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Where Each Relationship Matters℠

Speaker:

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Mr. Lilly is a Portfolio Manager responsible for managing client portfolios, performing securities research, and setting investment policy. Prior to joining Rockland Trust, Mr. Lilly was a financial planner with the Vanguard Group, where he created and developed comprehensive financial plans for high net worth clients. Mr. Lilly holds a B.S. in Economics from the University of Massachusetts and an MBA from Arizona State University. He is a CFA charter holder and has also received his designation as a Certified Financial Planner™. Mr. Lilly belongs to the Boston Security Analysts Society, is a board member on the Planned Giving Council of Cape Cod and co-chair of Philanthropy Day on Cape Cod, the largest Philanthropic event on Cape Cod.

Overview: Investment Management Group

- Investing assets for individuals, businesses and not-for-profit organizations since 1907.
- **$1.3 Billion** in assets under management (AUM).
- Dedicated team of 51 professionals with over 350 years of combined experience.
- *4 Investment offices*: Attleboro, Hanover, Osterville and Lincoln, RI.
- One of the Greater Boston Area's Largest Independent Investment Advisors.*

* Source: Boston Business Journal

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"Government Bonds and Rising Interest Rates: What You Need to Know"

Jason Lilly, CFA, CFP®
Director of Portfolio Management
Rockland Trust Investment Management Group

June 15, 2010

Bonds Basics:

Bonds are a loan : By buying a bond you are loaning money to the issuer.

Components of a bond:

Face Value – The **amount paid at maturity** (assuming no default). Usually in $1,000 increments at issue.
Coupon – Most bonds have a fixed coupon (**interest payment**).
Maturity Date – When the face value (principal)is returned.

At issuance, the coupon (interest) is a function of:

Current Interest Rates
Maturity Date
Supply and Demand
Credit Quality (current as well as future expectations)
Covenants (all the fine print)
Collateral
Investor Sentiment – Economy, Inflation

Most bonds are not bought/sold at par.

Bonds Basics:

Types of issuers:

1. Treasuries: Full faith of the US Government. A guarantee of the par value at maturity…..***not a guarantee of investment, or real return***.

- Classified as **Bills**, **Notes**, or **Bonds** depending on maturity

2. Agencies: Implicit/Explicit backing of the US Government

FNMA – Fannie Mae
FHLB – Federal Home Loan Bank
TVA – Tennessee Valley Authority

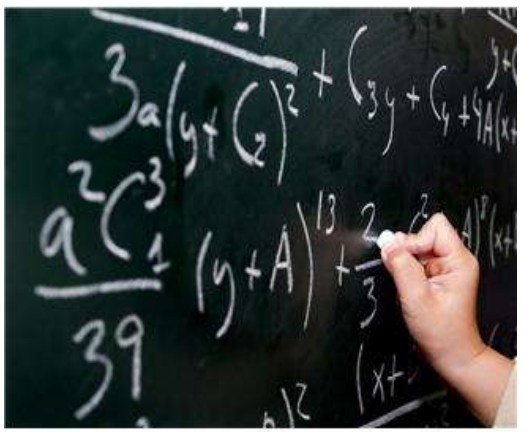
3. Municipal: Issued at the state and local level.
4. Corporate Bonds: Issued by corporations
5. Foreign Bonds: Issued by Sovereign's and Corporations outside the U.S.

Types of Maturities: 30 days to 100 years

Types of Quality: AAA (US Government + a handful of Corporations) to default (Lehman Brothers bonds). Investment grade =

Baa or better by Moody's
BBB or better rated by S&P or Fitch

Bonds Basics:



Bond Characteristics:

Current Yield: Coupon payment divided by current price.

i.e. Price is $1,090 for a bond the pays $1,000 at maturity. The stated coupon is 3.75%. The current yield is: 375/1090 = 3.44%. This bond trades at a **Premium**.

Yield to Maturity: The rate at which the current present value of all future payments equals the current market price of the bond. It assumes the coupon payments are reinvested at the same discount rate. It is the internal rate of return (IRR).

Duration: Is a measure of the bond(s) sensitivity to changes in interest rates. Duration is approximately equal to the percentage change in price for a given change in yield.

i.e. A bond that matures in 10 years with a duration of 7 years would fall 7% in value if the interest rate increased by 1% per year.

Bonds Basics:

Types of bonds:

Zero Coupons: No coupon, but issued at a discount.

Callable: The issuer can call the bonds (take them back). Usually happens at the worst time for the owner. There are also "Putable" bonds.

Convertible: Allows the owner to convert their bond into shares (equity).

Floating: Coupon varies with interest rates.

Inflation Adjusted: TIPS

High Yield: Junk bonds. High risk. High yield.

International: Debt issued by sovereigns and foreign corporations.

Bonds Basics

Some Acronyms:

MBS: Mortgage Backed Securities.

RMBS: Residential Mortgage Backed Securities.

CMBS: Commercial Mortgage Backed Securities.

ABS: Asset Backed Securities.

CDO: Collateralized Debt Obligations.

CDS: Credit Default Swaps. Used to insure against the above holdings, or to speculate…….

Tranches: Packages of the above divided into quality "Tiers"

A = Best

Z = Worst

What influences the Market Price of a bond?

<u>The same variables that influences the original coupon</u> ……

Supply and Demand
Maturity Date
Credit quality (current as well as future expectations)
Covenants (all the fine print)
Collateral
Investor sentiment – **Economy**, **Inflation**
Interest rates, current and future expectations

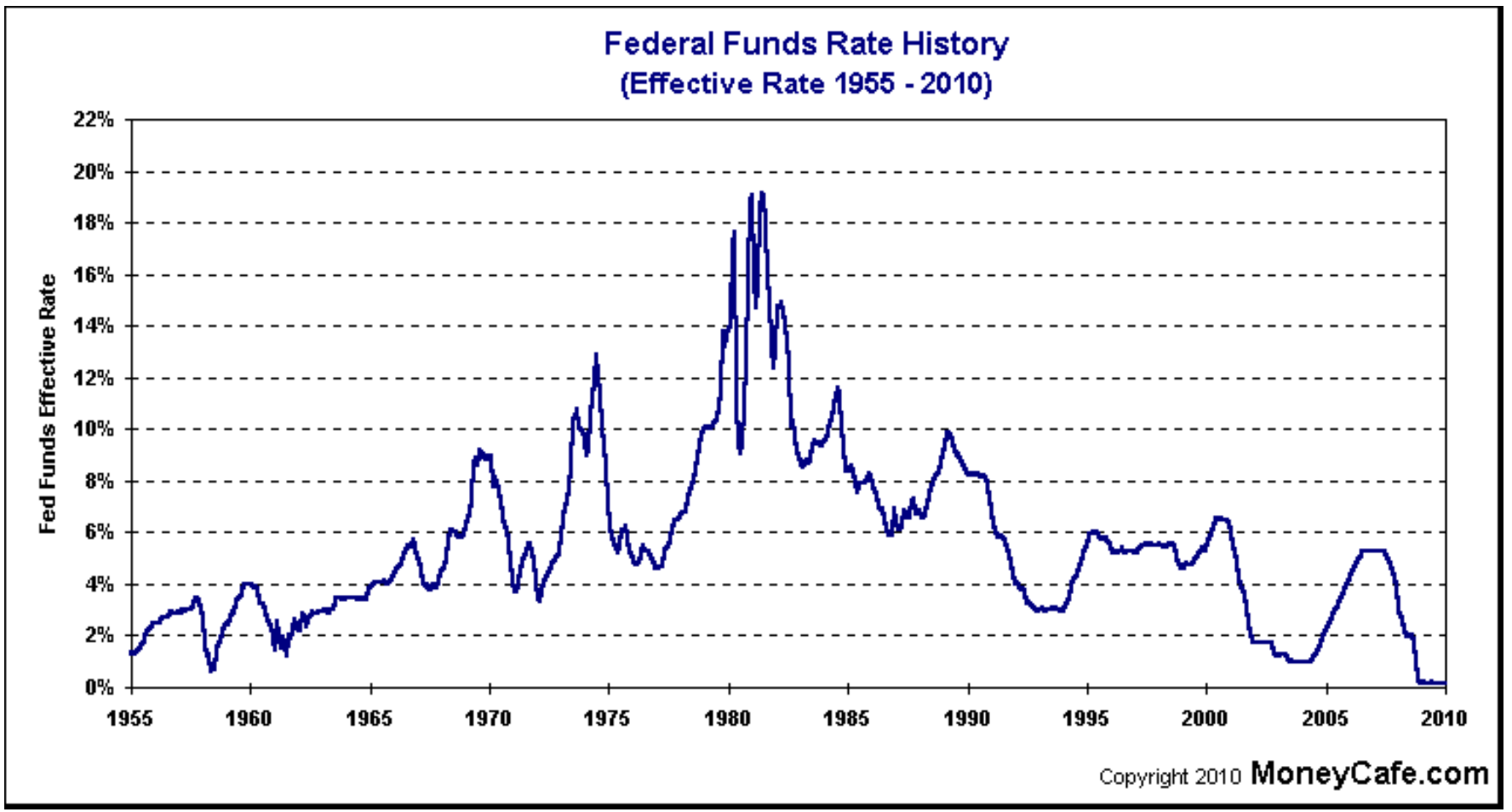
<u>….now influence **Price**</u>

*Because the <u>coupon rate</u> and <u>the maturity date</u> remain static while the economic environment constantly shifts, **Price** becomes the equalizer.*

What influences the Price of a bond?

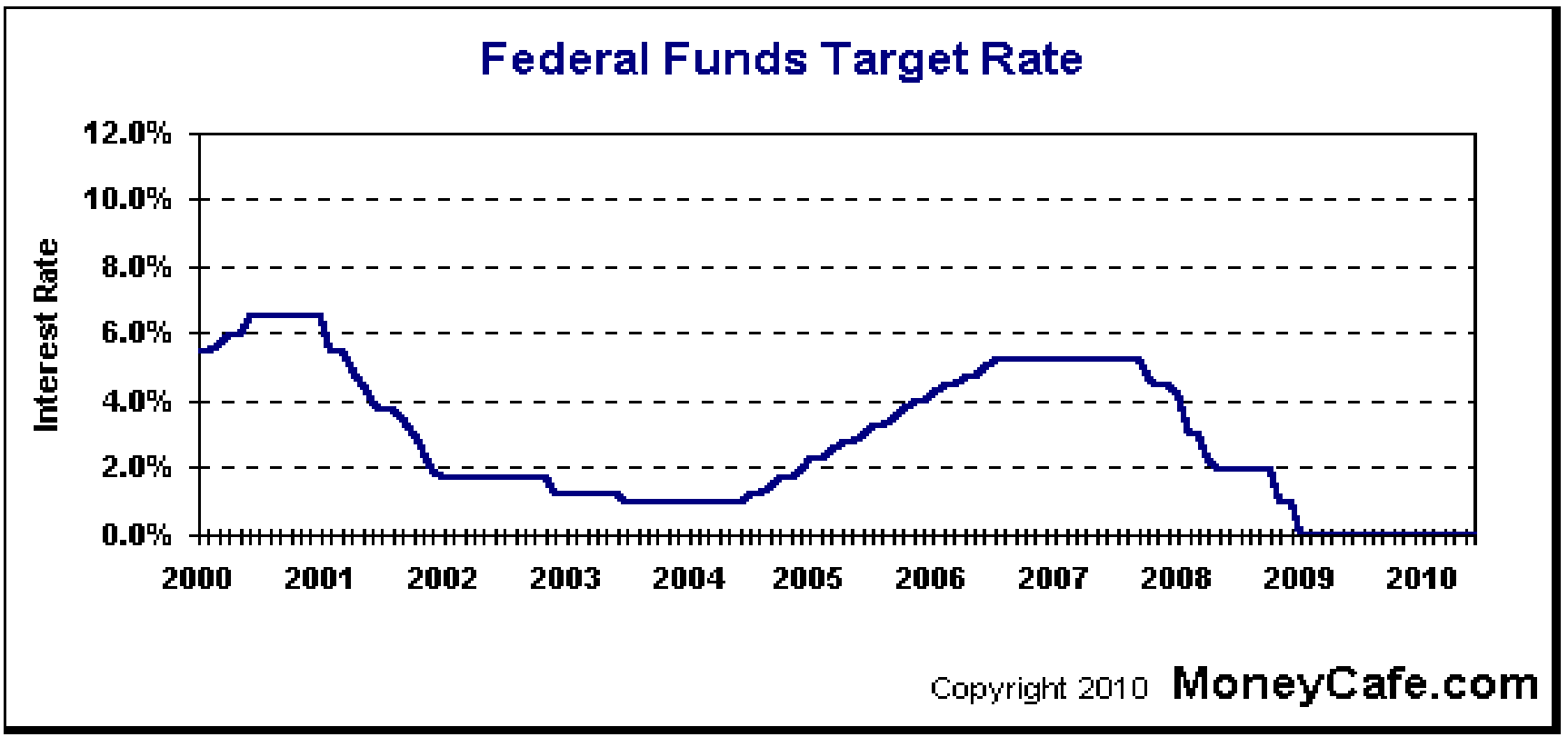
- *The longer the maturity the more sensitive.*
- *The smaller the coupon the more sensitive.*
- *Zero Coupons are most sensitive given a similar maturity.*
- *The longer the duration the more sensitive.*
- *If <u>Rates are going down</u>, long dated zero coupons provide the greatest return potential.*
- *Callable bond returns will be capped in a decreasing rate environment.*
- *If <u>Rates are going up</u>, short maturity, high coupon issues will provide the best protection.*

Interest rate cycles:



Cycles are guaranteed…..*The timing, duration, peak and trough's are not!*

Interest rate cycles:



However, *at 0-.25% fed funds rate, we can guarantee this is the trough!*

…..We just not know when the next cycle begins.

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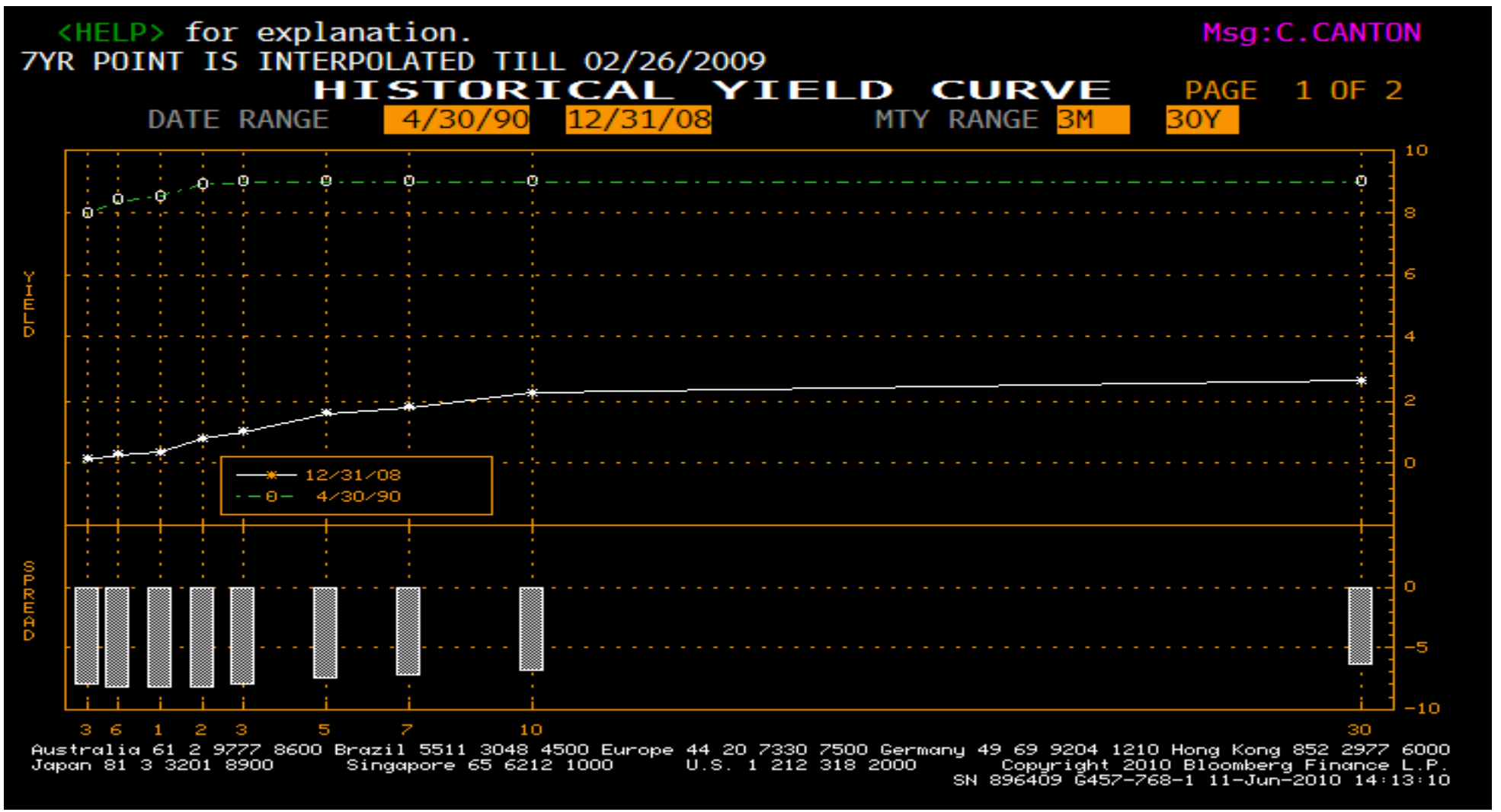
Low Yield Curve (12/31/08)

vs.

High Yield Curve (4/30/90)



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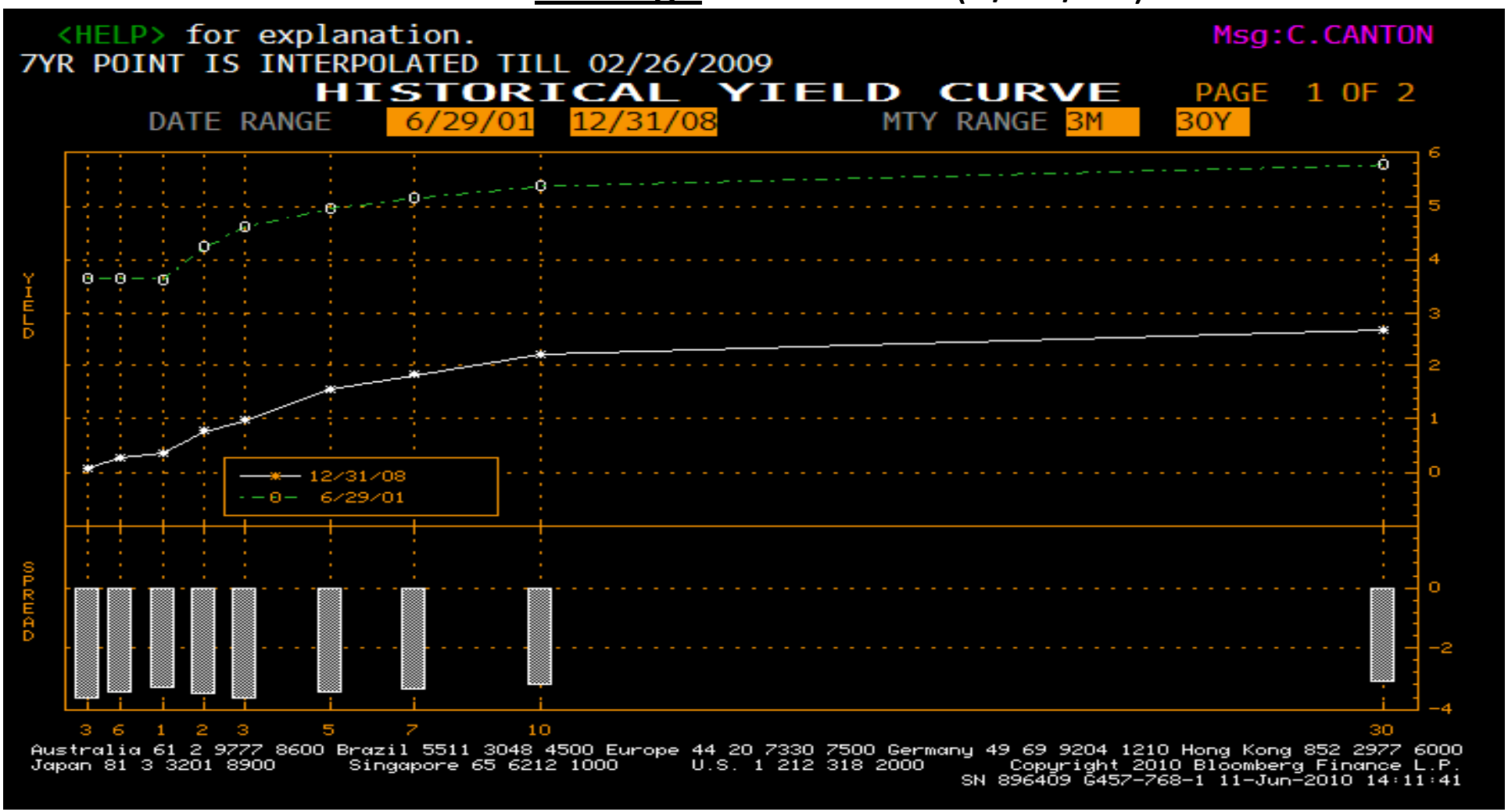
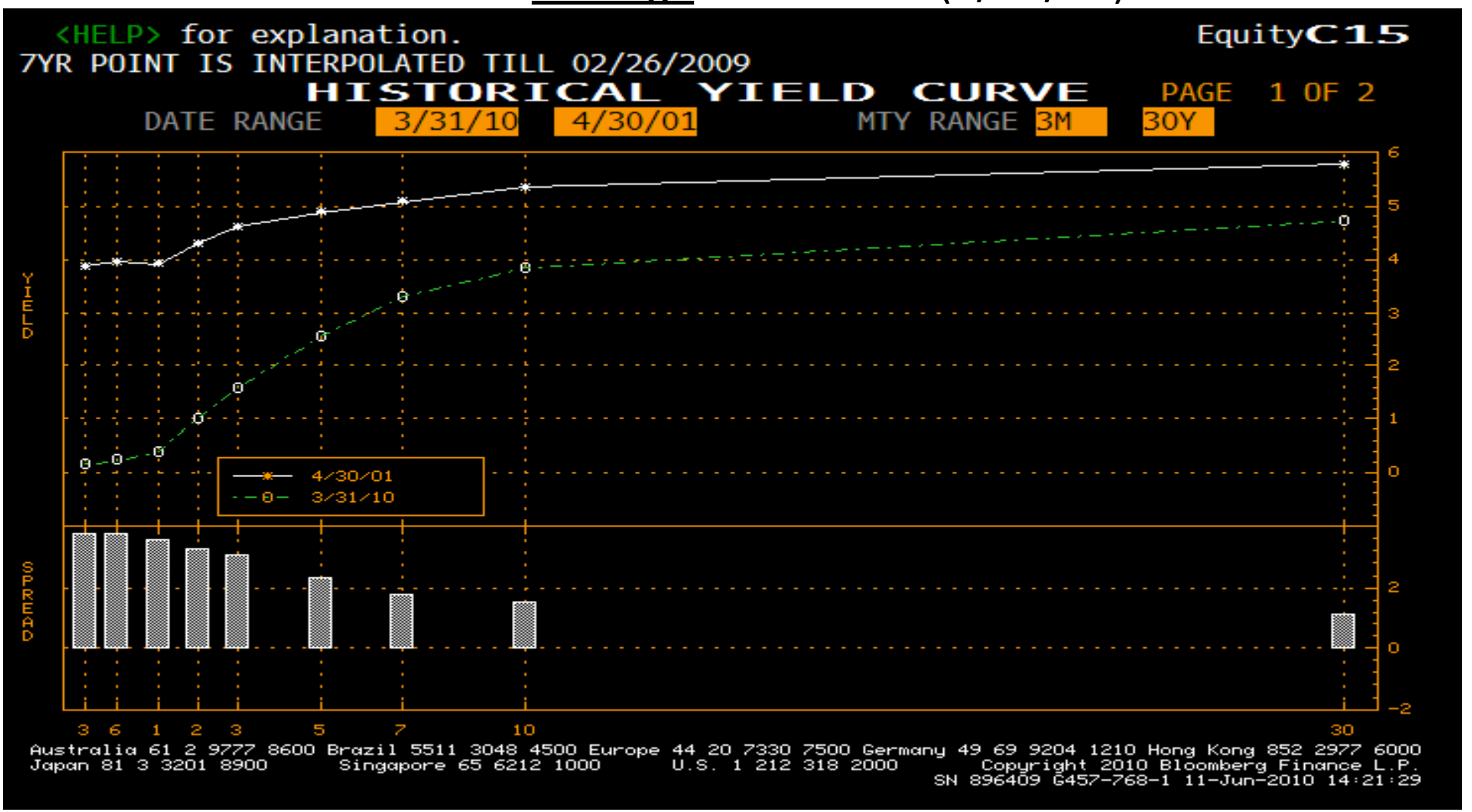
Low Yield Curve (12/31/08)

vs.

Average Yield Curve (6/30/01)



Steep Yield Curve (3/31/10)
vs.
Average Yield Curve (4/30/01)



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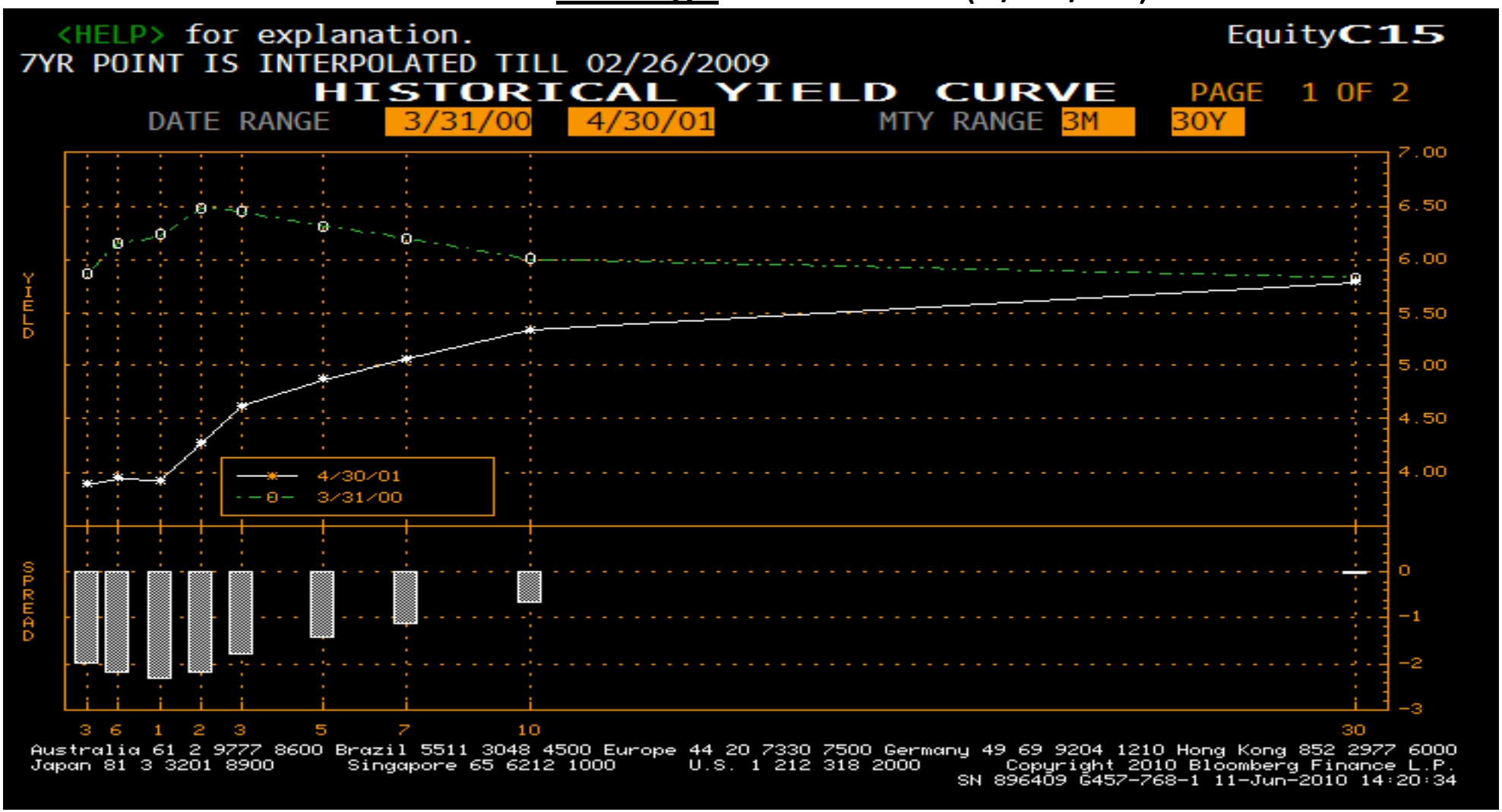
Inverted Yield Curve (3/31/00)

vs.

Average Yield Curve (4/30/01)



When will rates Rise?

Ultimately, when the decision is made to remove policy accommodation further, prudent risk management may prescribe that it be accomplished with greater swiftness than is modern central bank custom. The Federal Reserve acted preemptively in providing monetary stimulus, especially in early 2008 when the economy appeared on an uneven, uncertain trajectory.

If the economy were to turn up smartly and durably, policy might need to be unwound with the resolve equal to that in the accommodation phase. That is, the speed and force of the action ahead may bear some corresponding symmetry to the path that preceded it.

-Kevin M. Warsh, FOMC Board member – 12th Annual International Banking Conference, Chicago, Illinois – September 25, 2009

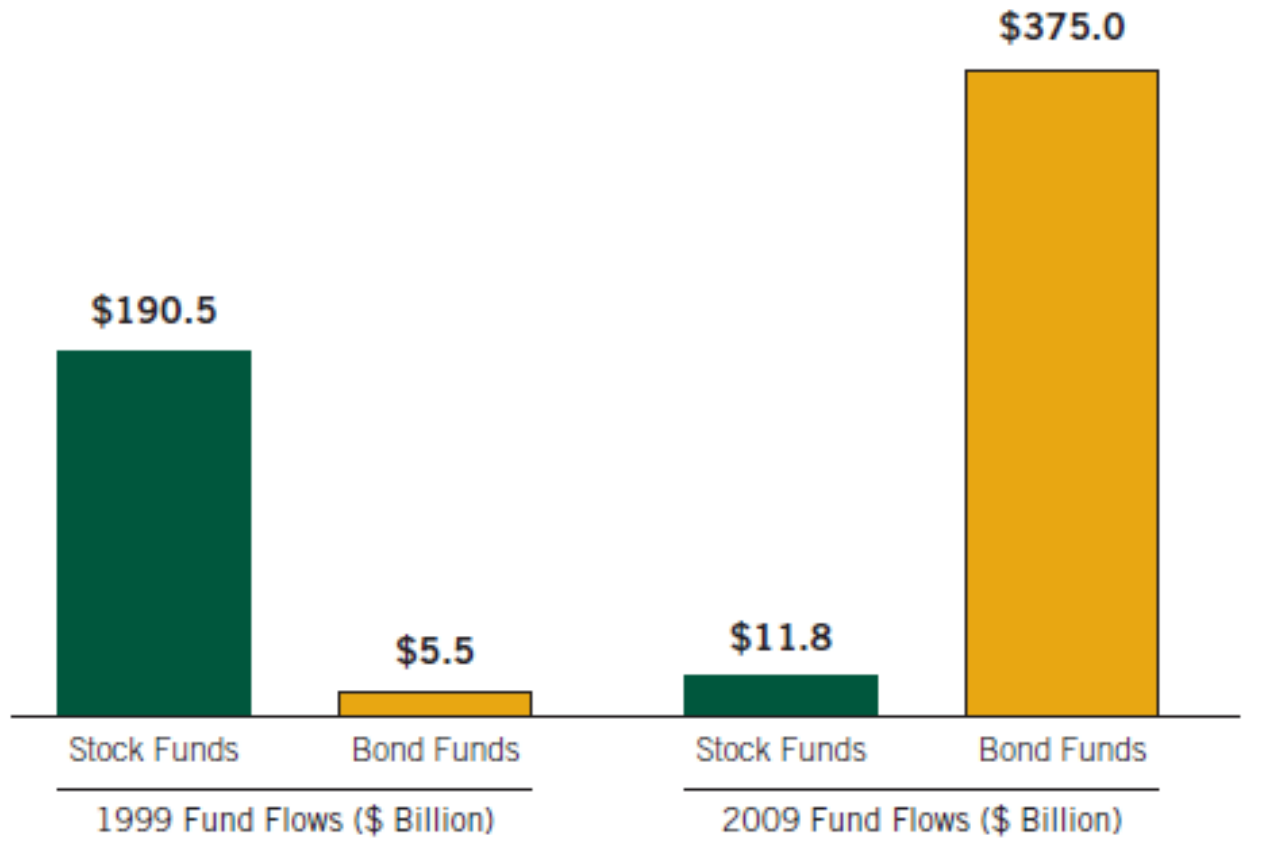
When will rates rise: *Summarizing the Current Market*

- Record inflows: $375B in 2009 with another $380B expected this year.
- Historically steep yield curve.
- Historically large budget deficits.
- Historically low yields.
- Historically High prices - Bond P/E {Price to current yield} is 27x – Twice the long term average.
- Bonds can be risky*:
  - -Since 1945 government bonds have lost money 19 times.
  - -Stocks?
    Only 16 ….but the average loss on Government bonds: - 3.4% Stocks: - 12.2%.

….Many experts are labeling government bonds the next bubble.

*Source: Money Magazine 6/2010;Ibbotson Associates: Based on annual performance of S&P 500 and long-term government bonds.

Investor Preference: 1999 vs 2009



As of December 31, 2009.

How to protect your portfolio:

If your Investment Policy Allows:

Consider:

TIPS – Treasury Inflation Protected Securities – they automatically adjust for inflation providing "Real" yields.

Floating Rate – credit quality is lower, but the yield "floats" higher in a rising rate environment.

High Yield Bonds – "Junk" bonds risky credit quality, but less sensitive to rising rates.

Foreign Bonds – Credit Quality, Interest Rate Cycles, Yields and Currency . Valuations provide opportunities to increase yield and reduce risk.

Alternatively:

- Own individual Bonds. Keep them laddered.
- Keep your **duration in-line** with your target maturity.

…Rising rates can be a benefit to the portfolio as long as your holding period is greater than the average weighted duration!

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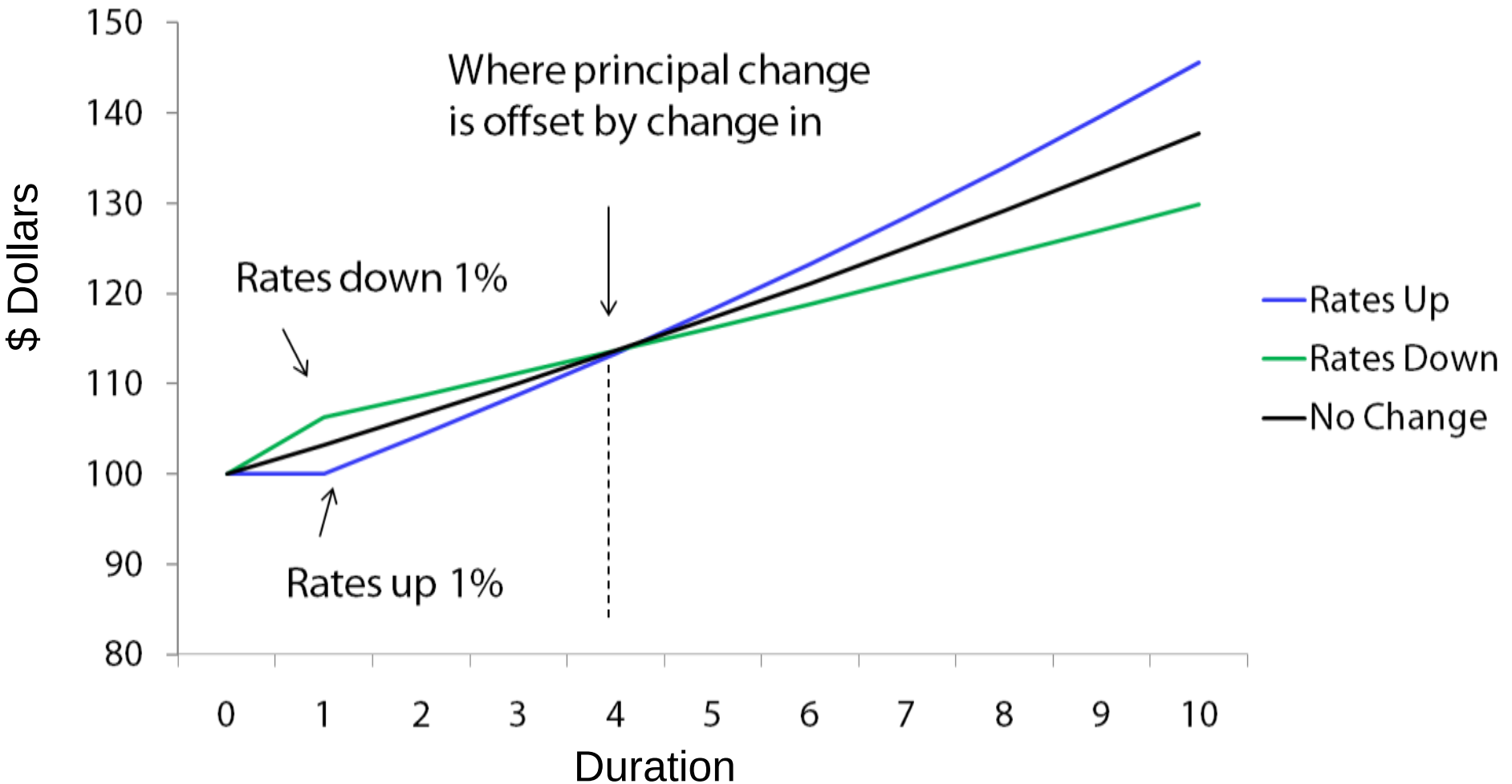
Duration Magic*

If time horizon is longer than duration, an investor will have more money at the end of the period if rates rise.



*Assumes one time rate shock, than annualized compounding, a flat yield curve and an initial duration of 4 years.

The Compounding Effect: As long as your horizon is longer than your duration then you will outperform if rates increase.

Current Rates	Rate Move in %	MV	Duration	Price Return	MV	Ending Rate	Horizon in years	Terminal Value Compounding @ Ending Rate
3	1	$10,000,000	**4**	-4.00%	$9,600,000.00	4	5	**$11,679,868**
3	-1	$10,000,000	**4**	4.00%	$10,400,000.00	2	5	**$11,482,440**

	Rates Up	Rates Down	No Rate Change
Time 1 rates change.	$9,600,000	$10,400,000	$10,000,000
End Year 1	$9,984,000	$10,608,000	$10,300,000
End Year 2	$10,383,360	$10,820,160	$10,609,000
End Year 3	$10,798,694	$11,036,563	$10,927,270
End Year 4	$11,230,642	$11,257,294	$11,255,088
End Year 5	**$11,679,868**	**$11,482,440**	**$11,592,741**
End Year 6	$12,147,063	$11,712,089	$11,940,523
End Year 7	$12,632,945	$11,946,331	$12,298,739
End Year 8	$13,138,263	$12,185,258	$12,667,701
End Year 9	$13,663,793	$12,428,963	$13,047,732
End Year 10	$14,210,345	$12,677,542	$13,439,164

Source: Rockland Trust Investment Management Group

Final Thoughts

- Rising rates can be an opportunity for better returns.
- Market losses do not equal “lost” principal.
- Recognize “normal” and “rational” be more like an investment than an investor.
- Create an Investment Policy Statement - Your investment roadmap. Check it regularly.
- Chase Objectives, not Performance.