




building
shock resistant
portfolios



The volatility outlook and implications for constructing portfolios

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Agenda

What is the Outlook for Equity Market Volatility?

What has driven equity market volatility expectations in the last 20/40 years?

What are the key issues that will influence this in the medium term?

What does this mean for Fund Managers?

Network thinking

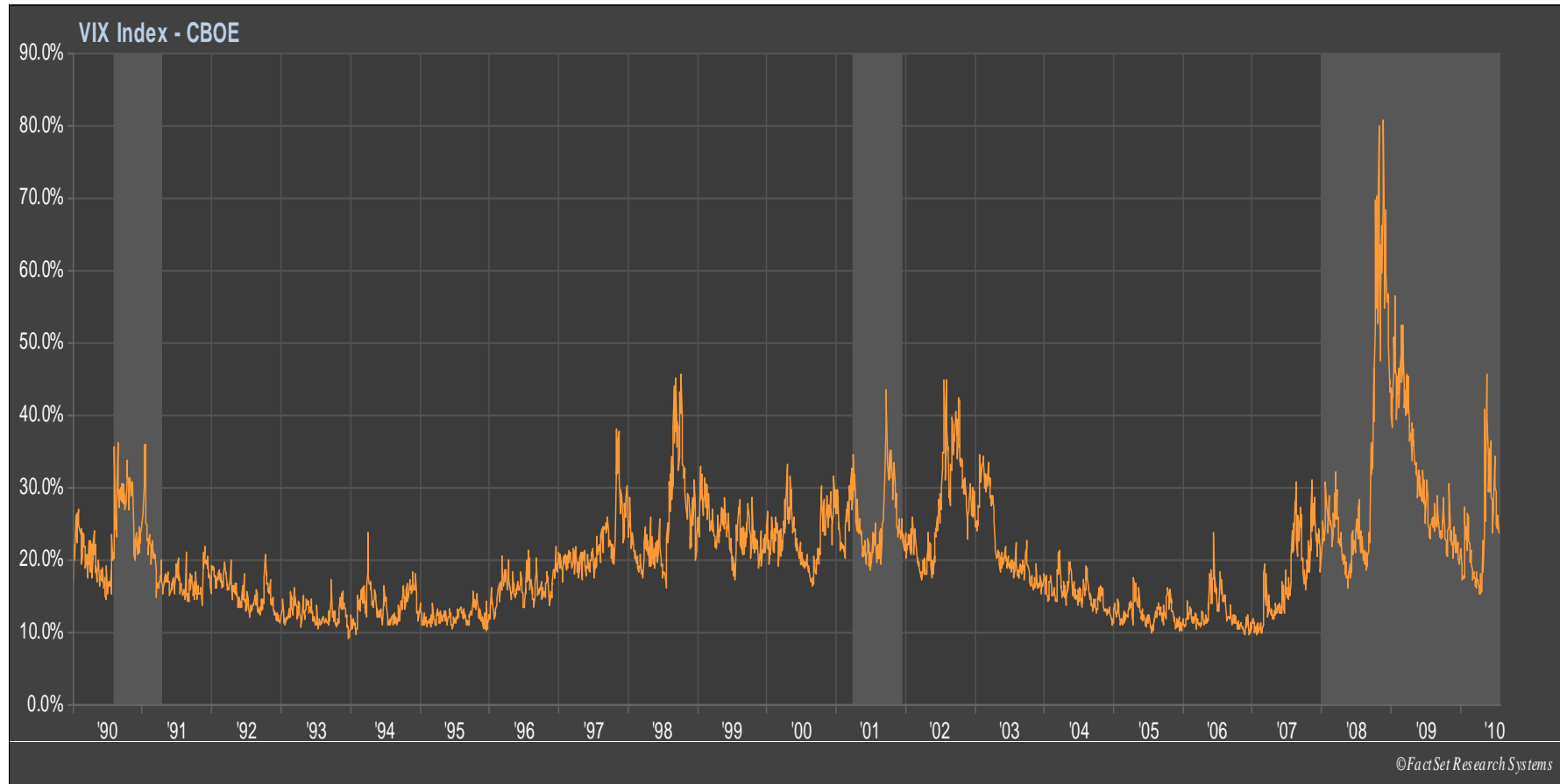
Information Management

...and for the stock pickers?

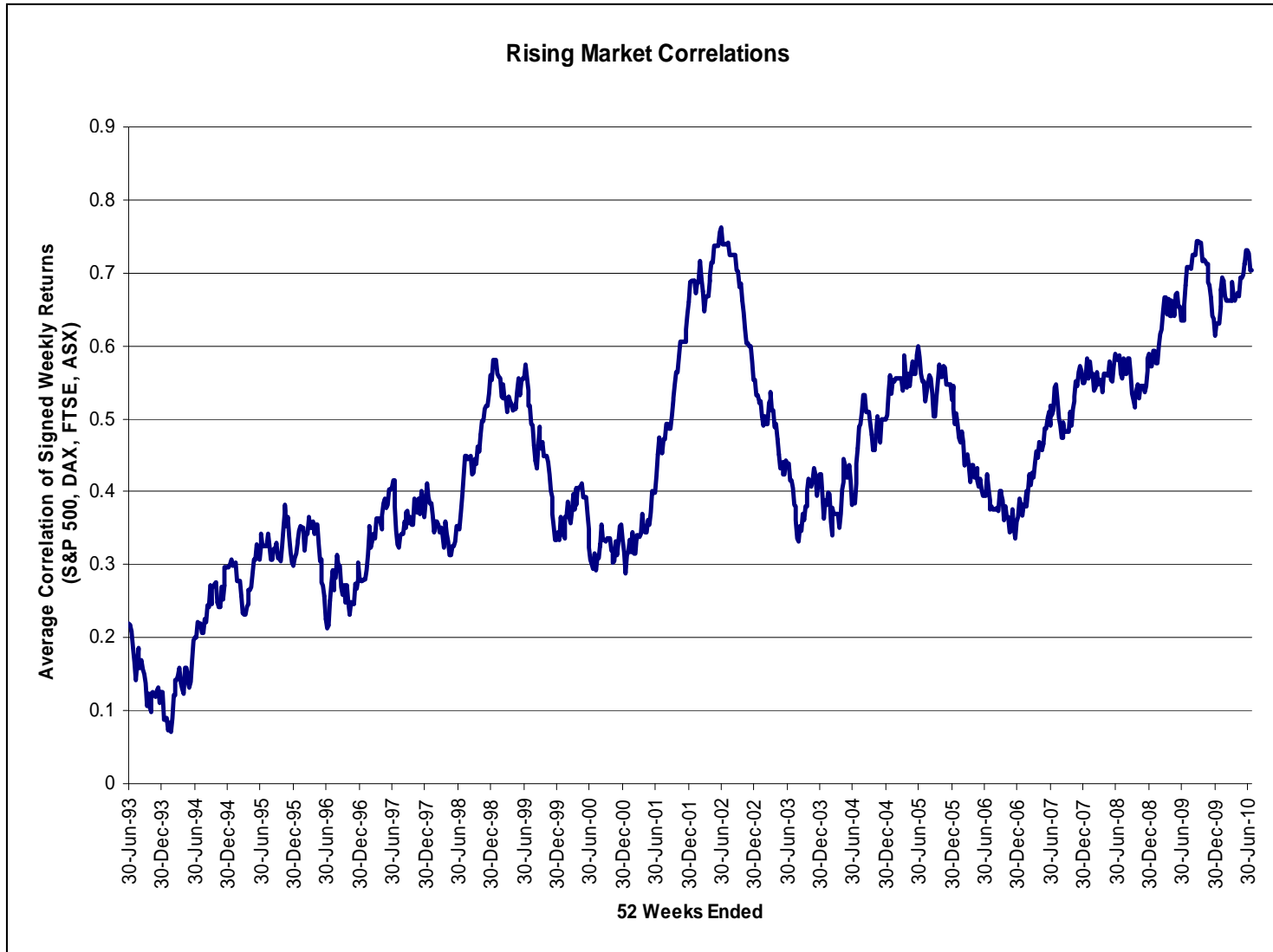
Alternatives to Capitalisation-Weighted Benchmarks

Many Inflection Points are Converging

Items of Interest - Individual Market Volatility



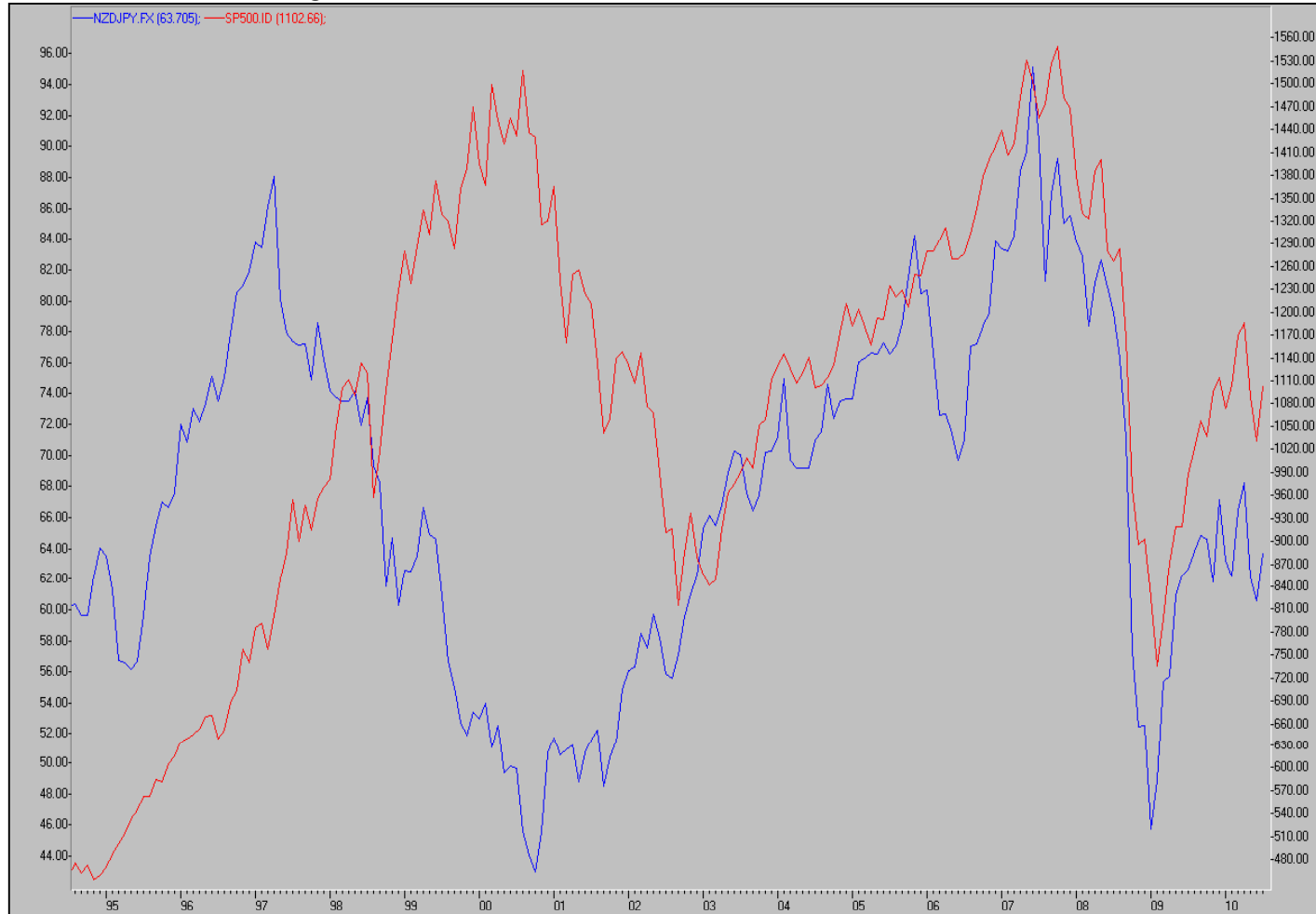
Items of Interest - Increased Market Correlations



Source: BlackRock, IRESS

Items of Interest - Unusual Correlations

NZD / YEN Exchange rate (LHS) and S&P 500 Index Level (RHS)



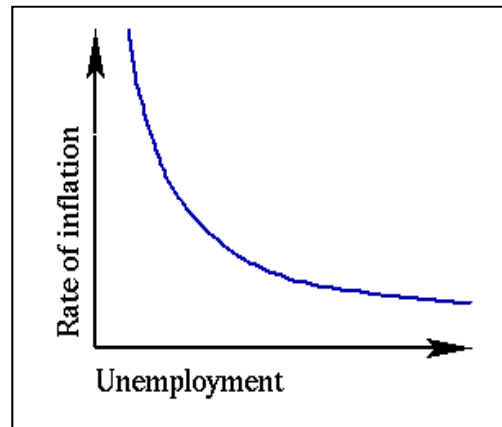
Source: IRESS

Backdrop to Analysis Period - 1970s



Nixon ends USD convertibility to Gold 1971

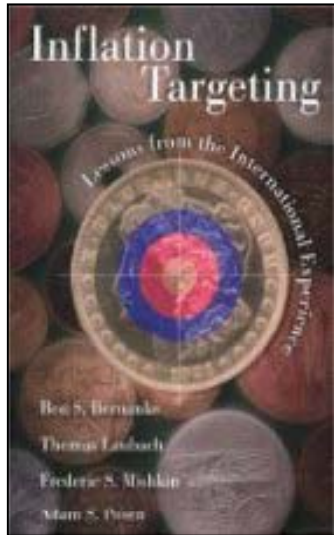
OPEC Oil Shock 1973
Iranian Revolution 1979



Phillips Curve

Stagflation - Low Growth, High Inflationary Expectations

Backdrop to Analysis Period - 1980s



Volcker crushes inflation expectations

Inflation targeting takes root

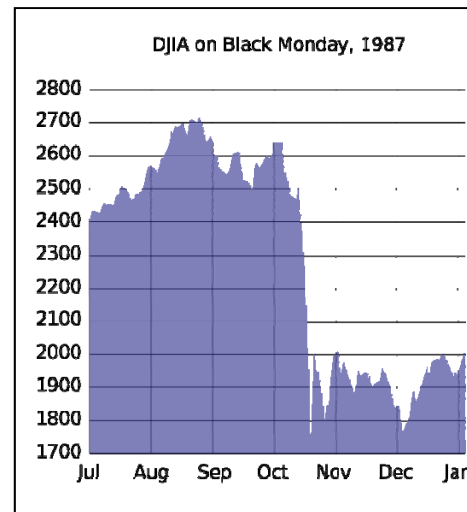
Taylor Rule replaces Philips Curve as new orthodoxy

AUD floated

Plaza Accord
Louvre Accord

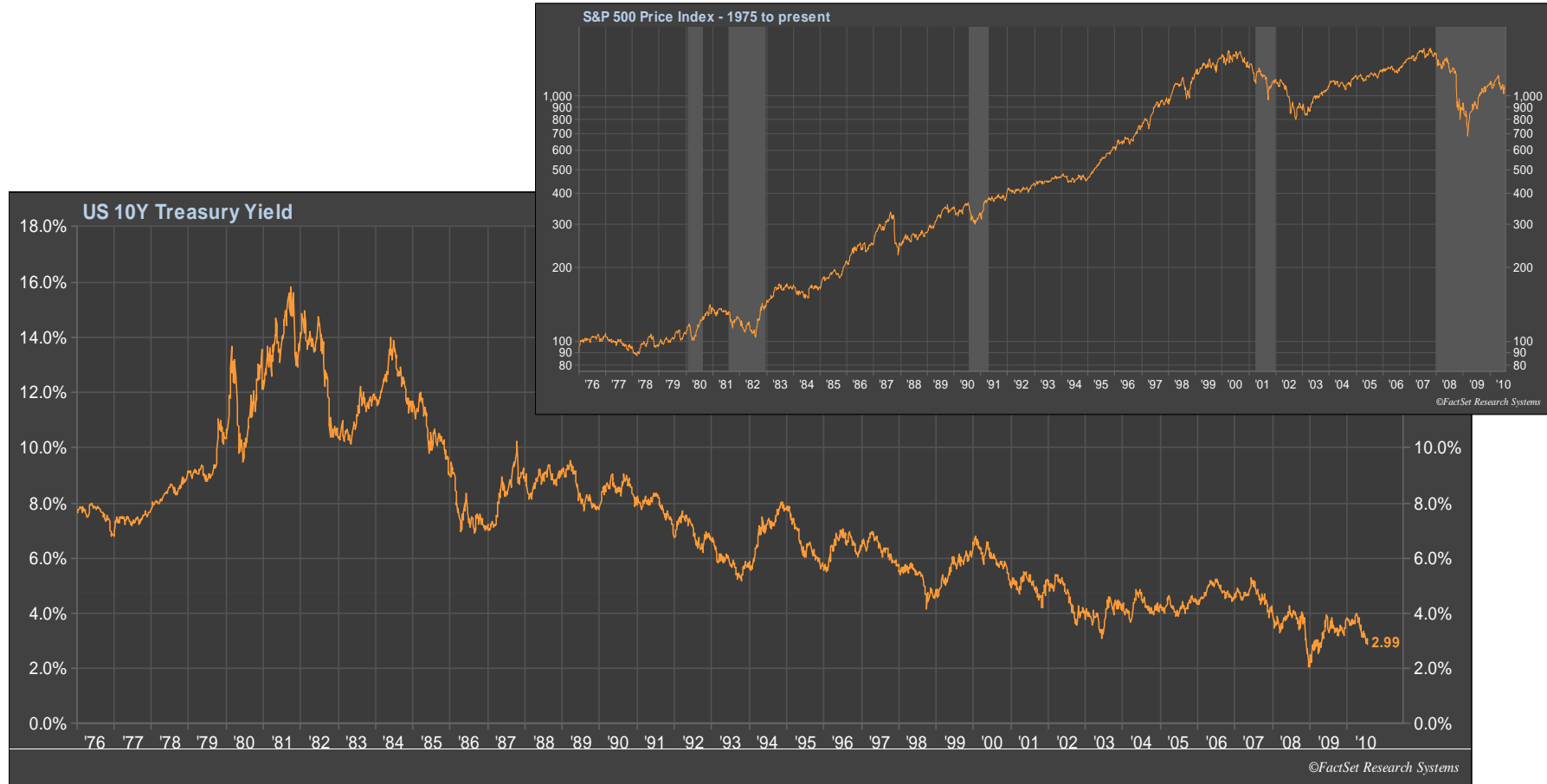


Communism retreats
Tiananmen Square



"Black Monday"
Crash of Oct 1987

Major Trends created from the 70s / 80s - Repricing of Risk as Inflation is Tamed



USD 10 Yr Bond (Real) Yield: How Low Can You Go?

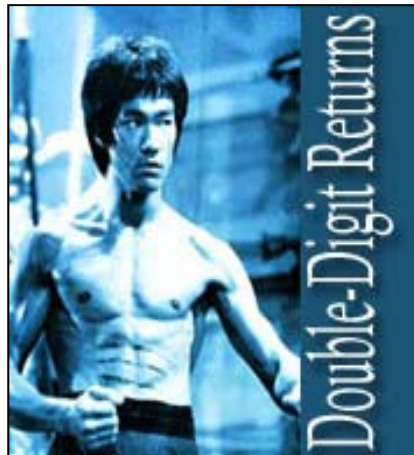
The Most Recent 20 Years - Testing to destruction in the 1990s

Market-Related Destruction:



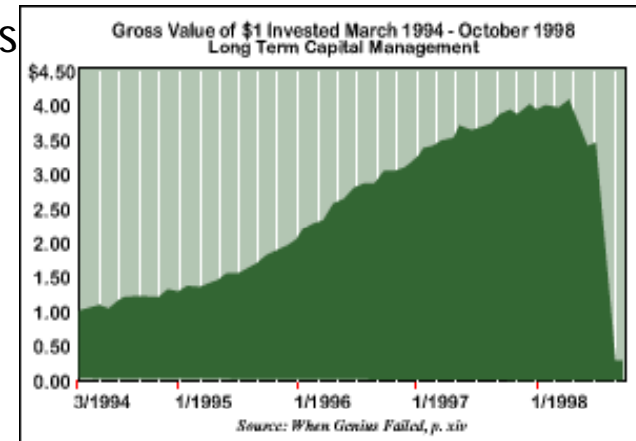
Japanese Asset Bubble
Lost Decade(s) 1991

Soros forces GBP from
the ERM 1992



Asian/Emerging Market Crisis
1997-98

LTCM
1998



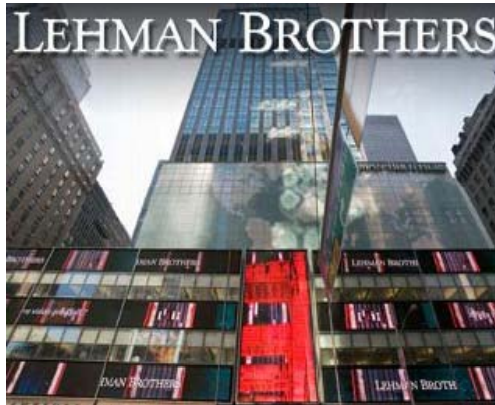
The Most Recent 20 Years - Testing to destruction in the 2000s

Market-Related Destruction:



dot.com Bubble
2000

Housing finance &
consumer bubble 2007



Financial Crisis
2008-2009

PIIGS Fiscal Crisis
2010



The Most Recent 20 Years - Outright destruction

Other Forms of Destruction:



Iraq invades Kuwait
August 1990



Axis of Evil
Afghanistan 2001
Iraq 2003



World Trade Center
September 11, 2001

The Most Recent 20 Years - Interludes amongst the cacophony of bursting bubbles

1993-1996

Profitability improves again

Emerging Market Bubble develops

“Irrational Exuberance” of dot.com valuations

Mexican Peso Crisis



2003-2006

Great Moderation

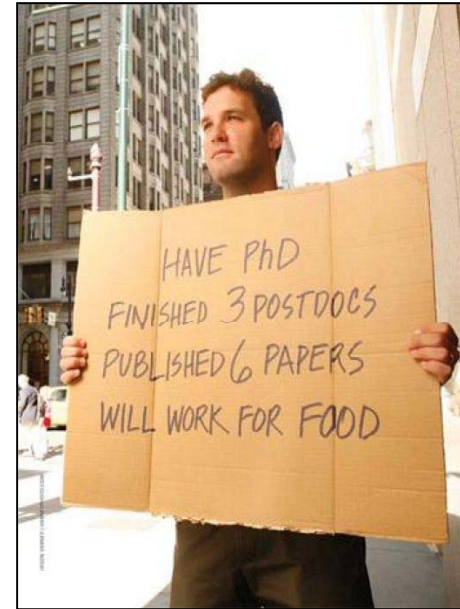
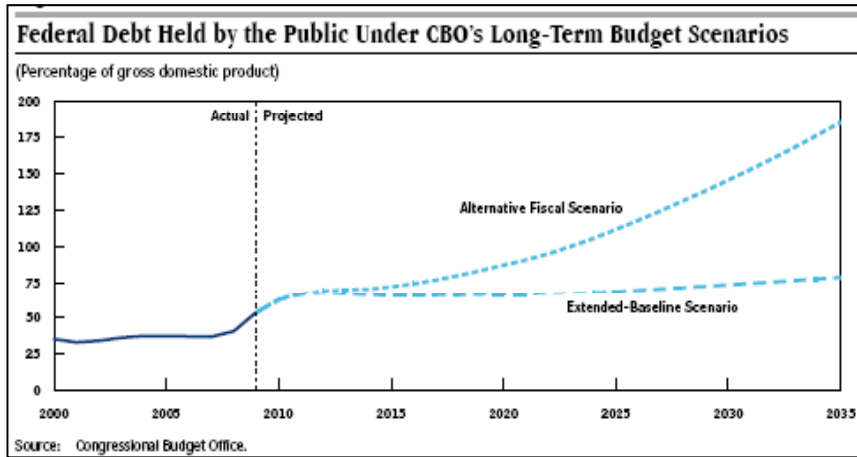
China emerges

Shadow banking system develops...property bubble develops

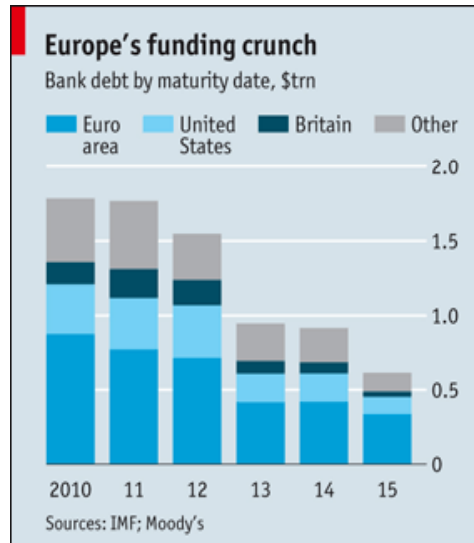
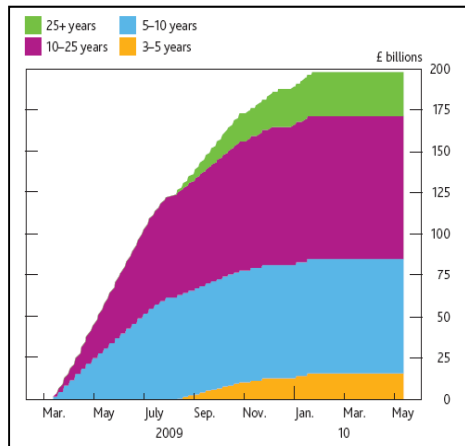


Quiet times (fatigue?) are just opportunities for the next bubbles to form

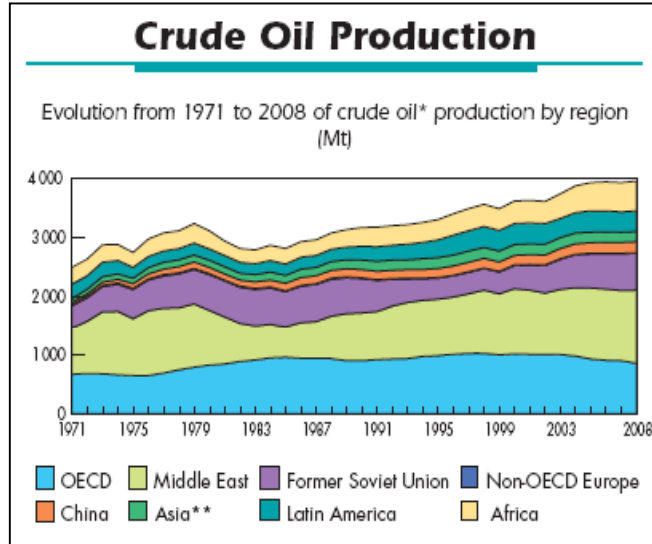
What is the "Stress" in the economy at the moment? Answer: HIGH



Cumulative gilt purchases



What else could be lurking in Left Field?



Source: International Energy Agency (IEA)

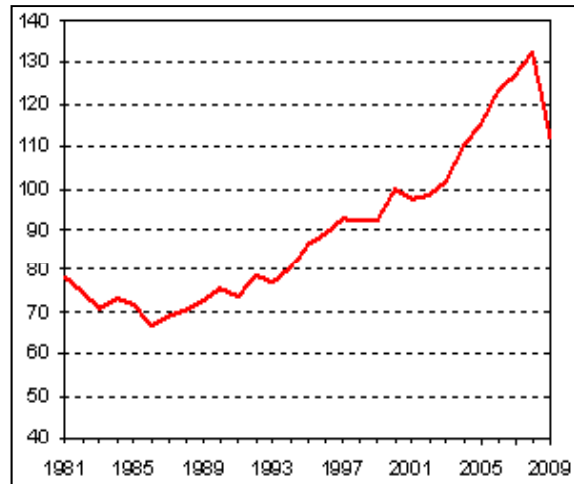


...and then there's the really scary stuff

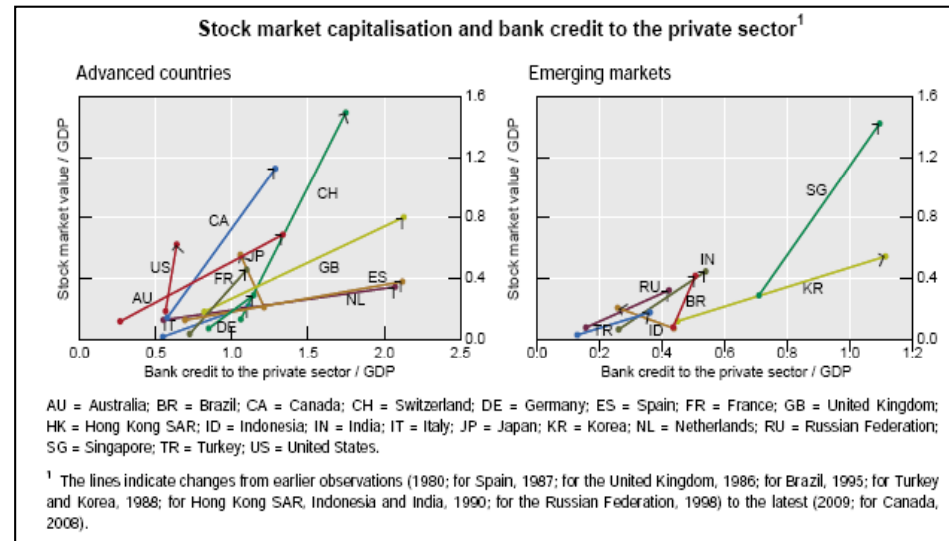


Source: BIS

Ratio of world exports of goods and commercial services to GDP (index 2000 = 100)

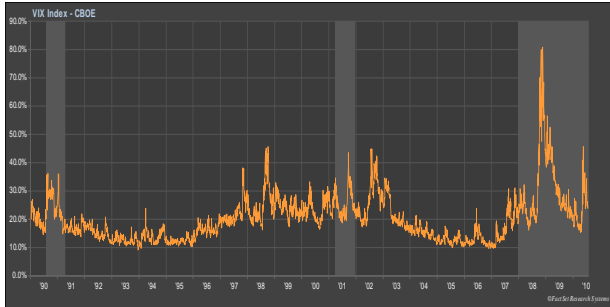


Source: IMF, WTO



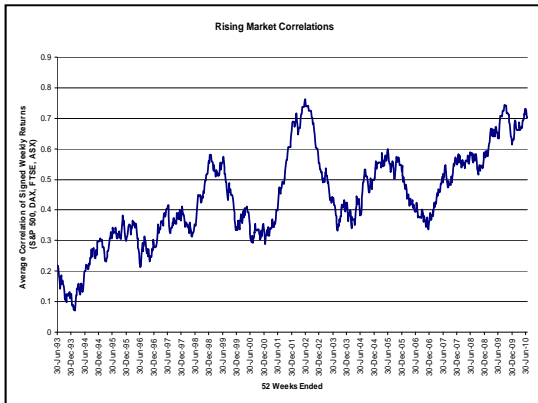
Source: BIS

Drawing a breath...still much tumult to come, and now we're much more integrated



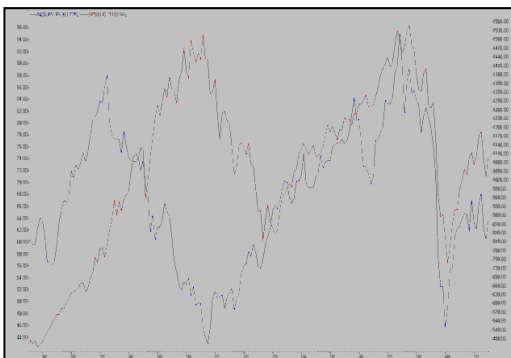
Inflation expectations are now well anchored. Risk has been re-priced in the last 30 years since Volcker.

Economic behaviour is prone to bubble formation



Financial and trade integration has increased. Less diversification benefit is available.

Equity and Debt Markets are now more integrated into the real economy. Positive feedback loops are unstable



The shadow banking crisis has transformed into an unresolved fiscal and monetary crisis

yrs
GDP Growth outlook: Slow and skewed

iPod...Describing the World we live in today...Vertical Specialisation



Hard Drive: Toshiba Plant located in China (\$73)

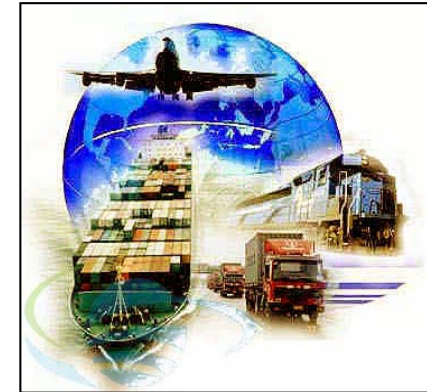
Assembly: China (\$4)

Other Components: Japan, Korea, Taiwan, US

Logistics: Various

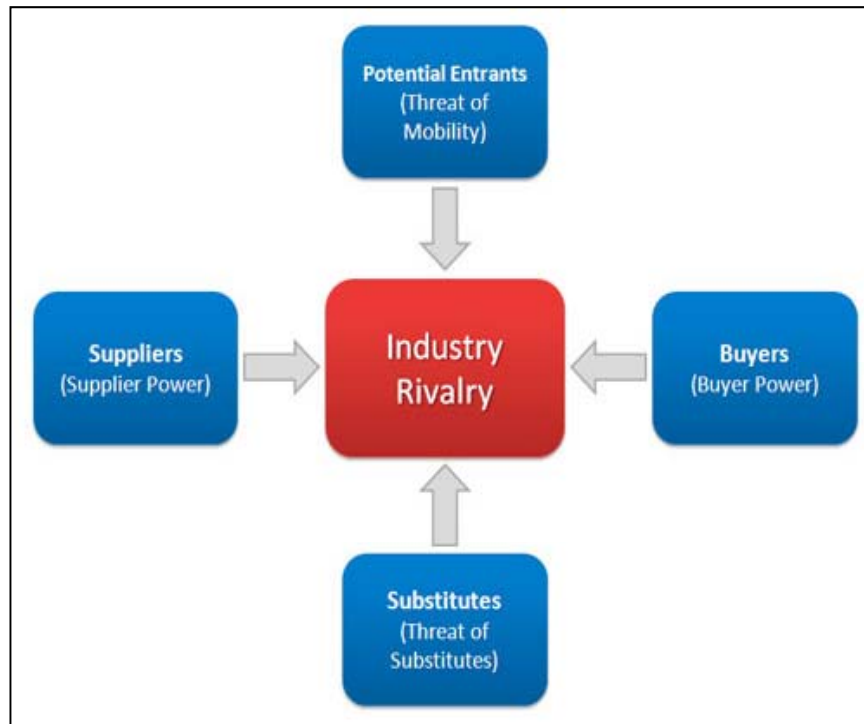
Retail: Global

Profits: Apple Inc.

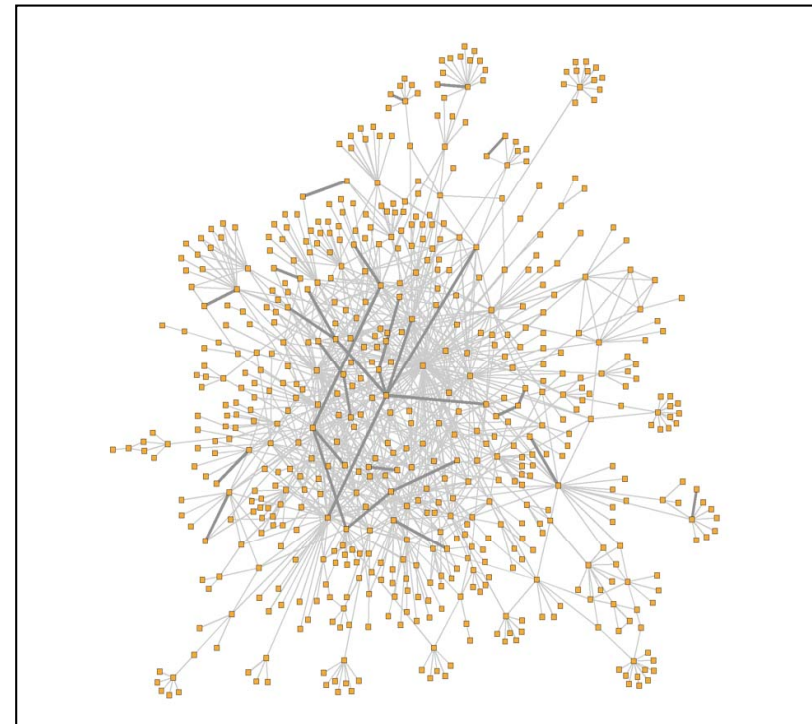


Implications for Funds Management - Networks, Self-Organised Criticality

Obsolete?



The Future of Funds Management



Same conclusion has been reached by Central Banks and BIS

Behavioural Finance - Conditions are right for a major return to profitability

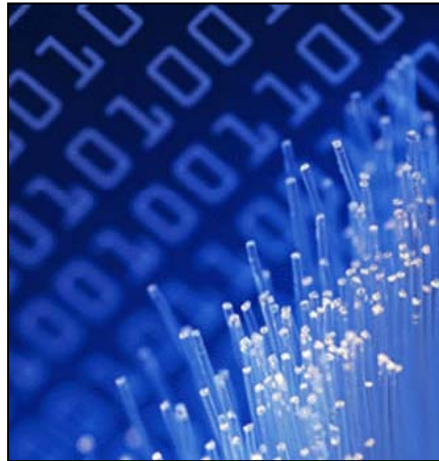
	Likely Events	Unlikely Events
Gains	<p>Risk Averse Behaviour</p> <ul style="list-style-type: none"> • "A bird in the hand"; • Investing in bonds rather than stocks; • Accepting an okay offer rather than holding out for a better one 	<p>Risk Seeking Behaviour</p> <ul style="list-style-type: none"> • "No guts, no glory"; • Buying lottery tickets; • Trying to make the big leagues
Losses	<p>Risk Seeking Behaviour</p> <ul style="list-style-type: none"> • "Go for broke"; • Playing double-or-nothing to make up for gambling losses; • Con games where the victim has too much invested to quit 	<p>Risk Averse Behaviour</p> <ul style="list-style-type: none"> • "Better safe than sorry"; • Buying insurance; • Wearing seat belts; • Not eating sushi because of parasite risk

Source: Poundstone (2010)



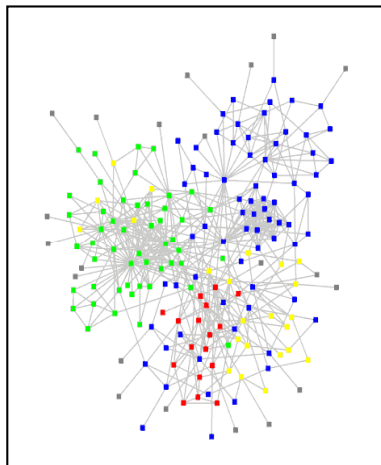
Generating Alpha in an Integrated World - The Four Pillars for Scale Investors

Industry Knowledge



Information Integration

Money Flow

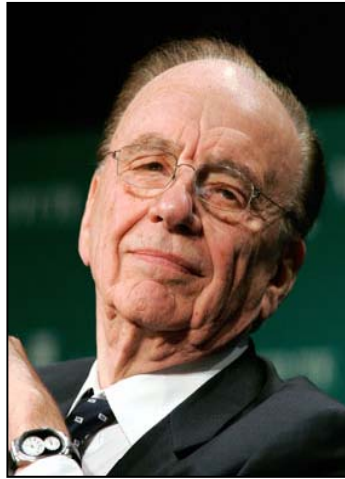


Network (Self Organised Criticality)
Thinking

Robust Equity Benchmarks

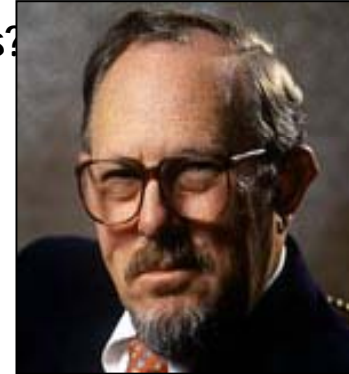
What's so special about Capitalisation Weighted Benchmarks?

- The Capital Asset Pricing Model (Sharpe 1964)



Shouldn't Market Constituents Matter?

- NewsCorp Domicile Change 2004



Have we forgotten why we invest in equities? Peer risk has ZERO calorific value

Robust Equity Benchmarks - Alternatives

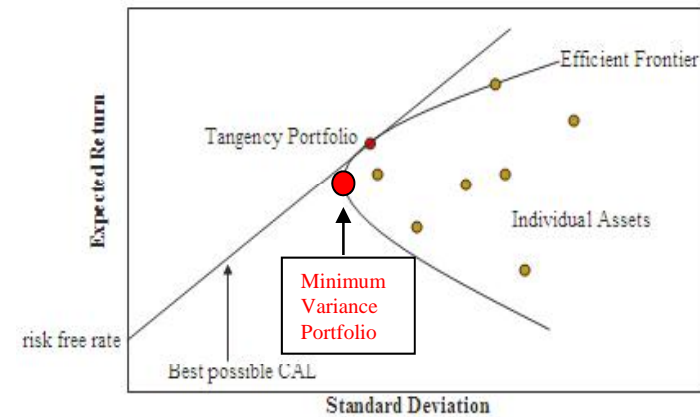
Fundamental Indexation

- Use fundamentals to weight portfolios

Minimum Variance Portfolios

- Low risk stocks benefit most from rebalancing

Maximum Diversification Portfolios



Source: BlackRock

Reconsidering the Basics of Equity Investing

Phew!



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