



## ORIGINAL RESEARCH PAPER

Economics

## US Subprime Crisis Explained Through Flawed Incentive Structure

**KEY WORDS:** Financial Markets, Incentive Structure, Mortgage

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## ABSTRACT

Modern financial markets comprise of a number of participants namely; banks, insurance firms, stock brokerages, investment or merchant banks, hedge funds, pension funds, rating agencies, audit firms, sovereign wealth funds and the governments themselves. Each of these firms is faced with an incentive structure guiding its functioning. The paper explains the incentives faced by different set of market participants. The paper further argues that the incentive structure was flawed and was at odds with the stability of the US financial system in particular and the economy in general. This flawed incentive structure was the main contributor to the crisis witnessed in United States in the second half of 2000s.

## Introduction

Incentives matter in functioning of financial markets as they do for most things in life. Modern financial markets comprise of a number of participants namely; banks, insurance firms, stock brokerages, investment or merchant banks, hedge funds, pension funds, rating agencies, audit firms, sovereign wealth funds and the governments themselves. Each of these firms has a specific role and a set of incentive guiding its functioning. It is of utmost importance that the employees of these firms are faced with the right set of incentives for financial markets to be stable. Its only when the incentives facing individuals employed by these firms or incentives facing the firms themselves are flawed that a crisis such as the one witnessed in late 2000s occurs.

## Background

Technology is the chief driver of the modern economy. The end of the 20th century witnessed an unprecedented wave of technological development. The development of computers and information and communication technology changed the way industry operated. Routine jobs like that of a clerk could now be performed by simple computer programs. Cheap labour force in developing countries could be assigned jobs which could not be automated but still required minimal levels of skill. Such developments led to a significant slowdown in the creation of routine employment opportunities and wage growth in the United States. This was because the firms hiring such employees had an incentive to either automate or outsource the jobs in order to reduce cost and be competitive. The US government, which is responsible to manage an economy which has consumption as its backbone was faced with a dilemma on how to keep the economy going. They chose to either liberalise the regulations governing mortgages or regulatory forbearance if the existing rules were flouted by mortgage providers. The incentive for the government was that house purchases will create a wealth effect and induce people to keep on spending even if their earned income did not support such levels of consumption.

## Financial Market Participants and Flawed Incentives

## Mortgage Originators

These institutions specialised in the creation of mortgages. It was not their business to hold on to portfolio of mortgages on their own books. They simply created mortgages and sold them to other financial market participants. They profited as long as they were able to create mortgages. Once the pool of able mortgage seeking individuals was exhausted, they looked to others whose capacity to repay the loans was doubtful or even non-existent. Since, these firms did not have to recover the loans themselves, they were incentivised to create as many mortgages as they could and profit from them.

## Banks

The American banks were flushed with liquidity after the East Asian Crisis and they were hunting for avenues where funds could be invested. Mortgages were an attractive investment opportunity. Moreover, the banks has a ready source of mortgages made available by mortgage originators. As the size of the

mortgage market was increasing, consequent rising demand for houses was causing the value of houses to increase continuously. Since houses themselves served as collateral for the loans, the investment in mortgages seemed to be a riskless one. So, banks were incentivised to keep on investing in such assets.

## Investment Banks

These firms found an opportunity of profit from the ongoing cycle of mortgage creation. They discovered that there were a number of financial institutions willing to invest in mortgages but have some reservations. Pension firms could only invest in securities which were very highly rated. Banks wanted liquid securities on their balance sheets. Investment banks responded with securitization. The securitization process was deliberately made so opaque and complicated that it was near impossible for individuals to figure out the risk associated with them. Investment banks got them rated by the rating agencies and made them available to whoever was willing to invest in them. Since, the investment banks earned commission on the volume of securities they were able to create, they were incentivised to use even the worthless mortgages available in the market and mix them up with quality ones to keep on creating more and more securities.

## Rating Agencies

These firms are specialists in assessing risk of default associated with different securities. However, they are paid to assess the risk and provide a rating to bundles of securities by the owners or creators of the securities themselves. Within any rating agency, there is a ratings department which is responsible for going through the financial information and providing suitable rating to the bundle of securities. There is a marketing department which is responsible for bringing business for the rating department. The marketing departments seemed to have prevailed in the internal debates of rating agencies where the ratings departments were resisting to provide better than suitable rating for the bundle of securities and marketing departments were forcing the ratings department by arguing that even if our own firm would not do so there were other rating firms present in the market which would be willing to do that. Hence, the rating firms were incentivised to provide better than suitable rating to securities.

## Individuals

The average individual was witnessing on a daily basis how others were purchasing houses by taking on mortgages and making windfall by selling houses some months later and paying back mortgaging with the proceeds. Individuals with practically no income were able to do so. So, an average individual was incentivised to seek a mortgage, even if she had no income to pay back the loan.

## Conclusion

The mortgages had variable rates tied to benchmark interest rates of the economy. Everything seemed fine till inflation was subdued and the Federal Reserve seemed content to keep interest rates low in the economy. Around the year 2005, inflation in the United States started rising. The Federal Reserve, like any other responsible inflation combating central bank responded by hiking

the interest rates in the economy. This led to the interest rates associated with mortgages to rise and consequent to that the subprime borrowers started defaulting on their mortgages. Once defaults on mortgages were visible, foreclosures started happening and the housing market in the United States crashed. Had the incentive structure facing the financial market participants been different, a crisis of such proportion might have been avoided.

#### REFERENCES

1. Acharya, V. V., Richardson, M. (2009). Causes of the Financial Crisis. *Critical Review: A Journal of Politics and Society*, 21:2-3
2. Bank for International Settlements (BIS), (2008b), "Financial Globalization and Emerging Market Capital Flows," BIS Papers, No.44, December 2008
3. Carrillo, J. J. (2008). Dangerous Loans: Consumer Challenges to Adjustable Rate Mortgages. *Berkeley Business Law Journal*, Vol. 5, p. 1, 2008.
4. Jacoby, M. B. (2008). Home Ownership Risk Beyond a Subprime Crisis: The Role of Delinquency Management. *Fordham Law Review*, Vol. 76; UNC Legal Studies Research Paper No. 1074442
5. Lim, M. M. (2008). Old wine in new bottles: Subprime mortgage crisis - causes and consequences. *Journal of Applied Research in Accounting and Finance (JARAF)*, Vol. 3, issue1