

Plate Tectonics

Source: Crisis Economics Roubini and Smith, cap. 4.

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Introduction

Subprime credit is to blame for the crisis is reassuring.

Underline factors:

- Expansionary monetary policy of Fed;
- Government favoring house ownership;
- Corporate governance transformation;
- East Asia flow of funds towards US;
- Growth of shadow banking.

Like an **earthquake** an economic crisis is the result of **enormous pressures** that were built in years.

Financial innovation

Bubble may start with a technological innovation:

- Railroad in the 1840s in England
- Dot-com bubble in the 90s
- The 2007 crisis started with a financial innovation:
cartolarization

Cartolarize means creating a security over a loan and sell it. The buyer will receive the payment of the interest and the principal by the borrower.

Cartolarization reduces bank risks because it changes the 'originate and hold' model. A bank that emits a loan had to hold it until the borrower pay back all. This instrument are **mortgage-back securities**.

Cartolarization

In the 1990s the **saving and loans crisis**, when many local banks failed because of not performing mortgages, if they had securitized them they had not failed.

This leads to the '**originate and distribute**' model against the **originate and hold**.

Asset-back securities

After mortgage also consumer loans (student, auto, credit card) and corporate loans leading to the more general **asset-back securities**.

In general **who originates have few incentives** to control the reliability of borrowers and also rating agencies have few incentives.

More complex instrument are created as **CDOs** where more **asset backed securities are pooled together**, making more difficult to understand the real riskiness of an asset.

Moral Hazard and Cartolarization

Banks that distribute abs have no incentive in asserting the real reliability of borrowers.

Moral hazard is present also in **corporate governance**, managers are payed with bonus based on short term performance giving incentives to take risk and,thus, to increase leverage.

Shareholders may control managers but often financial firms rely on leverage, so it is not their money at stake.

Creditors of financial firms believe that in any case they will be saved by the central bank that in case of trouble will act as lender of last resort.

Government and its Discontent

Under Greenspan as chair the Fed **augmented the liquidity** of the system to **avoid financial crises** but not acted to prevent them:

- In the '90s the asset price of new tech firms increased sharply and when the bubble burst in the first 2000 the Fed flooded the market with liquidity;
- After the 9/11 decreased the discount rate until 2004, funding the housing bubble;
- Promoted financial market deregulation.

Government and its Discontent

Financial deregulation started in the '80s

- Abolition of the Glass Steagal act of 1933 which separates commercial from investment bank.
- Reduction of limit on leverage.

Government and its Discontent

Also **government intervention** is blamed for the crisis:

- Community reinvestment law to avoid discrimination toward low income classes in receiving mortgages.
- Public companies sustained the subprime mortgages market.

Shadow banking

Banks suffer of the **deposit mismatch**: loans take time to be payed back, while depositors may be withdraw any time.

To avoid bank run:

- Insurance on deposits.
- Lending of last resort.

But at the same time banks are subjected to **monitoring and control**, also international (the Basilea Commitee).

To avoid regulation **shadow bank** system which suffer the same maturity mismatch of banks but have not any public safety net.

A world awash in cash

From 2004 to 2006 **Fed increased the interest rate** from 1% to 5.2% but it did not increase the interest rate on mortgages.

In globalized financial market there is a **strong demand of assets denominated in dollars**, in particular from East Asia

US is a net importer and funds its importation of goods through the flow of capital from other countries.

Therefore, **international capital** market provided **huge amount of liquidity** for the US financial market.

Lure of leverage

The **private sector leverage increased** since 1980: debt over Gdp went from 123% in 1981 to 290% in 2008. In all sectors: firms, household, financial sector.

In a deregulated market is easy to create a **pyramid of credit** in which agent borrow money to buy share of investment funds that in turns borrow money and so on.

Margin calls

Huge leverage creates instability as for the case of **margin calls**: banks want that the level of leverage of borrowers do not go under a certain level otherwise it is obliged to recapitalize or sell the asset.

Margin calls accelerate the burst of a title, because it increase fire sales in the market and may affect also other title that were safer.