

# Asia Pacific Association For Fiduciary Studies

7<sup>th</sup> Annual Pacific Region Investment Conference

October 19, 2007

**Session 10 – Capital Markets Outlook for Fixed Income**  
*The changing role of fixed income – how are plan sponsors using  
fixed income today – what benchmarks are relevant – what is more  
important, absolute or relative return*

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# Old-Style Perception of Fixed Income

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“Set it and forget it”

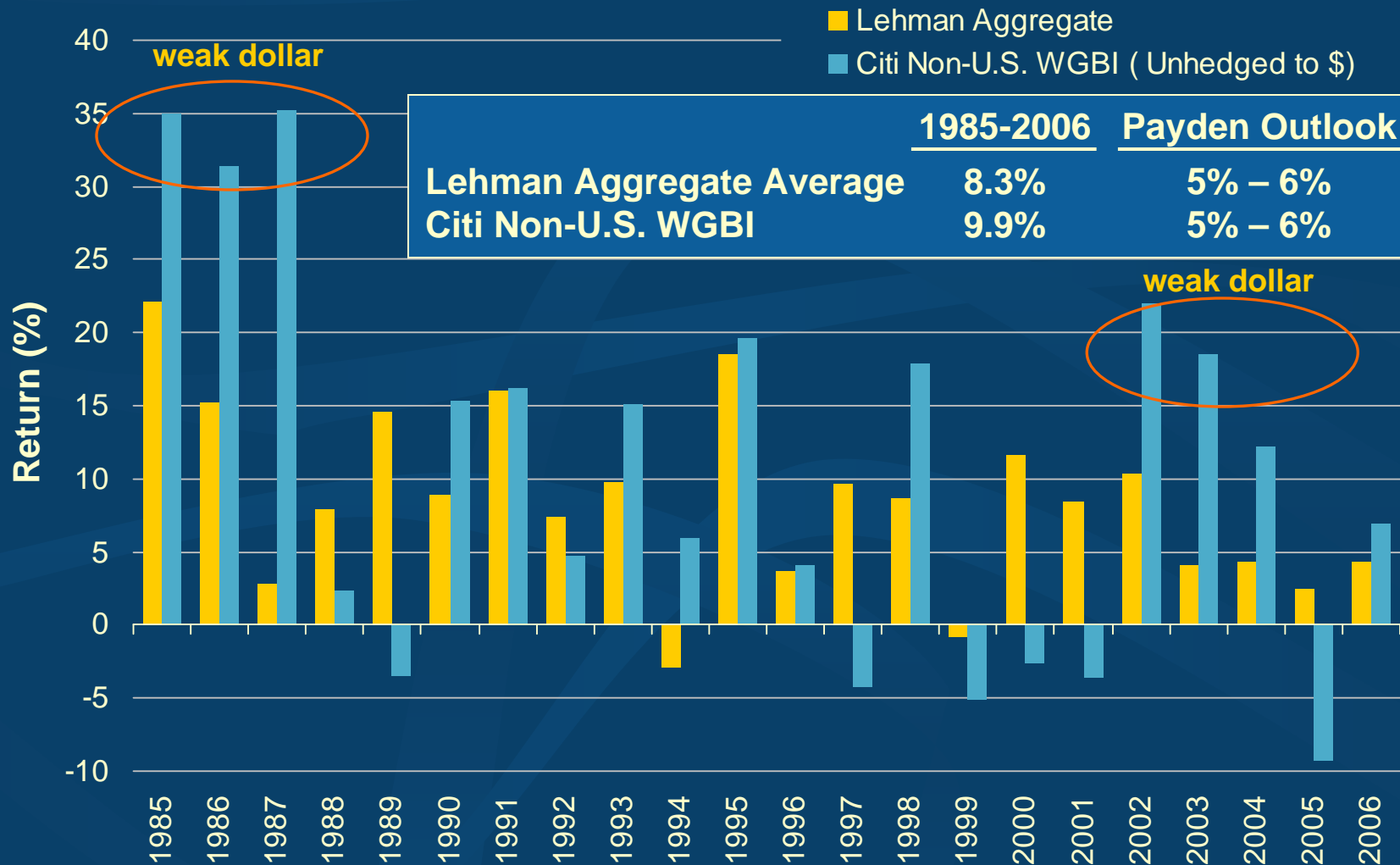
# Why Have Investors Traditionally Used Bonds

- 1 Stable Income
- 2 Lower Volatility
- 3 Diversification



How much should investors have to pay for these benefits?

# 1985 – 2006 Annual Returns



# Do Retirement Plan Still Choose Fixed Income?

	Annualized Returns			
	1980's	1990's	2000's	Last 3 years
Lehman Aggregate	12.42%	7.67%	6.32%	3.86%
	1985-1989	1990's	2000's	Last 3 years
Citi Non-U.S. WGBI (unhedged to USD)	18.83%	8.59%	6.13%	4.84%

Plan Actuarial Return: 7.50%

vs.

Reasonable Fixed Income Projected Return: 5.50%



Every dollar allocated to fixed income detracts from actuarial target

# The End of a Bygone Era

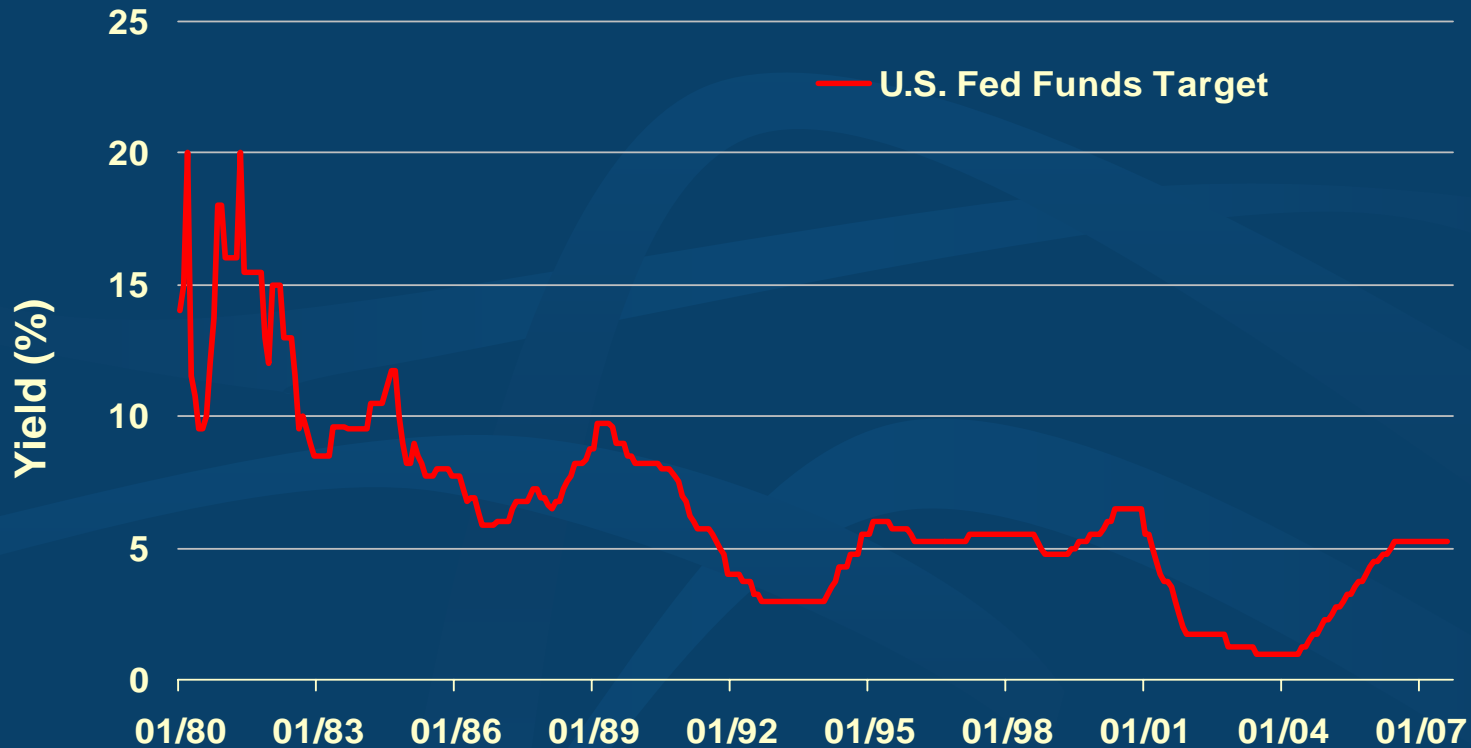


# There's a Reason Why Interest Rates are Lower



**Nominal Interest Rates = Real Yield Requirements + Inflation**

# Fed Policy Has Controlled Volatility



Lower Volatility  $\Rightarrow$  Lower Real Yield Requirements

# 10 Year U.S. TIPS



# Evolution Of Fixed Income Securities

Finding ways to achieve income targets

Traditional

Government → Corporate → Mortgages → Asset-Backed

Core Plus

→ High Yield → Emerging (dollar Pay) → Emerging (Local Pay)

Derivatives

→ Futures → Interest Rate Swaps → Credit Default Swaps

# Evolution Of Fixed Income Mandates

Traditional

Gov't Only

Gov't/Credit

- Lehman Gov/Credit

Gov't/Credit/MBS

- Lehman Aggregate
- Citi Broad

Core Plus

- Lehman Universal

Alternative

Absolute Return

Long Duration (LDI)

- Lehman Long Gov/Credit

Portable Alpha

# Be Smarter About Fixed Income

Why use Fixed Income:

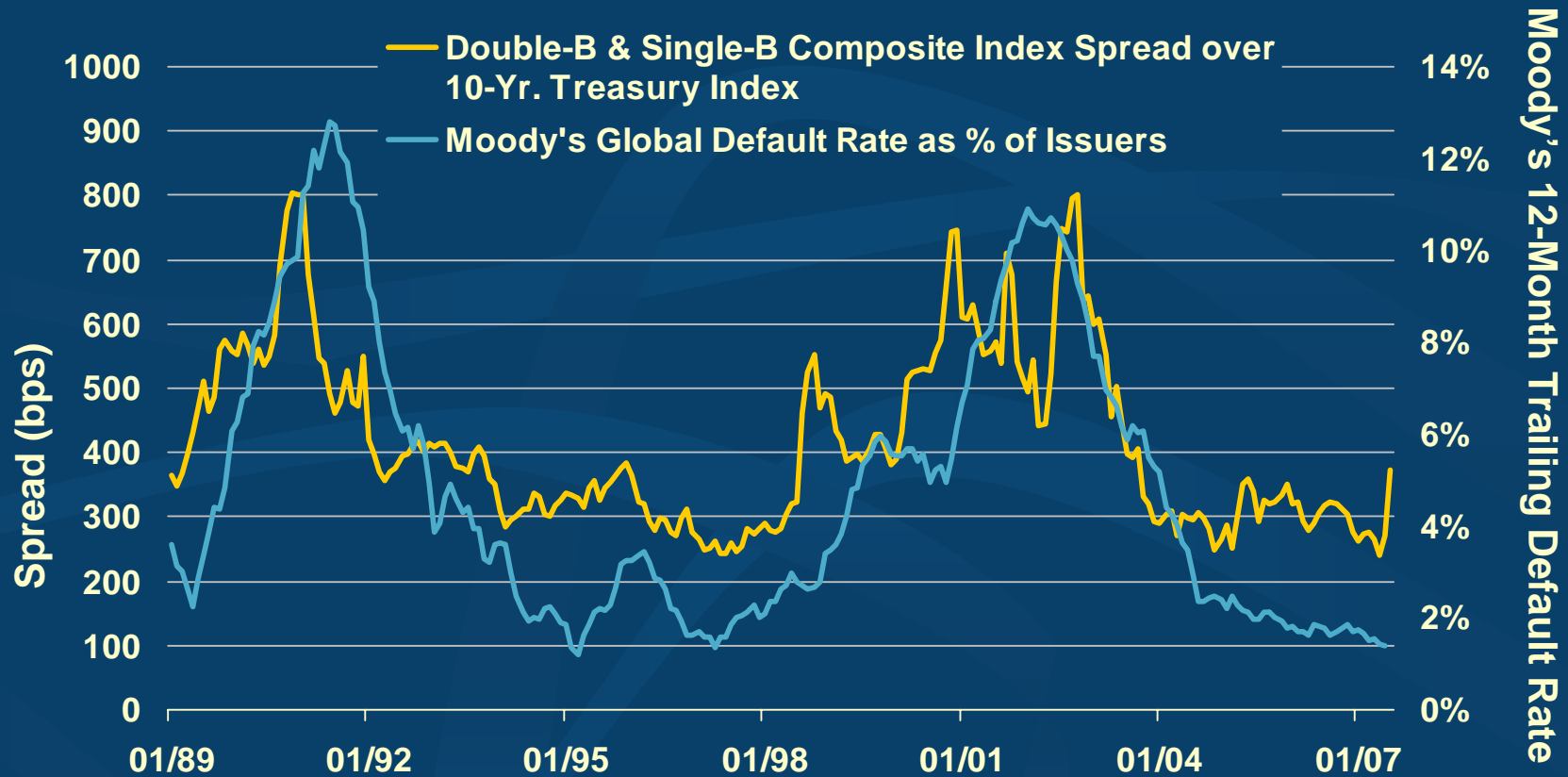
- Stable Income
- Lower Volatility
- Diversification

Get a bigger bang for the buck:

- Long duration → Fewer dollars, but same price impact on total portfolio
  - 40% of Portfolio x 4.5 yr. Duration: 1.8 yr. duration contribution
  - 20% of Portfolio x 9.0 yr. Duration: 1.8 yr. duration contribution
  - 20% from bonds to stocks: Estimated improved return of 1% on total fund
- Extended markets → High yield is yielding 9%
  - Local pay emerging is yielding 10%
  - Bank loans: Senior, Secured, LIBOR + 2.50
    - 100% Core: 5.5% YTM
    - 80% Core/20% Plus: 6.1% YTM

# High Yield Spreads

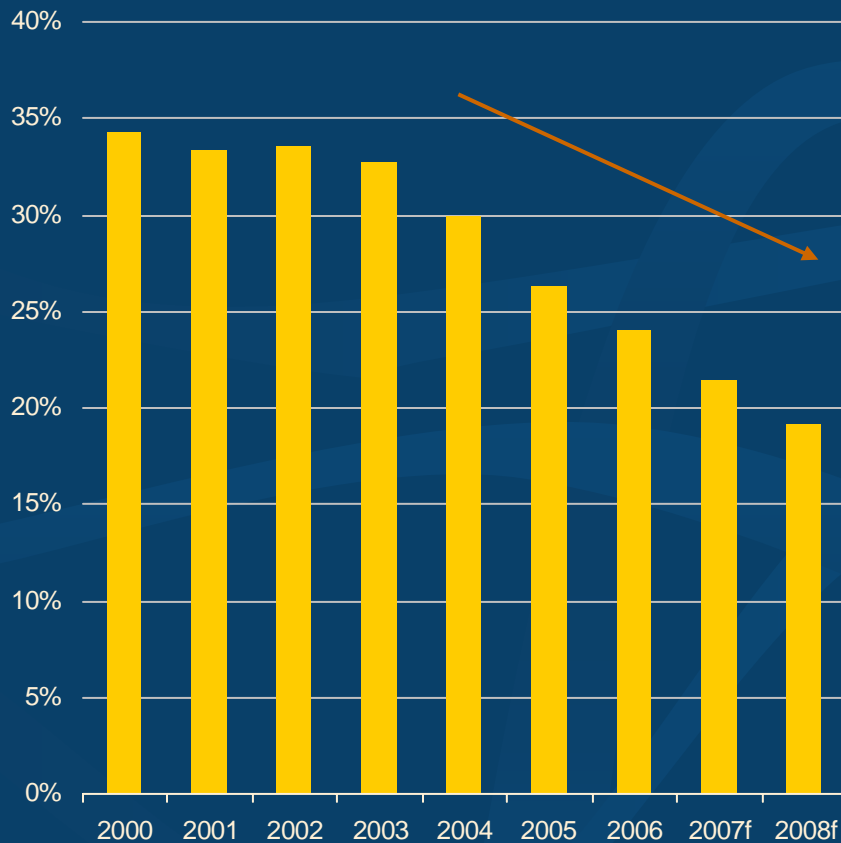
Double-B & Single-B Composite Index Spread Over 10-Yr. Treasury Index vs. Moody's Default Rate



# Emerging Market Fundamentals Remain Positive

External liquidity has improved.

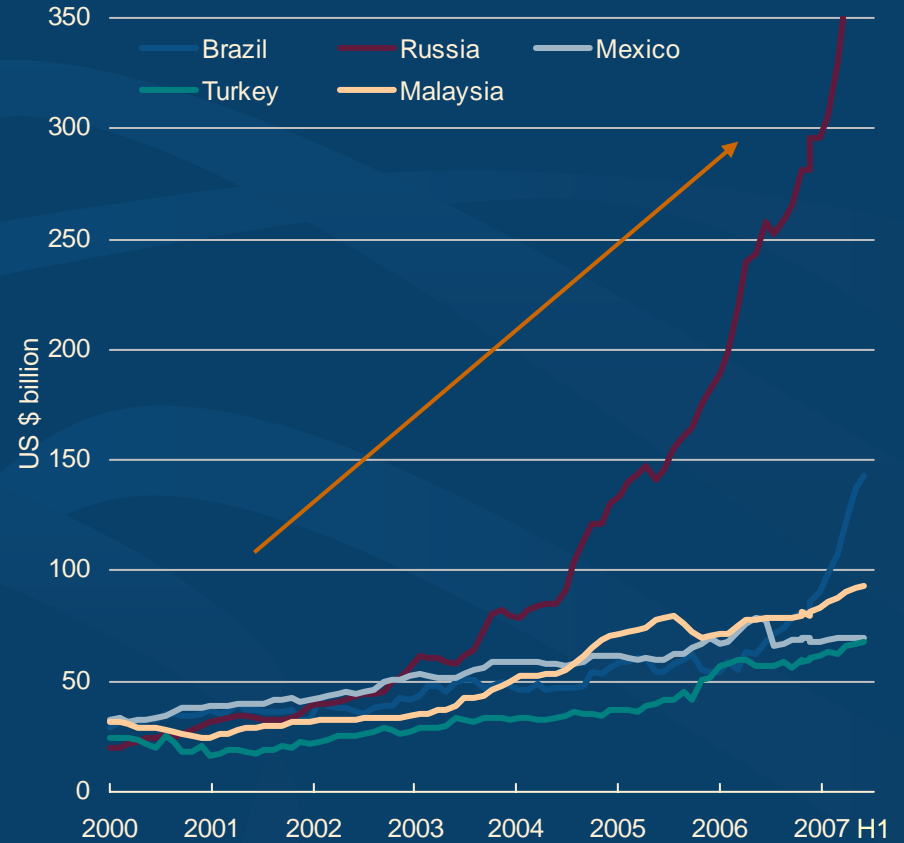
## External Debt / GDP Decreased\*



Source: J.P. Morgan

\* GDP-weighted data for 26 representative emerging market sovereigns.

## Foreign Exchange Reserves Increased



Source: Bloomberg, Central Banks

# Absolute vs. Relative Return

Manager: *"I have great news!! We out-performed the benchmark by 200 basis points!!"*



Client: *"Yeah, but your return was -5%!!"*

# Absolute Return

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## Two Critical Questions

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1

How much absolute return do you want?

- is it an absolute number (5%, 6%, 7%)
- or is it expressed relative (LIBOR +, CPI+)

2

How much tracking error are you willing to take?

- can you have a negative return?
- over what period of time?

# Can you use Stocks in a Bond Portfolio?

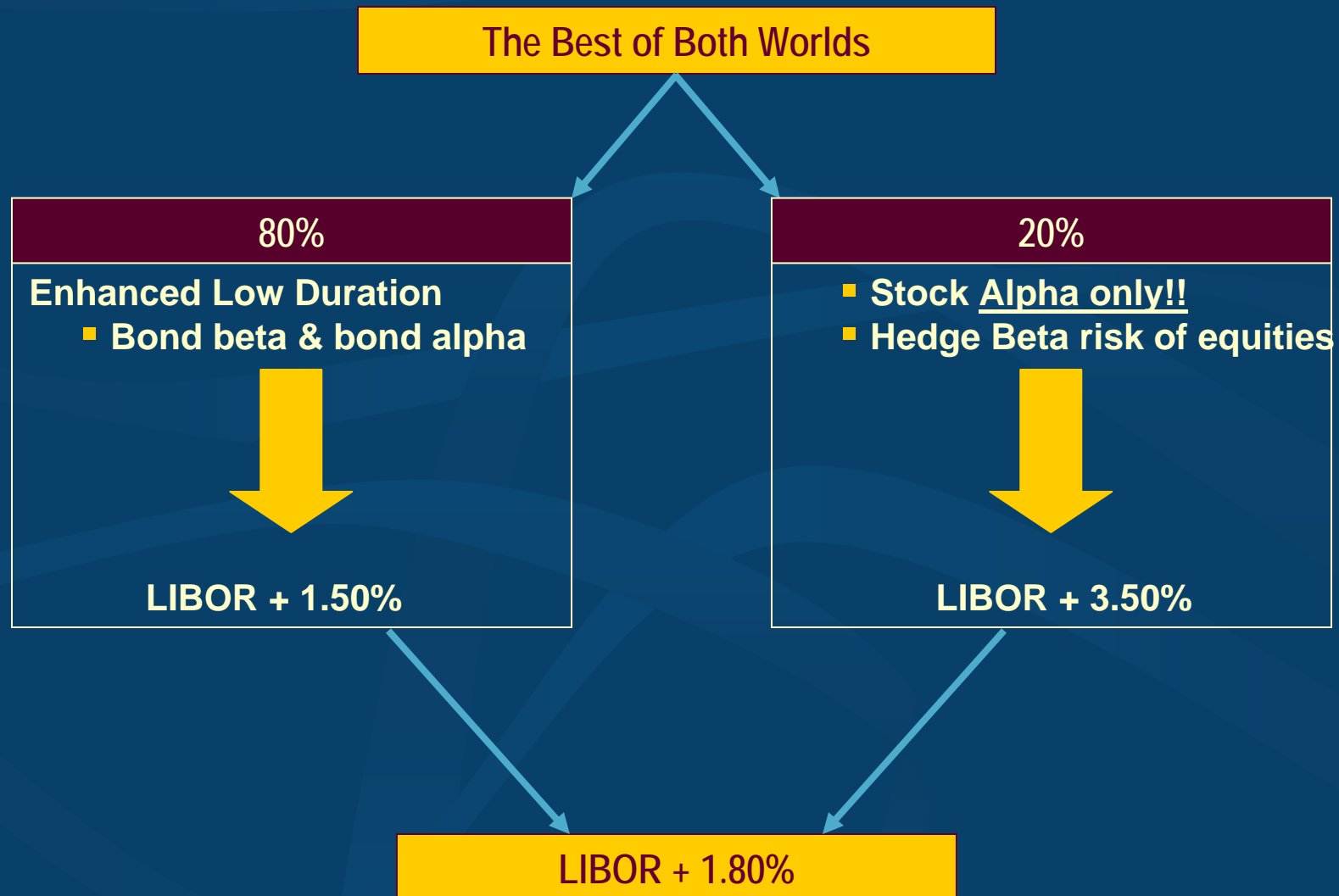
- Stock **Beta** is too volatile and will overwhelm goals.
- However, Stock Alpha has lower volatility, and it can be attached to bond Beta.

## How can we strip out Stock Alpha:

- Enter into swap agreement or use futures

1	Long Individual Stocks	}	+ Stock Beta
			+ Stock Alpha
2	Total Return Swap, futures	}	- Stock Beta
			+ Libor
Net:			Stock Alpha + Libor

# Absolute Return



# Broader Use of Derivatives

- The use of derivatives can be used to satisfy many objectives
- Generally speaking, we find they fall into three main categories

## Active Beta/Alpha Strategies

- Index replication or enhancement

## Hedging Strategies

- Offsetting underlying portfolio risk

## Risk Transfer Strategies

- Long/short strategies to “port” alpha

- Industry “nomenclature” has arisen as well to define these practices.

## Liability Driven Investing

- Portfolio construction to better match deviation of assets and liabilities

## Beta Overlay

- Portfolio designed to achieve exposure to a given asset allocation and/or market index

## Portable Alpha

- Portfolio designed to capture and transport “alpha” over a given index

## Absolute Total Return

- Portfolio designed to produce a threshold total rate of return

# Portfolios are More Complex Today

- 1 We therefore need sophisticated tools to evaluate portfolio risk.
- 2 We need modernized and expanded guidelines to incorporate new security types.
- 3 We need to manage client goals and expectations with regard to:
  - Return
  - Volatility

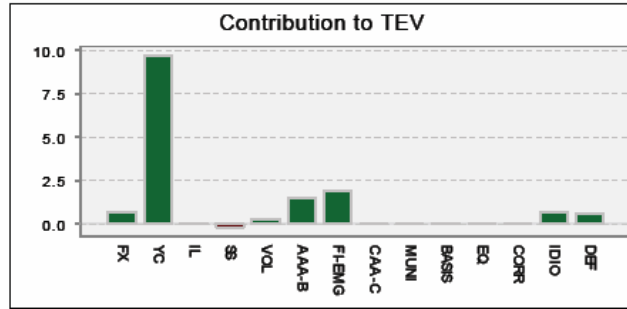
# Quantitative Risk Control

## Portfolio Risk Summary Report

Portfolio: 991  
 Index: US Aggregate (Statistics)  
 Reporting Units: Returns in bps/month

Run Date: 09/14/2007  
 As of Date: 9/13/2007  
 Base Currency: USD

Isolated Systematic TEV					
	Total	USD+	EUR+	JPY	Other
Currency	3.1	-	2.0	1.1	0.5
Yield Curve	13.8	13.8	-	-	-
Inflation	-	-	-	-	-
Swap Spreads	2.5	2.5	-	-	-
Volatility	1.3	1.3	-	-	-
AAA-B Spreads	6.0	6.0	-	-	-
EMG Markets Spread	7.1	7.1	-	-	-
CAA-C Spreads	1.3	1.3	-	-	-
Municipal Spreads	-	-	-	-	-
CDS Basis	-	-	-	-	-
Equities/Convertibles	-	-	-	-	-
Correlation	-	-	-	-	-
<b>Total Systematic</b>	<b>14.4</b>	<b>14.1</b>	<b>2.0</b>	<b>1.1</b>	<b>0.5</b>



Total TEV	15.1
Systematic TEV	14.4
Idiosyncratic TEV	3.2
Default TEV	3.1

Last Transaction	9/12/2007
Total MV (MMS)	46.7
Cash MV (MMS)	1.5
Total Notional (MMS)	45.8
Positions Included	336
Positions Excluded	10

### PORTFOLIO STATISTICS

Net Market Weight % (Portfolio-Benchmark)					
Sector	TOT	USD+	EUR+	JPY	Other
Treasury/Agency/Muni	10.7	10.7	-	-	-
Credit - Inv. Grade	-3.8	-3.8	-	-	-
Credit - High Yield	3.6	3.6	-	-	-
Securitized	-17.0	-17.0	-	-	-
Inflation-Linked	0.0	-	-	-	-
Emerging Markets	3.2	3.2	-	-	-
Other (Cash, Deriv. etc)	3.3	1.8	0.5	0.5	0.5
<b>Total</b>	<b>0.0</b>	<b>-1.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>

### Summary Analytics

	Net	USD+	EUR+	JPY	Other
OAD	0.6	0.6	0.0	0.0	0.0
OAS	-0.7	-0.7	0.0	0.0	0.0
OASD	0.6	0.6	0.0	0.0	0.0
OAC	0.2	0.2	0.0	0.0	0.0
Vega	0.0	0.0	0.0	0.0	0.0

### USD Net Key Rate Duration Exposures

Key Rate	PORT	BMK	Net
6 month	0.1	0.1	-0.1
2 year	0.6	0.6	-0.0
5 year	1.3	1.3	0.0
10 year	1.7	1.4	0.2
20 year	0.8	0.7	0.0
30 year	0.8	0.4	0.4

### MAJOR ACTIVE POSITIONS

Major Systematic Risk Exposures - Uncorrelated			
Factor	Net Exp.	Factor Vol	TE impact
USD 30Y key rate	0.4	20.2	-9.0
USD 10Y key rate	0.2	22.5	-5.3
CHF Currency	2.1	2.2	4.5
USD High Yield Industrials	0.4	9.1	-3.2
EUR Currency	-1.6	1.9	-3.0
Global EMG Brazil	0.1	45.1	-2.7
Global EMG Americas Block	0.1	36.5	-2.4
Global EMG Non-Distressed Slope	3.0	0.6	-1.9
USD CMBS AAA	-0.2	7.1	1.5
USD Ultra High Grade Financials	-0.2	7.8	1.4

Major Systematic Risk Exposures - Correlated			
Factor	Net Exp.	Factor Vol	TE impact
USD 20Y key rate	0.0	20.7	-10.5
USD 30Y key rate	0.4	20.2	-10.4
USD 10Y key rate	0.2	22.5	-9.8
USD 5Y key rate	0.0	25.8	-7.9
USD 2Y key rate	-0.0	24.9	-5.9
USD Treasury spread	1.2	0.7	5.7
High-yield Volatility	0.0	98.6	5.3
USD Agency Volatility	0.0	94.3	5.2
USD Treasury Spread Slope	13.5	0.1	-5.0
JPY Currency	0.5	2.2	4.9

### Marginal Contribution to TEV

Factor	Net Exp.	Factor Vol	Mg.C. TEV
USD 20Y key rate	0.0	20.7	14.3
USD 30Y key rate	0.4	20.2	14.0
USD 10Y key rate	0.2	22.5	14.6
USD 5Y key rate	0.0	25.8	13.5
USD 2Y key rate	-0.0	24.9	9.7
USD Treasury spread	1.2	0.7	-0.3
High-yield Volatility	0.0	98.6	-34.5
USD Agency Volatility	0.0	94.3	-32.6
USD Treasury Spread Slope	13.5	0.1	0.0
JPY Currency	0.5	2.2	0.7

### Idiosyncratic Risk

Ticker / Identifier	Issues PORT	NET MW%	OASD	Idio TEV	
				Ind.	Cum.
BRAZIL	4	0.6	0.1	1.5	1.5
01F0526A	1	0.1	0.3	1.2	1.9
SWY	1	0.2	0.0	0.7	2.0
TWC	2	0.2	0.0	0.6	2.1
LMT	1	0.3	0.0	0.5	2.2
CBS	1	0.2	0.0	0.5	2.2
TITIM	2	0.4	0.0	0.5	2.3
GS	0	-0.4	-0.0	0.4	2.3
CAT	1	0.2	0.0	0.4	2.4
INDON	2	0.2	0.0	0.4	2.4

# How Are Plan Sponsors Using Fixed Income Today

- ➔ Fixed income is not what it used to be – the “traditional” mold has been re-crafted.
- ➔ Fixed income is still viable – take advantage of all that it offers.

## Operating/Liquidity Funds

- Enhanced cash portfolio
- Low duration portfolio

## Pension Assets

- Core and Core Plus still attractive → take your pick
- Long duration → match liabilities

## Specialized Needs

- Securities lending portfolios
- Hedging strategies (futures, swaps, credit default swaps)