Financial globalisation and international financial stability

Richard Portes

London Business School and CEPR

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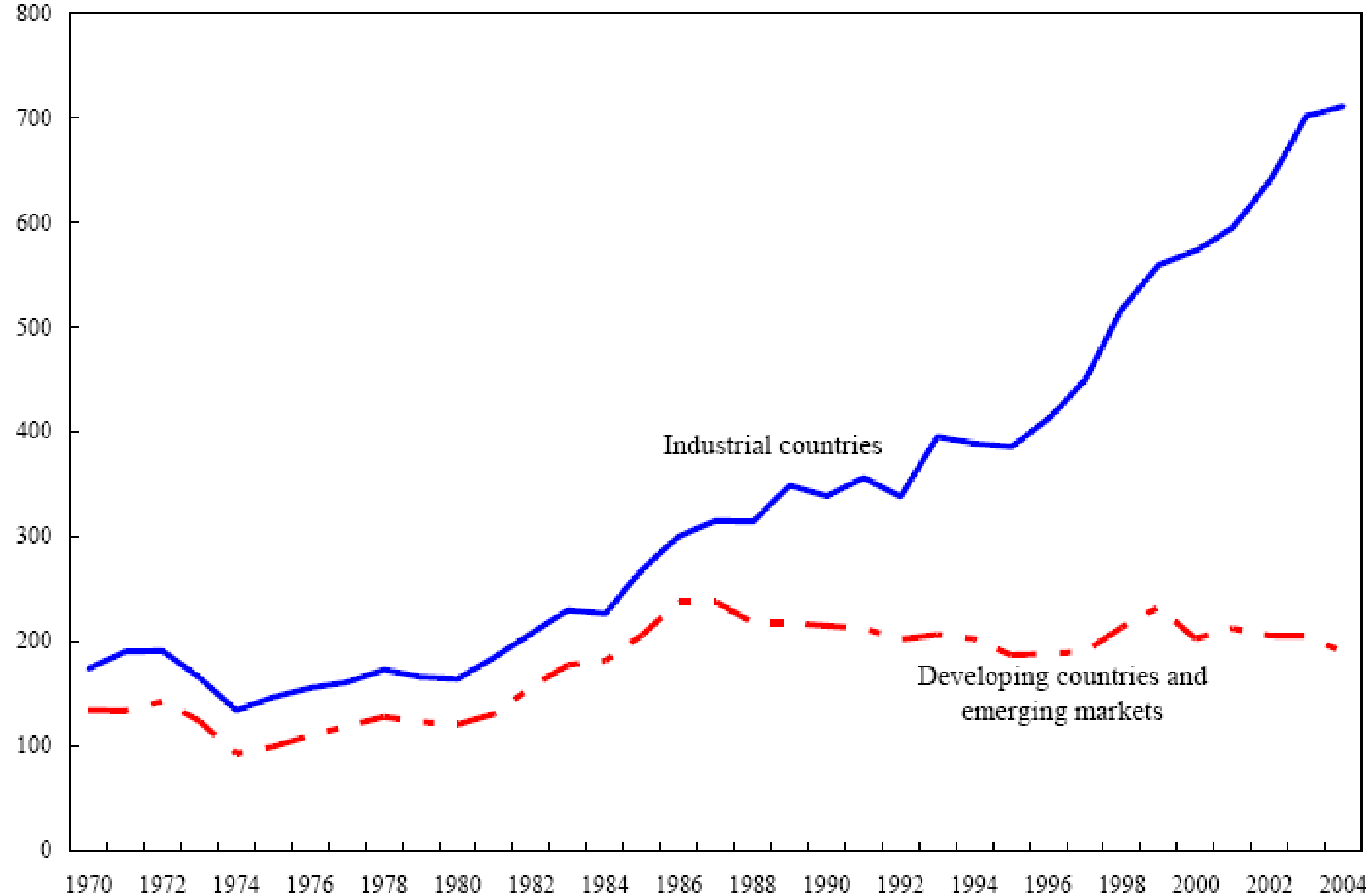
Road map*

- Analytical framework
- Macro perspective: macro imbalances, decline of volatility, cross-border financial integration
- Micro perspective: new financial instruments
- The current financial turmoil
- Capital market dysfunctionalities
- Moral hazard
- The way forward

* As background, see Roger Ferguson, Philipp Hartmann, Fabio Panetta and Richard Portes, *International Financial Stability,* CEPR and ICMB, Nov. 2007

International finance growing much faster than trade (which is growing faster than GDP) – especially for industrial countries



Note: Sum of external assets and liabilities in percent of sum of exports and imports.

But finance is inseparable from risk – and financial instability

- Financial instability may impair intermediation and destroy wealth – the Great Depression
- Source of instability may be financial imbalance or misassessment of risk
- If it's local, the authorities normally can handle it – the real danger is *systemic risk* (why worry about Northern Rock or Bear Stearns?)

Sources of financial instability

- Shocks – from inside financial system, such as failure of a LCFI, or outside, like a recession
- Imbalances – endogenous accumulation of factors that increase risk of instability, such as high US current account deficit, excessive global liquidity

Liquidity is the key concept – but hard to pin down or measure

- Market liquidity
- Funding liquidity
- Macroeconomic liquidity
- Related: e.g., low macro liquidity → low funding liquidity → harder to finance trading, hence low market liquidity (which may reduce funding liquidity, hence possible ‘liquidity spiral’)

Macroeconomic imbalances

- Domestic (e.g. housing market bubbles) or international ('global imbalances')
- Unwinding of macro imbalances can lead to large asset price declines, rise in default risk, fall in capital market liquidity
- But until recent turmoil, the macro environment appeared benign
  - no significant sovereign default since Argentina 6 years ago (no contagion effects, except Uruguay)
  - no major sovereign debtor in trouble
  - some big current account deficits, but capital markets are financing them
- Indeed, it may have been *too benign* – ample liquidity, low volatility and low interest rates encouraged excessive risk-taking in 'search for yield'

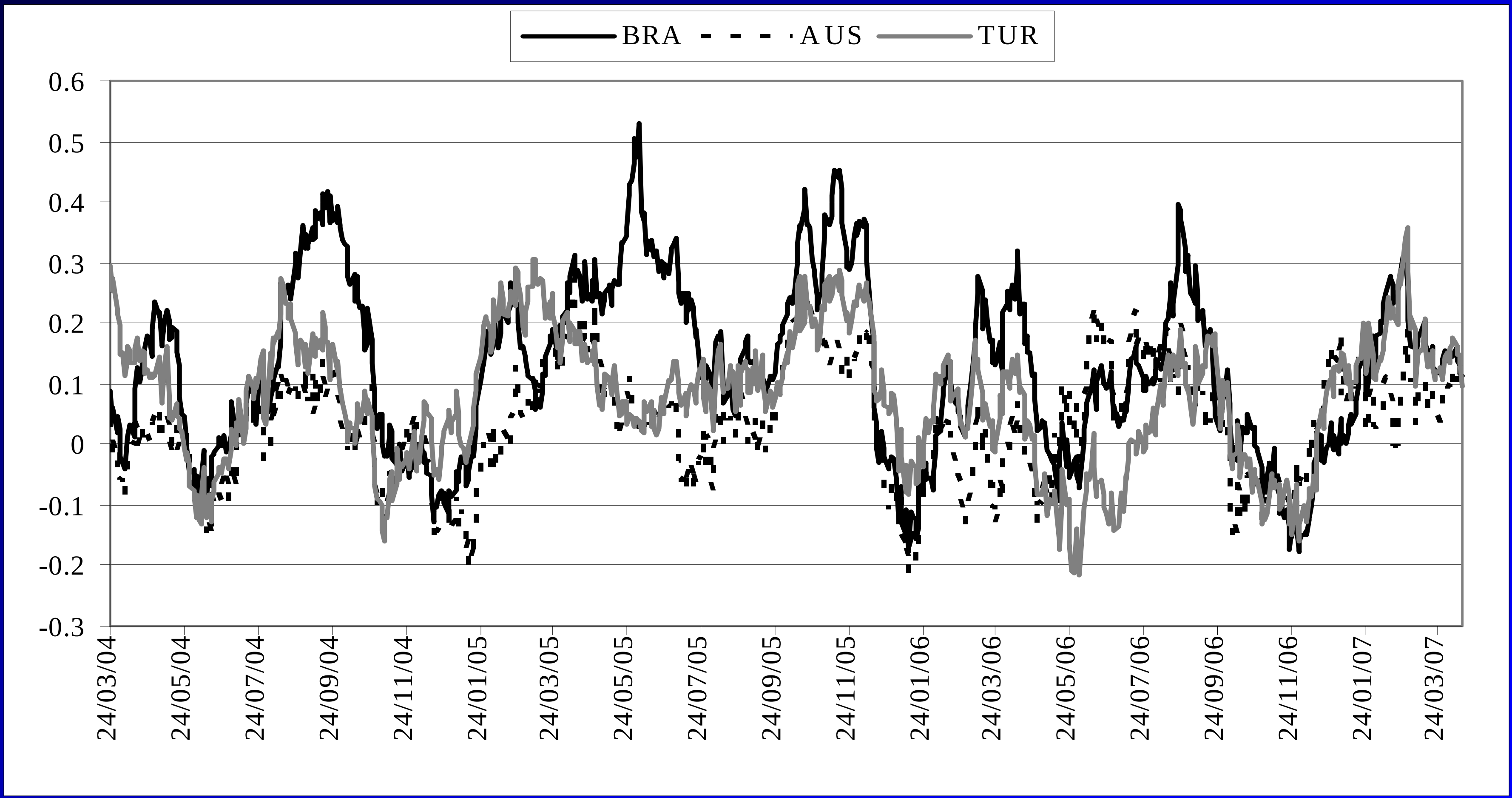
Macro imbalances: current accounts

- Present configuration of current accounts and exchange rates isn't sustainable
- The inevitable dollar depreciation and changes in capital flows may be gradual – as in 1985-87 – or abrupt, if expectations change sharply and elasticities of substitution between domestic and foreign assets are high
- If abrupt, there is **systemic risk**, especially from changing valuations of dollar-denominated assets

Macro imbalances: carry trade

- Profitability of carry trade is very sensitive to levels and volatilities of exchange rates
- Could unwind abruptly, especially in volatility spike, but no clear systemic risk (cf. October 1998)
- Still, vulnerability for current account deficit countries that have financed partly with carry trade inflows: Hungary, Iceland, Turkey, New Zealand?

Carry trade has been profitable...



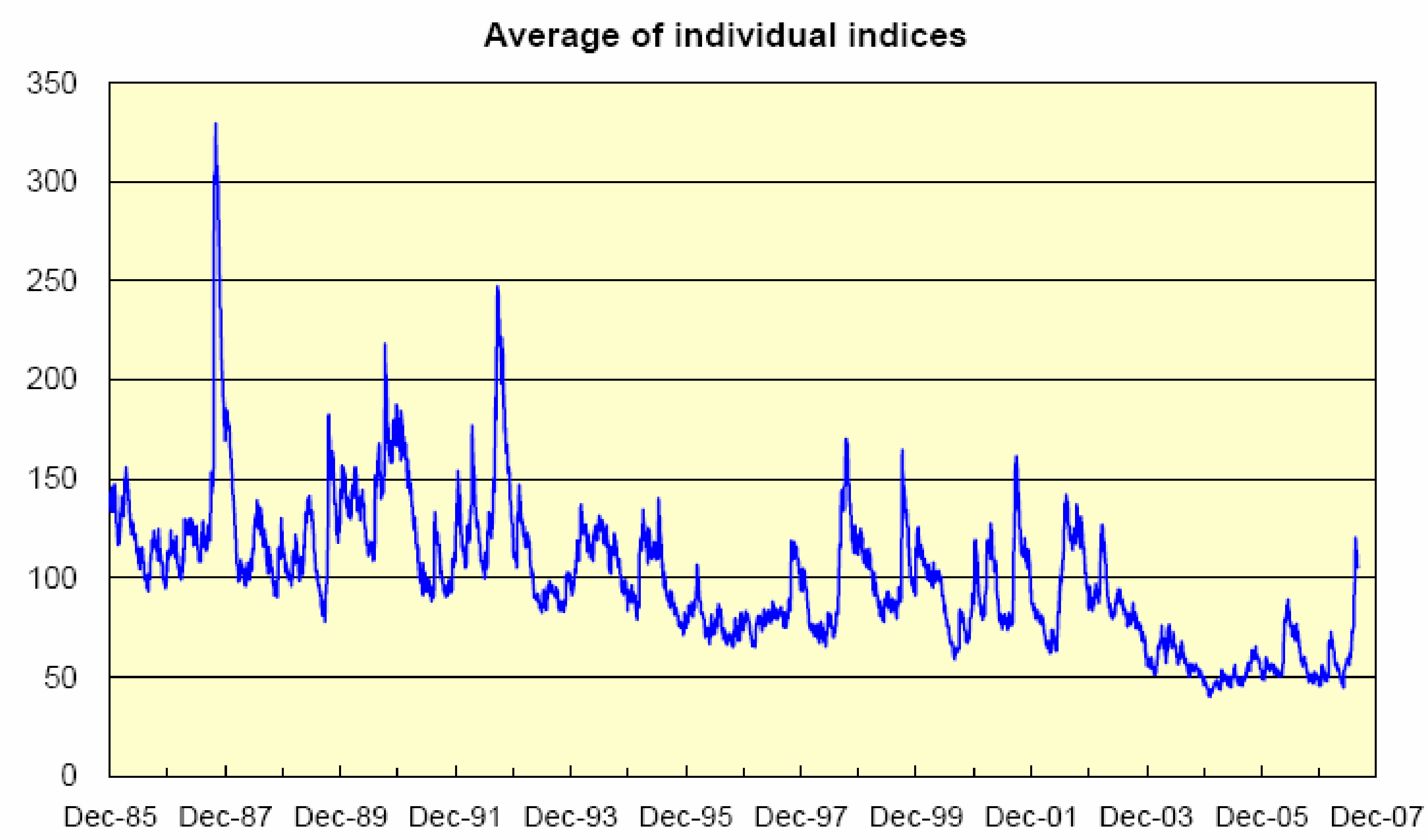
Differentials in ex post Sharpe ratios between JPY carry trade strategies and S&P 500

…but it could unwind easily

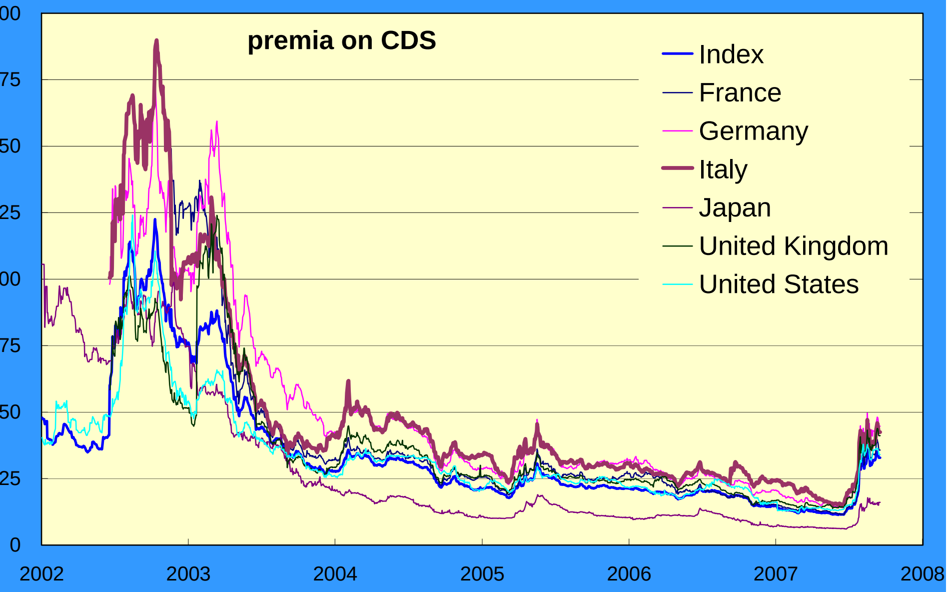
- For an investor with a 3-month horizon, funding in JPY, a depreciation of the Brazilian real by 1.6% makes the carry trade unattractive (depreciation of 3% for Turkish lira)
- For the same investor, an increase of exchange-rate volatility by 15% will make either carry trade unattractive

'Financial quiescence': Volatility exceptionally low for 4 years – across all asset classes and markets

Figure 4.7 Global volatility indices (1)

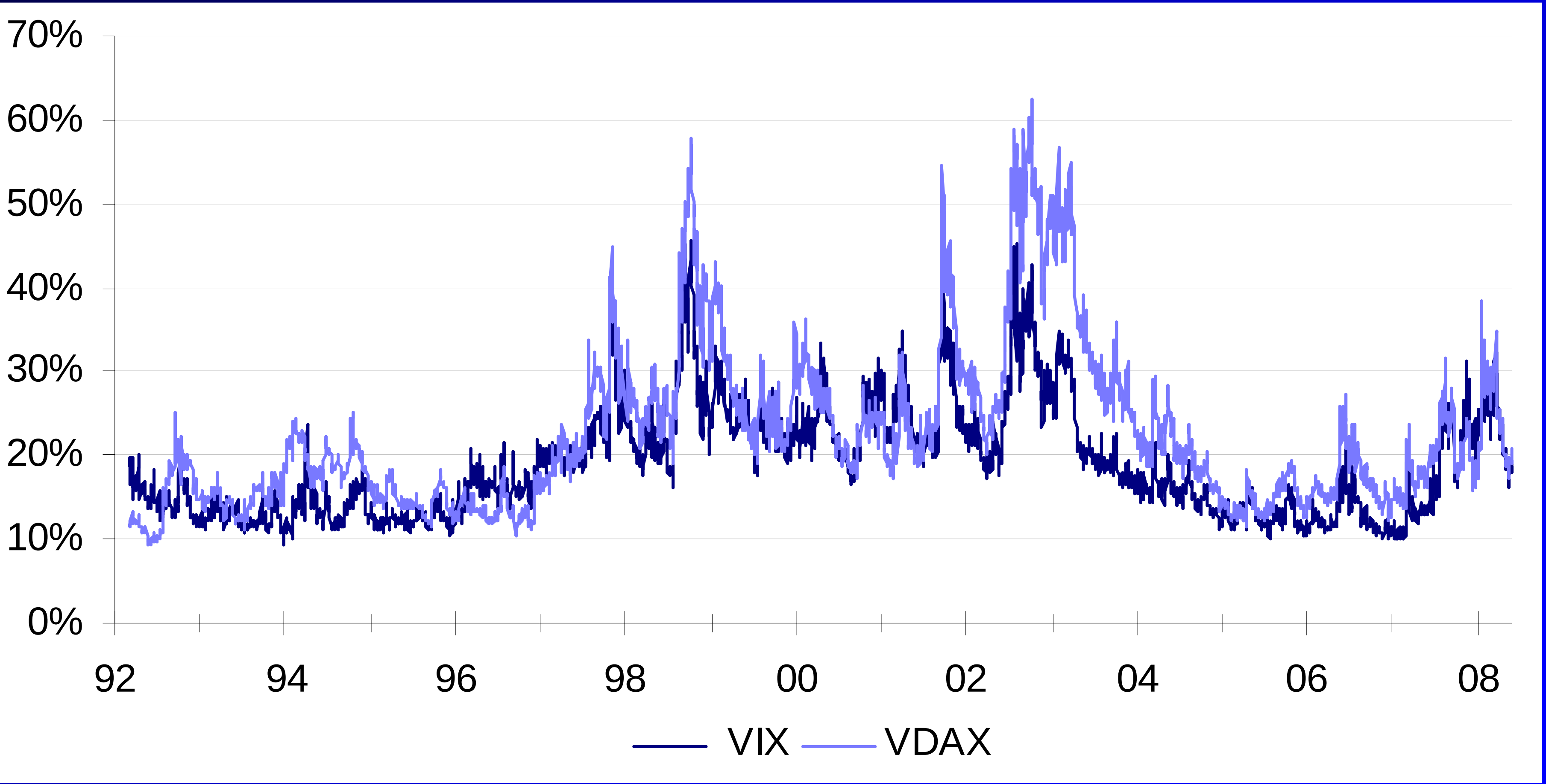


Risk premia have also been low

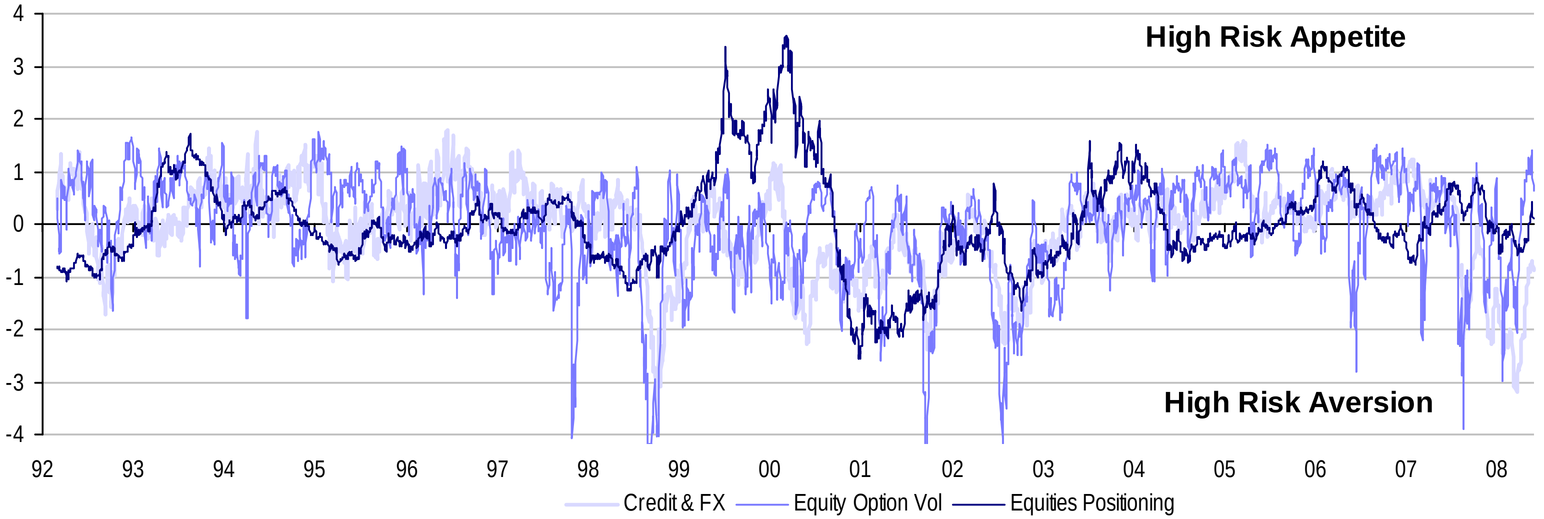


Current turmoil has raised volatility, but no more than in other recent volatility 'spikes' (*e.g.*, May 2006)

Equity options volatility – what crisis?



Just another spike...



UBS Global Risk Indicator, 27 May 2008

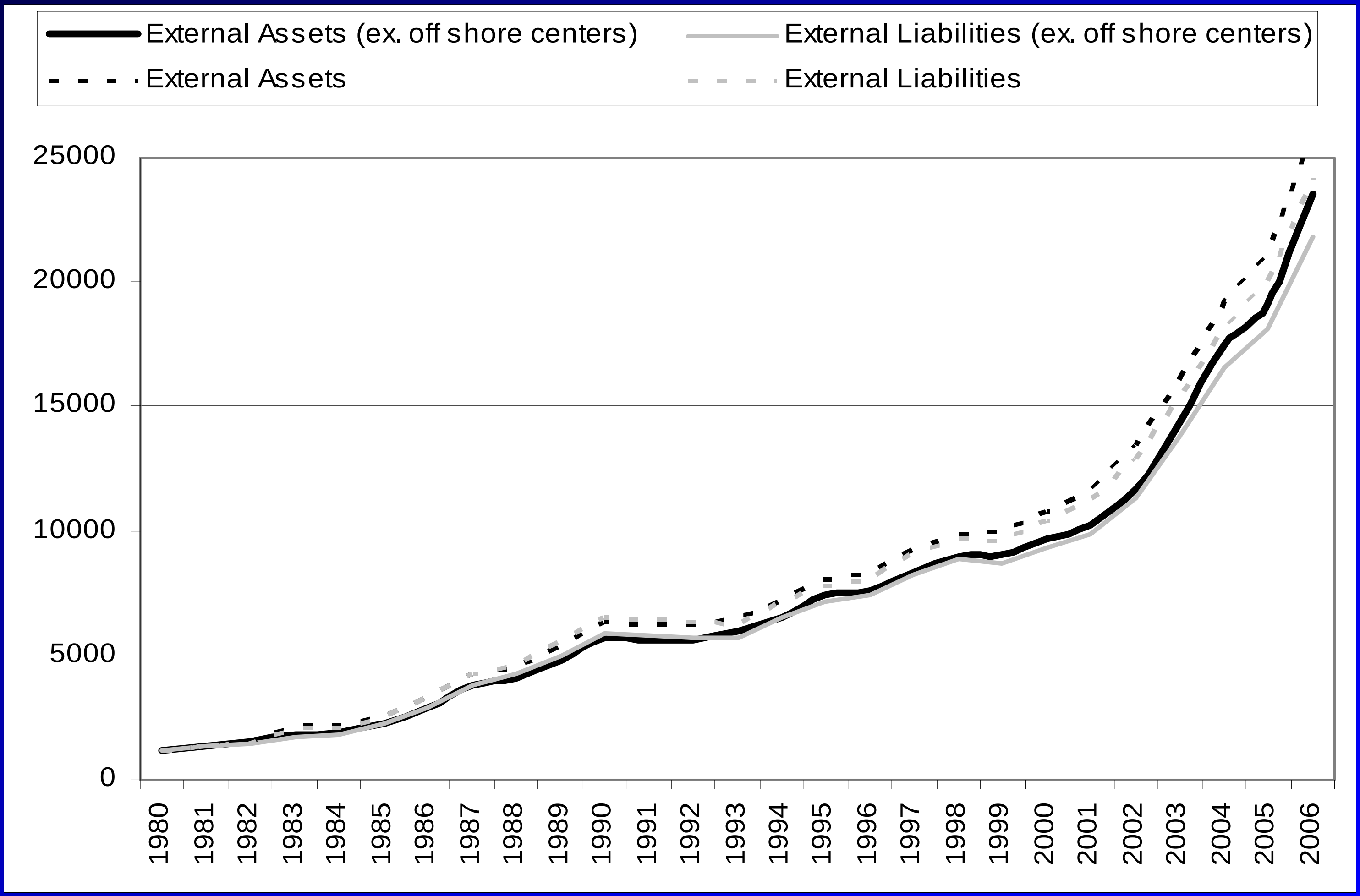
A long-term low volatility world?

- Prolonged expansion with low inflation
- Delayed response to Great Moderation
- Higher market liquidity
  - transaction volumes up (hedge funds...)
  - financial innovation
  - rise of institutional investors
  - financial integration
- More gradualist, more transparent monetary policies
- Higher macro liquidity globally – so risk premia and volatility down

Key global macro issues

- Does US current account deficit contribute to global instability?
- Will carry trade reversals threaten stability of some ‘target’ countries?
- Is the current spike in volatility just a short-run deviation from a longer-term low volatility environment?

Cross-border financial integration has accelerated



Bank external assets and liabilities billion USD

Cross-border financial integration raises coordination problems for supervision, regulation, and LLR

- Some ‘large complex financial institutions (LCFIs) may be *both TBTF and TBTR*
- *Liquidity pools now more likely to be international* – so evaporation of liquidity may quickly extend across borders, while LCFIs may access liquidity wherever it is

New financial instruments

- Markets more complete
- Risk transfer raises productivity of financial intermediation
- How to make these instruments safer?
- With some key exceptions (*e.g.,* CDS) derivatives market appears safer today than in the 1990s, although it has expanded from $12 trn then to 30 times that level today!
- There is nevertheless a good case for putting more derivatives on organised exchanges

Financial turmoil of 2007-2008: origins

- Financial innovation – with exceptional opacity of new instruments
- Low real interest rates, search for yield
- Ravenous risk appetites (incentives...)

What kind of 'crisis'?

- Credit risk event turned into a liquidity event
- Key is interaction between market liquidity and funding liquidity
- Multiple liquidity spirals (Brunnermeier 2008)
- Puzzle: some similar problems in autumn 1998 (even worse? a major sovereign default), yet turmoil wasn't as deep and didn't last as long – although volatility spike was just as great

Financial turmoil of 2007-2008: consequences

- *Not* a ‘crisis’ – yet, at least: no generalized fall in asset prices
- Banks hoarding liquidity – gridlock in interbank market
- Paralysis in ABCP market for a while, then some recovery
- Markets for structured finance securities highly illiquid
- Not yet clear whether shock to market liquidity will reduce funding liquidity – non-financial companies have healthy balance sheets
- Unpacking and valuation of exposures will take time
- System seems fundamentally rather stable, and new financial institutions and instruments have indeed diffused risk, even though its distribution is more opaque
- Many holders of risk assets have been hurt, however, and the capital markets are not functioning properly

More puzzles…

- So far, the ‘biggest financial crisis since the Great Depression’ has had relatively little effect on non-financials and the aggregate real economy, even in the US – could argue that commondity and food price inflation are more important
- Despite bursts of deleveraging, overall the deleveraging so far has been much less than in previous episodes, e.g. autumn 1998 (Kashyap et al.)

…and more

- Why do volatilities and indicators of risk aversion not appear unusual in historical perspective?
- Why are TED and LIBOR-OIS spreads still so high despite exceptional liquidity interventions?
- Why have long rates not risen pari passu with inflation expectations?

Writedowns and recapitalization

- Why didn't banks cut dividends quickly and a lot? Any pressure from regulators to do so?
- Piecemeal and repeated writedowns perceived as lack of transparency →
- Continuous fall in bank share prices →
- Investors have been burnt →
- Current reluctance to invest more in bank recapitalisation

All this has been partly caused, partly exacerbated by mark-to-market accounting

Key global capital market dysfunctionalities

- Credit default swap (CDS) market
- Marking to market
- Ratings agencies

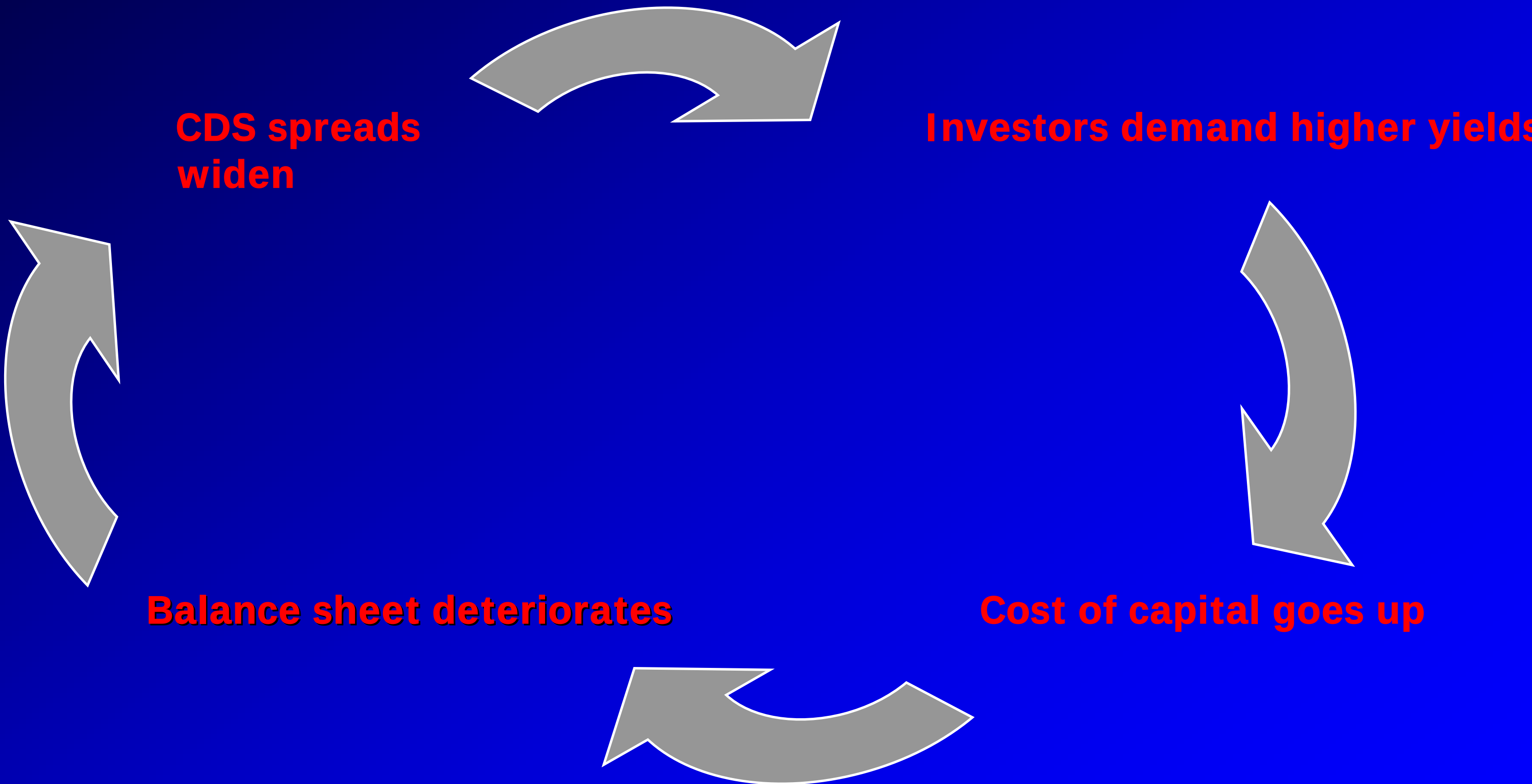
CDS spreads: disaster looms? But what do they mean?

- If current level of CDS spreads accurately estimated probability of default, then many banks would be pronounced dead now
- But CDS market is highly distorted
  - Started as credit protection, then became also a vehicle for speculation (volume is 10 times the underlying)
  - now everyone wants to hedge the banks, but no one wants to write protection – with very limited supply and rumours fuelling demand, price has gone way up, trading is thin and volatile
- Irrationalities: cost of protection against Lehman Bros default rose 15% the day after the Bear Stearns bailout
- *This is a highly speculative market, with some market manipulation*

The abnormally high CDS spreads are a major problem for the banks…

- ...because new issues have been priced by reference to (so above) CDS spreads
- At such prices, the markets are effectively closed
- The only way around this is to find investors who will ignore CDS spreads – not impossible, but not easy
- Hedge funds (HFs) 'playing rough' – if you buy CDS at 200 bp (say), you would want to make things look worse and drive spreads up further
- Even more opportunities: short banks, drive up CDS spreads

CDS vicious circle



Exacerbated when ratings agencies follow CDS spreads – and CDS spreads follow ratings

CDS markets: policy

- Centralised clearing will help significantly in lowering counterparty risk
- Still, that falls far short of the transparency and normalisation of the markets that would come from requiring that they go on organised exchanges
- If specificity of these instruments precludes exchange trading, then make them more uniform
- But investment banks will lobby heavily against this: both specificity and opacity generate big profits

Marking to market ('fair value')

- There may be no market!
- Valuing assets at 'market value' in period of financial distress amplifies the balance sheet problems
- And marking to market inhibits re-liquefying of markets, because asset holders will not want to sell at distressed prices if they then have to mark down their entire portfolios to those prices

Yet more vicious circles

- Banks don't want to sell in illiquid markets (fear having to mark down their entire portfolios), so markets remain illiquid
- HFs sell at distressed prices, banks must mark books lower, tighten credit, so HFs must sell more
- Long-term investors don't buy because they fear prices will fall still further
- Many assets valued w.r.t. credit derivative prices (e.g., ABX index), which are highly volatile and appear to overestimate probabilities of default (e.g. CDS spreads)

The 1982 debt crisis marked to market

- The 9 New York money center banks had aggregate exposure to LA sovereign debt of around 250% of their equity capital
- When Brazil, Mexico and others stopped paying, if they had ‘marked to market’ those assets, the banks would have been ‘under water’ – assuming that a market valuation would not have exceeded 60 cents/$
- 1980s forbearance involved classifying LA debt as ‘held to maturity’ – can’t do that now

Marking to market: policy

- Note that ‘fair value accounting’ was introduced only recently (mid-1990s) by SEC
- IASB has established a panel to consider how to proceed...
- ...which will report in due course
- Meanwhile, at least limit it to assets on trading book, exclude buy-to-hold assets

The third dysfunctionality: the (dis)credit(ed) ratings agencies

- The agencies exist to deal with principal-agent and asymmetric information problems
- Natural monopoly characteristics are enhanced by dependence of regulators on ratings – ‘regulatory license’
- Conflicts of interest
  - paid by issuers
  - advise on structured finance instruments, then rate them, *both* paid by issuers
- Ratings are lagging indicators
- They may not add value (Levich et al. 2002)

How to deal with the agencies?

- A classic mechanism design problem
- Normally public goods should have public funding – but not here
- Revive subscription – a levy on users
- Require agencies to provide more information or judgment – assess liquidity characteristics of instrument, likely volatility of market price, provide a range rather than a point estimate
- Separate rating from advisory/consultative
- *Eliminate 'regulatory license'*

An alternative: ignore them…

- Not an original thought! ‘By now no one should care what the ratings agencies think.’ *WSJ* 26 February 2008
- They were notoriously behind the curve in Asia in 1997
- They failed disastrously with structured finance
- And now they are (characteristically) reacting with indiscriminate downgrades, again behind the curve, again *exacerbating market instability*
- They are understandably running scared, pledging a new ‘reform’ every day, trying to convince policy-makers not to break them up, change their revenue model, or eliminate the barriers to entry that have made them so profitable

- Market pathologies (*e.g.*, CDS)
- Regulatory rules (*e.g.*, mark to market)
- Market institutions (*e.g.*, ratings agencies)

are all central to the current international financial instability

Moral hazard concerns should not block sensible policies

- No substance to allegations that the central banks’ moves to reliquefy markets will create significant moral hazard
- Except for Northern Rock (an unnecessary, avoidable mess) and Bear Stearns (a market malfunction), they have not bailed out individual institutions
- The moral hazard story *ignores history* – bailouts have little effect on subsequent capital market behaviour, just as defaults have no discernible effect in raising ‘market discipline’

Policies…

- Focus on tail risk
- Liquidity pools now global, need ongoing cooperation among major central banks and regulators
- Require originators to retain equity pieces of their structured finance (SF) products
- Require more information on SF instrument holdings and on concentration of risk

…and more policies

- Regulators should look much more closely at ‘off-balance-sheet’ exposures
- Require that the CDS market go onto organised exchanges so as to increase transparency and reduce counterparty risk
- Suspend marking to market (at least for ‘buy and hold’ assets) when markets are not functioning
- Tackle the oligopoly in the ratings industry and its perverse incentives