

Macroeconomics Honours

The Economics of Financial Crisis

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The 2007-2012 Financial Crisis : a Guided Tour

- ▶ The Financial Origin of the Crisis
- ▶ The Economics of the Crisis
- ▶ Monetary and Fiscal Policy Responses
- ▶ From Financial Crisis to Fiscal Crisis
- ▶ Crisis in South Africa

Some Literature

- ▶ Markus Brunnermeier "Deciphering the 2007-08 Liquidity and Credit Crunch" A detailed analysis of the financial architecture that generated the crisis and the amplification mechanism - a must read (but do not expect to understand everything - nobody could)
- ▶ Ross Levine "An Autopsy of the U.S. financial System" - Focus on Credit Rating agencies and the problem in financial regulatory framework
- ▶ Diamond and Rajan "The Credit Crisis: Conjectures about Causes and Remedies" Origin in the housing market.
- ▶ John Taylor "The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong" - Responsibility is in too lax monetary policy and wrong policies
- ▶ Paul De Grauwe "Keynes' Savings Paradox, Fisher's Debt Deflation and the Banking Crisis" - A macroeconomic analysis that highlight the need of public intervention to eliminate coordination failure

Few Books

- ▶ Charles Kindleberger: **Manias, Panics, and Crashes: A History of Financial Crises**
- ▶ Carmen M. Reinhart and Kenneth S. Rogoff: **This Time Is Different: Eight Centuries of Financial Folly**
- ▶ Dani Rodrik: The Globalization Paradox: **Why Global Markets, States and Democracy Can't Coexist**
- ▶ Mervyn King: The End of Alchemy: **Money, Banking and the Future of the Global Economy**

Causes of the Crisis

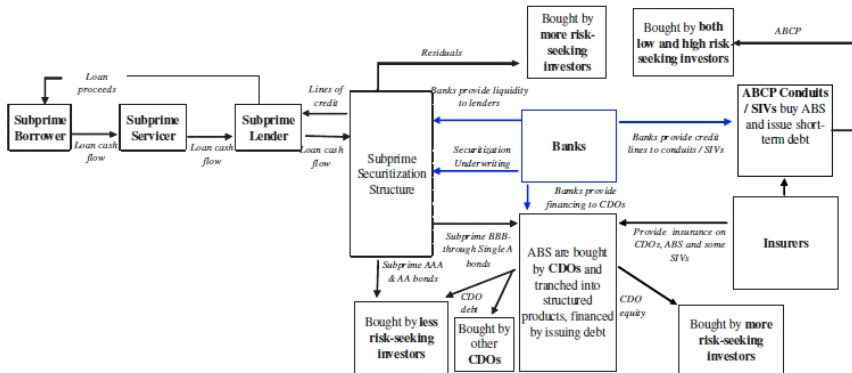
Unscrupulous mortgage lenders? Spendthrift borrowers? Faulty practices by credit rating agencies? Too much leverage on the part of financial institutions? The global saving glut? Too loose monetary policy by the Federal Reserve? Government guarantees for Fannie Mae and Freddie Mac? The US Treasury rescue of Bear Stearns and AIG? The US treasury refusal to bail out Lehman Brothers? Greed? Moral hazard? Too little regulation? Too much regulation?

The financial origin of the crisis

Leverage + Financial innovation + Easy Money = Financial Crisis

1. Originate and distribute banking model
2. Increased leverage/maturity mismatch (on/off balance sheet)
3. Lax lending standards
4. "Greenspan put"
5. "Savings Glut" in the rest of the world

Complexity of Financial Innovation

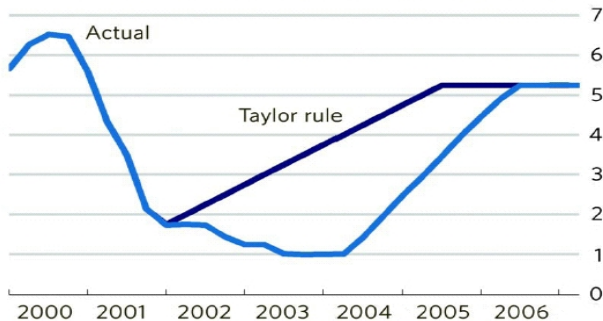


Lax Monetary Policy: Leverage Inexpensive

Chart 1

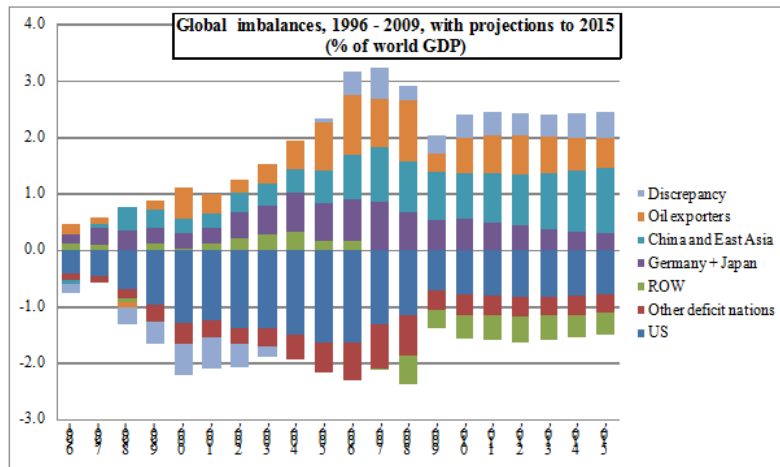
Loose-fitting monetary policy

Federal funds rate, actual and counterfactual (per cent)



Source: *The Economist*, 18 October 2007

Global Imbalances: A Lot of Savings From Emerging Countries to US

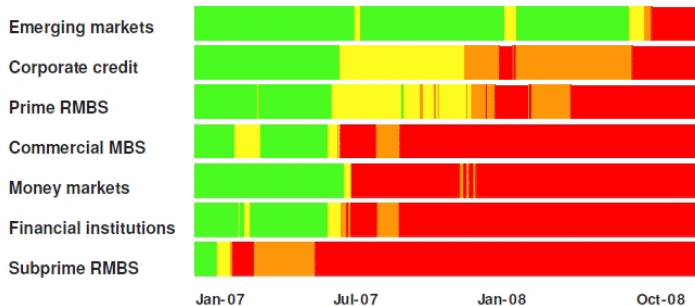


The Dynamics of the Crisis

- ▶ Increase probability of insolvency
- ▶ Increase in counterparty risk
- ▶ Decrease in volume and maturity of interbank lending
- ▶ Contagion across institutions. From direct exposure to subprime onward
- ▶ contagion across countries. from the US to Europe, to emerging market countries
- ▶ Increasing effects on ultimate borrowers: household and firms

Contagion

Heat Map: Developments in Systemic Asset Classes

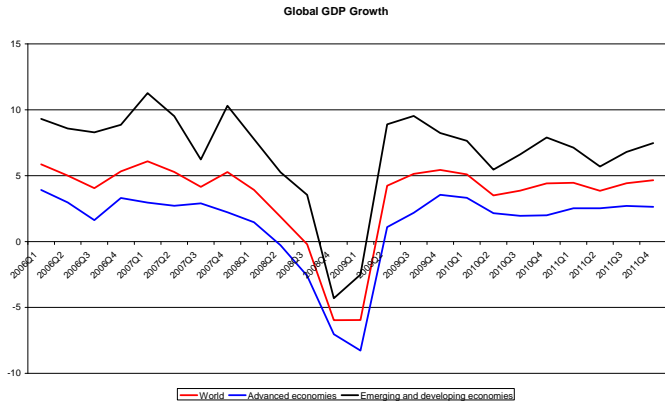


Source: IMF, Global Financial Stability Report, October 2008

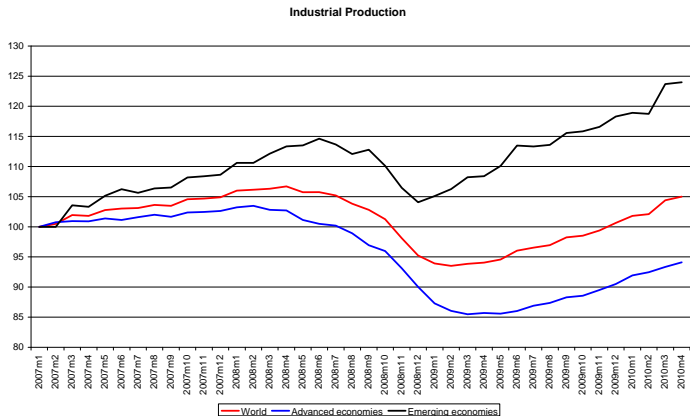
Macroeconomic Consequences

- ▶ Credit Crunch
- ▶ Collapse in Demand
- ▶ Collapse in production and employment
- ▶ Collapse of international trade

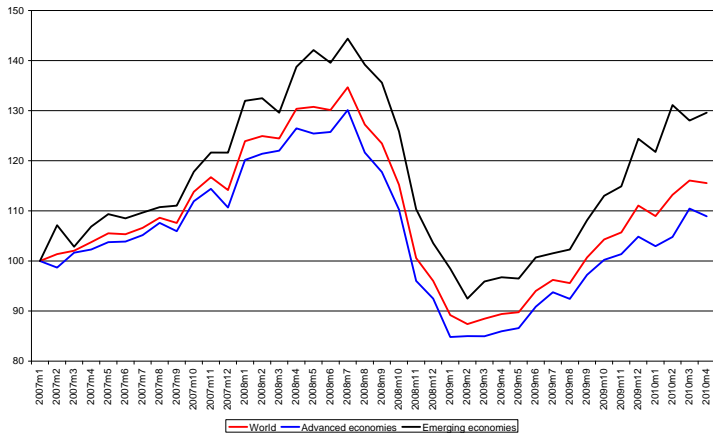
GDP Growth



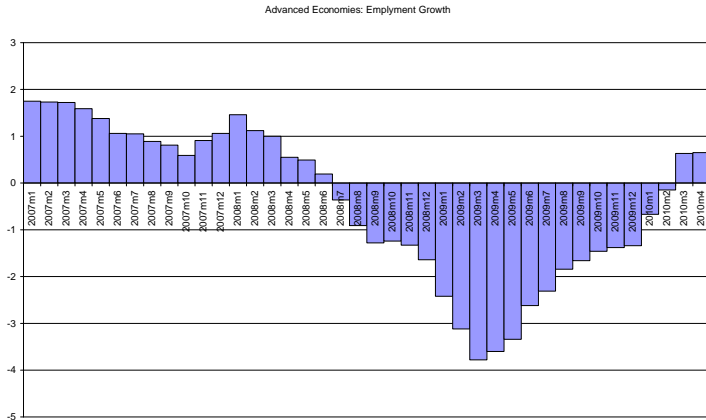
Industrial Production



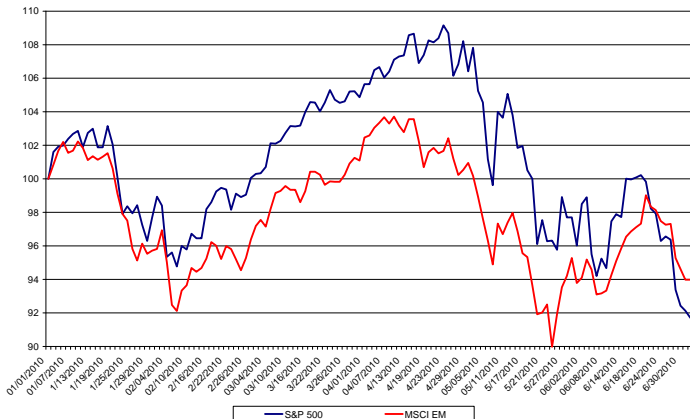
Merchandise Exports



Employment



Financial Markets



Flow-Stock Deflation Spirals

- ▶ Keynesian Saving Paradox
- ▶ Fisher's Debt Deflation
- ▶ Cost Cutting Deflation
- ▶ Bank Credit Deflation

Coordination Failures

Keynesian Saving Paradox

When one individual desires to save more, and he is alone to do so, his decision to save more (consume less) will not affect aggregate output. He will succeed to save more, and once he has achieved his desired level of savings he stops trying to save more.

When the desire to save more is the result of a collective lack of confidence (animal spirits) the individual tries to build up savings when all the others do the same. As a result, output and income decline and the individual fails in his attempt to increase savings. He will try again, thereby intensifying the decline in output, and failing again to build-up savings

Fisher's Debt Deflation

When one individual tries to reduce his debt, and he is alone to do so, this attempt will generally succeed. The reason is that his sales of assets to reduce his debt will not be felt by the others, and therefore will not affect the solvency of others. The individual will succeed in reducing his debt.

When the desire to reduce debt is driven by a collective movement of distrust, the simultaneous action of individuals to reduce their debt is self-defeating. They all sell assets at the same time, thereby reducing the value of these assets. This leads to a deterioration of the solvency of everybody else, thereby forcing everybody to increase their attempts at reducing their debt by selling assets.

Cost Cutting Deflation

When one individual firm reduces its costs by reducing wages and firing workers in order to improve its profits, and this firm is alone to do so, it will generally succeed in improving its profits. The reason is that the cost cutting by an individual firm does not affect the other firms. The latter will not react by reducing their wages and firing their workers.

When cost cutting is inspired by a collective movement of fear about future profitability the simultaneous cost cutting will not restore profitability. The reason is that the workers who earn lower wages and the unemployed workers who have less (or no) disposable income will reduce their consumption and thus the output of all firms. This reduces profits of all firms. They will then continue to cut costs leading to further reductions of output and profits.

Bank Credit Deflation

When one individual bank wants to reduce the riskiness of its loan portfolio it will cut back on loans and accumulate liquid assets. When the bank is alone to do so (and provided it is not too big), it will succeed because the strategy of the bank will not be felt by the other banks, which will not react.

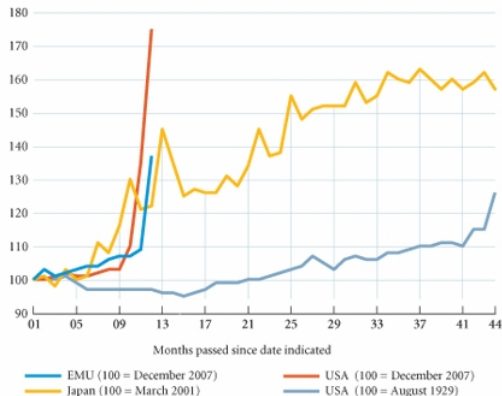
When banks are gripped by pessimism and extreme risk aversion the simultaneous reduction of bank loans by all banks will not reduce the risk of the banks' loan portfolio for two reasons. First, banks lend to each other. As a result when banks reduce their lending they reduce the funding of other banks. The latter will be induced to reduce their lending, and thus the funding of other banks. Second, when one bank cuts back its loans, firms get into trouble. If firms get into trouble banks will see that their loan portfolio has become riskier. They will in turn reduce credit thereby increasing the riskiness of the loan portfolio of other banks.

What was the policy response?

Monetary Policy

CENTRAL BANKS ACT WITH MORE DETERMINATION THAN IN 1929 OR IN THE CASE OF JAPAN

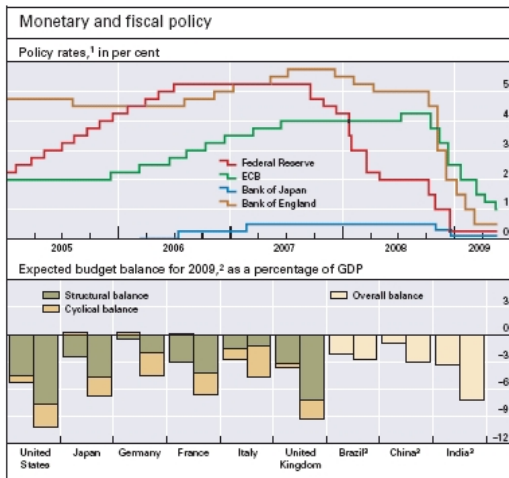
Indices of base money during various crises



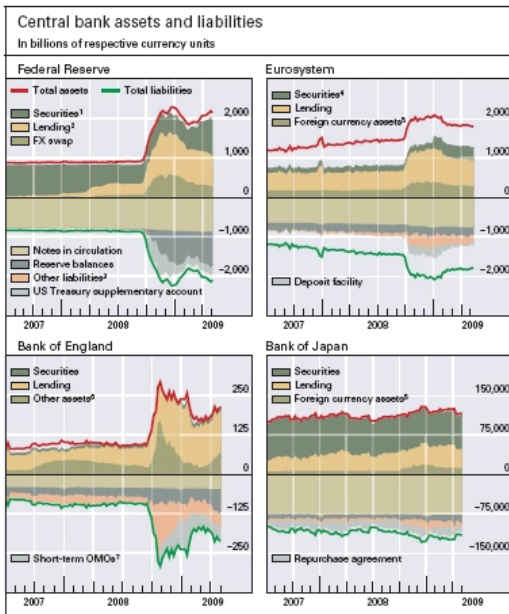
NOTES: Base money is the sum of cash in circulation plus deposits of financial institutions at central bank.

SOURCE: Federal Reserve Bank, European Central Bank and Bank of Japan.

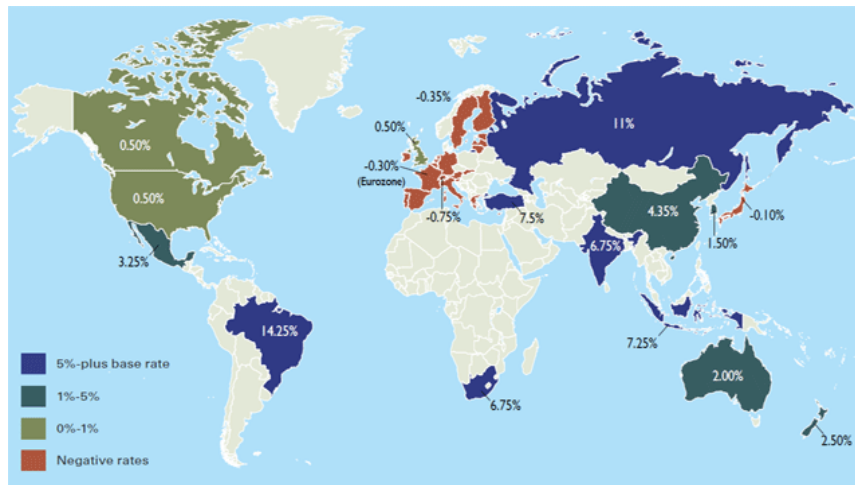
Interest Rate Toward Zero



Quantitative Easing



Policy Rates Historically low (even negative?)



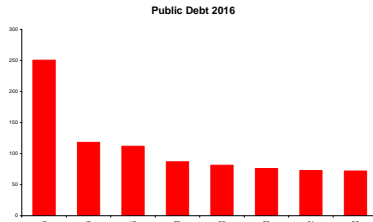
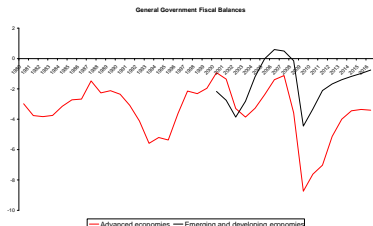
Aggressive Fiscal Policy (at the beginning)

Table 2. G-20 Countries: Discretionary Measures, 2008-10 1/2/
(in percent of GDP, relative to 2007 baseline)

	2008	2009	2010
Argentina	0.0	1.5	...
Australia	0.7	2.1	1.7
Brazil	0.0	0.6	0.8
Canada	0.0	1.9	1.7
China	0.4	3.1	2.7
France	0.0	0.7	0.8
Germany	0.0	1.6	2.0
India 3/	0.6	0.6	0.6
Indonesia	0.0	1.3	0.6
Italy	0.0	0.2	0.1
Japan 4/	0.3	2.4	1.8
Korea	1.1	3.9	1.2
Mexico	0.0	1.5	...
Russia	0.0	4.1	1.3
Saudi Arabia	2.4	3.3	3.5
South Africa 3/ 5/	1.7	1.8	-0.6
Turkey 8/	0.0	0.8	0.3
United Kingdom	0.2	1.4	-0.1
United States 7/	1.1	2.0	1.8
G-20 PPP-GDP weighted average	0.5	2.0	1.5
G-20 discretionary impulse 8/	0.5	1.5	-0.5

Fiscal crisis (after)

- ▶ Policy intervention necessary but not sufficient
- ▶ Without improving private sector position, fiscal position becomes unsustainable



Coordination Failure again - If everybody contracts, nobody stabilizes

The Crisis in South Africa

- ▶ Effect Mild (on output)
- ▶ Problems related to direction of capital flows (volatile) - see Brasil (or Switzerland)
- ▶ Effect Disastrous (On Labour Market)
- ▶ Future prospects uncertain - how do we cope with a lost decade in OECD - China might help
- ▶ Objectives at odds with reality (without large changes in economic structure)
- ▶ Need to free the potential in commodities and in services (and redirect towards the rest of Africa)

The Crisis 2008-2009 in South Africa

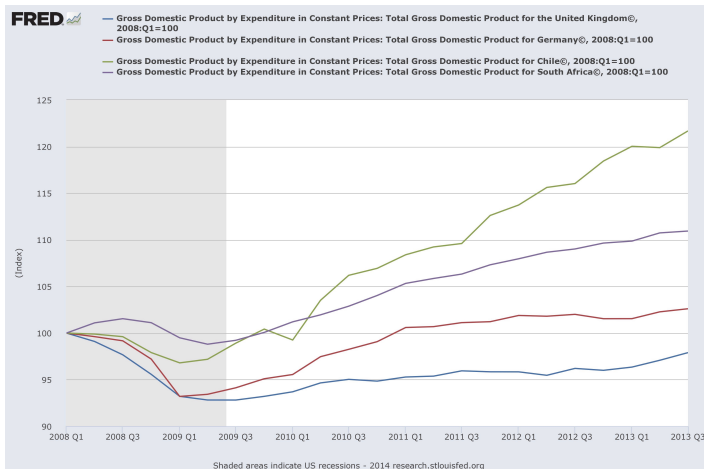


Figure: GDP 2008-2013 of selected countries

The Crisis 2008-2009 in South Africa

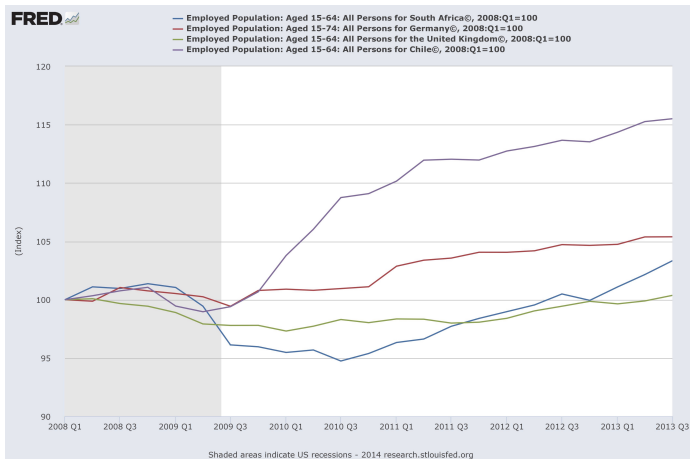
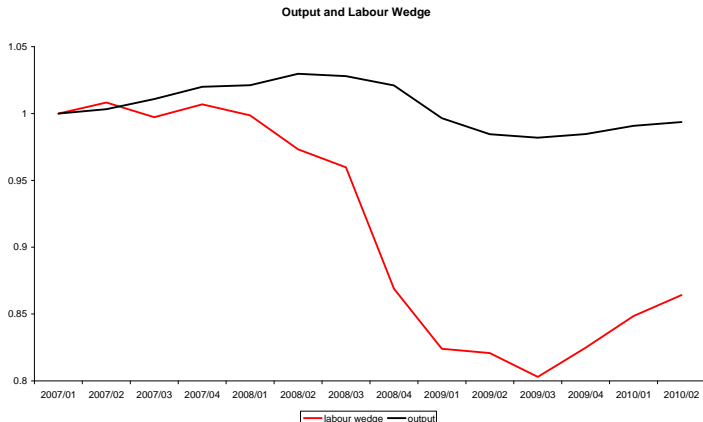


Figure: Employment 2008-2013 of selected countries

The Crisis 2008-2009 in South Africa



A Labour Market Story?