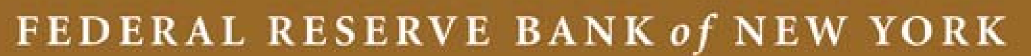

The Federal Reserve and Monetary Policy

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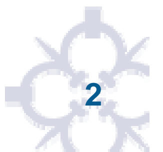
The views expressed here are those of the presenter and do not necessarily represent those of the Federal Reserve Bank of New York or the Federal Reserve System.

Outline

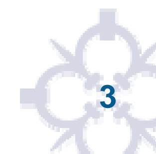
- The Federal Reserve System
  - History and structure
  - Basic responsibilities
- Monetary policy in the US
  - Objectives
  - Tools and operating targets
  - Transmission mechanism
  - Policy decisions and communication
- Policy challenges



The Federal Reserve System – A Brief History

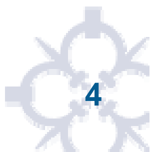
The ‘Fed’ is the central bank of the U.S.

- Created in 1913 with the enactment of the Federal Reserve Act
  - Main purpose: prevent bank runs and financial panics
- Evolved over time into a more independent central bank
  - 1935 - the Banking Act modifies the Fed’s structure
    - Creates the Federal Open Market Committee (FOMC) as a separate entity
    - Removes the Treasury Secretary from the Fed’s governing Board
  - 1951 - the Treasury Accord
    - Ends the long-standing practice of the Fed suppressing interest rates on Treasury securities.



The Federal Reserve System – Structure

- Board of Governors (in Washington, D.C.)
  - 7 members, appointed by the U.S. President and confirmed by the U.S. Senate
- Twelve Regional Federal Reserve Banks
  - The President of each regional bank is elected by the Bank's Board of Directors, and approved by the Board of Governors

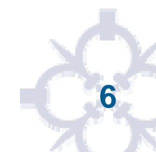


Basic Responsibilities of the Federal Reserve

- Monetary Policy
  - Influence monetary and credit conditions to attain maximum employment, stable prices, and moderate long-term rates
- Financial stability
  - Maintain stability in financial intermediation and address systemic risks that may arise in financial markets
  - Financial Stability Oversight Council (FSOC)
- Bank supervision
  - Ensure soundness of the banking and financial system
- Financial services
  - Provide financial services to depository institutions, the U.S. government and foreign official institutions;
  - Major role in the operation of the nation's payments system

Monetary Policy in the US: Overview

- Objectives
  - The Federal Reserve's "dual mandate"
- Tools and Implementation
  - Tools that the Federal Reserve employs to reach its objectives
    - Traditional tools
    - New tools implemented during the financial crisis
- Monetary Policy Transmission
  - How monetary policy affects the economy
- Policy Decision Process and Communications
  - The FOMC and monetary policy decisions
  - Communicating policy and its rationale

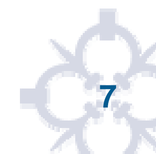


Monetary Policy Objectives

- The Federal Reserve has a "dual mandate"
  - Promote maximum (sustainable) employment
  - Promote price stability

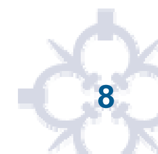
- Codified in the Full Employment and Balanced Growth Act ("Humphrey-Hawkins Act") of 1977

- The "dual mandate" and Fed's independence
  - The Fed is not goal independent
  - The Fed is instrument independent



Objectives: Maximum (Sustainable) Employment

- Long-run employment and output determined by:
  - Population growth, technological progress, preferences for saving, risk and work effort
  - Not by monetary policy
- In the short-run the economy goes through ‘business cycles’
  - Output and employment fluctuate above or below long-run levels
- Monetary policy can help to ‘smooth’ these cycles, and thus stabilize the economy
  - Maximum sustainable output and employment: levels consistent with the long-run ‘potential’



Unemployment Rate

Percent | Percent

11	11
10	10
9	9
8	8
7	7
6	6
5	5
4	4
3	3

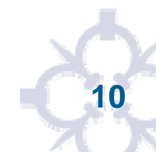
1970 1975 1980 1985 1990 1995 2000 2005 2010

Source: Bureau of Labor Statistics

Note: Shading represents NBER recessions.

Objectives: Price Stability

- Defining price stability
  - “An environment in which inflation is so *low* and *stable* over time that it does not materially enter into the decisions of households and firms” (Alan Greenspan)
- Why is price stability desirable?
  - Inflation is a generalized and continued increase in prices
    - Obscures relative price changes, distorting efficient resource allocation
    - High inflation is often volatile, which increases uncertainty about future inflation and complicates economic decisions
  - Deflation is a generalized contraction in prices
    - Raises the real burden of nominal debt
    - May induce households and business to defer spending; aggravate and economic contraction
- Typically monetary policy in major industrial economies aims at annual inflation of 2% or somewhat less



Inflation: Total and Core PCE Deflators

% Change - Year to Year

% Change - Year to Year

Source: Bureau of Economic Analysis

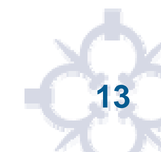
Note: Shading represents NBER recessions.

How the Fed Attempts to Attain Objectives

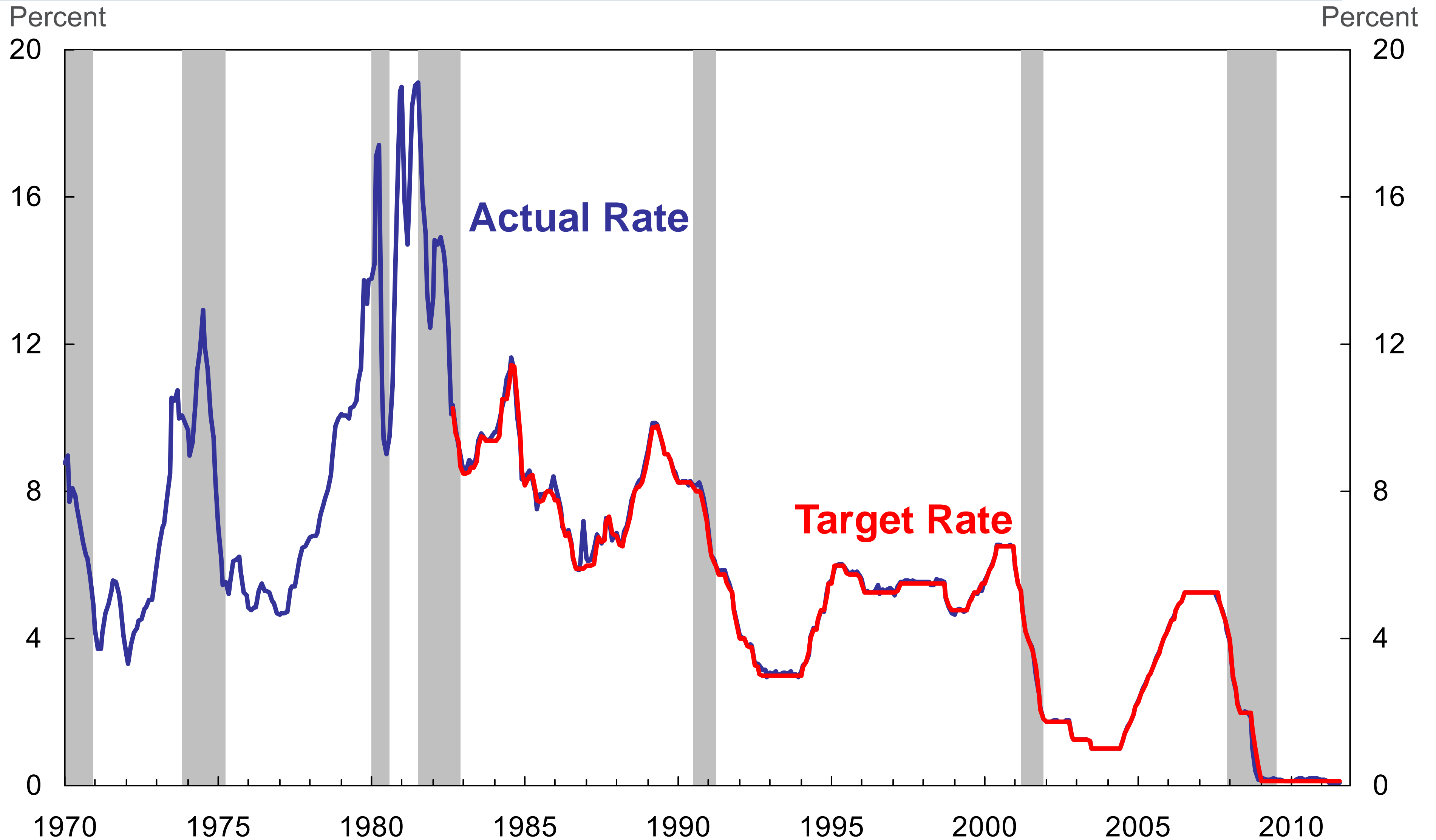
- Through its influence on the flow of credit
  - To provide economic stimulus, the Fed ‘eases’ credit
    - Lower cost of credit increases aggregate demand
  - To reduce economic stimulus, the Fed ‘tightens’ credit
    - Higher cost of credit reduces aggregate demand and potential inflation
- Tools to influence credit flows

Policy Implementation: Traditional Tools

- Main policy tool ('operating target'): the FFR
  - The Federal funds rate (FFR): the rate at which banks can borrow and lend reserves in the federal funds market
  - The Federal Reserve sets a target for the FFR, and adjusts the level of reserves to accommodate demand at that target
    - To *tighten* policy the Federal Reserve *raises* the FFR target
      - Reduces the supply of reserves so the market clears at that higher rate
  - The Fed adjusts reserves through open market operations
    - Purchases or sales of government securities on the secondary market
      - A purchase add reserves to the banking system
      - A sale drains reserves from the banking system



Federal Funds Rate



Source: Federal Reserve Board

Note: Shading represents NBER recessions.

The Fed began explicitly announcing a target rate in 1995. Data before 1995 comes from Daniel Thornton "A New Fed Funds Target Series"

Policy Implementation: Other Traditional Tools

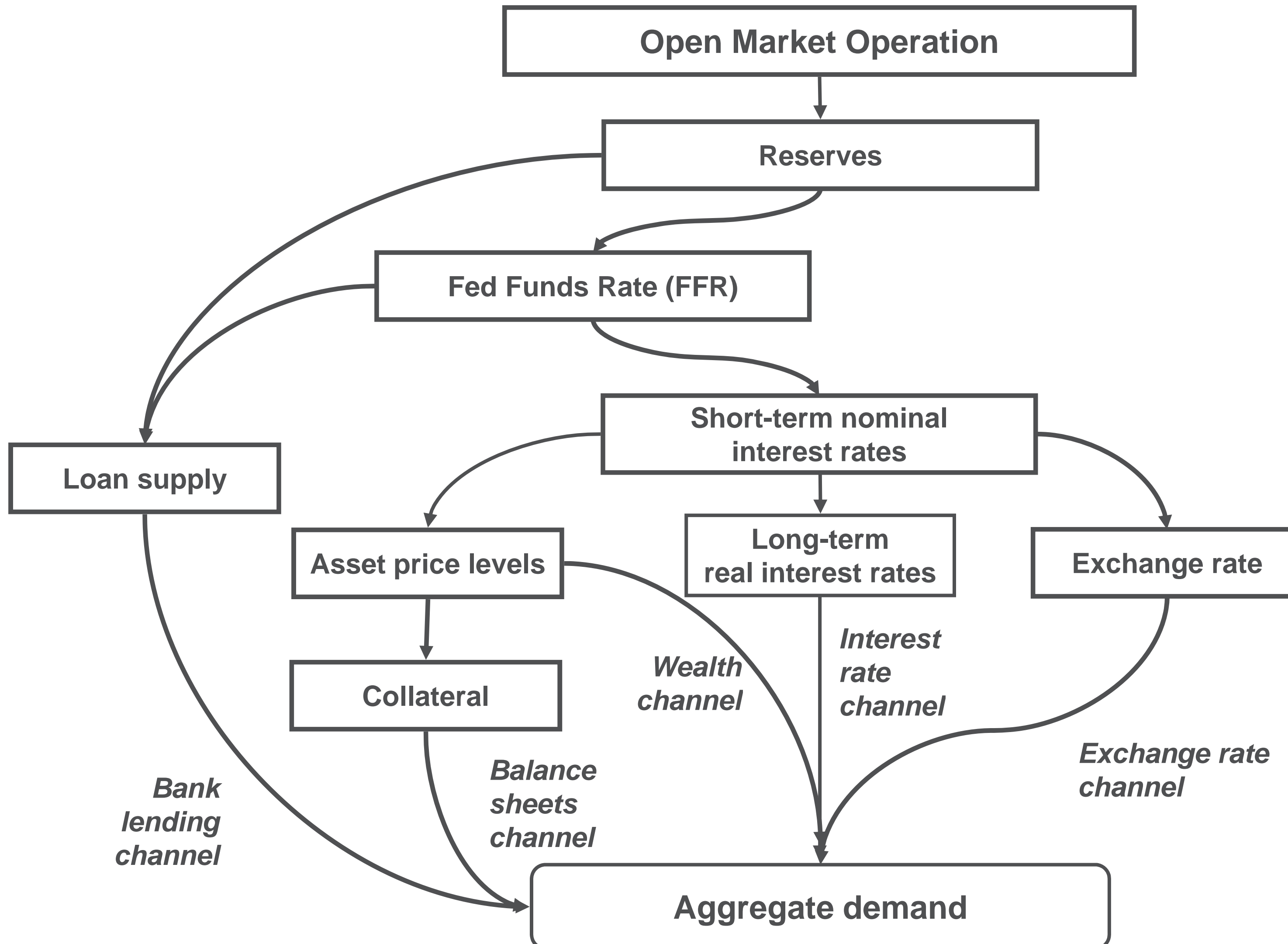
- Discount window
  - Direct lending from the Fed to commercial banks
  - The lending rate is the "discount rate"
    - An increase (decrease) in the discount rate tightens (loosens) monetary policy
    - Set above market rates to reflect a penalty for borrowing directly from the Fed

- Reserve Requirements (RR)
  - Commercial banks must hold a percentage of their deposits at the Fed
  - A higher RR ratio reduces the credit that banks are able to issue

Monetary Transmission Mechanism

- How policy decisions eventually affects the economy
  - The path from policy tools to policy objectives
- Monetary transmission is quite complicated
- Operating targets and policy tools have little direct effect on spending
- Policy affects the structure of nominal interest rates
  - It is through this effect that policy influences aggregate demand via various channels

Monetary Transmission: FFR Target Freely Set



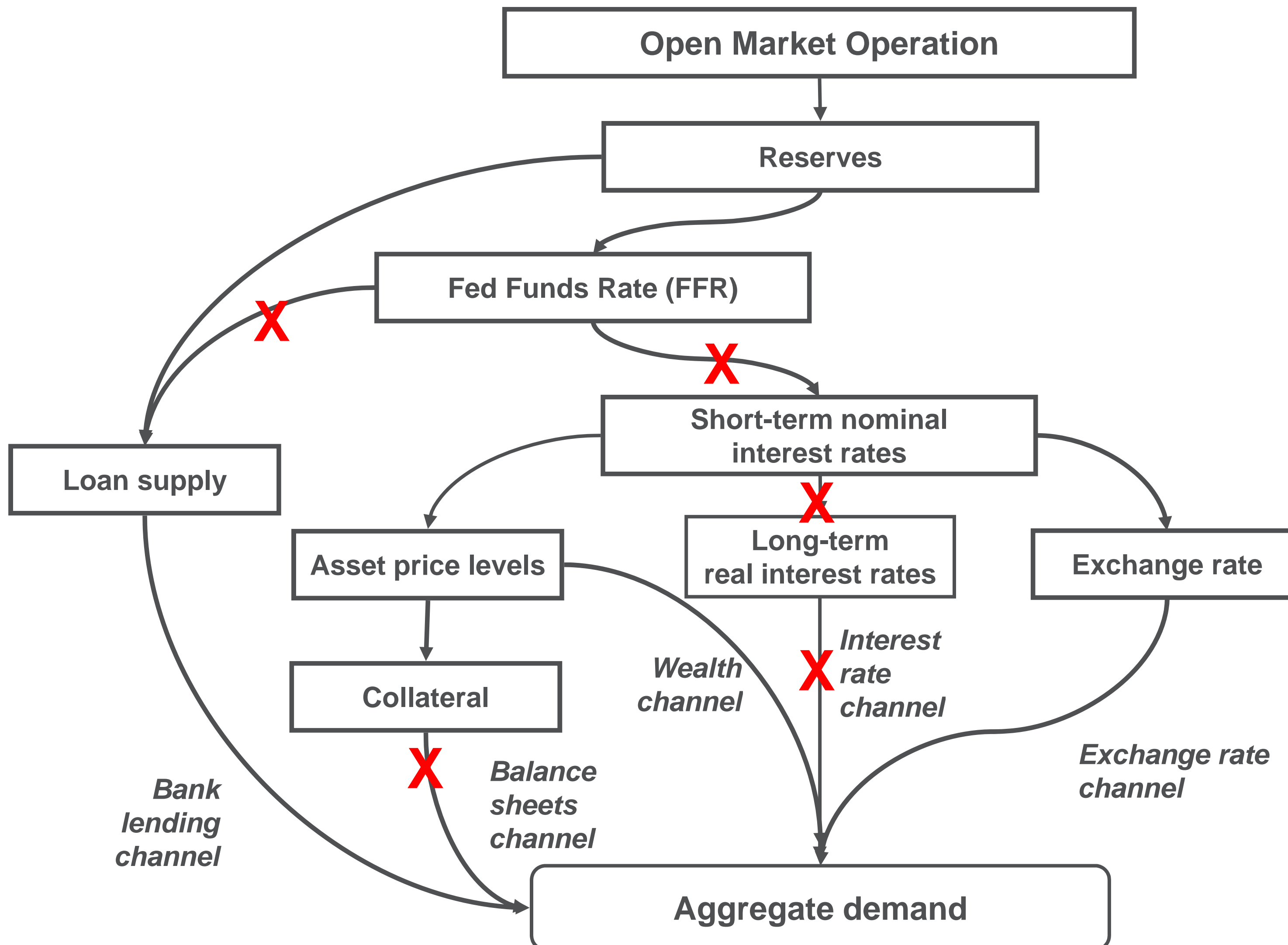
Transmission Mechanism Problems During Crisis

- This transmission mechanism apparently broke during the financial crisis

- Although the FFR target was reduced dramatically during this time:
  - Term lending was impaired
  - Credit market spreads widened

- These problems reflected:
  - Severe strains at financial institutions and markets
    - Uncertainty about future prospects of these institutions
  - Little willingness of investors to take on risks in financial markets

Broken Transmission Mechanism



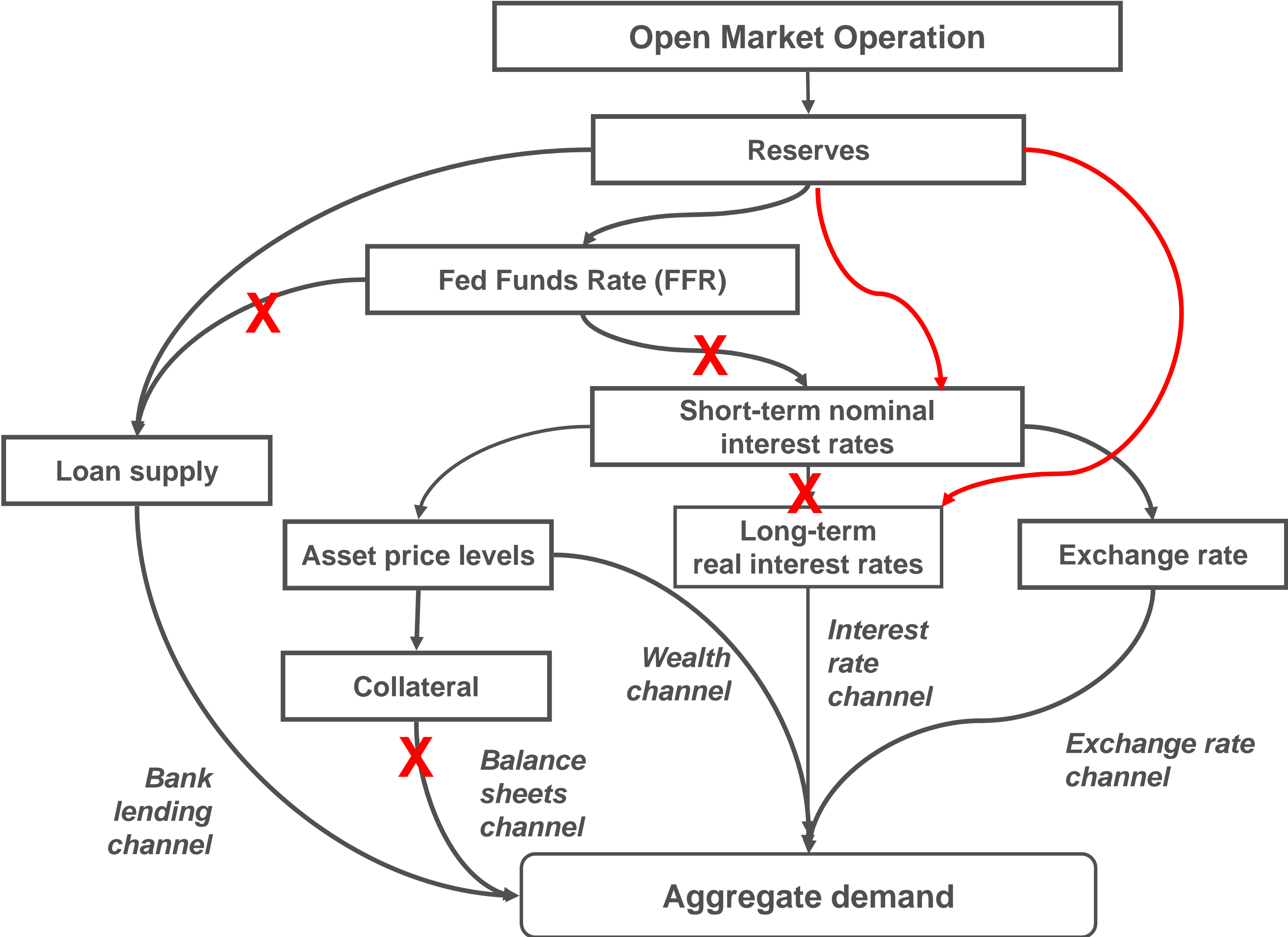
Monetary Policy Implementation: New tools

- Interest on reserves (permanent)
  - Pay interest on bank reserves beginning in October 2008
  - Separation between FFR target and reserve levels
- Lending and credit facilities (temporary)
  - Provide liquidity to the financial system and support extension of credit
    - Lending facilities for banks and financial intermediaries
    - Funding facilities for other market participants
    - “Credit easing” programs
  - Establishing some of these facilities in the future will be constrained by provisions in Dodd-Frank Act

Monetary Policy Implementation: New tools (cont.)

- Long-term asset purchases
  - More direct influence on long-term rates
  - Reduce ‘risk’ in these markets, including the mortgage market
  - Further discussion later in presentation

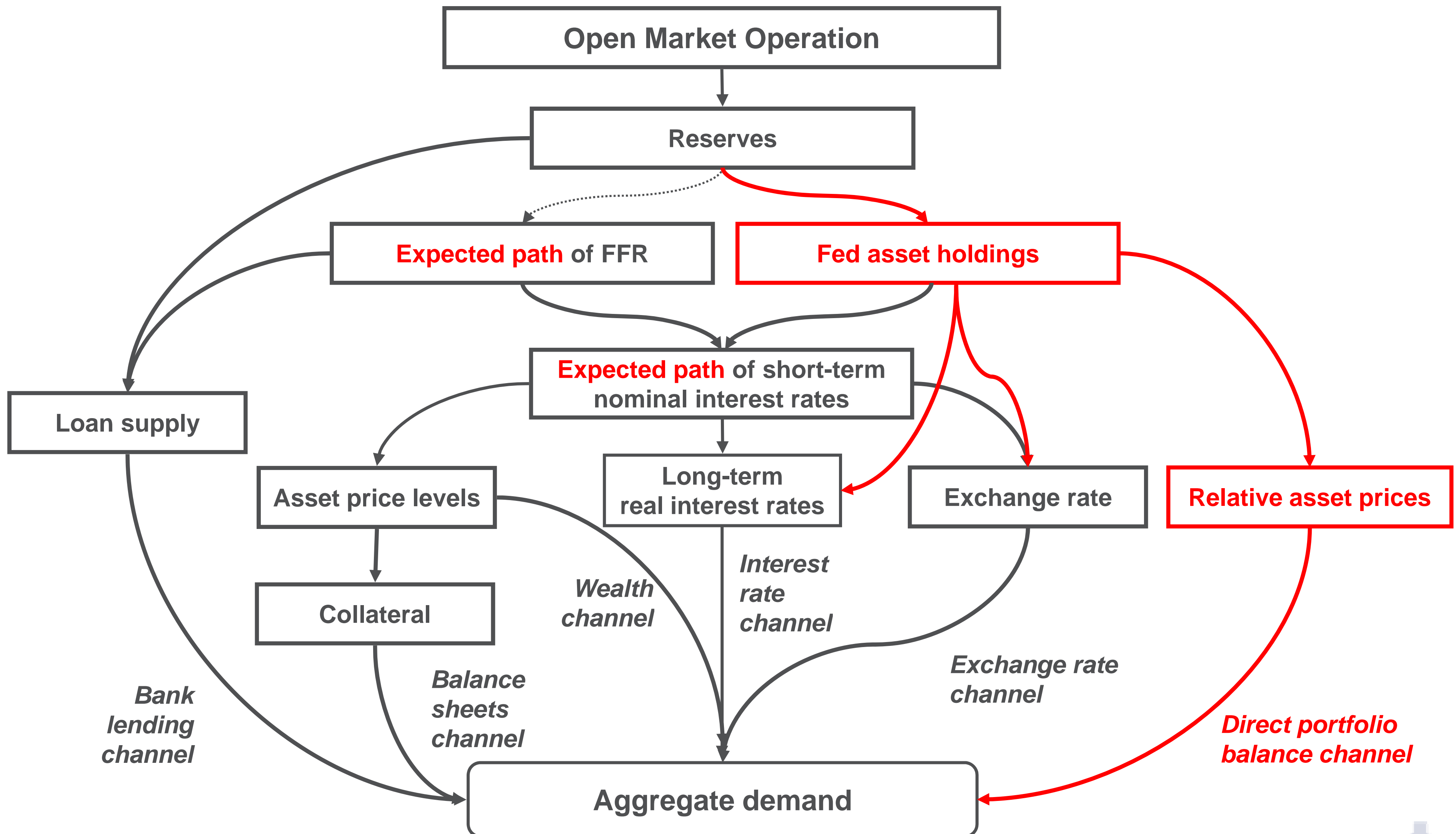
Addressing Broken Transmission Mechanism



Current Policy Environment

- With FFR near zero, little scope for further reductions
- Two sources of further accommodation
  - Policy commitment—promise to keep path of future FFR low
    - "…exceptionally low levels for the federal funds rate for an extended period." (June 22, 2011 FOMC statement)
    - "… are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013." (August 9, 2011 FOMC statement)
  - Use of second operating target: Fed asset holdings
    - Large scale asset purchases
      - Serve as a commitment device
      - Have also direct effect on long rates and other asset prices
    - Asset composition
      - September FOMC: Maturity Extension Program; MBS reinvestment

Monetary Transmission: FFR Near Zero



Short- and Long-Term Treasury Yields

Percent

Percent

5 4 3 2 1 0

August FOMC meeting

10-Year

2-Year

3- Month

Sept 15: 2.08

Sept 15: 0.19

Sept 15: 0.00

Jan-08 Sep-08 May-09 Jan-10 Sep-10 May-11

Source: Bloomberg

Note: Yields of on-the-run-securities.

Implications of Recent Policies

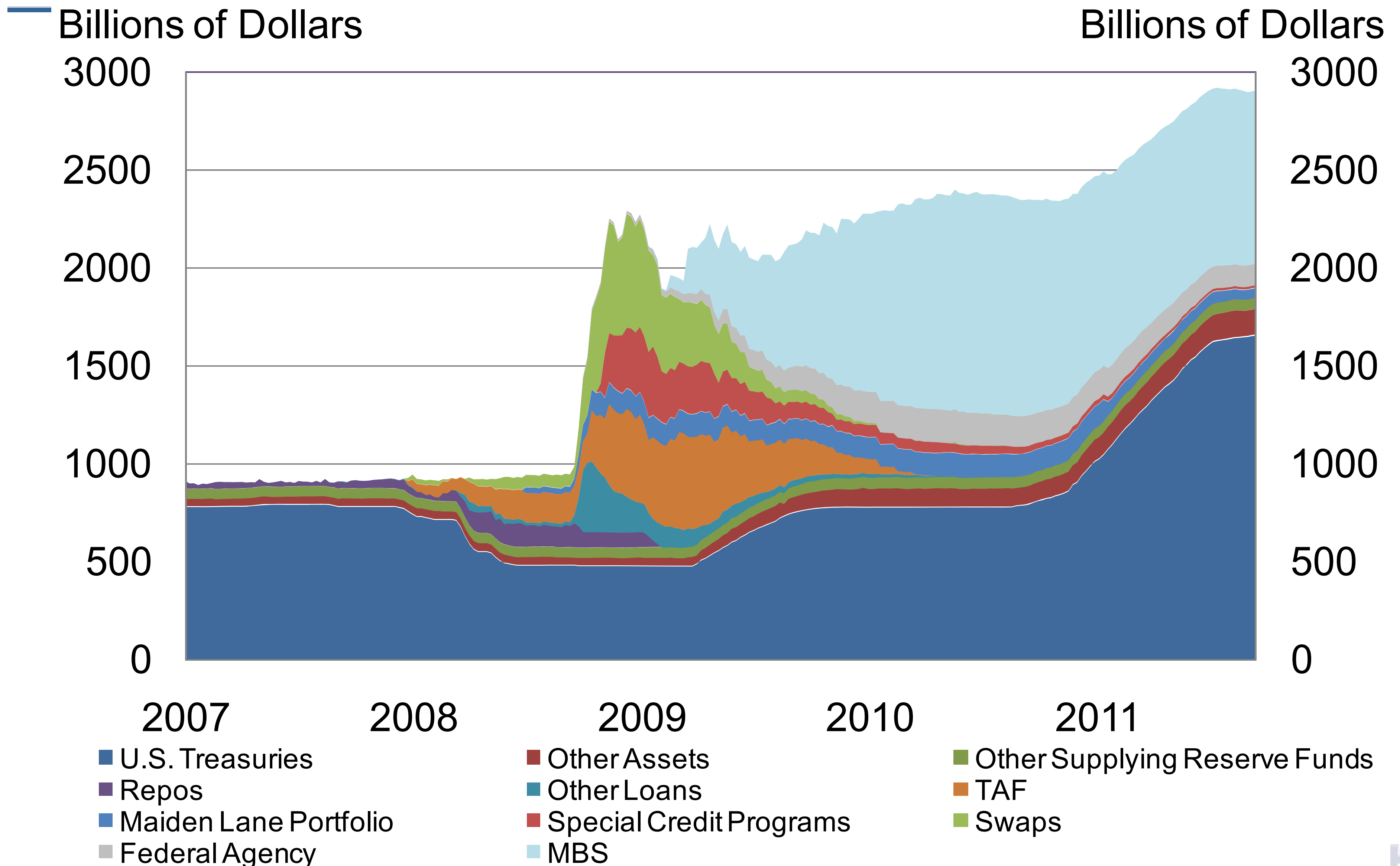
Policy actions during and since the financial crisis have changed the composition and the size of the Federal Reserve's balance sheet

- Assets
  - New set of loans and portfolio holdings under various credit programs while these programs were active
  - Large holdings of long-term Treasury securities and agency MBS
- Liabilities
  - Excess reserves have increased greatly

Balance sheet policy now another dimension of monetary policy

- Challenge: managing an expanded balance sheet

Federal Reserve Balance Sheet: Assets



Source: Federal Reserve Board

Federal Reserve Balance Sheet: Liabilities

Billions of Dollars

Billions of Dollars

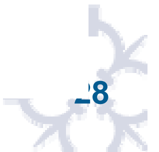
3000
2500
2000
1500
1000
500
0

3000
2500
2000
1500
1000
500
0

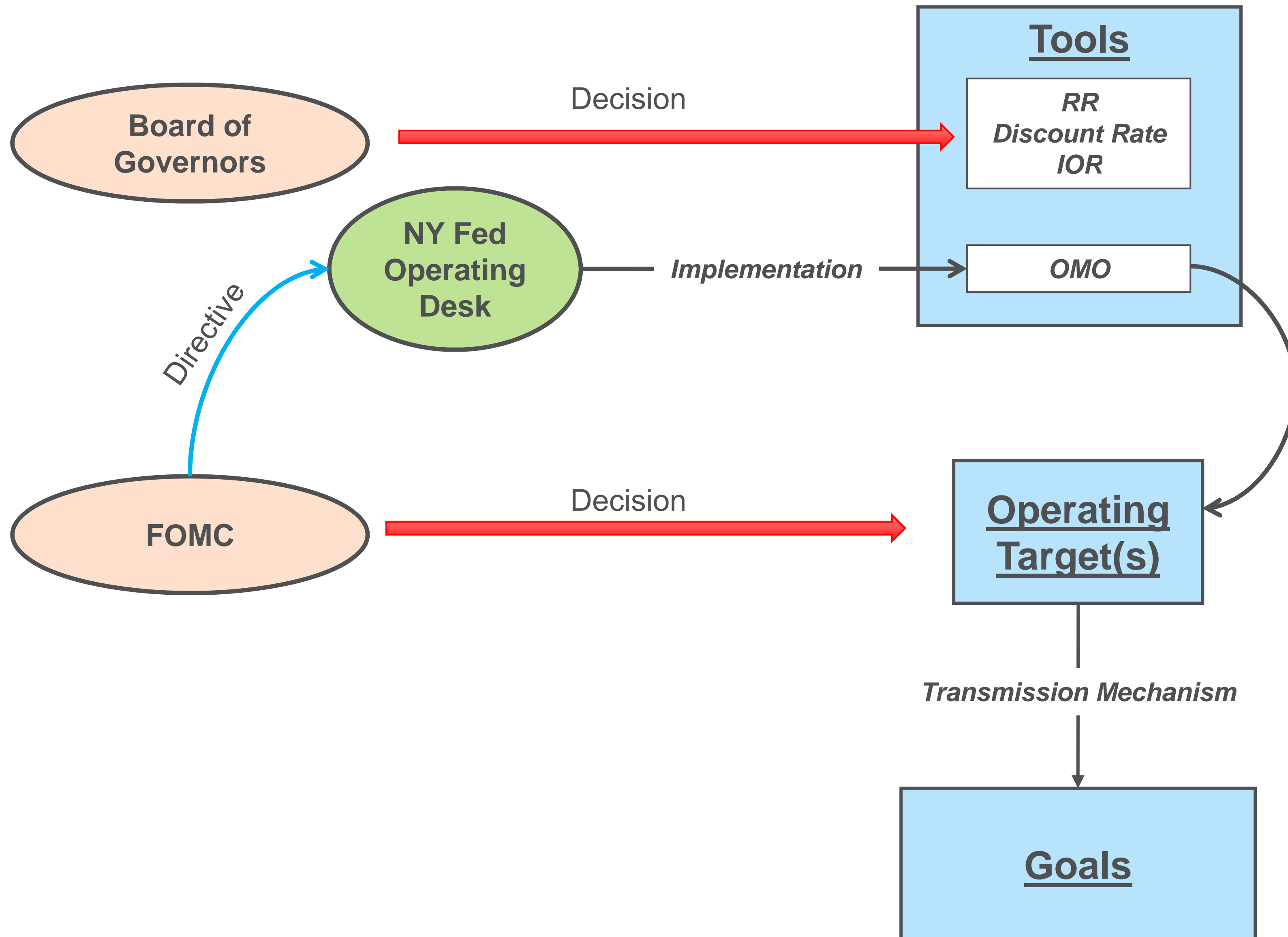
2007 2008 2009 2010 2011

■ Currency ■ Other Liabilities ■ Reverse Repos ■ Reserves ■ Treasury SFA

Source: Federal Reserve Board



Structure of the Fed's Decision-Making Process



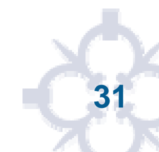
Monetary Policy: The Decision Making Process

- Policy operating targets set by the Federal Open Market Committee (FOMC)
- FOMC participants: seven Governors plus the 12 Presidents of the regional Federal Reserve Banks
  - Federal Reserve Board Chairman serves as FOMC chair
  - New York Fed President serves as FOMC vice chair
  - The other regional Presidents rotate as voting members
  - 12 voting members (7 Governors plus 5 regional Presidents)
- 8 scheduled meetings to decide on policy (occasional conference calls outside of scheduled meetings if necessary)
  - Interest rate policy
  - Balance sheet policy

The FOMC: Basis of Monetary Policy Decisions

Interest Rate Policy

- Goal: stabilize economic activity and inflation near objectives
- Reflects FOMC's assessment of current economic conditions and likely evolution of output and inflation (because of lags)
- Convenient benchmark for policy stance: "Taylor rule"
  - FFR responds to (projected) deviation of inflation from 'target' inflation and output deviation from 'potential' output



The FOMC: Basis of Monetary Policy Decisions

- Balance Sheet Policy
  - Purpose: stabilize financial conditions, especially when the FFR is near zero
  - Reflects assessment of how far financial market functioning is from “normal”
  - Examine financial indicators and measures of credit market stress

- Interaction between interest rate and balance sheet policy
  - Balance sheet policy affects financial conditions
  - Financial conditions affect projections of inflation and real activity
  - Interest rate policy responds to these projections

The FOMC: Communications

- FOMC statement
  - Issued at the end of each meeting
  - Includes the Committee's view on economic outlook and inflation, the policy decisions, and an assessment of risks
- FOMC minutes
  - Published three weeks after the meeting
  - Summarize the discussion, explain the rationale of the policy decisions
  - Full transcript released after 5 years
- Summary of Economic Projections
  - Released with the minutes 4 times a year
  - Central tendency and dispersion of FOMC participants' forecasts for output, inflation, and unemployment
- [New] FOMC Chair's post-FOMC press conference (4 per year)
- Other communication
  - Chair's Congressional testimonies; speeches, interviews, and op-eds of FOMC participants

The Importance of Communication

- Fosters transparency about the policy decision process
- Improves public understanding of policy decisions and builds support for policy regime
- Provides clarity about FOMC contingent plans for future policy
  - Influence expectations of market participants and public
  - Better enable markets to project policy response to future economic conditions
  - Especially important in unusual circumstances
- Improves accountability of the Federal Reserve and its actions

Key Policy Challenges

Longer-term

- Distinguish in real time the source of economic fluctuations
  - Demand shocks are easier for monetary policy to offset
  - Supply shocks create trade-offs among the Fed's objectives
- Understand asset prices fluctuations and their implications for macroeconomic conditions
  - Appropriate policy response to asset price fluctuations
- Assess frameworks for policy and implementation

Nearer-term

- Evaluate the need and form of additional accommodation
- Prepare "exit strategy" from extraordinary policy accommodation
- Defend monetary policy independence