



THE BANK OF NEW YORK MELLON



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A Fistful of Basis Points: Enhancing Yields in a Transitioning Rate Environment

Presented by:

Keneth Vallen

Product Manager, Treasury Services

The Bank of New York Mellon

Agenda

- Monetary Policy Basics
- Central Banks
- Indicators
- Rate Changes: Direction, Severity, and Impact
- Short-term Investment Vehicles
- Short-term Investment Strategies
- Market Commentary
- Q&A

Monetary Policy Basics

Monetary policy

- Government, central bank, or monetary authority manage the following macroeconomic elements
 - Economic growth
 - Money Supply
 - Foreign exchange account

Monetary theory

- Provides insight into how to craft optimal monetary policy
- A major branch of macroeconomics
- A framework of analysis that deals with
 - Monetary systems and their effect on
 - > Equilibrium with production
 - > Employment
 - > Level of prices

*As of 3/28/2008

Monetary Policy Basics

- **Either an expansionary policy, or a contractionary policy**
 - Expansionary
 - > Increases the total supply of money in the economy
 - > Combat an economic slowdown by lowering interest rates
 - Contractionary
 - > Decreases the total money supply
 - > Combat inflation by raising interest rates
- **Different than fiscal policy**
 - Refers to government borrowing, spending, and taxation.
- **Relationship between the rates of interest and total supply of money**
 - Monetary policy uses a variety of tools to control one or both of these
 - Influences the following
 - > Economic growth
 - > Inflation
 - > Exchange rates
 - > Unemployment
- **Monetary policy has roots in late 1800s - gold standard maintenance**

*As of 3/28/2008

Central Banks

Monetary policy execution

- Open market operations
 - Managing the quantity of money in circulation through credit instrument management
 - Credit instrument management changes money supply through deposit levels
- Mandates
 - Achieve a specific short term interest rate target
 - Targeting of a specific exchange rate
 - Examples
 - > The Federal Reserve (Fed) targets the Federal Funds rate
 - > Central Bank of China targets the exchange rate
- Other means of conducting monetary policy:
 - Discount window lending (lender of last resort)
 - Fractional deposit lending (changes in the reserve requirement)
 - Open mouth operations (open discussions and opinion releases)

Indicators

- Value to market participants
 - Track and measure the economic condition of a country
- Value to short-term investors
 - Form an opinion on future interest rates and invest accordingly
- Types of economic indicators
 - Leading economic indicators
 - Following (or lagging) indicators
- Economic Indicators
 - Price Index
 - Gross Domestic Product (GDP)
- Other Indicators
 - Michigan Consumer Sentiment Index (MCSI)
 - Fed Funds Futures
 - US Dollar Index
 - Commodities

Economic Indicators — Price indexes

- Price index

- Tracks purchasing power by measuring how the price of goods and services is changing
 - > Inflation
 - > Deflation

- Central bank use

- Price indexes to help set monetary policy
 - > Rising price indexes – Fed may hike interest rates
 - > Falling price indexes – Fed may cut interest rates
- The Fed monitors all price indexes
 - > Core PCE (excludes food and energy) is the primary price indicator

- Impact on the market

- Stocks and bonds typically fall in reaction to higher-than-expected price index readings
- Rise in expectations for Fed rate hikes

- 3 major categories

- The Consumer Price Index (CPI) – Retail price changes
- The Producer Price Index (PPI) - Wholesale price changes
- The Personal Consumption Expenditures (PCE) – Weighted, factoring substitution

Economic Indicators — GDP

- GDP measurement contents

- Consumption – Durable goods, nondurable goods, and services
- Government spending – Federal, state and local
- Investments – Residential and nonresidential
- Net exports – Exports less imports

- Central bank use

- Non-inflationary growth rate of GDP, considered to be near 2.5% to 3%
- GDP contains the Fed's preferred price gauge, the PCE

- Impact on the market

- Widely viewed as most comprehensive measure of U.S. economic activity
- Economists and market analysts use it in part to help gauge overall corporate profits
- One of the primary reports the Fed monitors in setting interest rates
- Comprehensive account of output, demand, and inflation
- Impacts corporate profits and monetary policy
- GDP that exceeds expectations can drive up projections for inflation

Other Indicators — MSCI and Fed Funds Futures

Michigan Consumer Sentiment Index - MCSI

MCSI is a consumer attitude index that may influence spending behavior

- Unexpected readings may impact market activity
- High readings can signal inflationary pressures, while low readings may predict slowing

Fed Funds Futures

The fed funds futures market reflects participants' outlook on Fed Funds rates

- Chicago Board of Trade (CBOT) offers Fed Funds Futures contracts
 - > Contract nominal value of \$5 million, and contract maturity range is one to 24 months
 - > A market price of 98.5 indicates that the market expects 1.5% rate (100-98.5)
- Analysts look to the fed funds market as a Fed policy change indicator
- An imperfect indicator
 - > Futures forecast fed funds effective, as opposed to fed funds target
 - > Empirical research findings suggest that the futures market is an unreliable predictor
- Despite unreliability, Fed Funds futures markets can help form an opinion on future rate movements, and should be considered

Other Indicators — US Dollar Index and Commodities

US Dollar Index

U.S. Dollar Index (USDIX) provides the international value of the U.S. Dollar

- Index of the of the US dollar relative to a basket of foreign currencies
- Currency values are driven by monetary policy execution and expectations
 - > Short term interest rates – Currencies tend to increase in value when short-term interest rates are expected to rise
- Price changes in futures markets and spot quotes can be used to form rate expectations
 - > A downward trend may indicate future rate decreases

Commodities

Commodities price movement data can be used to form inflation expectations

- Widespread usage
 - > Due to the wide use of commodities, increases in prices can result in inflation
- Gold as an inflation hedge
 - > Market participants typically purchase gold to hedge dollar value
 - > Analysts and pundits use gold quotes in spot and futures markets to predict inflation
- Price changes and inflation
 - > Large increases in price can result in inflation, which can result in rate increases

Rate Changes – Direction

- **Metric analysis**

- Overall economic activity
 - > Growth
 - > Prices

- **Directional bias**

- Hawkish
- Dovish
- Standby

- **Federal Open Market Committee (FOMC)**

- Fed funds target rate
- Discount window rate

- **Transmission Effects**

- Stock prices
- Fixed income
- Dollar value
- Lending

Rate Changes – Severity

- **Market conditions**

- Market metrics
- Asset bubbles
- Financial industry health
- External issues

- **“Normal” operating procedure**

- FOMC meetings
- Incremental changes

- **Abnormal market conditions**

- Proactive adjustments
- Abnormal rate changes
- January, 2008
 - > 1.25% reduction in rates

Rate Changes — Impact

- Yield

- Nominal and real interest rates
 - > When the fed adjusts rates, market rates typically adjust accordingly
 - > Money market rates strongly influenced by short-term rate movements

- Yield Curve

- Short-term rate adjustments influence the yield curve
- Rate reductions result in a steeper yield curve
- Rate increases flatten or invert the yield curve

- Savings rates and credit

- Increasing short-term rates
 - > Encourage saving and discourage credit
- Decreasing short-term rates
 - > Discourage saving and encourage credit

Short-term Investment Vehicles – Ultra-short

• Instrument examples

- Overnight Eurodollar deposits
- Overnight repo
- Passive sweeps

• Rate Environment

- Rising rate
 - > Yield rises along with rate changes
 - > Can outperform longer-dated vehicles
- Falling rate
 - > Yield falls along with rate changes
 - > Can under-perform longer-dated vehicles
- Flat Rate
 - > Under- or over-perform, dependent on yield curve shape in the short end
 - > Accessibility and liquidity become factors

Short-term Investment Vehicles – Longer-dated

• Instrument examples

- US Treasury issues (T-bills, STRIPS)
- US Agency securities
- Repo (term and open)
- Certificates of deposit
- Commercial paper/ABCP

• Rate Environment

- Rising rate
 - > Yield remains depressed – slow to adjust
 - > Can under-perform ultra-short vehicles
- Falling rate
 - > Yield remains elevated – slow to adjust
 - > Can outperform ultra-short vehicles
- Flat Rate
 - > Under- or over-perform, dependent on yield curve shape in the short end
 - > Rate outlook and cash forecasting important – don't get stuck!
 - > Lockup liquidity for substantial gains

Short-term Investment Vehicles – Money Market Mutual Funds

• Instrument examples

- 2A-7 Funds
 - > Treasury-only
 - > Prime
 - > Tax-exempt
- Enhanced cash funds
- Ultra-short bond funds

• Rate Environment

- Rising rate
 - > Depends on the WAM – focus on short WAM funds
 - > Can under-perform ultra-short vehicles and outperform vehicles with longer maturity
- Falling rate
 - > Depends on the WAM – focus on long WAM funds
 - > Can outperform ultra-short vehicles and under-perform vehicles with longer maturity
- Flat Rate
 - > Under- or over-perform, dependent on yield curve shape in the short end
 - > 2A-7 funds highly liquid with \$1 NAV – can position on curve and fund type

Short-term Investment Strategies – Rate environment

- **Rising rate environment – the shorter the maturity, the better the performance**
 - Overnight deposits
 - Overnight repo
 - 2A-7 short WAM MMF funds
- **Falling rate environment – the longer the maturity, the better the performance**
 - Treasury securities
 - Agency securities
 - CDs/CP, APCP
 - MMF Funds with longer WAM
 - Open and term repo

Short-term Investment Strategies – Investment Techniques

• Ladder

- Purchase securities of the same duration for incremental periods – chronological
 - > Can be structured weekly, monthly, quarterly, etc – best in normal yield
- Principal returned at defined intervals, with opportunity to reinvest at long end
- Mix and match security types – treasuries on one end and CDs on another
 - > CDs on short end when rates falling, long end when rates rise
- Cushions investments from interest rate fluctuations

• Barbell

- Position long and short – working capital on short end, term cash on long end
- Best executed when short-term rates are rising and long-term rates are steady/falling

• Bullet

- Investing all money with a target maturity date
- Ability to match a liability or an investment horizon

Market Commentary

- **Inflation and a slowing economy**

- Federal reserve: Short-term rates, falling dollar, and inflation
- Emerging markets: Consumption of raw materials driving commodity prices

- **Financial industry**

- High leverage, bad bets, and inability to access financing
- Asset fire sales to meet margin calls – vicious cycle

- **Investors**

- Flight to quality: Large demand for cash products and US Treasury securities
- Short-term yields on UST and UST-backed securities at historic lows

- **Opportunity**

- Riskier assets providing attractive yields as spreads widen
- Access a wide range of assets through portal technology

- **Short-term investment policy objectives**

- Safety
- Liquidity
- Yield

Contact Information

- **Keneth Vallen**

Product Manager, Treasury Services

(212) 815-4655

Keneth.Vallen@bnymellon.com



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