Lessons from the Subprime Crisis

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What caused the subprime crisis?

• Some of the usual causes that are given in the press are:
  
  – Ratings agencies
  – Lack of transparency
  – Poor incentives
  – Inadequate risk management systems
The main cause...

- The Federal Reserve held interest rates too low for too long and this caused a bubble in property prices

- Without the significant drop in property prices there would not have been a problem
Why was there a proliferation in subprime mortgages?

• What was the reason subprime mortgages became so important?

• Why were they introduced and why have they caused such a problem?

• If we regulate them out of existence will we prevent the problem going forward?
Tax arbitrage

• In the US interest is tax deductible but rent is not

• This creates a significant incentive to turn rent payments into tax deductible interest payments

• This is what 100% mortgages do
Tax arbitrage (cont.)

• The buyer doesn’t own the house, the bank does

• The user of the house makes a fixed payment each month to cover the interest

• This is just like paying rent except it is tax deductible
As long as...

• Property prices keep rising

• If they fall then the arbitrage no longer works

• But property prices in the US had not fallen on average since the Great Depression

• In recent years property has outperformed other assets so it seemed like a good bet
Lesson 1

Central banks need to think carefully about the effects of monetary policy on asset prices, particularly property prices.

In the past very few central banks have done this. For example, the Federal Reserve argued this was not possible and focused solely on consumer price indices of inflation.
What’s going to happen next?

• What precedents provide the best guide?

• In the US we have not had situations like this on a nationwide basis since the Great Depression but in other parts of the world there have been many financial crises

• What is the most similar?
Japan in the 1990’s

• In the 1980’s the Japanese economy boomed

• There were huge increases in stock prices and particularly property prices

• Was it a bubble?
The Japanese Bubble

• The Nikkei index was around 10,000 in the mid-1980’s and peaked at just under 40,000 at the end of 1989

• In recent weeks almost 20 years later it has been trading around 12,500-13,000

• What about property prices?
The Lost Decade in Japan

- Property prices peaked in 1991 and then fell continuously for about 15 years ending up around 70-75% from their peak value

- This caused huge problems in the banking system that spilled over into the real economy

- Growth fell from being among the highest in the world to the lowest
Why are property bubbles so damaging?

• Price discovery takes a long time in property markets

• Because property values form such a large part of people’s portfolios both buyers and sellers are prepared to wait and market volume drops
Will it be as bad in the US?

- The housing price bubble was much smaller in the US

- The deviation from long term growth trend in property prices in the US was about 25%

- They have fallen about 10% so far suggesting about another 15% to go

- This would be painful but not catastrophic
Except…

- Japan has a very different kind of economy in terms of the way that firms and banks reacted to the downturn

- In particular firms place great weight on the interests of employees and other stakeholders
Firm priorities

Survey of managers:
• Which of the following two would be the most prevalent view in your country?

(a) Executives should maintain dividend payments, even if they must lay off a number of employees

(b) Executives should maintain stable employment, even if they must reduce dividends
Job Security or Dividends?

- Japan: 97% Job Security, 3% Dividends
- Germany: 59% Job Security, 41% Dividends
- France: 60% Job Security, 40% Dividends
- United States: 89% Job Security, 11% Dividends
- United Kingdom: 89% Job Security, 11% Dividends
How stable is the US economy relative to Japan?

- Japan stopped growing fast in the 1990’s but the economy did not have a long lasting deep recession

- How much of this was due to firms’ reluctance to lay off workers and of banks to call in loans?

- What happens if the US falls into recession how strong will the feedback effects be?
Why didn’t regulation prevent the crisis?

- Banking regulation is different from other kinds of regulation in that there is no wide agreement on the market failures it is designed to correct.

- It is backward looking in the sense that it was put in place to prevent the recurrence of past types of crises.
Standard rationale for banking regulation

• In the nineteenth century the Bank of England and other European central banks learned to deal with financial crises by intervening in the financial markets (Bagehot, *Lombard Street*)

• The US had no central bank and many crises

• The crisis of 1907 was particularly severe and led to the establishment of the Federal Reserve system in 1914 but it was decentralized and was not able to eliminate crises
Standard rationale (cont.)

• There was a perception that the banking crises in the US in the early 1930’s were an important contributing factor to the severity of the Great Depression

• The experience was so awful that it was widely agreed that it must never be allowed to happen again

• Anything and everything was done to prevent banking crises so in addition to reforming the Federal Reserve System and centralizing power extensive banking regulation to prevent crises was introduced
Standard rationale (cont.)

• In many European countries the response was even stronger and involved government ownership of the banking sector

• Governments succeeded in banishing banking crises – between 1945 and 1971 there were essentially no banking crises in the world

• But the regulation and public ownership went too far and prevented the financial system from being the visible hand of resource allocation so there was financial liberalization starting in the 1970’s
Standard rationale (cont.)

• Banking crises returned and there have been many in the last three decades

• Many studies such as Boyd, Kwak, and Smith (2005) find that the costs of crises vary significantly from being almost costless to very substantial with the average being at least 63% of real per capita GDP

• Policymakers’ view is typically that these large average costs justify extensive regulation to prevent crises
Standard rationale (cont.)

• But what are the costs of regulation?

• Are crises always bad?

• What exactly is the market failure?

• The Basel agreements illustrate the lack of a widely agreed theoretical framework
Panics vs. fundamentals

- There are two longstanding explanations of financial crises

1. Panics (Kindleberger (1978), Bryant (1980), and Diamond and Dybvig (1983))

Panics vs. fundamentals: Empirical evidence

- Gorton (1988) and Calomiris and Gorton (1991) provide evidence that in late 19th Century crises in the US were caused by fundamental shocks.

- Calomiris and Mason (2003) undertake a detailed econometric study of four crises in the 1930’s and conclude that three were caused by fundamental shocks while one was panic-based.

- Probably both are important but maybe fundamentals more so.
Panics

• Financial crises as self-fulfilling prophecies – multiple equilibria (Diamond and Dybvig (1983))

• Equilibrium selection?
  – Sunspots
  – Empirical evidence on the relevance of global games (Chen, Goldstein, and Jiang (2007))?
Panics (cont.)

• The market failure here is the coordination problem

• Lack of a widely accepted equilibrium selection mechanism is a significant problem for policy analysis of panics

• However, using a global games approach provides the potential for understanding how deposit insurance and capital regulation may be necessary to solve the coordination problem
Fundamentals

• Gorton (1988) found evidence that in the US in the 19th Century when a particular leading economic indicator (the liabilities of failed businesses) reached a critical level suggesting a coming downturn, a financial crisis occurred.

• Allen and Gale (1998, 2004a,b) model financial crises by having a leading economic indicator that provides public information about bank asset returns:
  – High returns do not cause a problem
  – Low returns cause a crisis
The provision of liquidity

• When markets are complete:
  – the price system ensures adequate liquidity is provided in every state and is priced properly
  – Intermediaries can pay for liquidity in states where they need it with excess liquidity in other states

• When markets are incomplete as they are in practice:
  – Prices are determined by the available liquidity or in other words the “cash in the market”
  – Equilibrium asset prices must be volatile to provide incentives for liquidity provision and this can lead to costly and inefficient crises
The symptoms

Models with incomplete markets and inefficient liquidity provision are consistent with


Inefficient liquidity supply is the second market failure that can justify intervention
Lesson 2

Banking regulation needs to be designed to solve market failures rather than imposed piecemeal as a reaction to crises.

Many banks focus on satisfying current regulations rather than thinking ahead.
Incentives

Why was Goldman Sachs able to avoid the worst effects of the crisis while other financial institutions such as Merrill Lynch did not?

– Goldman has a long run incentive system while firms such as Merrill Lynch do not
Reforms of incentive systems

Financial institutions need to reform the way they reward executives and base compensation on long run performance not annual performance.

They also need to be ready to fire executives that underperform and make sure they are not compensated in such situations.

This needs to be the big change in the industry going forward.
Lesson 3

Incentives of bankers need to be reformed but this should be a matter for the private sector and not regulated.

However, the Fed must not undermine private sector moves in this regard.
The Fed and Bear Sterns

It is very important the Fed does not bail out shareholders as they did with Bear Sterns.

They should have charged for the guarantee.

They could have avoided systemic risk while taking out the shareholders and ensuring senior management was replaced.
Cross-border cooperation

One of the most worrying aspects of the current crisis is the possibility for contagion across borders

UBS and the “too big to save” problem

The international community needs to do much more to coordinate crisis management

Société Générale problem provides an example of how not to do it
Lesson 4

Put in place a system of burden sharing so that crisis management can be effective in case a large multinational bank is faced with bankruptcy

Particularly important for the EU with its goal of a single market in financial services

A role for the IMF?
Importance of focus on financial stability

• After the crises in Norway and Sweden the Norges Bank and Riksbank started publishing Financial Stability Reviews.

• Now many central banks publish Financial Stability Reviews and devote considerable resources to the issue of financial stability.

• The Federal Reserve has lagged behind in this respect.
Lesson 5

The Federal Reserve System needs to place more emphasis on financial stability.

This may not have helped them to avoid the current crisis but on the other hand it may have led them to think through many of the issues that they are now faced with more carefully.
Concluding remarks

Many remaining issues

• Provision of liquidity at quarter-end and year-end and window dressing

• Mark-to-market accounting in financial institutions has severe drawbacks in times of crisis

• Fed view versus the ECB view and problems caused by exchange rate movements