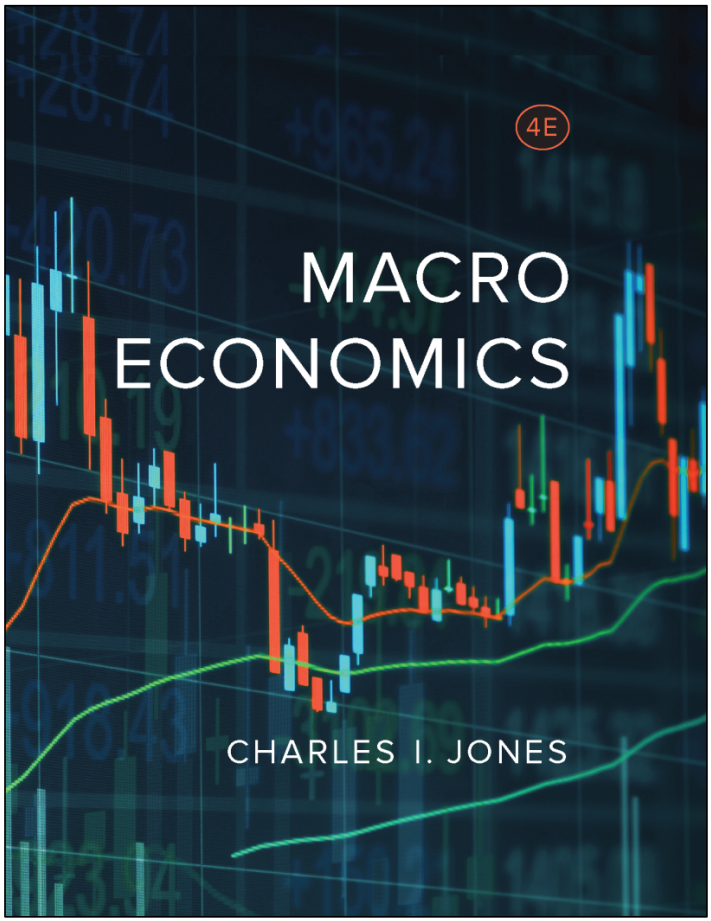
Chapter 14

The Great Recession and the Short-Run Model

Financial crisis



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Adapted by Simeon Alder, U Wisconsin - Madison

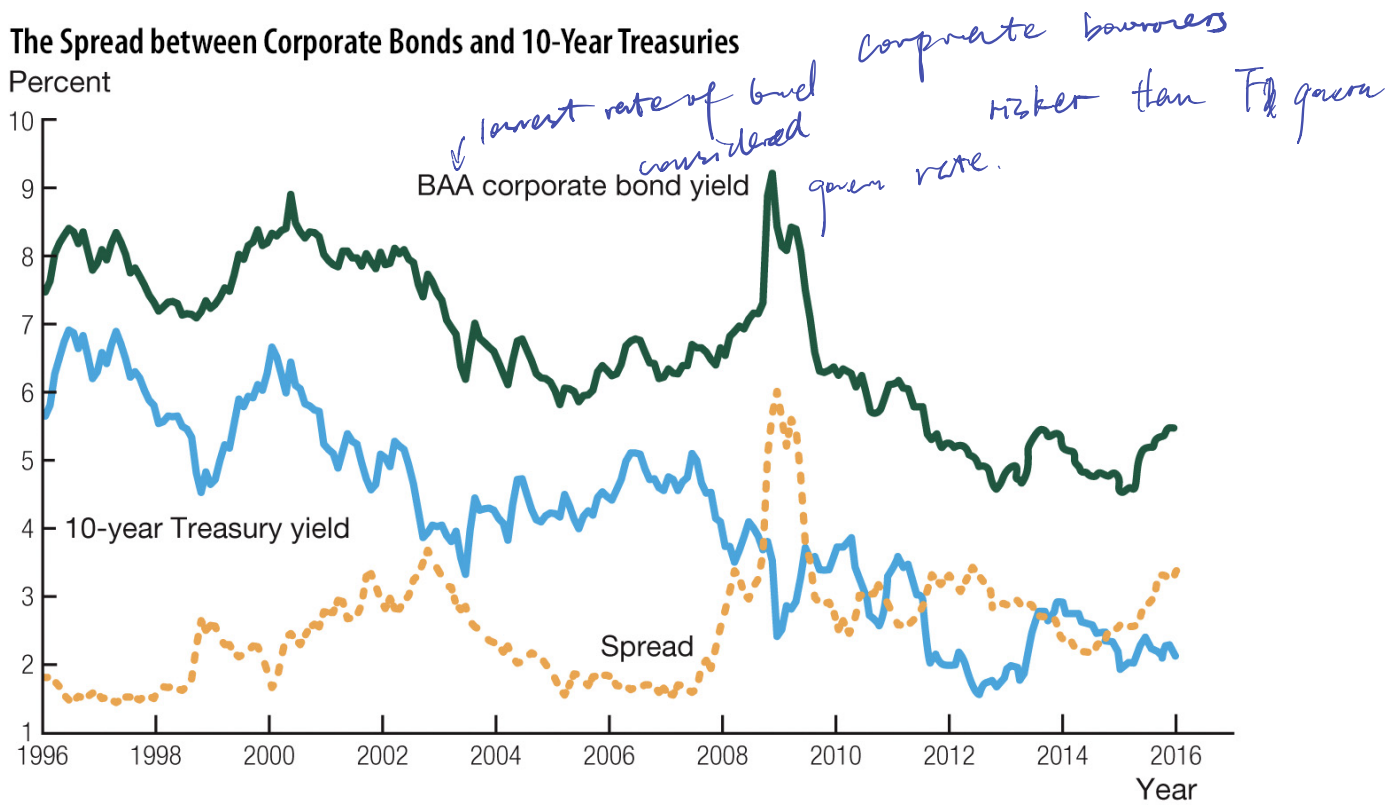
Monetary Policy during the Great Recession

- In this abbreviated discussion of chapter 14, we learn about:
  - The role of financial frictions
  - Unconventional monetary policy

14.2 Financial Considerations in the Short-Run Model

- Financial frictions
  - Can exacerbate spread between safe and corporate assets.
  - Low business lending and increased interest rates.
- Rise in interest spread
  - Interest rate moving in wrong direction
  -

The Spread between Corporate Bonds and 10-Year Treasuries



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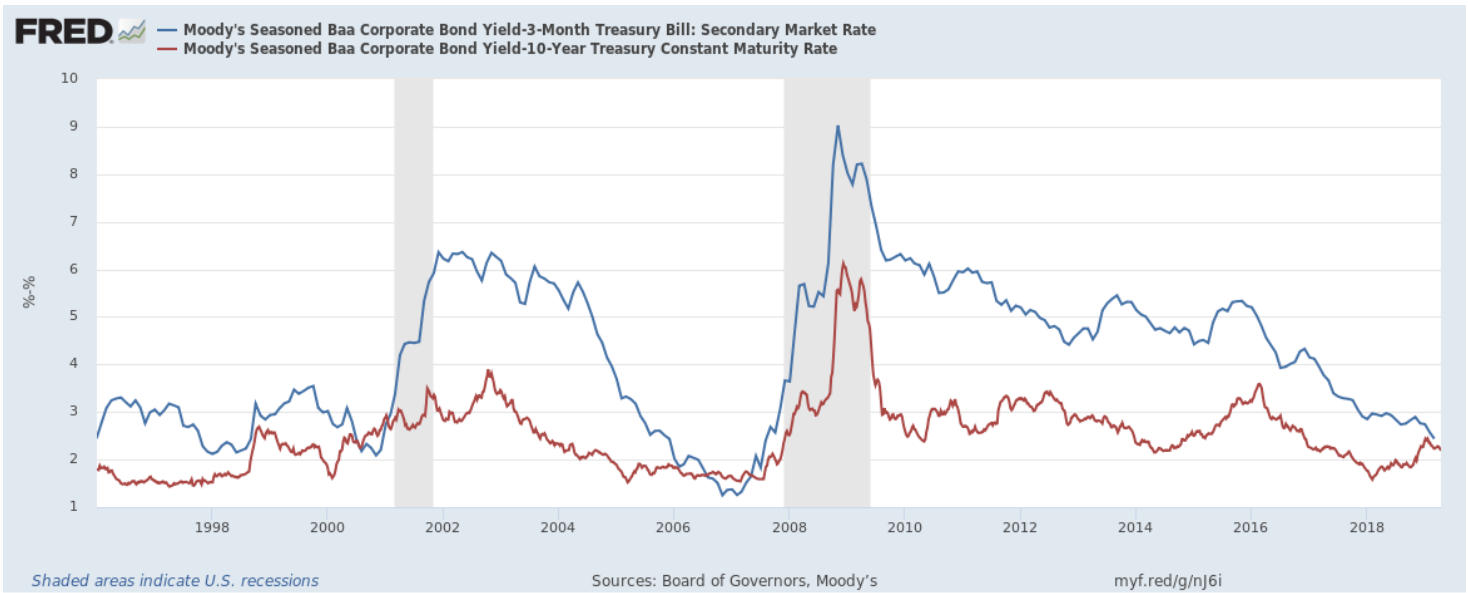


Interest Rate Spread

- Add financial frictions to our short-run model

$$R = R^{\text{ff}} + \bar{f}$$

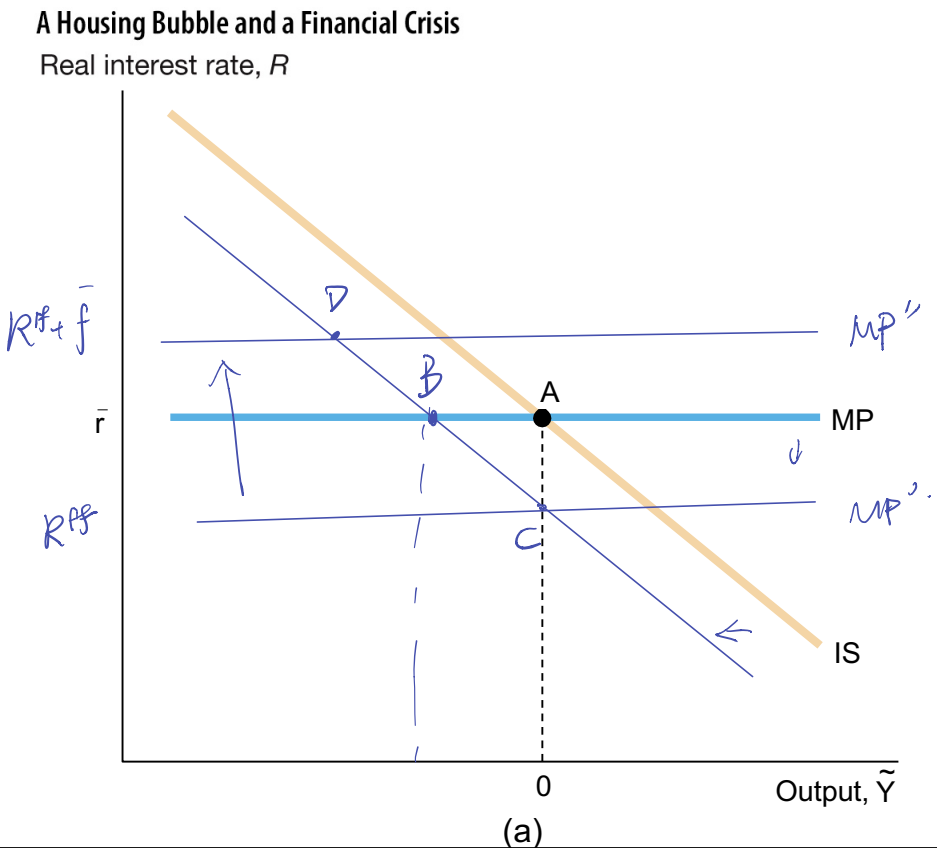
R: real interest rate at which firms borrow in financial markets.

R^{ff}: real federal funds rate.

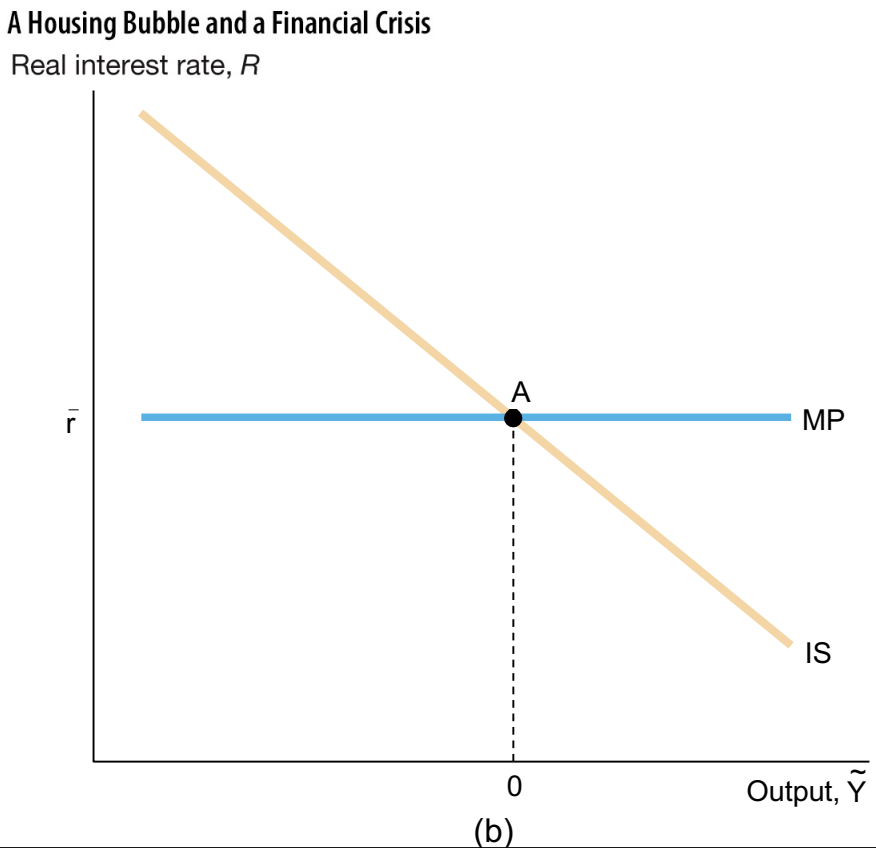
$\bar{f}$: financial friction.

- During normal times $\bar{f} = 0$
-

A Housing Bubble and a Financial Crisis—1



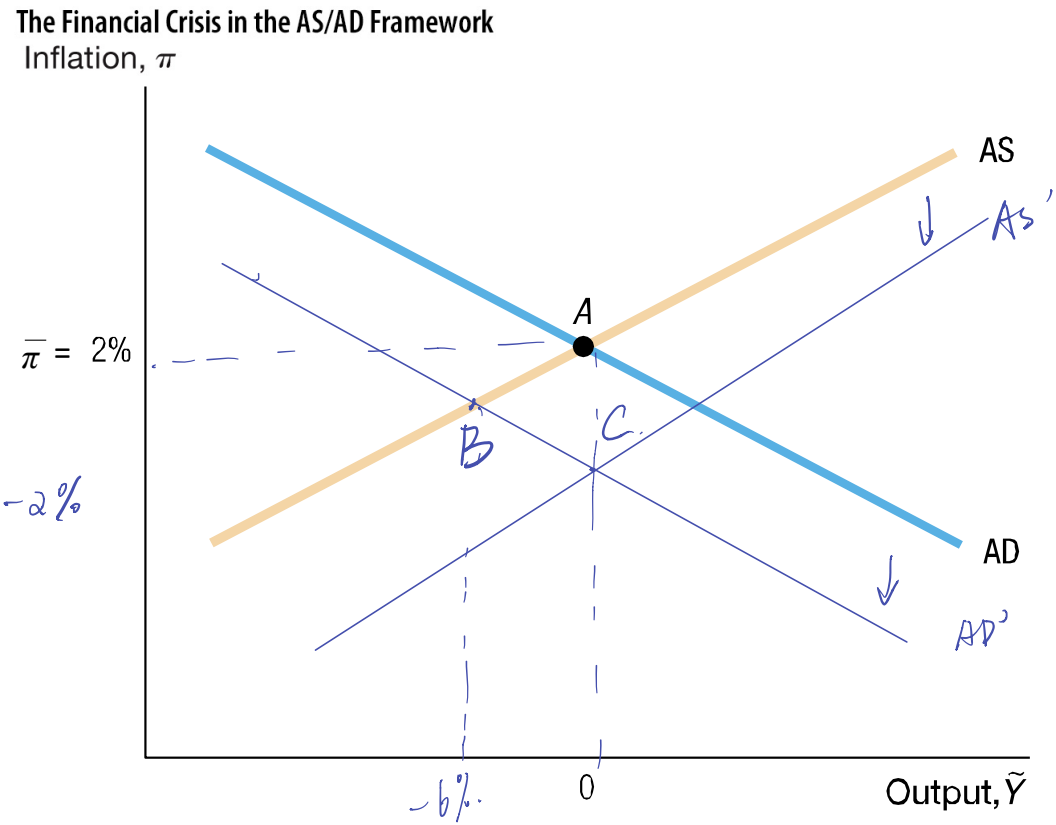
A Housing Bubble and a Financial Crisis—2



Financial Friction in the AS/AD Framework—1

- Financial friction
  - work through investment in the IS curve
  - shifts the AD curve inward
- A decline in housing prices (reduces household wealth) also acts like a demand shock (on consumption)

The Financial Crisis in the AS/AD Framework—2



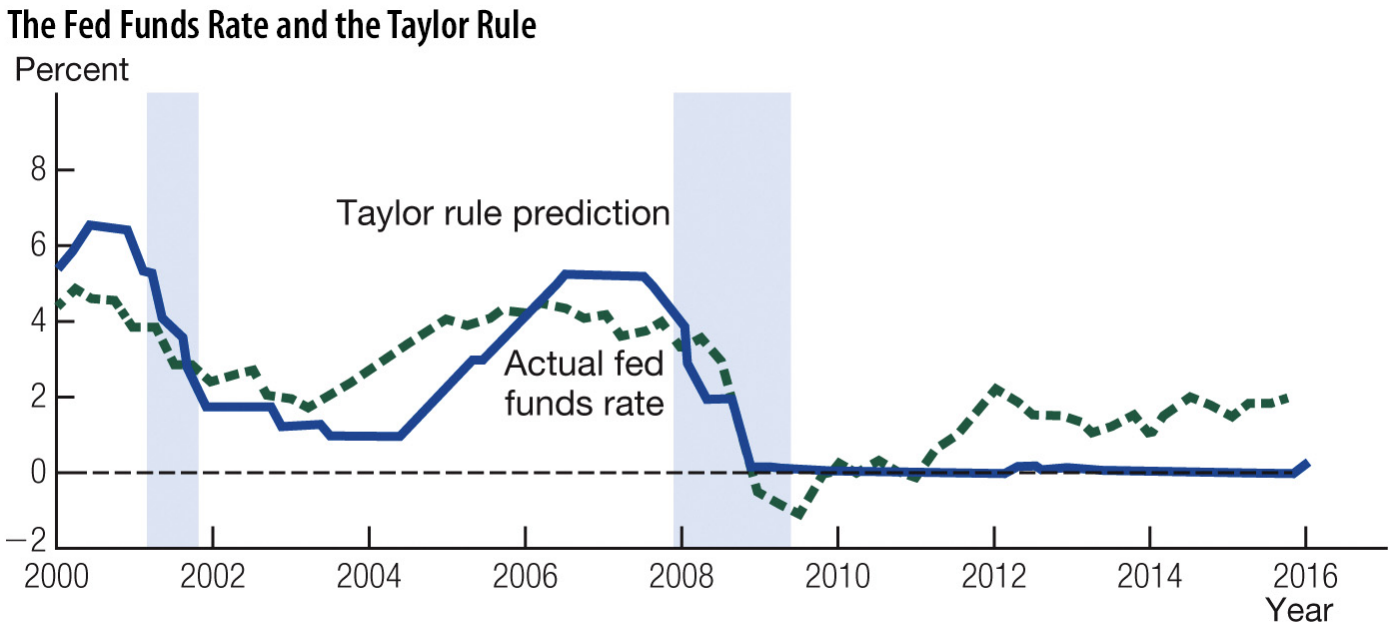
Case Study: Deriving the New AD Curve—1

- Recall:
  - IS curve: $\tilde{Y}_t = \bar{a} - \bar{b}(R_t - \bar{r})$ (1)
  - Policy rule: $R_t - \bar{r} = \bar{m}(\pi_t - \bar{\pi})$ (2)
  - Financial friction: $R = R^{ff} + \bar{f}$ (3)
- Combining (2) and (3) gives us:
  - $R_t - \bar{r} = \bar{f} + \bar{m}(\pi_t - \bar{\pi})$ (4)
- Substituting (4) into (1) yields the new AD curve
  - $\tilde{Y} = \underbrace{\bar{a} - \bar{b}\bar{f}}_{\text{AD shock}} - \bar{b}\bar{m}(\pi_t - \bar{\pi})$

14.3 Policy Responses to the Financial Crisis

- Simple policy rule:
  - The federal funds rate is a function of the gap between the current inflation rate and target rate
- More "advanced" Taylor rule adds the current level of short-run output :
  - The federal funds rate is a function of the gap between the current inflation rate and the target rate **in addition** to the gap between actual and potential output

The Fed Funds Rate and the Taylor Rule—1



The Fed's Balance Sheet

- Unconventional monetary policy
  - Provide liquidity and capital to financial institutions
- Dramatic changes to the Fed's balance sheet
  - Increased by a factor of five, growing by $3.5 trillion
  - Composition of assets and liabilities also changed

The Federal Reserve's Balance Sheet (billions of dollars)

TABLE 14.1

The Federal Reserve's Balance Sheet (billions of dollars)

Assets			Liabilities		
	May 2007	*March 2016*		*May 2007*	*March 2016*
U.S. Treasuries	790	2,461	Currency	814	1,440
Mortgage-backed securities	0	1,758	Reserves	7	2,455
Other	116	267	Other	85	591
Total assets	906	4,486	*Total liabilities*	906	4,486

Source: Federal Reserve Release H.4.1. See also James Hamilton's "Econbrowser" blog entry "Managing the Fed's Balance Sheet," December 27, 2015.

Financial Assets of the Federal Reserve