

INTRODUCTION

What is a Central Bank (CB)?

- A CB is a public entity, usually affiliated with a national government, that performs many key functions, including:
 - Issuing the nation's currency
 - Regulating the supply of credit in the nation's economy
 - Managing the external value of the nation's currency in foreign exchange markets
 - Holding reserves of other banks
 - Actively participating in the nation's government securities market



Federal Reserve

Background Information

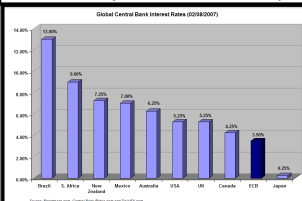
- Founded by Congress in 1913
- Has a dual mandate from the U.S. government to promote stable prices and maximize employment
- Changes in monetary policy are announced by the Federal Reserve Chairman at the Federal Open Market Committee (FOMC) meetings
- Regulates the supply of money and credit in the economy by changing the federal funds rate, which is the interest that banks charge each other on overnight loans
 - Rise in rate = curbs economic growth and controls inflation pressures
 - Decline in rate = stimulates economic growth
- Other traditional tools for regulating the supply of credit:
 - Discount Window: allows institutions to borrow additional cash from the Fed at the discount rate, which is higher than the federal funds rate
 - Open Market Operations: purchase and sale of financial instruments in the open market to change the level of deposits held by banks—provides the Fed with control over the federal funds rate

Response to the Financial Crisis

- Initial Response: Traditional Tools**
 - Initially, the Fed utilized its traditional tools to try to increase the supply of credit in the market—it lowered the federal funds rate, injected liquidity, and encouraged lending from the discount window by lowering the discount rate
- Traditional Tools Proved Ineffective**
 - The Fed's traditional tools were no match for the depth and complexity of the credit crisis—Why?
 - Cutting rates was not enough
 - The federal funds rate has been cut eight times since the crisis began and is now between 0 and 0.25%. The Fed is prepared to purchase long-term Treasury bonds to keep the rate low
 - The stigma associated with borrowing from the discount window signals to the market that a bank has liquidity problems, so banks in need did not use it
 - The Fed did not accept mortgage-backed instruments as collateral
- Unprecedented Action: Creation of New Tools**
 - Term Auction Facility (TAF): substitute for discount window; coordinated strategy among five CBs to make funds available to struggling financial institutions (Dec. 2007)
 - Provides funding on a collateralized basis at interest rates and amounts set by auction
 - Primary Dealer Credit Facility: constitutes the first time that the Fed has lent directly to unregulated investment banks (Mar. 2008)
 - Term Securities Lending Facility: lending tool that accepts a wide range of securities, including mortgage-backed securities, as collateral (Mar. 2008)
 - Cross Currency Swap Facility: provides increased dollar availability overseas
 - Commercial Paper Funding Facility: SPV will purchase three-month unsecured and asset-backed commercial paper directly from eligible issuers (Oct. 2008)
 - Term Asset-Backed Securities Loan Facility: Fed Bank of NY will lend \$200 billion to holders of certain securities backed by recently originated consumer and small business loans (Nov. 2008)
- Other Unprecedented Actions**
 - Bailout of failing financial institutions:
 - Engineered the sale of Bear Stearns to JP Morgan—the Fed assumed \$29 billion in loss exposure (Mar. 2008); AIG—the Fed loaned \$85 billion and now has an 80% stake in the company (Sept. 2008)
 - Note: The Fed refused to bail out Lehman Brothers (Sept. 2008)
 - Initiated a program to buy up to \$500 billion in debt and mortgage-backed securities from government-sponsored enterprises (Fannie and Freddie) (Nov. 2008)

Role of a CB in a Financial Crisis

- During a financial crisis, CBs often take on additional roles
 - Lender of Last Resort: CBs take on this role in order to support interbank lending and guard against systemic risk
 - Interbank Lending: in the credit crisis, banks have been wary of lending to one another, resulting in a rise in the interbank lending rate and the "freezing up" of credit. This forces banks to seek liquidity from the CB
 - Lender of Only Resort: lack of confidence in private money markets has put many CBs in this position



Current Central Bank Rates

Central Bank	Rates Prevailing As Of	Interest Rate
Bank of Canada	Jan 20 2009	1%
Bank of England	Feb 05 2009	1%
Bank of Japan	Dec 19 2008	0.1%
European Central Bank	Jan 15 2009	2%
Federal Reserve	Dec 16 2008	0.25%
Swiss National Bank	Dec 11 2008	0.5%
The Reserve Bank of Australia	Feb 03 2009	3.25%



Bank of England

Background Information

- Established in 1694, became state-owned in 1946, given the statutory responsibility of setting the UK's official interest rate in 1997, granted operational independence over monetary policy in 1998
- Two core purposes: monetary stability and financial stability
 - The BoE sets the bank rate, the UK's official interest rate, and is responsible for meeting the inflation target set by the chancellor of the Exchequer
 - The BoE shares duties of promoting financial stability with the HM Treasury and the FSA—framework for their co-operation = Memorandum of Understanding (revised 2006)
 - HM = Her Majesty's Treasury—has responsibility for the overall institutional structure of regulation and the legislation that governs it
 - FSA = Financial Services Authority—responsible for the authorization and supervision of financial institutions, for supervising financial markets and securities clearing and settlement systems, and for regulatory policy in these areas
 - The BoE contributes to the maintenance of the stability of the financial system as a whole

Response to the Financial Crisis

- Initially, the BoE took a wait-and-see, noninterventionist approach to the crisis—influenced by its division of responsibilities with the FSA
 - Initially refused to save Northern Rock, the failing mortgage lender in the UK
 - Unwilling to accept Northern Rock's high-quality mortgages as collateral for emergency loans
 - Rejected a proposal from TSB (major UK bank) to buy Northern Rock in return for a guarantee of Northern Rock's deposit (early Sept. 2007)
 - Initially left the bank rate unchanged and charged a penalty rate for emergency funding
 - Stigmatized borrowing from discount window and only accepted restrictive high-quality collateral for loans
 - Wanted to discourage culture of excessive risk-taking
- As the crisis went on, the BoE was forced to act aggressively in unprecedented ways
 - Eventually stepped in to save Northern Rock when it was on the brink of collapse (late Sept. 2007)
 - Broadened range of accepted collateral and eliminated the penalty rate for emergency funds (late 2007)
 - Introduced the Special Liquidity Scheme—similar to the Fed's TAF—to substitute for the discount window (2008)
 - The MPC recently cut interest rates to 1%, the lowest level in its 300-year history (Feb. 2009)
 - Government authorized the BoE to set up a 50 billion-pound asset-purchase program—starting February 2009, the BoE will buy assets including corporate bonds, commercial paper and syndicated loans

Unprecedented Action by CBs in the Current Crisis

- The current crisis has required CBs around the world to respond in unprecedented ways
 - There has been an extraordinary amount of coordination among CBs worldwide
 - Some CBs had to create new tools and lending facilities to deal with the effects of the crisis
 - Some CBs acted aggressively to bail out failing financial institutions
- Although other CBs have played important roles in responding to the global crisis, three CBs have been the focus of attention: the Federal Reserve (US), the Bank of England (UK) and the European Central Bank (EU)



European Central Bank

Background Information

- Established in 1998
- Responsible for monetary policy covering the sixteen member states of the Eurozone
- Primary objective is to maintain price stability (keep inflation low)—it maintains high levels of independence in this capacity
- Typically decides general monetary policy on its own and then relies on member states' CBs for implementation
 - Statute of the European System of Central Banks does not indicate to what extent ECB policies are to be implemented through activities of the ECB or national CBs
 - Generally, the ECB and national CBs jointly contribute to attaining the Eurosystem's common goals
 - However, the Statute requires the ECB to ensure that all tasks are carried out properly and consistently—to do this, the ECB has the power to issue guidelines and instructions to the national CBs



Response to the Financial Crisis

- Responded aggressively and fairly quickly
 - At the first sign of trouble in 2007, the ECB quickly injected 94.8 billion euros into the market to steady the Eurozone credit markets
 - Did not charge a penalty rate for accessing emergency funds
 - Always accepted a wide range of collateral, including mortgage-backed securities
 - Lowered its benchmark interest rate—it is now at 2%, the lowest level ever
- Able to address the crisis within its existing framework—did not have to create new tools
 - Has thus far refused to buy new kinds of financial assets from banks
 - Continues to participate in swap agreements with Fed and Swiss National Bank; continues to lower interest rates

Recommendations for Future CB Cooperation

- IMF Global Financial Stability Report, October 2008:**
 - "There is an opportunity and a need to move toward a macroprudential and regulatory framework that is more integrated in its approach and uniform in its standards, and that involves closer and more effective cross-border coordination and collaboration among supervisors, regulators, and central banks."*
 - "Mechanisms for closer and more effective cross-border coordination and collaboration among supervisors, regulators, and central banks are needed."*
 - "More frequent cooperation and communication between central banks, including information sharing, becomes ever more important in a crisis."*



CONCLUSION

Similarities in CBs' Responses

- The Fed, the BoE, the ECB and many other CBs around the world extended hundreds of billions of dollars in short-term loans to both commercial and investment banks
- Extraordinary Coordination
 - All three banks plus other CBs made a coordinated, simultaneous reduction in interest rates
 - The BoE, the ECB and others coordinated with the Fed to introduce the TAF to address elevated pressures in short-term funding markets
 - The Fed coordinated with the ECB and others in a cross-currency swap facility so that banks in Europe could have access to U.S. dollars

Differences in CBs' Responses

- The Fed and the ECB took a more interventionist approach to the crisis than the BoE
 - But the ECB was arguably more interventionist than the Fed
 - The Fed delayed due partially to: (1) Worries about inflation and congressional mandate to pursue maximum employment, stable prices, and moderate long-term interest rate; (2) moral hazard; (3) traditional Fed policy to ignore asset bubbles until they burst
 - The Fed and the BoE were forced to create new tools to deal with the crisis, but the ECB was able to respond to the crisis within its existing framework, although the ECB has been more cautious in cutting interest rates

Moving Forward

- While actions of CBs around the world have prevented wider damage to the financial system, sometimes unprecedented and ad hoc changes to operational frameworks were required, suggesting that CBs were not prepared for this extraordinary crisis
 - Thus, CBs (especially the Fed) may consider substantive philosophical changes for the future—i.e. identifying and attempting to control asset bubbles before they burst (Greenspan, former Fed Chairman, believed that this was typically impossible)
 - What will CBs do if their rates approach 0% and they can no longer lower interest rates?
 - May or may not utilize quantitative easing—injecting new money into the financial system