



Sound Portfolio Management During Turbulent Times

December 4, 2008

LIVE BIGSM

A solid gold-colored horizontal bar at the bottom of the slide, with a wavy, undulating top edge that follows the contour of the 'LIVE BIG' text above it.

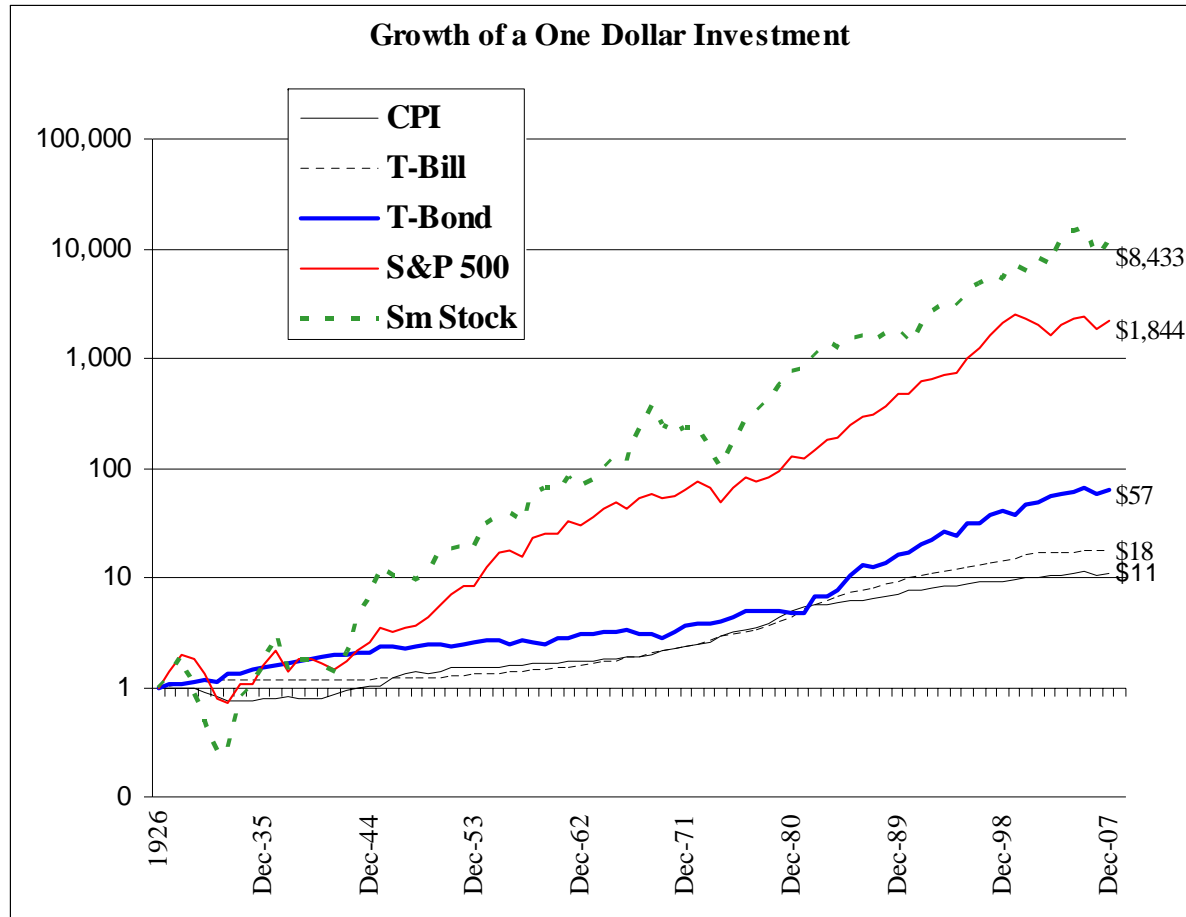
Agenda

- Introduction and Overview
 - Purpose
 - Philosophy
- Sound Portfolio Management
 - Core Principles
 - Our Approach
 - Current Conditions and Outlook

Core Principles

- Markets Work
- Risk and Return are Related
- Portfolio Structure Explains Performance
- Diversification Matters

Markets Work



What do we mean by “Rational” markets?

- Maximally Rational
- Simply Rational
- Minimally Rational

Adapted from Mark Rubenstein (2000)

Paul Stephens Professor of Applied Investment Analysis, Haas School, UC Berkeley

Maximally Rational

ALL investors **ARE** rational



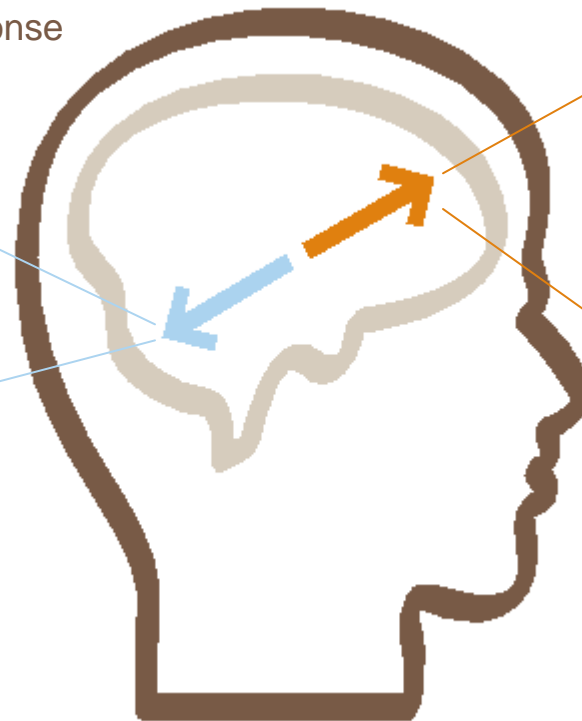
YESKE  BUIE

Money changes everything

Region of the brain where signals of fear and anger are generated. Very quick observation and response mechanism; “flight or fight”.

This region saves you from the lion but kills you in the market.

Where you are processing moves in the stock market.



Where you should be processing moves in the stock market.

Region of the brain where pieces of information are categorized, and stored allowing for the processing of themes and long-term plans.

Simply Rational

Asset prices are set
AS IF
investors are
rational



Minimally Rational

NO abnormal profit opportunities



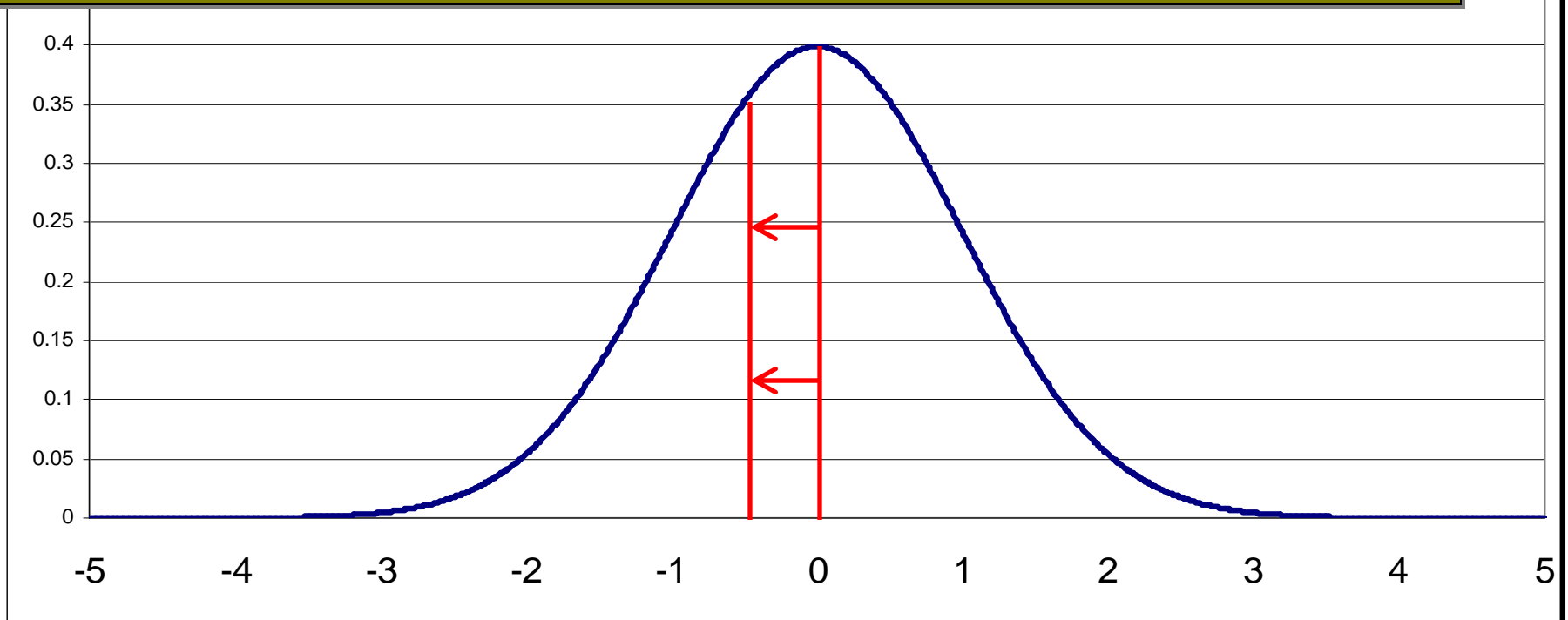
“The Wisdom of Crowds”

The market as continuously-updated polling mechanism that aggregates all known information into a single price.



Jensen (1968): Value added by managers more than offset by the cost of managing the funds. Average alpha was -1.1% (i.e. mgrs did 1.1% worse than would be expected from a randomly selected portfolio). Even gross of fees the managers failed to add positive value.

Persistence found only among the very worst performers.



Market Efficiency

Even if a market can be shown to lack transactional or informational efficiency, this doesn't automatically mean that an exploitable investment opportunity exists.

The Case of Emerging Markets

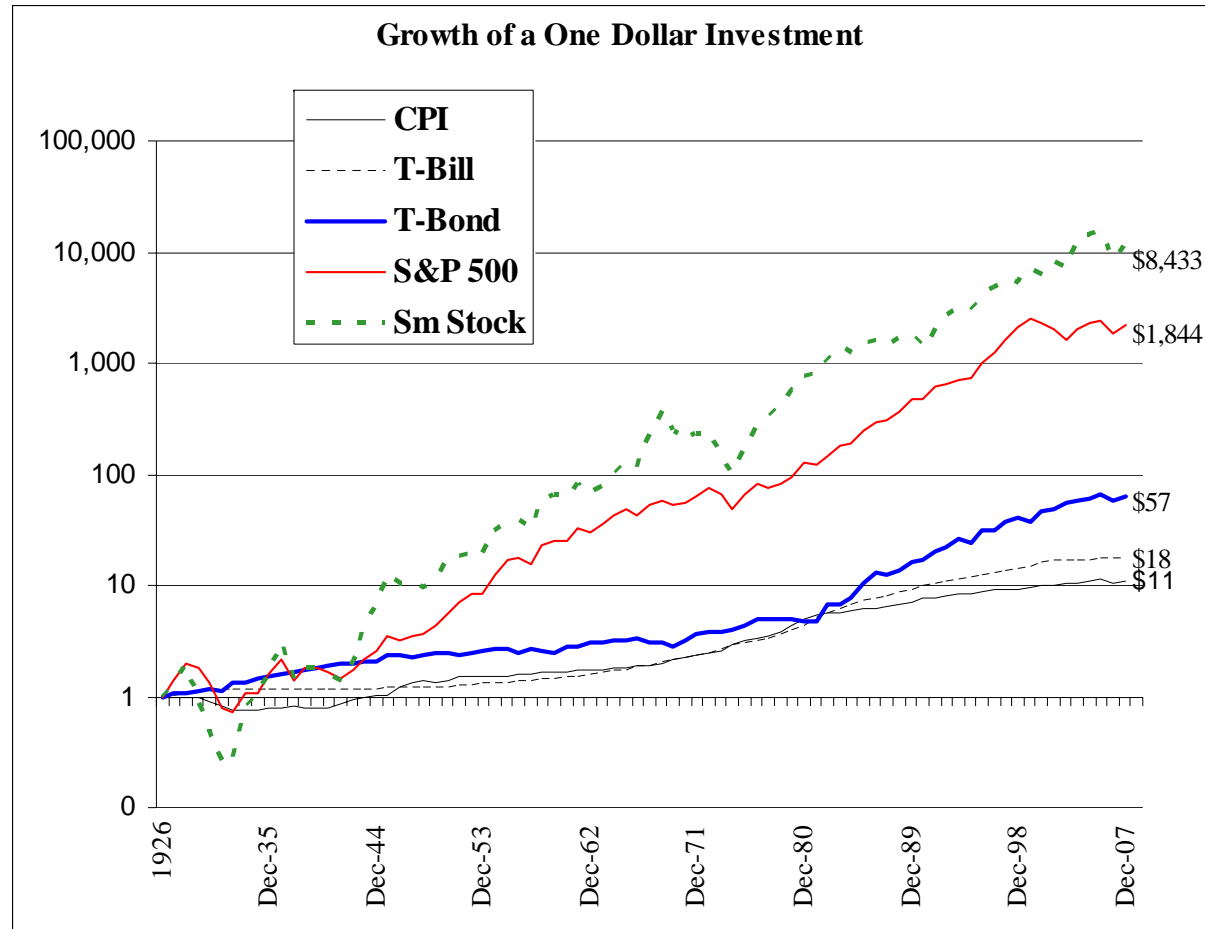
For the period ending 10/31/2008

	3 Yr	5 Yr	10 Yr
Active Funds (302)	26.81	34.25	12.79
Passive Funds (22)	26.23	34.84	14.06

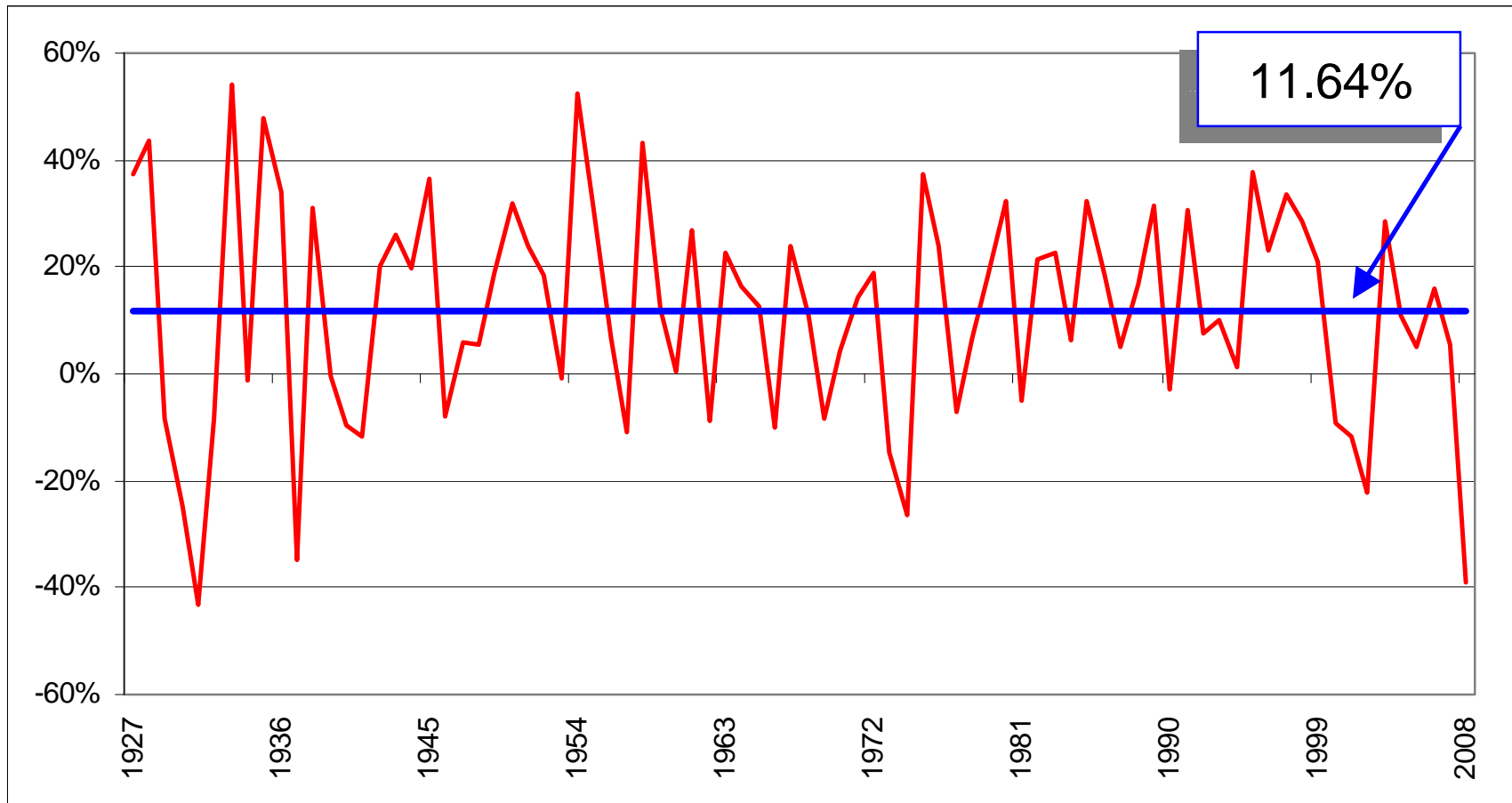
Lack of efficiency doesn't appear to have translated into exploitable opportunities.

Source: Morningstar Principia

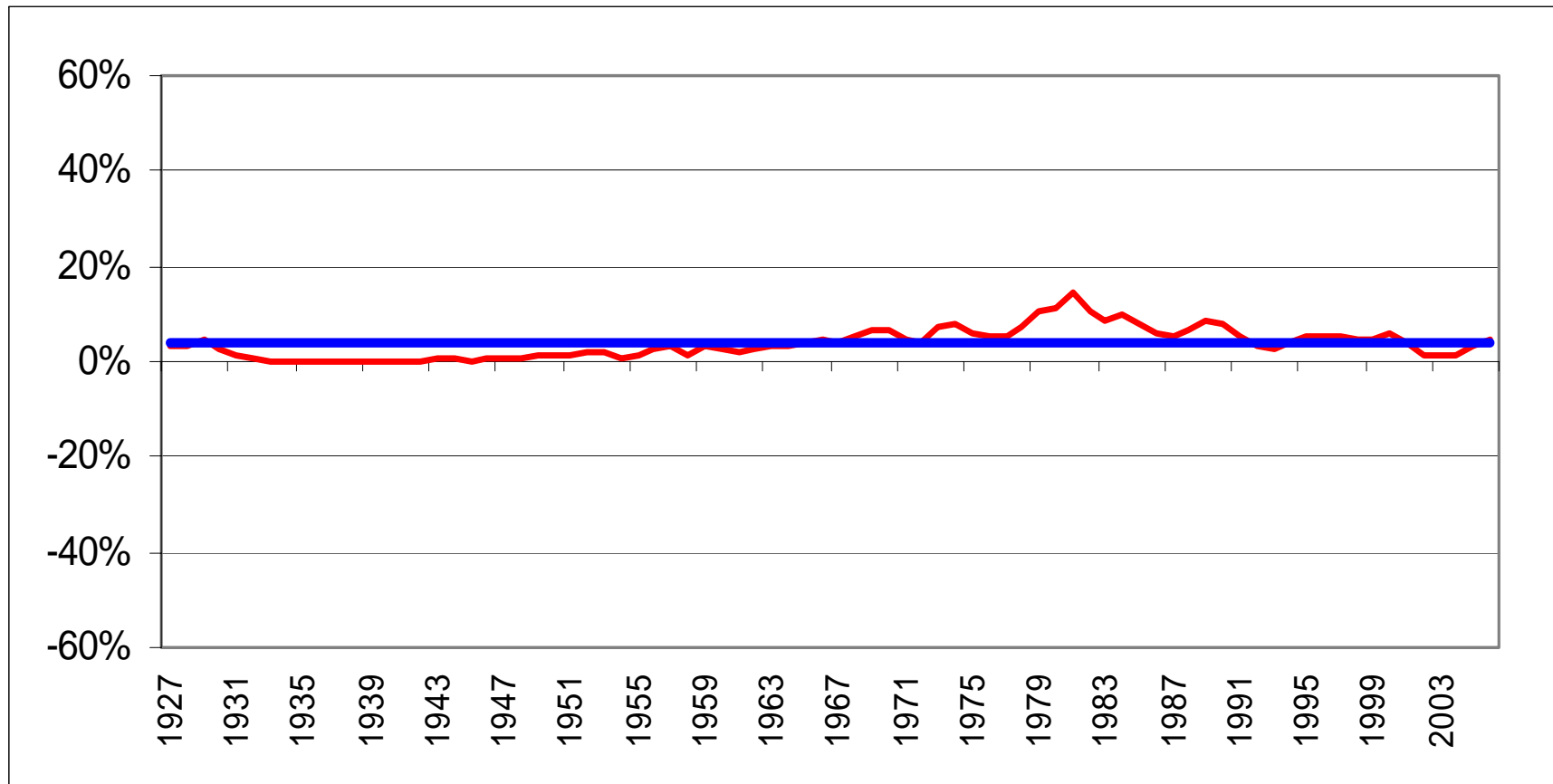
Risk and Return are Related



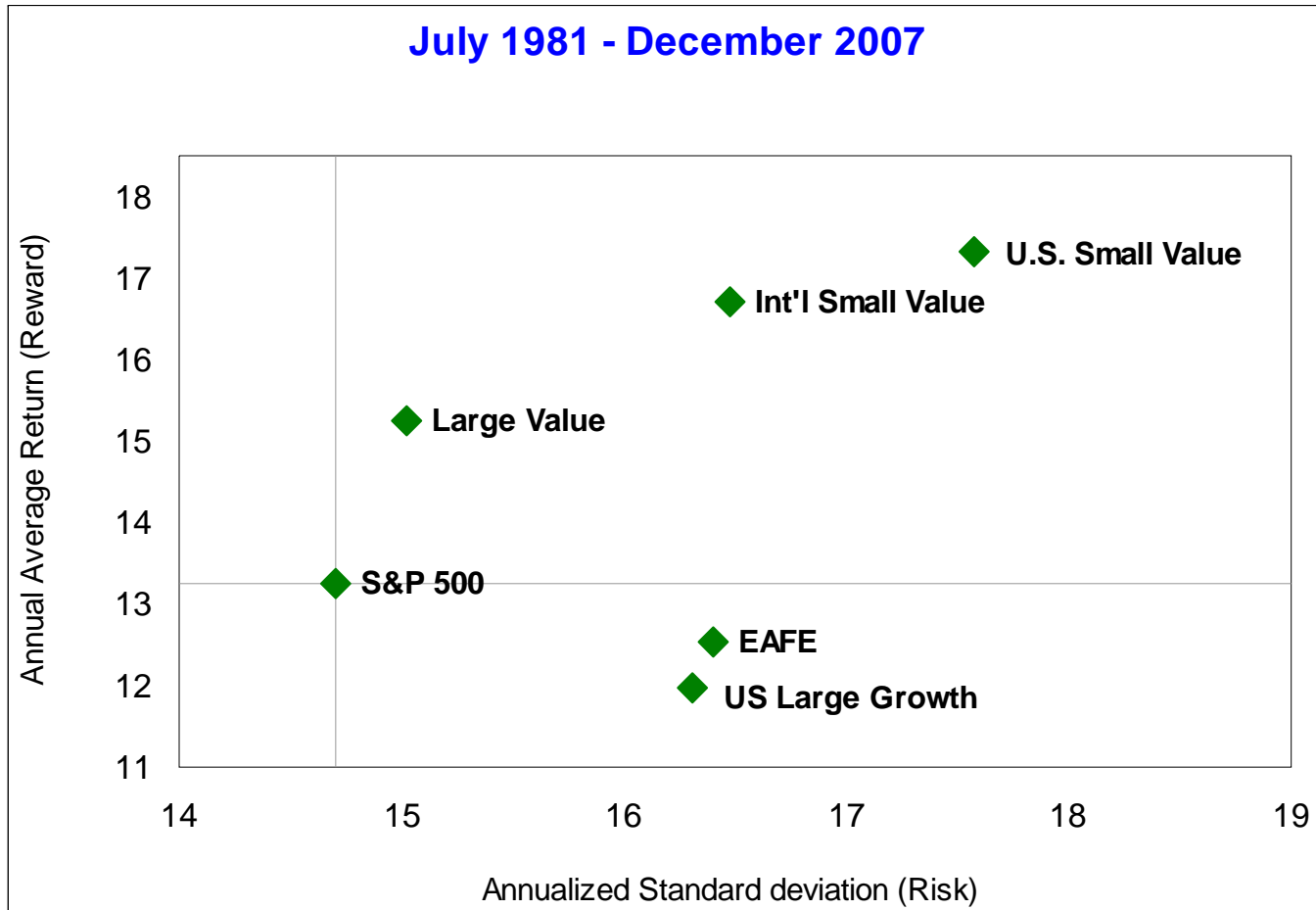
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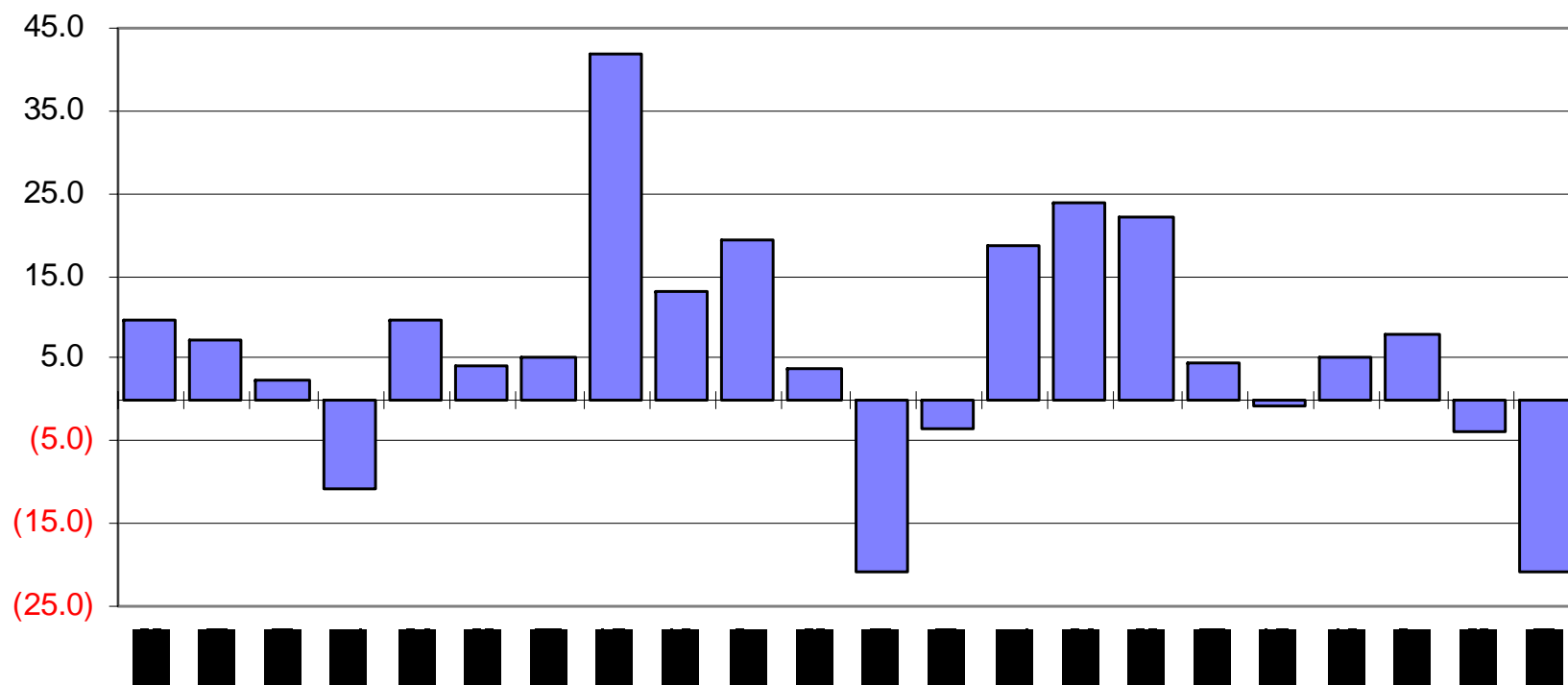


Structure Explains Performance



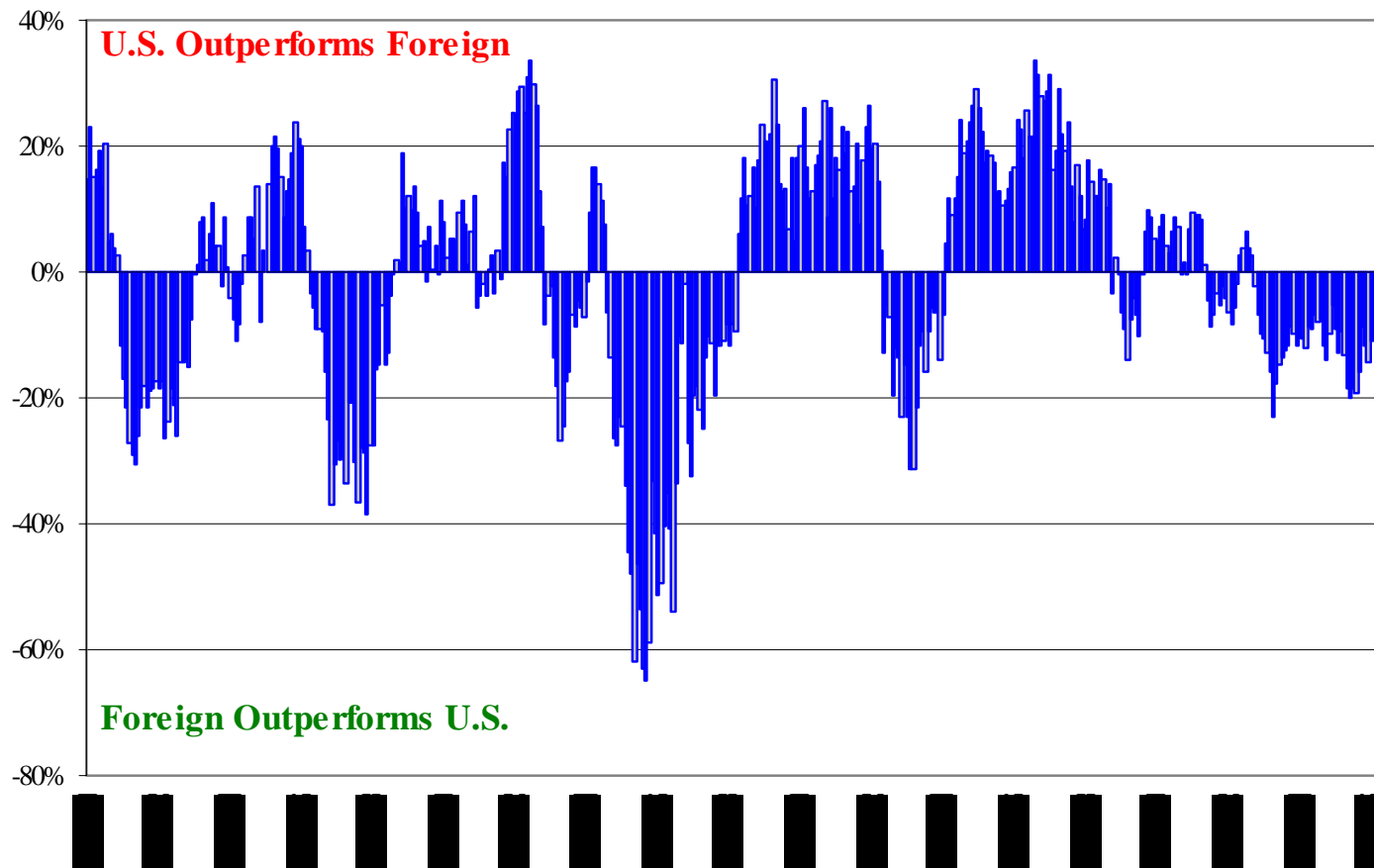
Structure Explains Performance

Bars on top indicate years in which value stocks beat growth stocks.

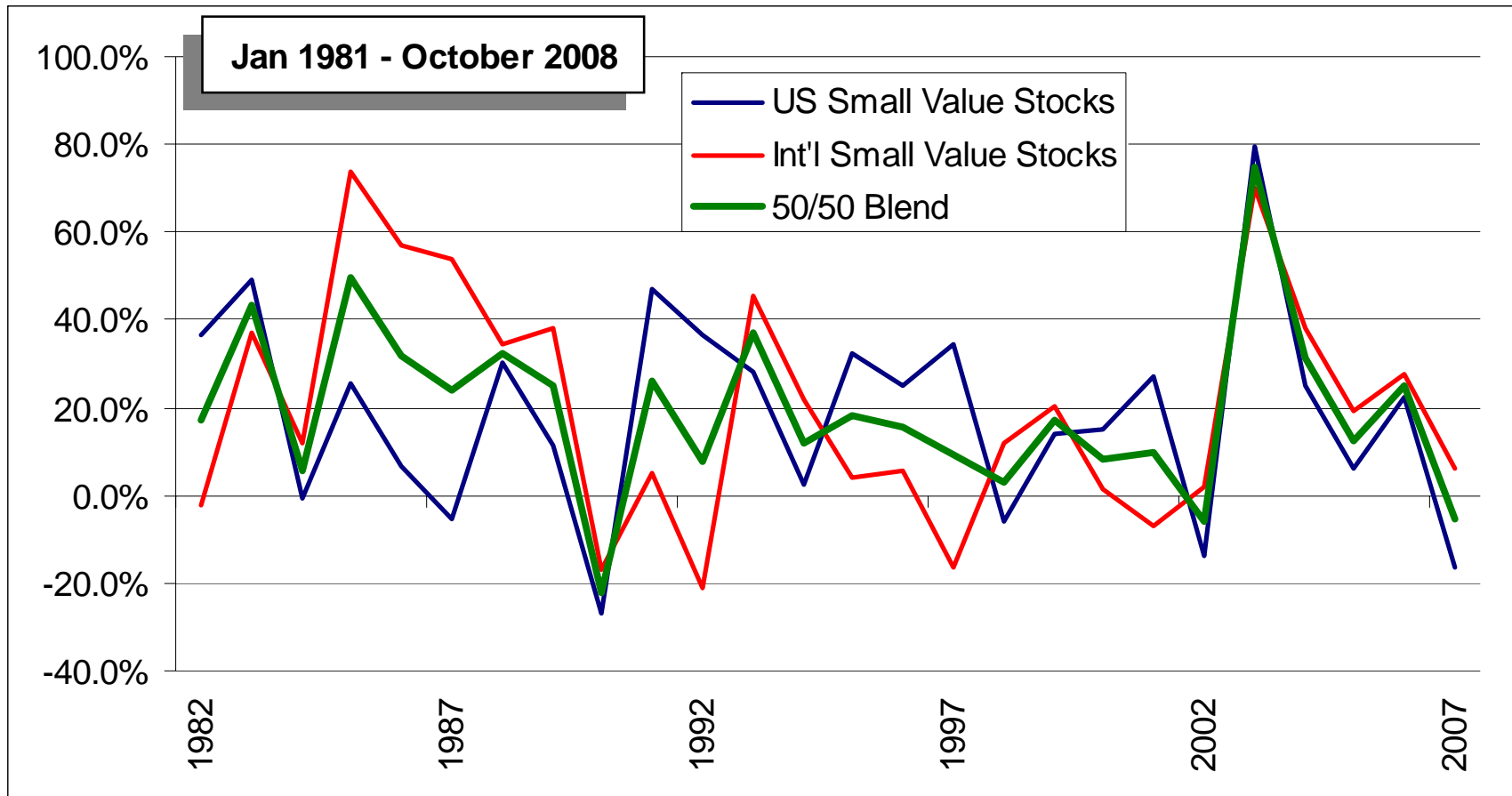


Lakonishok, Shliefer, and Vishny (1993)

Diversification Matters



Diversification Matters



Source: DFA US Small Cap Value Index, DFA International Small Cap Value Index

Diversification Matters

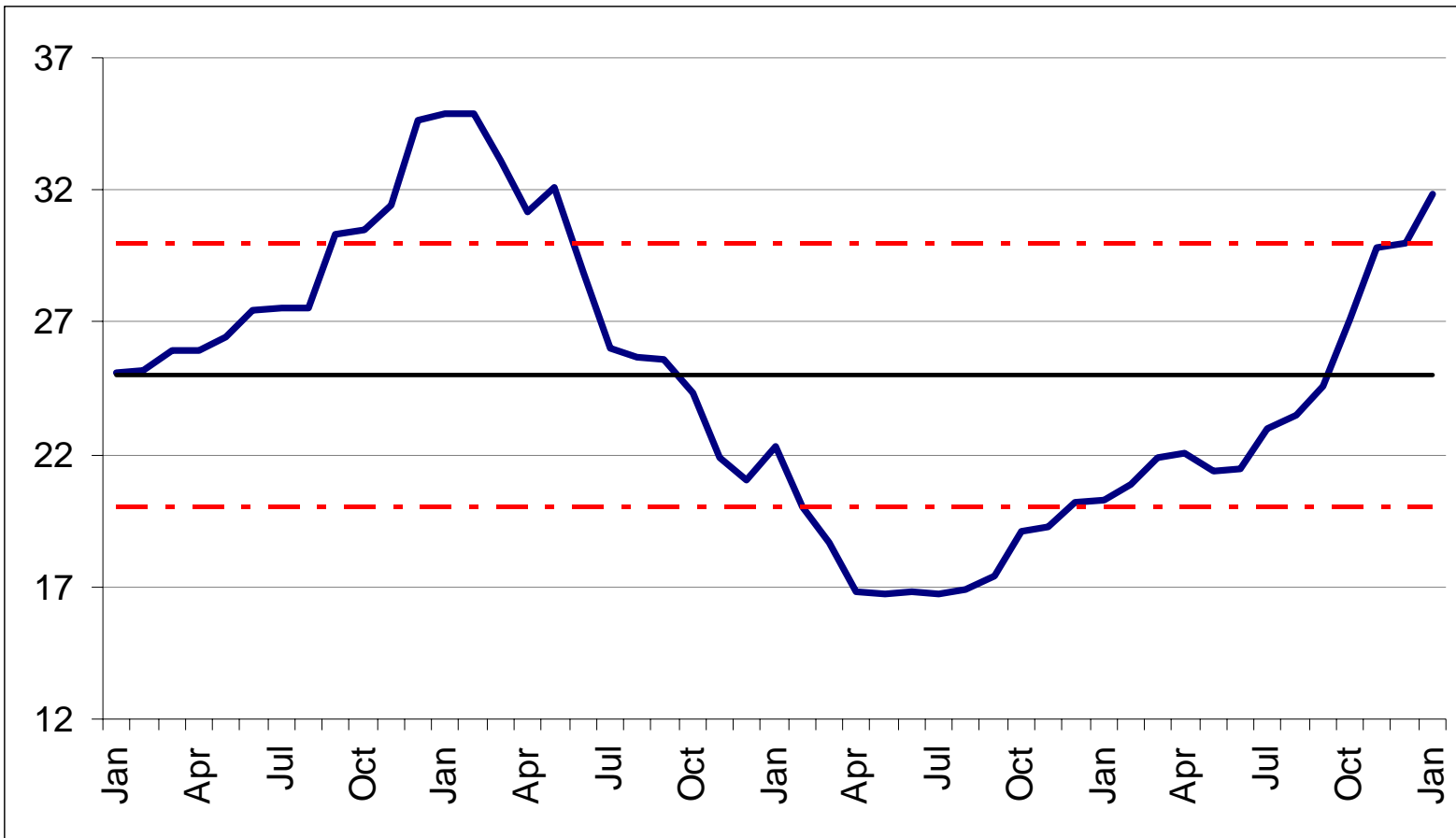
	<i>Avg. Return</i>	<i>Std. Dev.</i>	<i>Growth of \$1</i>
US Small Cap Value Stocks	18.6%	23.3%	\$51.95
International Small Cap Value Stocks	20.0%	26.2%	\$64.06
50/50 Blend	19.3%	19.3%	\$71.49

Source: DFA US Small Cap Value Index, DFA International Small Cap Value Index

Market Timing

- There's only one empirically-validated market-timing system (and it's a good one!). That system is . . .
- **A rigorous rebalancing discipline!**
- Daryanani (2005, 2006, 2008)
Disciplined rebalancing can add 0.50%

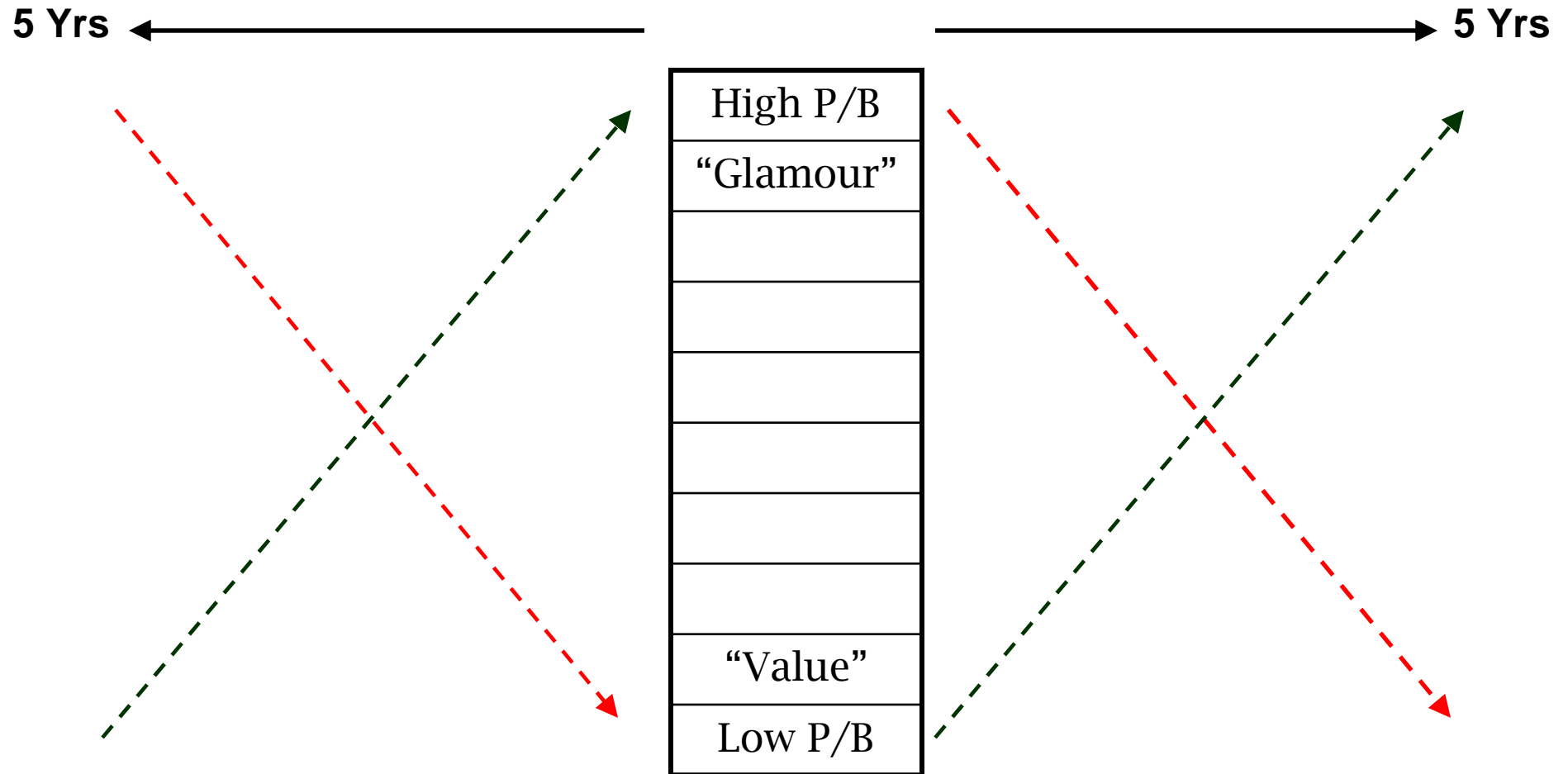
Rebalancing



Sector Rotation Strategies

- There's only one empirically-validated sector rotation strategy (and it's a good one!). That strategy is . . .
- **A rigorous value investing discipline!**
- Ibbotson(1986); Clayman (1987); DeBondt and Thaler (1987); Fama and French (1992, 1997, 2001, 2005); Capaul, Rowley, and Sharpe (1993); Lakonishok, Vishny, and Shliefer (1993); Dreman and Berry (1995); Lyon and Barber (1997); Berk (1998) . . .

Sector Rotation Strategies



Our Value Discipline

- The value funds we use (esp. DFA), are systematically buying those stocks that are “beaten down.”
- Such stocks are risky, however, so you can’t just buy one or two or even twenty or thirty, you have to buy hundreds to be adequately diversified.
- Rebalancing is also a way to capture the “value premium.”

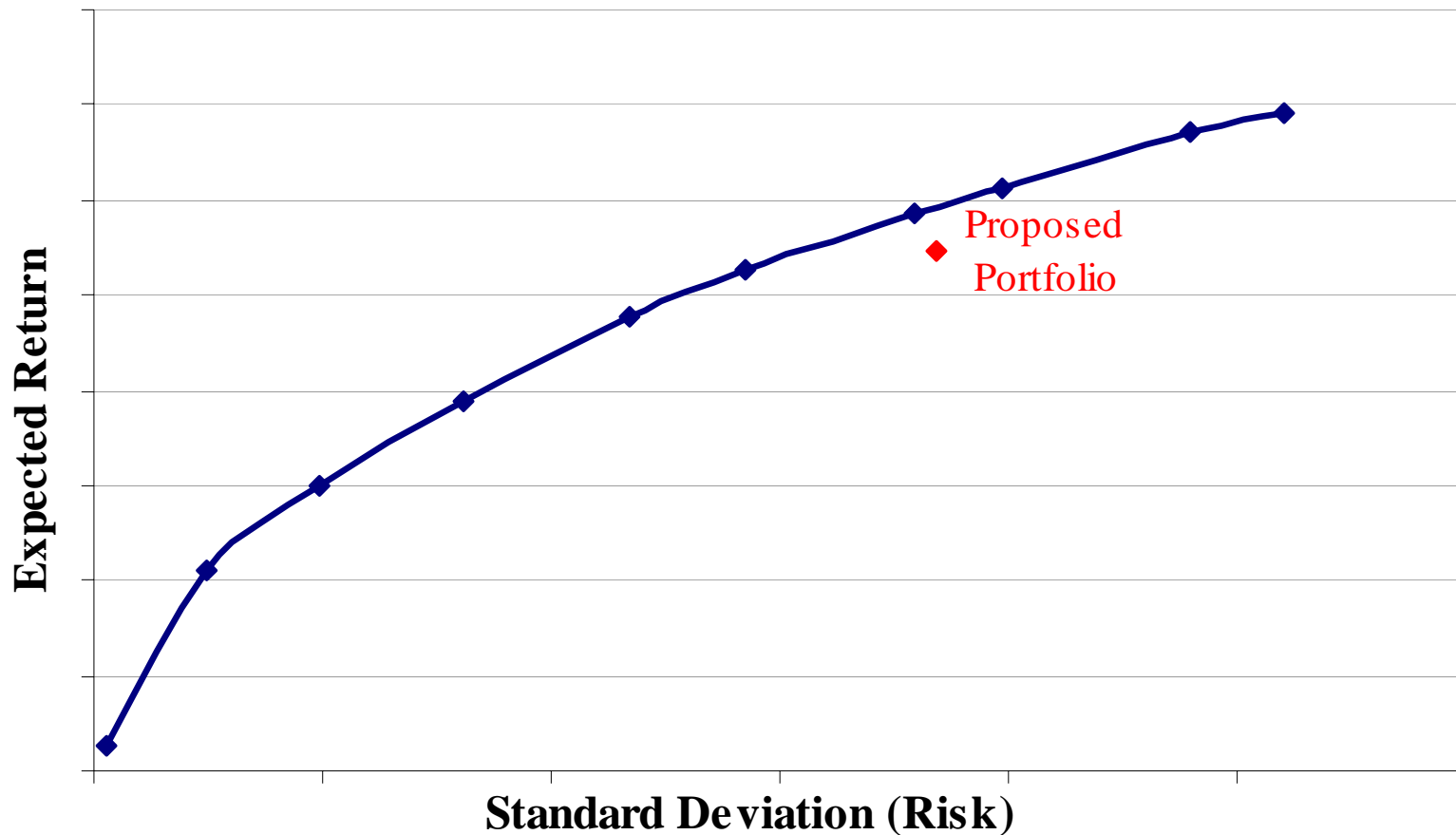
Our Process

1. Identify asset classes with attractive returns for risks taken.
2. Explore the covariance matrix (how well do they “play” together?)
3. Select efficient building blocks.
4. Implement.
5. Monitor, rebalance, report.
6. Repeat.

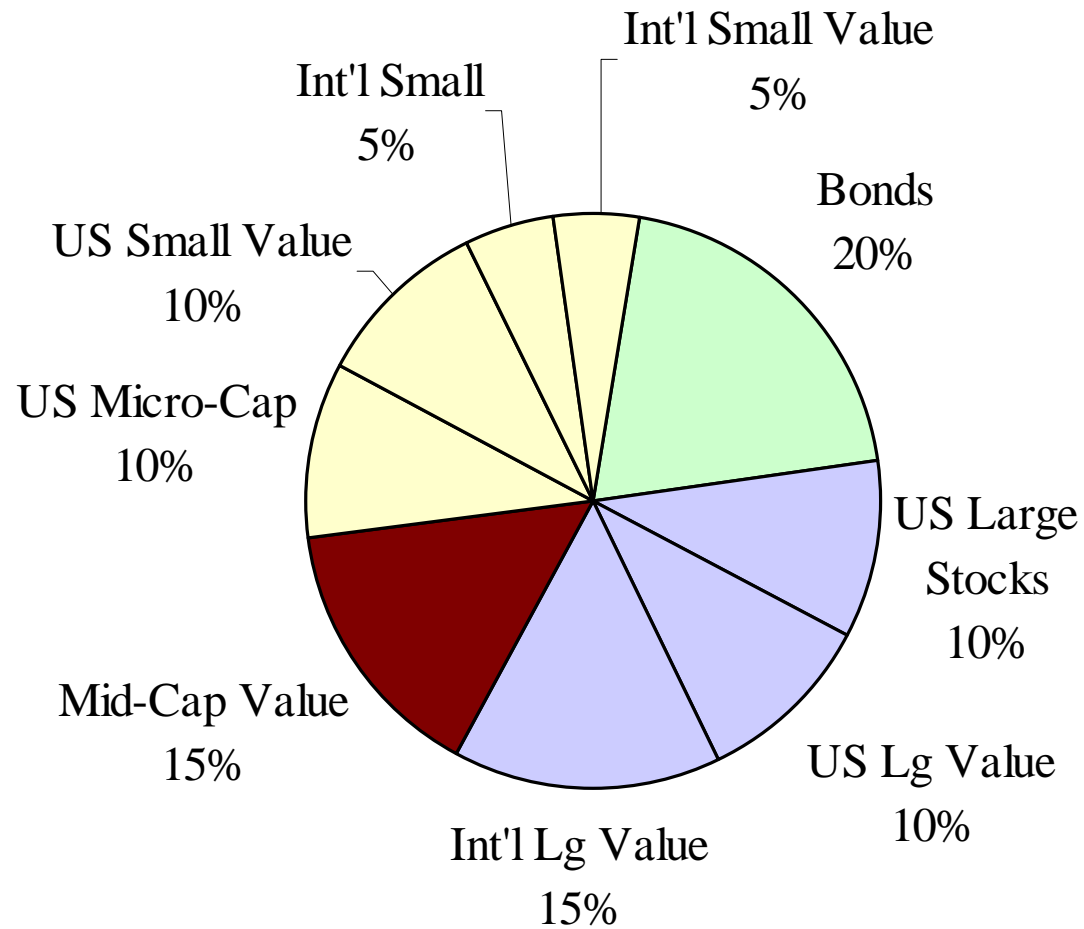
Identify Attractive Asset Classes

- Size-Based Equity Classes (Market Cap)
 - Large/Mid/Small
 - Applied to both Foreign and Domestic
- Value-Based Equity Classes (Price/Book)
 - Applied to Size Classes
 - Applied to both Foreign and Domestic
- Fixed Income
 - Foreign and Domestic

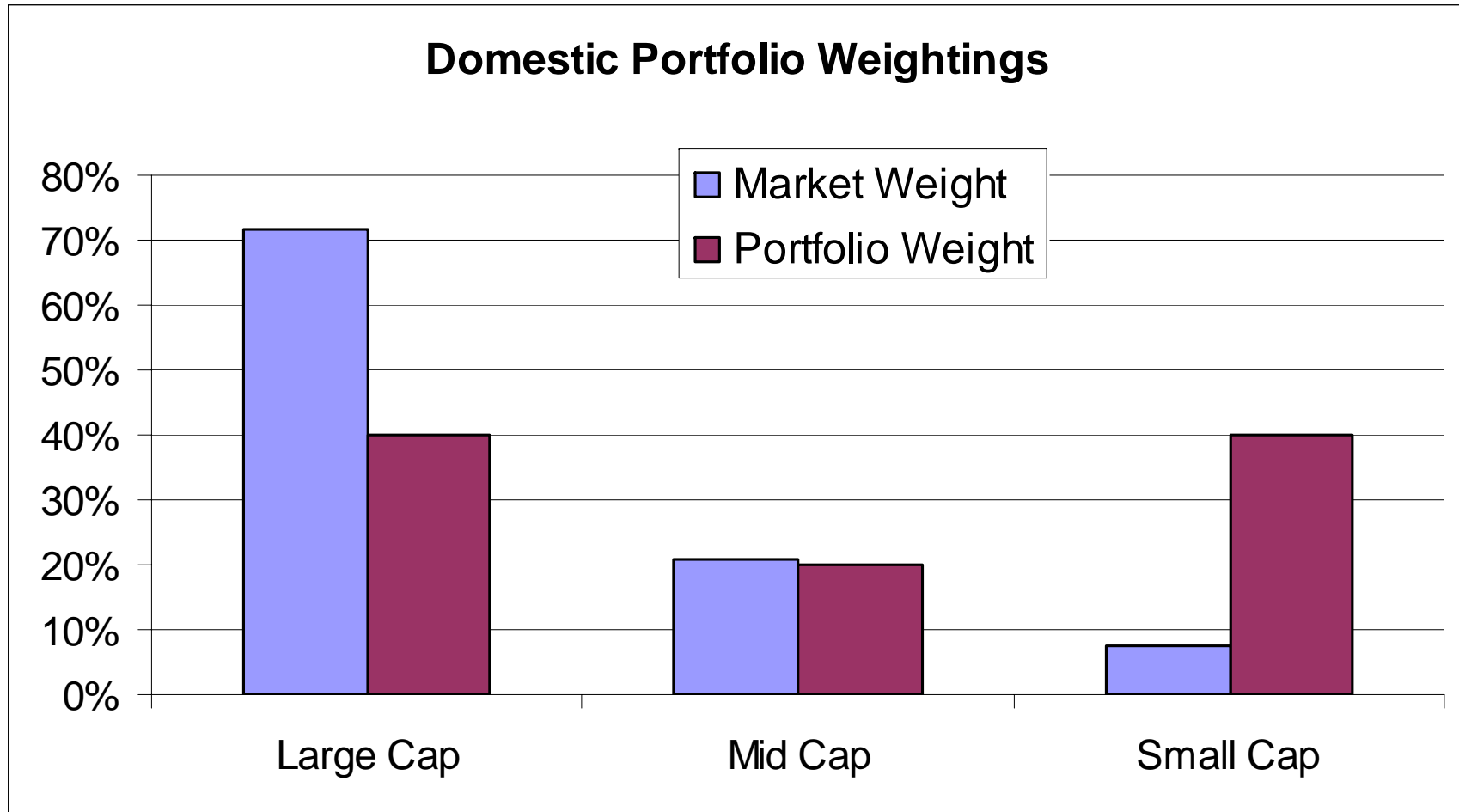
Explore the Covariance Matrix Efficient Frontier (efficient trade-offs)



Explore the Covariance Matrix



Explore the Covariance Matrix



Choose Efficient Building Blocks

Key selection criteria:

1. Precise exposure to the market sectors (risk factors) of interest.
2. Low fees and expenses.
3. Tax-efficient (where relevant).

Choose Efficient Building Blocks

- Open-end index funds (Vanguard)
- Exchange Traded Funds (iShares)
- Dimensional Fund Advisors (DFA)
- Other institutional-class shares
(e.g. Pimco Foreign Bond, unhedged)

Monitor, Rebalance, Report

- 20% rebalancing boundaries.
- Periodic reporting and review.

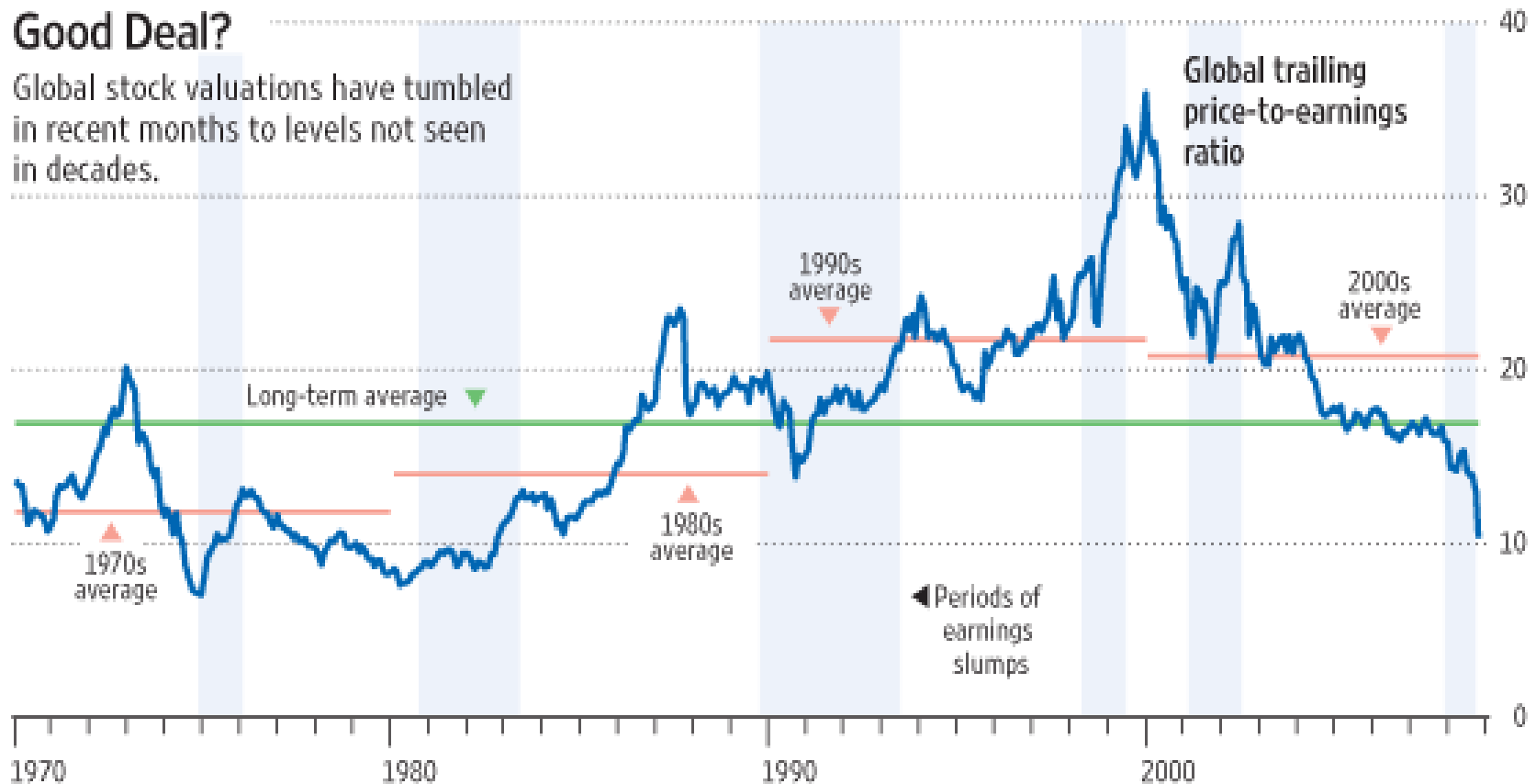
Key Concepts

- Markets aren't always "right" but they're always our best estimate of true value.
- Market timing doesn't work. Even if you get out and avoid a paper loss, there's no way of knowing when to get back in.
- Diversification and rebalancing are the only reliable ways to control risk.

Current Conditions

Good Deal?

Global stock valuations have tumbled in recent months to levels not seen in decades.



Note: Valuations reflect the MSCI All Country World Index going back to 1995 and Citigroup estimates prior to that date

Source: Citigroup