Financial crises and macroeconomic policies

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Economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world.

— J. M. Keynes

Chapter Goals

- Explain why economists worry more about the collapse of the financial sector than the collapse of other sectors
- List the three stages of a financial crisis
- Discuss how herding and leverage can lead to a bubble
- Explain how extrapolative expectations can lead to bubbles and depressions

Chapter Goals

- Distinguish between nonsystemic and systemic risk
- Describe the three stages by which an economy gets out of a financial crisis
- Explain the importance of the moral hazard problem, the law of diminishing control, and the bad precedent problem

- In 2008, the world financial system seized up
  - Banks went bankrupt
  - The stock market dropped precipitously
  - The U.S. economy fell into a serious recession
- Government took extraordinary steps to try and calm the crisis
- Government expenditures went into the trillions of dollars

Why Are Financial Panics Scary?

- A financial sector collapse would bring all other sectors crashing down
- All the other sectors rely on a functioning financial sector
- The fear in October 2008 was that the financial crisis on Wall Street would spread from Wall Street (the financial sector) to Main Street (the real sector), creating not a *recession* but a *depression*

The Great Depression

- To start to understand the events and government policies of 2008 and 2009 is with history
- Crashes are made up of a combination of small events, each of which makes the economy worse
- In 1929, the stock market crashed (fell by 50%)
- Most economists expected the economy to recover on its own
    - "Prosperity is just around the corner"

The Financial Meltdown of the 1930s

- People had borrowed from banks to invest in the stock market boom of the 1920s
- When the stock market crashed, banks began to have trouble collecting on those loans
- If a rumor began to fly about a bank failing, people would withdraw all the money they had deposited before the bank closed (bank runs)
- The U.S. government acted to prevent an even greater financial breakdown, but the economy didn’t recover until World War II

Stages of a financial crisis:

1. Inflation of a **bubble** - unsustainable rapidly rising prices of some type of financial asset
2. The bubble bursts, causing a recession
3. The effects of the bursting bubble threaten the entire financial system
4. People cut spending
5. Firms cut back even more, creating a downward spiral that can turn a recession into a depression

Stage 1: The Bubble Forms

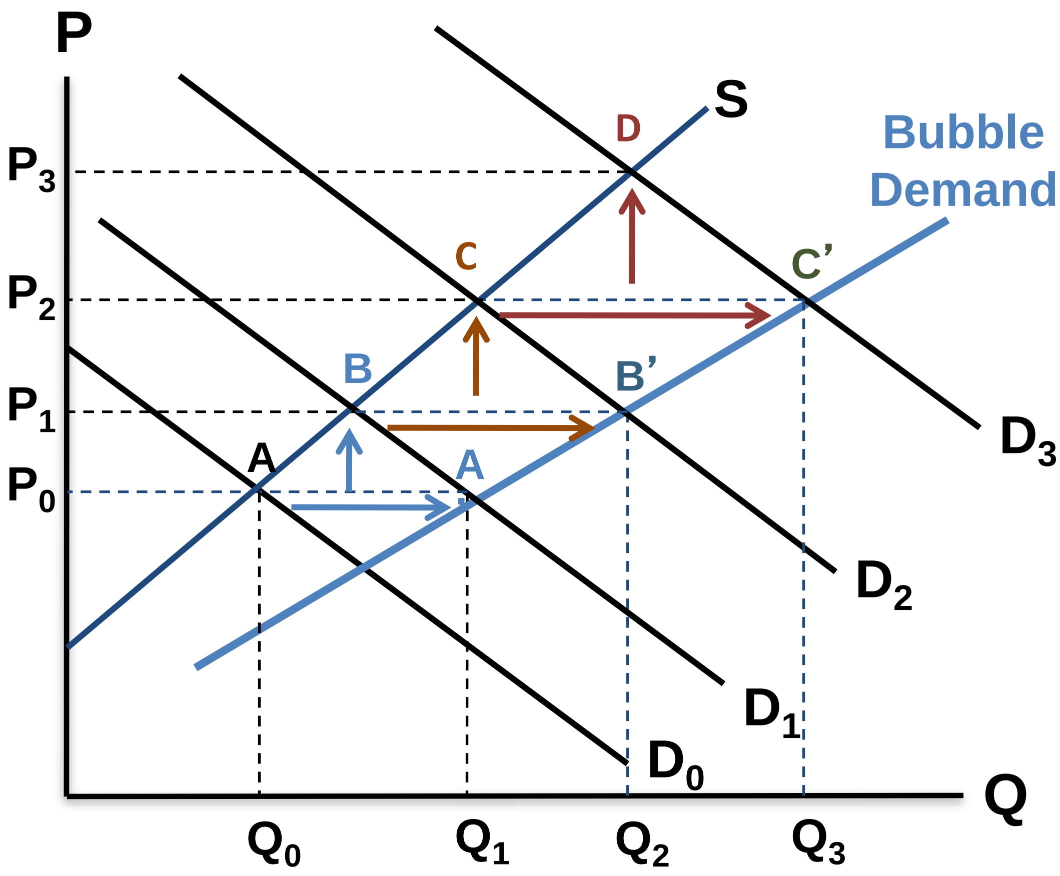
- Loose lending standards allowed families to borrow to buy houses, and home values were increasing rapidly
- In 2006, housing prices started to level off and by 2007 housing prices began to fall precipitously
- The 1920s stock market bubble and the 2000s housing bubble were both formed because of:
    - **Herding** is the human tendency to follow the crowd
    - **Leverage** which is borrowing to make financial investments

Stage 1: The Bubble Forms

- The key to a bubble is **extrapolative expectations** which are expectations that a trend will continue
- Inflating a bubble depends on the ability of demanders to finance the increase in demand: leverage
- The process through which leverage creates credit is similar to the money creation process
- That creation process allows the endogenous expectations (expectations determined within the model) of rising prices to be met, and price increases to continue

Supply/Demand Forces in a Bubble

If expectations of asset prices are extrapolative, people will expect a price increase will continue, shifting demand to the right, which confirms that expectation



An effective upward-sloping bubble demand can result

Stage 1: The Bubble Forms

1920s: Leverage in the Stock Market

- People used the power of leverage to buy stocks whose prices they expected to rise so that they could sell them later at an enormous profit

2000s: Leverage in the Housing Market

- House prices kept rising, and leverage by homeowners made sense
- Leverage by homeowners was nothing compared with the leverage built on top of the housing market in the financial sector

Stage 1: The Bubble Forms

Securitization of Mortgages

- The process of bundling together and slicing up of mortgages into new financial instruments is known as securitization
- Slices are known as **mortgage-backed securities** which are financial assets whose flow of income comes from a combination of mortgages
- This securitization had two big advantages for local banks
  - **Diversification** and **liquidity**

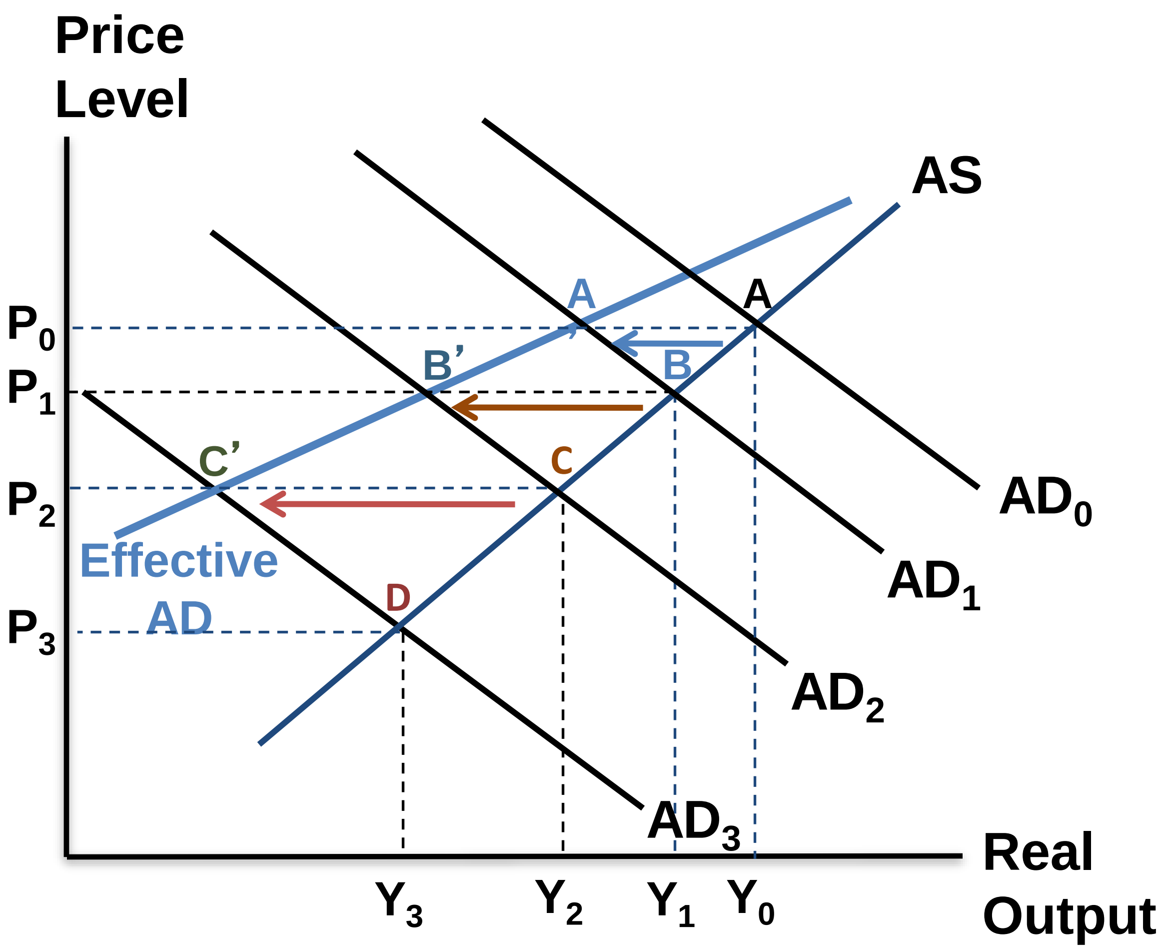
Stage 2: The Bubble Bursts

- A bubble bursts when people suddenly realize that an increase in perceived financial wealth is an illusion
- As everyone rushes to get into safe assets, herding and (de)leveraging work very fast in the opposite direction
  - It all happens much faster than the inflation of the bubble
  - Until a bubble bursts you cannot be sure it was a bubble

Stage 3: Financial Meltdown and Possible Depression

- A financial meltdown results when a bursting bubble undermines confidence in the entire financial sector
- Excess leveraging and the leveraging needed in the normal functioning of a market economy disappears
- As credit disappears, the economy seizes up and consumer and investor confidence evaporates
- The effectiveness of the standard monetary and fiscal policy tools is also compromised, making the problems extremely difficult to solve

AS/AD with an Expectational Accelerator: A Model of a Depression



Extrapolative expectations about falling real output can lead to a cycle of shrinking aggregate demand

An upward-sloping effective aggregate demand curve

Why the Financial Crisis of 2008 Was Really Scary

- One problem was that insurance providers could only reliably provide insurance against **nonsystemic risks**, which are risks of one event that are offset by another event elsewhere
- **Systemic risks** are the risks of a problem happening to all parts of the economy simultaneously
- People are often slow to perceive systemic risks because individuals don't realize that their experience is shared by others

How Do Economies Get Out of a Financial Crisis?

1. The **triage stage** in 2008 involved a $700 billion financial bailout of banks in an attempt to prevent the entire financial system from collapsing
2. The **treatment stage** involves expansionary monetary and fiscal policy
3. The **rehabilitation stage** involves the development of regulatory rules that prevent future harmful economic bubbles

How the Government Responded to the Great Depression

- Financial triage was reasonably successful
- Monetary policy was ineffective during the crisis
- Fiscal stimulus was limited
- New financial regulation was established
  - **Deposit insurance** is a system under which the federal government promised to stand by an individual's bank deposits
  - **Glass-Steagall Act** was passed in 1933 that created deposit insurance and a number of banking regulations

How the Government Responded to the 2008 Crisis

- Stronger and quicker financial triage using
  - **Quantitative easing** is nonstandard monetary policy designed to expand credit in the economy
  - Troubled Asset Relief Program (TARP)
- Expansive fiscal and monetary stimulus
  - The Fed funds target rate was slashed to near zero and lending was expanded dramatically
  - Fiscal stimulus packages in early 2008 and 2009

The Problem of Rehabilitation: Facing Withdrawal Pains

- Rehabilitation involves both offsetting all the damage government has done in the triage and treatment stages and redesigning the system to see that the conditions that caused the problem are resolved
- Two problems arise from the rehabilitation stage:
  - A **bad precedent problem** is the problem that if you give a bailout to one, all want it
  - The **moral hazard problem** is a problem that arises when people don’t have to bear the negative consequences of their actions

Establishing Appropriate Financial Regulatory Rules

- The rules of the game need to be changed so that such crises don't happen again
- First, politics is likely to guide regulations
- Second, even if the government establishes the appropriate regulation now, they will likely no longer be appropriate in the future
  - The **law of diminishing control** which holds that whenever a regulatory system is set up, individuals or firms being regulated will figure out ways to circumvent those regulations

General Principles of Regulation

Three general precepts about dealing with financial crises:

1. Set as few bad precedents as possible
2. Deal with moral hazard
3. Deal with the law of diminishing control

Chapter Summary

- The financial sector provides the credit that all other sectors need for both day-to-day and long-term needs
- If the financial sector were to collapse, all other sectors would crash along with it
- The stages of a financial crisis are (1) a bubble forms, (2) the bubble bursts, and (3) the financial sector collapses and a depression may follow

Chapter Summary

- The two ingredients of a bubble are herding and leveraging
    - Herding creates the run up in prices and leveraging increases people's ability to herd, which further increases prices
- When the market experiences a shock that leads to higher prices, extrapolative price expectations can lead to an upward-sloping effective demand curve and a bubble
- Herding and leverage also work in reverse, but with greater speed

Chapter Summary

- In a depression model with extrapolative expectations, there can be an upward-sloping effective demand curve
- Nonsystemic risk is a risk that is caused by the occurrence of one local event and can be covered by an offsetting event elsewhere
- Systemic risk is a risk of an event that affects the entire system and cannot be offset
- The three stages of responding to a financial crisis are (1) triage, (2) treatment, and (3) rehabilitation

Chapter Summary

- Triage and treatment of financial crises typically have bad side effects like the bad precedent and moral hazard problems
- The law of diminishing control is the observation that after a regulation is implemented, as time progresses, it becomes less and less effective because firms find ways around the regulations