CPIM

Center for Public Investment Management

A Program Brought to You By:

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State Treasurer of Ohio

Investments 403:

Market Update & Hot Topics

2012 CPIM Academy

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JOSH MANDEL
STATE TREASURER OF OHIO

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Market Update & Historical Review

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Market Update

- Over the past several years, both fundamental and technical factors were the primary contributors to the financial crisis:
  - ***Fundamental*** – significant and sustained economic growth and the demand for energy (i.e., oil and oil-related commodities); proportionately greater tax revenues versus government spending lowered the need for borrowing (smaller auctions – lower supply of Treasury securities, particularly 30 year UST Bonds).
  - ***Technical*** – Federal Reserve Monetary Policy (continuous accommodation – low federal funds rate) coupled with the world-wide demand for U.S. Treasury securities contributed to a relative flattening in the 10-30 year area.

Federal Reserve Policy – An Overview

- Significant and frequent rate cuts began in the 3rd quarter of 2007 – the year the credit crisis materialized.
- The Fed has maintained its current target rate of 0-0.25% since Dec. 2008. In January 2001, the Fed Funds rate was 6.5%.
  - STAR Ohio, a AAAm-rated money market fund managed by the State Treasurer, had an average monthly yield of 6.12% in January 2001. The September 2012 average monthly yield of STAR was .10%.

Factors That Contributed to the Robust Housing Market Prior to the Financial Crisis

- In retrospect, the single most important factor affecting the housing boom was the abundant supply of "cheap money" (low mortgage rates) over a period of years.
- Low rates contributed to the demand for housing; mortgage money continued to flow as investor-demand for mortgage products remained strong.
- Adjustable rate mortgages and other exotic forms of mortgage lending also added to the ease of borrowing, combined with careless lending practices.
- Lax lending practices created many unqualified borrowers taking on debt that they would be unable to repay.

Availability of Inexpensive Money

- As the lending and borrowing excesses continued, buyers borrowed their down payments, or were not required to make a down payment (in many cases, the so-called appraised value exceeded the purchase price).
- Low introductory rates with "interest only" options allowed borrowers to lower monthly payments for a three or five year period before rates would adjust.

Availability of Inexpensive Money

- Most borrowers speculated that the price of real estate w0uld continue to climb (as it did over the past 10-15 years), and if the future increase in the payment was not affordable, the home could simply be sold. Such assumptions were not sustainable:
  - In some markets (such as California), real estate prices increased by as much as 15 - 20% per year.
  - Toward the end of the cycle, the "last in" borrowers were caught in the remaining froth.

Institutional Investors Affected the Issuance of Various Investment Products

- During the period of low interest rates, fixed income investors were looking for higher yields and accepted a greater risk to achieve greater returns. Investors included:
  - Pension Funds
  - State Investment Pools
  - Money Market Funds
  - Banks and Brokerage Firms
  - Foundations
  - Federal Agencies

The Investment Side

- Investors and financial institutions realized historic losses. Several prominent firms are gone (Bear Stearns, Lehman). The market value of all mortgage-related investments was negatively affected. The credit freeze was in full swing.
- The importance of securitization and the secondary market was significantly impacted. The process of mortgage origination and the eventual conversion to mortgage-backed investments for investors generally became non-existent.

The Investment Side

- As the housing boom continued, due diligence to assess the risk of mortgage-related investments deteriorated and lending criteria eroded.
- Adjustable rate mortgages began to reset (each year since 2005), culminating in significantly higher defaults which led the Fed (and European central banks) to inject billions in liquidity to keep the markets liquid. Defaults began to affect prime borrowers as job losses continue.

The Investment Side

- The increase in hedge funds, private equity funds, and new mortgage products in general created a demand for securitized and asset-backed products worldwide.
- Mortgage products of all structures were purchased by banks around the world; mortgage-related products were a major asset class in fixed-income portfolios, both at the institutional level and the retail level.

Interest Rates

- The significant problems in the credit sector have forced the Fed to keep the Fed Funds Rate at record lows (0-.25%) since Dec. 2008.
- The Fed has indicated it does not expect to raise rates until mid-2015.
- Unemployment remains high and GDP growth has been adjusted downward to 1.3%.

Quantitative Easing (QE 1)

- The US Federal Reserve held between $700 billion and $800 billion of Treasury notes on its balance sheet before the recession. In late November 2008, the Fed started buying $600 billion in mortgage-backed securities (MBS).
- By March 2009, it held $1.75 trillion of bank debt, MBS, and Treasury notes, and reached a peak of $2.1 trillion in June 2010. Further purchases were halted as the economy had started to improve.

Quantitative Easing 2 (QE 2)

- After the halt in June, holdings started falling naturally as debt matured and were projected to fall to $1.7 trillion by 2012. The Fed's revised goal became to keep holdings at the $2.054 trillion level. To maintain that level, the Fed bought $30 billion in 2–10 year Treasury notes a month.
- In November 2010, the Fed announced a second round of quantitative easing, or "QE2", buying $600 billion of Treasury securities by the end of the second quarter of 2011.

Operation Twist

- The Federal Open Market Committee concluded its September 21, 2011 Meeting by announcing the implementation of ***Operation Twist***.
- This is a plan to purchase $400 billion of bonds (between Oct. 2011 and June 2012) with maturities of 6 to 30 years and to sell bonds with maturities less than 3 years, thereby extending the average maturity of the Fed's own portfolio and decreasing yields at the long end of the curve.

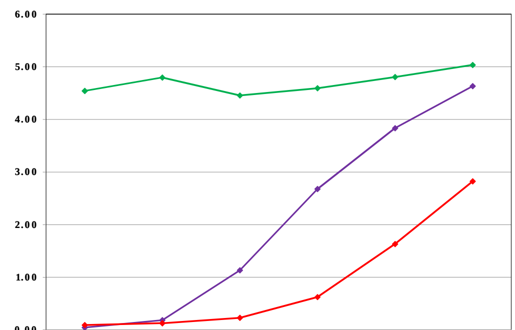
Operation Twist

- The intent is to thereby push down interest rates (flatten the yield curve) on everything from mortgages to business loans, giving consumers and companies an additional incentive to borrow and spend money.
- This is an attempt to do what Quantitative Easing (QE) tries to do, without printing more money and without expanding the Fed's balance sheet, therefore hopefully avoiding the inflationary pressure associated with QE.

Another Round of Easing (QE3)

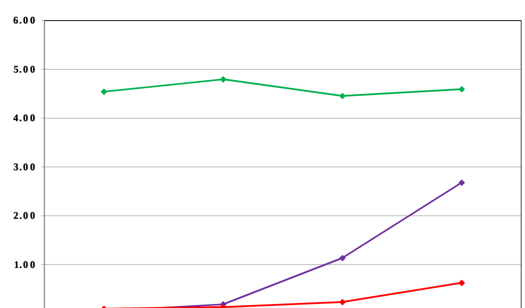
- Operation Twist (implemented after QEII) was set to expire in June 2012 – At the June meeting, it was decided to extend Operation Twist to the end of the year. Purchases of long maturities under Operation Twist were funded by selling short maturities.
- QEIII – Announced at the Sept 2012 meeting
  - Going forward: Operation Twist ($45 Billion/month) plus additional purchases of $40 Billion per month of mortgage-backed securities.

U.S. Treasury Yield Curve



	3 Month	6 Month	2 Year	5 Year	10 Year	30 Year
8/10/2007	4.54	4.80	4.46	4.59	4.81	5.04
12/31/2009	0.05	0.19	1.14	2.68	3.83	4.63
9/30/2012	0.09	0.13	0.23	0.63	1.63	2.82

U.S. Treasury Yield Curve



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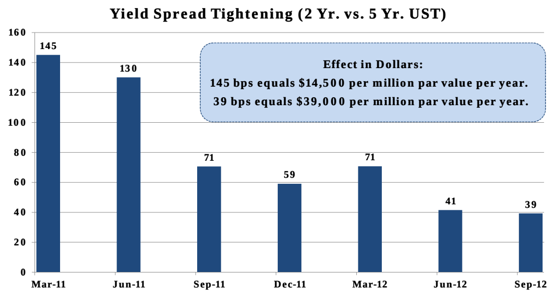
Federal Reserve Policy



U.S. Factors

- Questions remain about the sustainability of the recovery here in the U.S.
- The constant debate that drives the market on a daily basis is what sort of accommodation, if any, is still necessary from the Federal Reserve.
  - The "Doves" argue that it may be necessary to enact another round or version of QE. Operation Twist has been extended.
  - The "Hawks" argue that too much accommodation could spur inflation hinder the economic recovery.

U.S. Factors

- Four major events ("Fiscal Cliff") remain in flux as we approach November and the end of the year:
  1. A payroll-tax holiday ends, which means a tax increase for workers of as much as 2% of wages.
  2. The "Bush Tax Cuts" are set to expire on December 31st.
  3. Across-the-board cuts in domestic, particularly, defense spending are triggered.
  4. The federal debt ceiling will, once again, bump up against its legal limit, reviving the disruption that the markets experienced in August 2011 when we averted a government shutdown.

Markets

- Interest rates remain at historically low levels for the foreseeable future.
  - The FOMC recently extended it language and now pledges to keep rates exceptionally low into mid 2015.
  - Current yields:

.29% (2-yr USTN)	.75% (5-yr USTN)
1.77% (10-yr USTN)	2.94% (30-yr USTN)

- U.S. Equities have welcomed additional QE and have continued to climb to multi-year highs.