Impact of the Financial Crisis on the Global Economy

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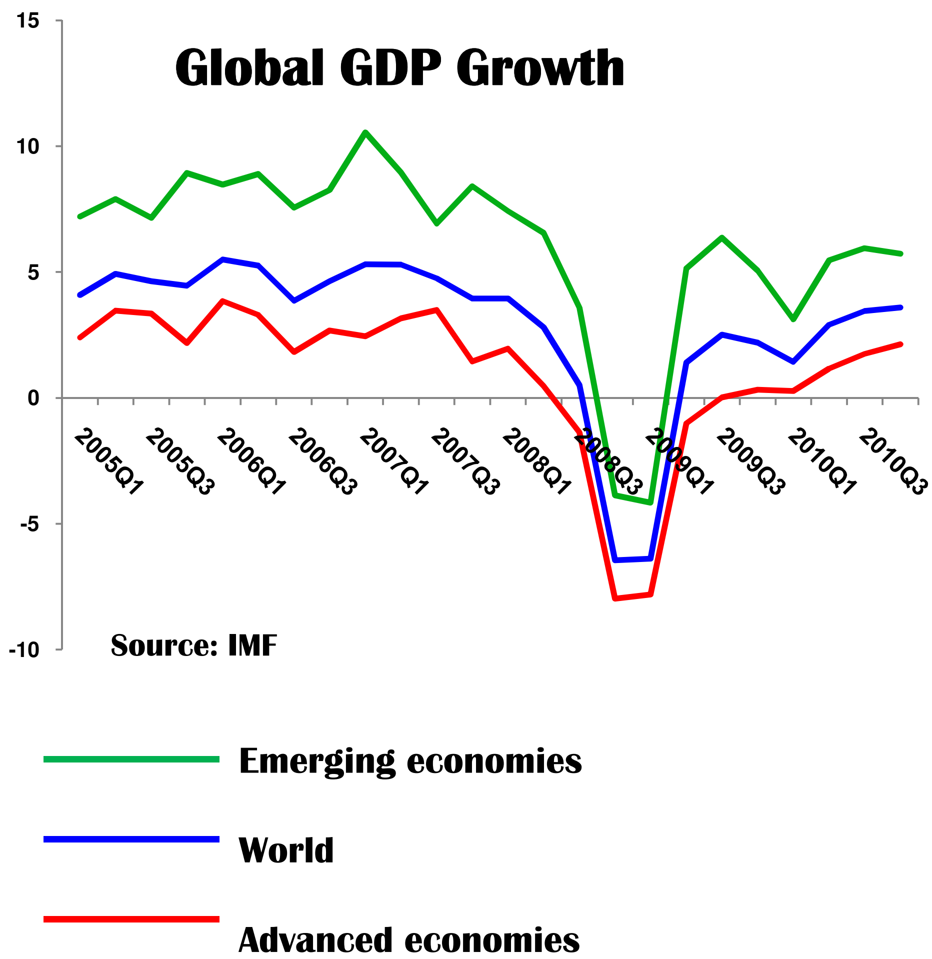
Global economic situation

- In past 2 years, global economy affected by three main factors:
  - global crisis in financial markets
  - major corrections in housing markets
  - surge in commodity prices
- Collective impact - marked slowdown in economic activity
- There has been a very severe impact on real economy due to crisis in global financial system

Global economic situation



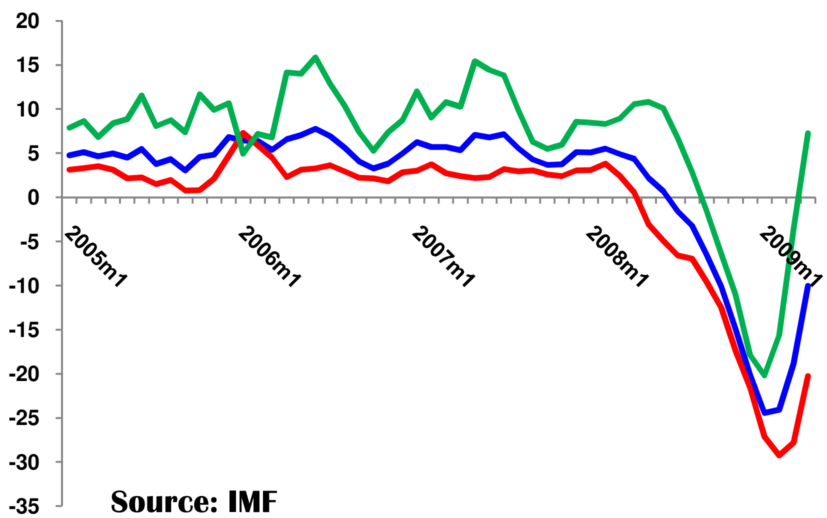
GDP Growth

1. Global:
   -1.4% (2009)
   2.5% (2010)
2. Advanced economies
   -3.8% (2009)
   0.6% (2010)
3. Emerging economies
   1.5% (2009)
   4.7% (2010)

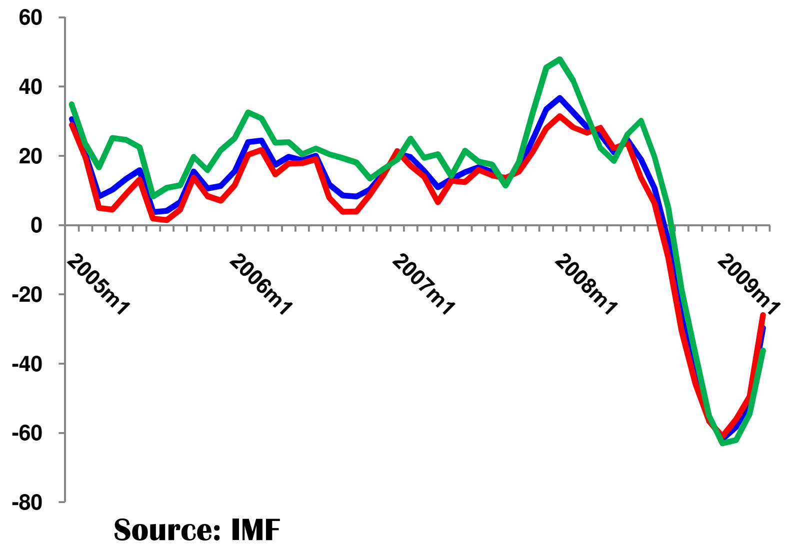
   Mexico
   -7.3% (2009)
   3.0% (2010)

Global economic situation

Industrial Production



Merchandise Exports



Emerging economies

World

Advanced economies

Global economic situation

- **Pace of recovery depends on *opposing* forces:**

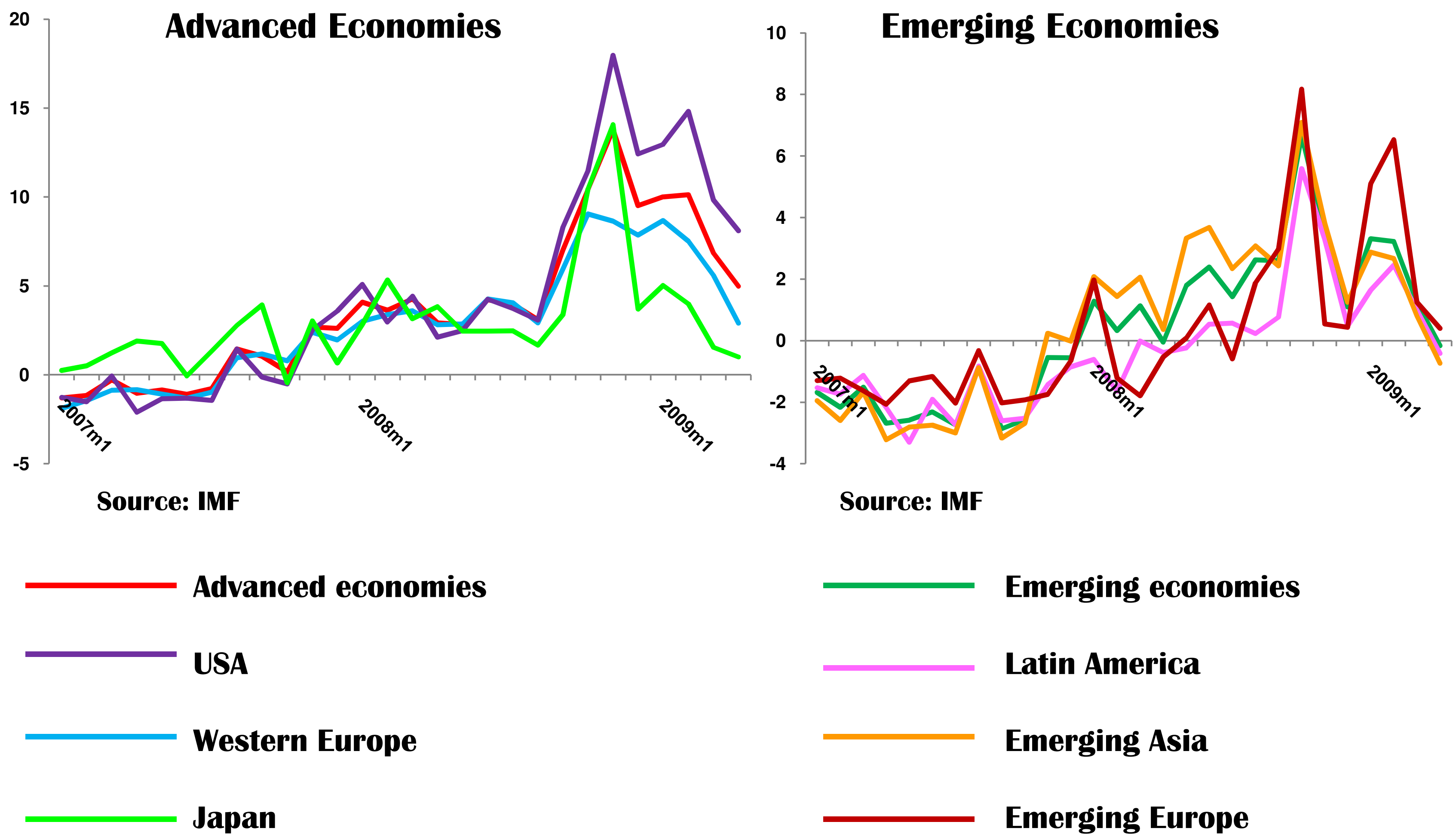
  - drag due to financial crisis and collapse of confidence is diminishing

  - other supportive forces still weak: financial markets remain impaired, and bank balance sheets still require cleaning up

- **Cuts in interest rates, provision of liquidity, and bank recapitalization have reduced concerns about systemic failure – financial stress has receded**

Global economic situation

Global Financial Stress (Impaired Financial Intermediation)



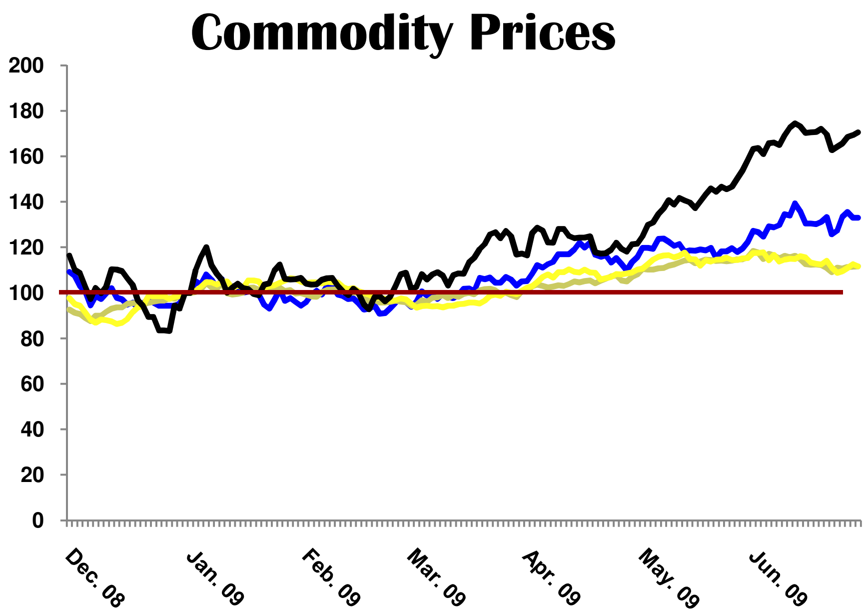
Global economic situation

- **Commodity prices have started to rise ahead of recovery – reflecting improved market sentiment and US$-depreciation**
- **In case of oil, market has shifted from over-supply to more balanced conditions – 2010, oil-price expected to be $74/barrel**
- **Not clear weak private consumption in many advanced economies will be compensated for by demand elsewhere**
- **Currently, support is from macroeconomic policies and inventory adjustment**

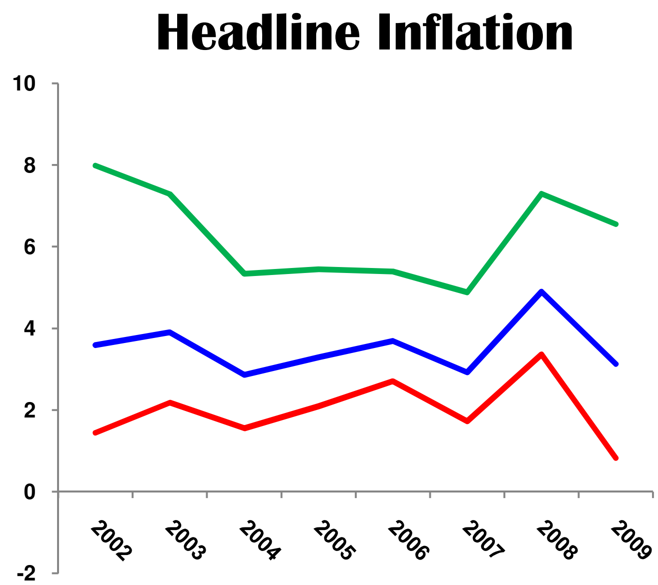
Global economic situation

- *Headline* inflation has continued to ease due to weakness in global economy, despite upward pressure from rising commodity prices
- Global inflation expected to remain low due to significant excess production capacity, weakness in demand, and high rates of unemployment holding back wage pressures
- Risks of sustained deflation are low though, with *core* inflation and inflation expectations holding at 1-2% in most major economies

Global economic situation



Source: IMF



Source: IMF

Crude oil

Metals

Agricultural commodities

Food

Emerging economies

World

Advanced economies

Global economic situation

- Less “tail” risk, but still potential downside risk
- High rates of unemployment in advanced economies, and loss of confidence in financial sector could put downward pressure on asset prices – risk of deflation
- Concerns over increased public debt – adds upward pressure to bond yields, negatively affecting housing market
- Many emerging economies vulnerable to financial stress, with risk of feedback

Global financial stability

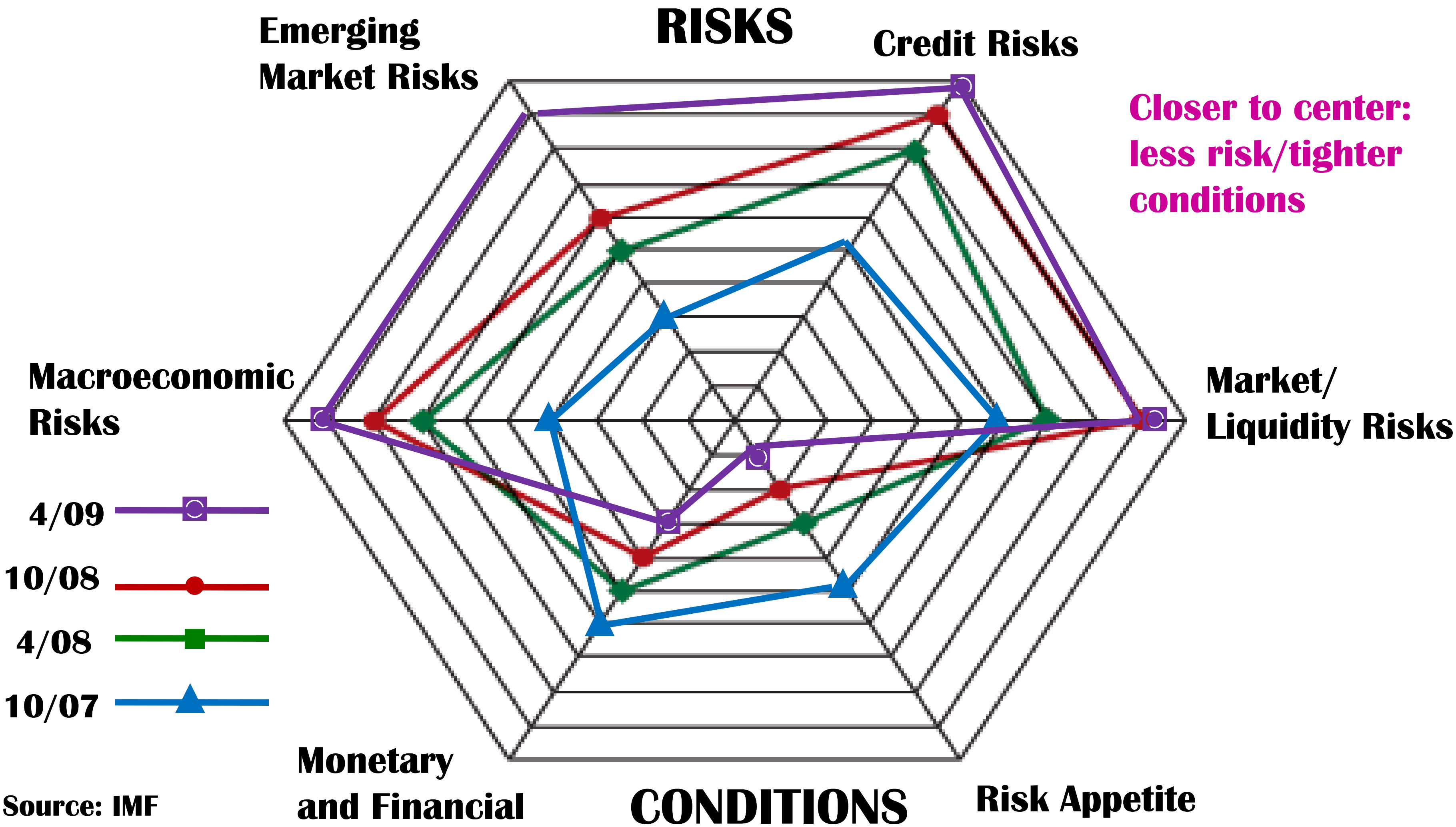
- **What has been core nature of the financial crisis?**

"…The details can be insanely complex, but the basics are fairly simple. *The bursting of the housing bubble has led to large losses for anyone who bought assets backed by mortgage payments; these losses have left many financial institutions with too much debt and too little capital to provide credit the economy needs*; troubled financial institutions have tried to meet their debts and increase their capital by selling assets, but this has driven down asset prices, reducing their capital even further…"

(Paul Krugman, "Gordon Does Good", *New York Times*, October 13, 2008)

- **Deleveraging accelerated in September/October 2008**
- **Adverse feedback loop between financial system and global economy**

Global financial stability



Source: IMF

What were roots of crisis?

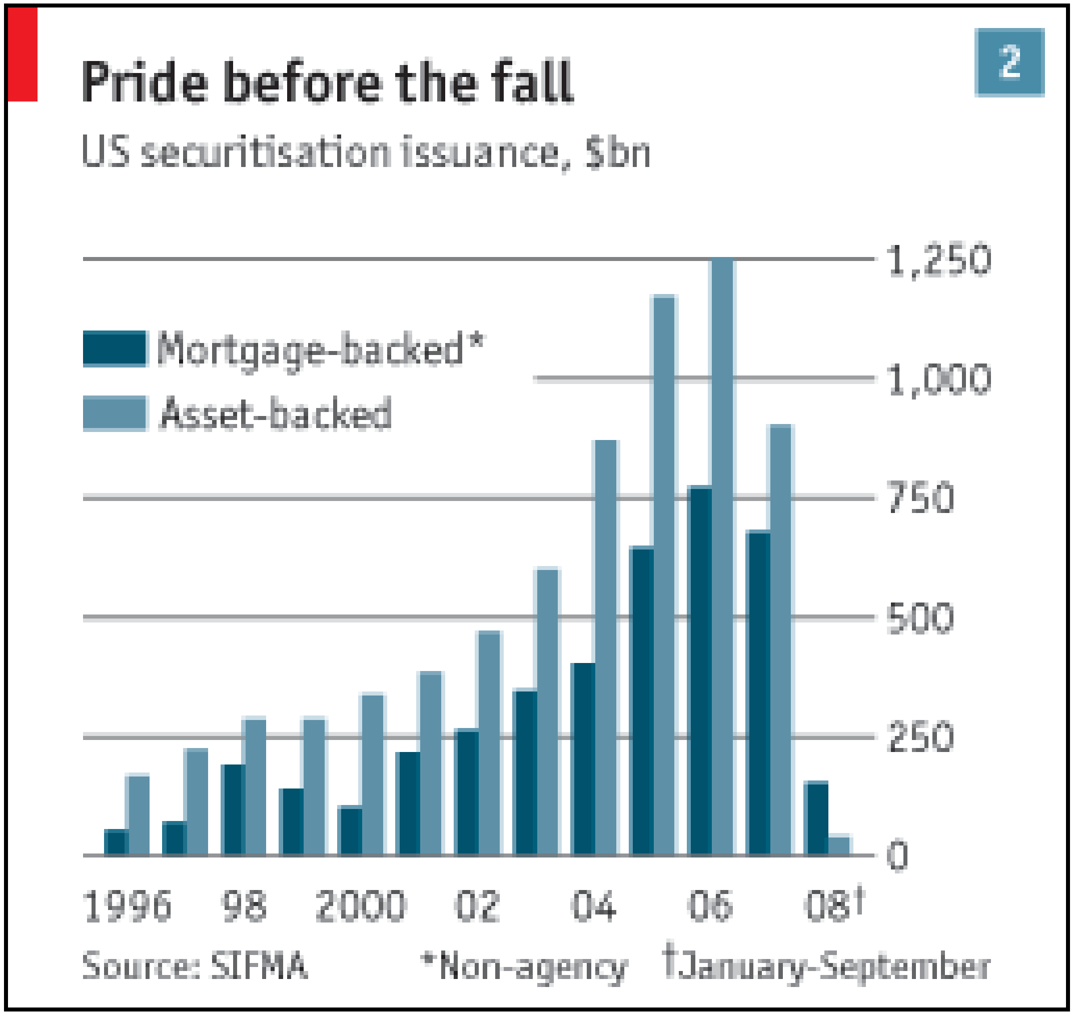
- Low interest rates and economic growth led to returns being sought further down "credit-quality" curve, and over-optimistic assessment of risks
- Financial instruments developed offering higher yields, that were in fact very risky
- Market discipline failed – due diligence depended on credit-rating agencies, and compensation system in financial sector reinforced risk-taking

Planet finance.....

- **By end of 1990s subprime and prime mortgages sold on to banks, who *securitized* them**
- **Banks repackaged them as part of collateralized debt obligations (CDOs)**
- **Mortgage lenders who knew most about risk of default on subprime borrowers bore least risk:**

  "...They could make a 'NINJA' loan and sell it on the same day to one of the big banks in the CDO business. In no time at all, the risk was floating up a fjord..." (Niall Ferguson, "The Ascent of Money", 2008)

Planet finance.....



Planet finance.....

- In 2006, $0.5 trillion worth of CDOs sold, of which half had exposure to subprime mortgages
- Many CDOs over-priced due to poor estimates of default risk on subprime mortgages
- July 2007, credit-rating agencies began to down-grade CDOs containing securitized mortgages – generating huge losses in system
- Banks disguised exposure by parking subprime-related assets off balance sheets in entities such as strategic investment vehicles (SIVs)

What were key policy failures?

- **Financial Regulation** – system not equipped to see concentration of risk and flawed incentives behind financial boom
- **Macroeconomic Policies** – no account taken of extent of systemic risks in financial system and housing market
- **Global Regulatory System** – fragmented surveillance of system with limited collaboration among national financial regulators

What has been learned?

- **Financial Regulation** – need to mitigate pro-cyclical effects, increase transparency about nature and location of risks, and facilitate liquidity management
- **Macroeconomic Policies** – should account for asset price movements, credit booms, leverage and build up of systemic risk
- **Global Regulatory System** – strong case for international cooperation

How to handle crisis?

- **Piecemeal interventions prior to October 2008 did not address widespread nature of problem**
- **"…History teaches an important lesson…big banking crises are ultimately solved by throwing in large dollops of public money, and that early and decisive action, whether to recapitalize banks or take troubled debts, can minimize the cost to the taxpayer, and the damage to the economy…" (*The Economist*, "When Fortune Frowned", October 9, 2008)**
- **British bank bailout and US Troubled Asset Relief Program (TARP) belated recognition**

What are the priorities?

- **Immediate priority - reduction of uncertainty:**

  (i) Deal with "toxic" assets on balance sheets

  (ii) A good deal has been done to avoid a deflationary spiral be it through fiscal measures or quantitative easing of the money supply by central banks

- **Longer-term priority is to take regulatory action in financial sector to mitigate future crises**

Financial regulation: solution 1

- **Problem** – shadow-banking lightly regulated, and banks avoided capital requirements by pushing risk to affiliates in shadow system
- **Result** – shadow system became "too large to fail"
- **Solution** – regulation should be extended to broader financial system – objective being to determine systemic risk

  Oversight should stress longer-term horizons, strong governance, and process of risk management

Financial regulation: solution 2

- **Problem** – lack of due diligence in assessing risk in run-up to crisis
- **Result** – professional investors did not carefully examine type of assets they were buying, relying too much on credit-rating agencies
- **Solution** – reduce conflict of interest at credit-rating agencies and encourage better risk management

  Discourage mega-institutions via capital ratios that increase with leverage/contribution to systemic risk

Financial regulation: solution 3

- **Problem** – financial firm incentives based on generation of annual profits
- **Result** – ahead of crisis, large payouts to traders and managers based on increased leverage and risk, but did not face losses in downturn
- **Solution** – compensation schemes need to be added to overall view of risk-management and governance, and delinked from annual results and short-term indicators

Financial regulation: solution 4

- <u>**Problem**</u> **– mark to market accounting and excessive leverage**
- <u>**Result**</u> **– in upswing, rising asset prices raised banks' net worth encouraging excessive leverage, reverse is happening in downswing with excessive deleveraging**
- <u>**Solution**</u> **– need to make clear nature of asset price uncertainty, focusing on variance around fair-value calculations and data on price history**

Balance sheets and leverage

- **Balance sheet after $10 increase in value of securities:**

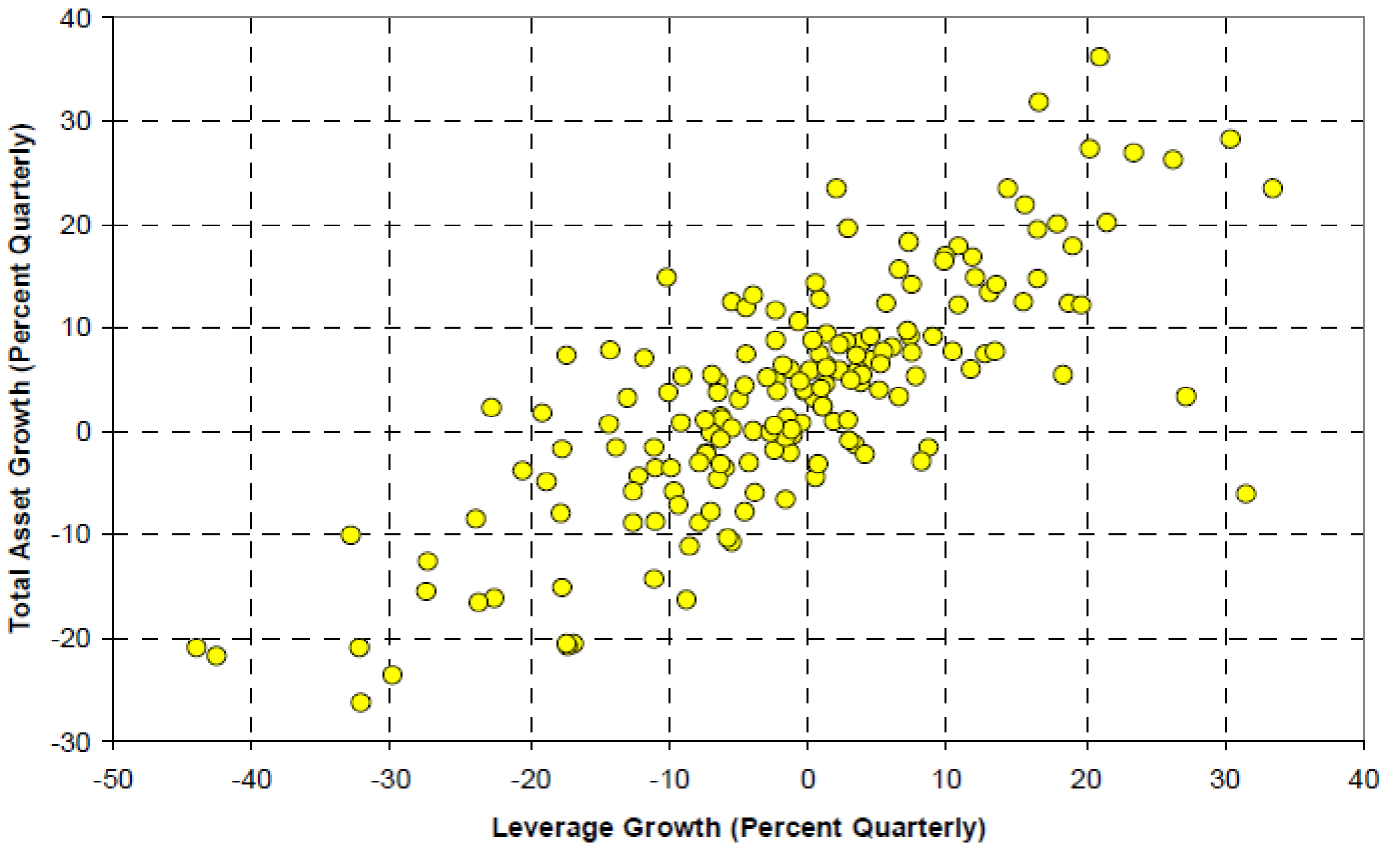
Assets	Liabilities
Securities: $100 + $10	**Equity: $10 to $20**
$110 + $120 = $230	**Debt: $90 + $120 = $210**

If bank takes on debt of $120 to purchase securities worth $120, leverage increases to $230/20 =11.5 from $100/$10 = 10

Feeds back into further increases in leverage if asset prices rise with demand, i.e., pro-cyclical - works in opposite direction with fall in asset prices

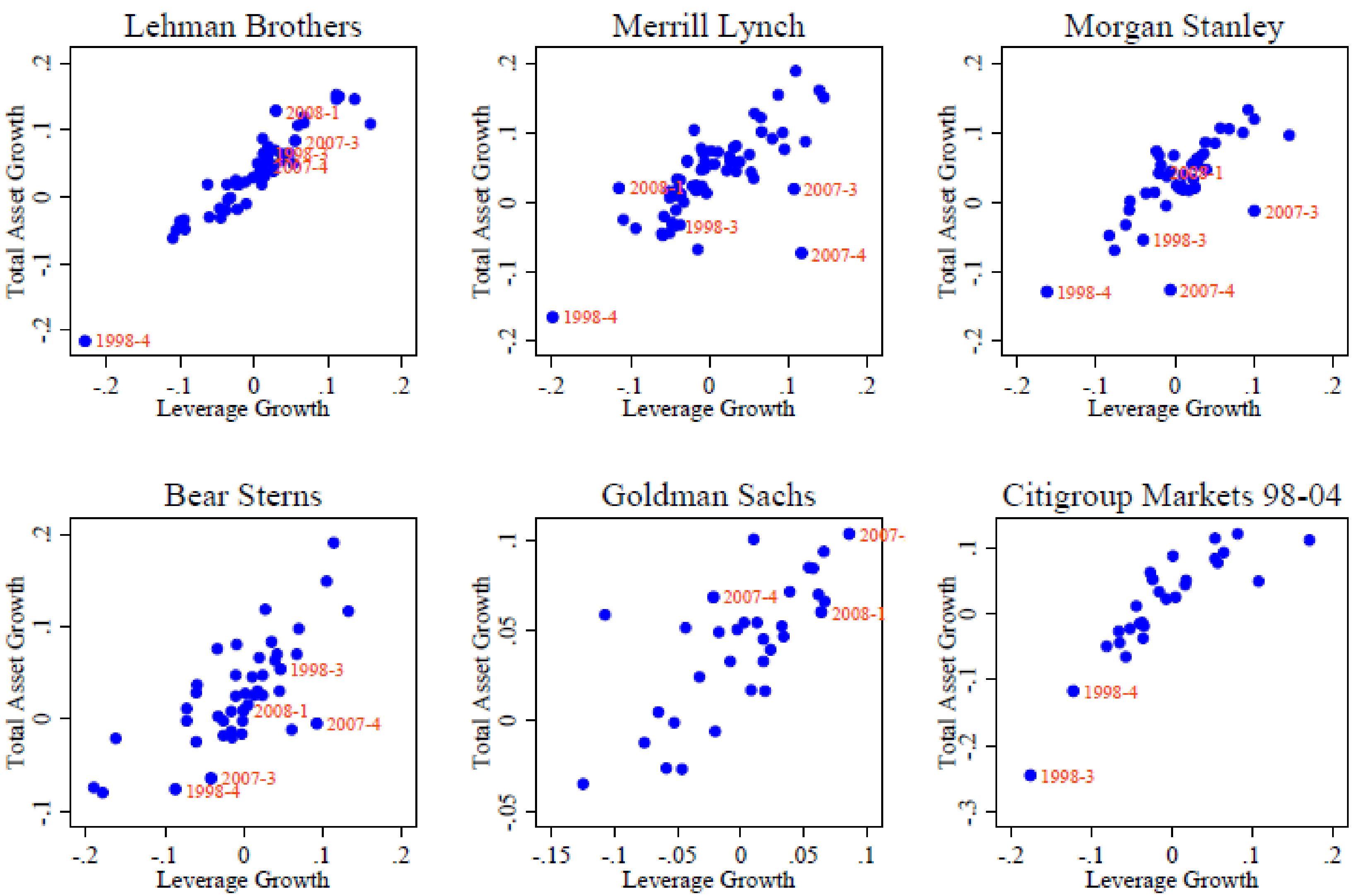
Pro-cyclical leverage

Total Assets and Leverage of US Investment Banks: 1963-2006



Source: Adrian and Shing (2008)

Pro-cyclical leverage



Financial regulation: solution 5

- **<u>Problem/Result</u> – information gaps concerning:**

  (i) on-balance sheet risk of complex financial instruments, and off-balance sheet exposure

  (ii) counter-party risk in over-the-counter instruments

  (iii) degree of leverage and risk in shadow-banking

- **<u>Solution</u> – greater market transparency about valuation of complex financial instruments, allowing due diligence by investors**

Don't ignore macroeconomics

- Global imbalances after Asian financial crisis
- Recycled money from high-saving countries, e.g., China, helped fuel US/UK asset price bubble
- Central banks focused on inflation, but did not see growing risks in their financial sectors
- Policymakers need to pay attention to asset price booms, excessive leverage and systemic risk
- Need measures to reduce systemic risk from large capital inflows, e.g., constraints on foreign exchange exposure of financial institutions

Future policy implementation…

- **Policies still targeted at crisis, but need to shift to medium-term strategies:**
- **<u>Financial policy</u>: short-term measures to restore bank solvency need to be consistent with long - term objectives of strengthening incentives and improving market discipline**
- **<u>Monetary policy</u>: (i) should remain supportive in *advanced economies* until growth resumes and deflationary risks dissipate – but need exit strategy to contain inflation fears**

Future policy implementation...

- <u>Monetary policy</u>: (ii) strike balance in *emerging* economies between supporting demand and risk of exacerbating capital outflows and undermining fiscal sustainability – also need to assess soundness of banking systems

- <u>Rebalancing global demand</u>: need reduction in public demand and increase in private demand

  Requires rebuilding of financial sectors in advanced economies and support for private consumption in emerging economies that run large account surpluses