asset Management managed approximately \$4.8 billion. Assets managed by Pacific Asset Management include assets managed at Pacific Life by the investment professionals of Pacific Asset Management.

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Pacific Life Fund Advisors LLC (PLFA), a wholly owned subsidiary of Pacific Life Insurance Company, is the investment advisor to the Pacific Funds. PLFA also does business under the name Pacific Asset Management and manages certain funds under that name.

Effective December 31, 2014, Pacific Life Funds and its family of mutual funds changed its name to Pacific Funds. In addition, individual funds were also renamed. For more information, please visit [www.PacificFunds.com](http://www.PacificFunds.com).

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