Monetary Policy-Making Around the World: Different Approaches from Different Central Banks

February 25, 2004
A Professor’s Guide to Economic Data and Monetary Policy Making

Patricia Pollard
Research Officer and Economist
Federal Reserve Bank of St. Louis

The views expressed do not necessarily reflect official positions of the Federal Reserve Bank of St. Louis nor the Federal Reserve System
Basic Data on Central Banks
### Central Banks by Staff Size: 2002

<table>
<thead>
<tr>
<th>5 Largest</th>
<th>5 Smallest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
<td><strong>Number of Workers</strong></td>
</tr>
<tr>
<td>China</td>
<td>150,000</td>
</tr>
<tr>
<td>Russia</td>
<td>82,000</td>
</tr>
<tr>
<td>Euro System</td>
<td>56,538</td>
</tr>
<tr>
<td>India</td>
<td>29,922</td>
</tr>
<tr>
<td>United States</td>
<td>23,438</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>3,304</strong></td>
</tr>
</tbody>
</table>

Monetary Policy Framework

Instruments
- Reserve Requirements
- Official interest Rates
- Open Market Operations
- Direct Controls

→ Operating Targets
- Short-term Interest Rate
- Reserve Aggregates

← Intermediate Targets
- Monetary Aggregates
- Inflation
- Exchange Rate

Goals
- Price stability
- Sustainable Growth
- High Employment
- Financial Stability

Tactics →

← Strategy
Monetary Policy Framework

- Institutional Arrangement
- Goals/Objectives
- Targets
- Instruments
- Policy making Process
Institutional Arrangement

• Who Determines the Framework?
  – Government
  – Central Bank
  – Interaction
    • Goal versus instrument independence
Goals of Monetary Policy

- What Can Monetary Policy Achieve?
  - Price Stability
  - Employment
  - Economic Growth
Statutory Objectives of Central Banks
(Bank of England Survey of 94 Central Banks)

- No statutory goals (3%)
- Only non-monetary stability (1%)
- Monetary stability & conflicting (13%)
- Only monetary stability (26%)
- Monetary stability & other non-conflicting (57%)

Source: Mahadeva and Sterne (2000)
Targets of Monetary Policy

• What Do Central Banks Target?
  – Inflation Rate
  – Exchange Rate
  – Monetary Aggregates

• Who Sets the Target?
  – Central Bank
  – Government
  – Both
Survey of 93 Central Banks

Source: Mahadeva and Sterne (2000)
Targets of Monetary Policy

• Who Sets the Target?
  – U.S. – No targets set
  – Euro Area – ECB defines price stability
    • Below but close to 2 percent in medium term
  – England – Government
    • 2 percent
  – Canada – Government and Bank of Canada
    • 1 to 3 percent
  – Japan – Bank of Japan
    • Outstanding balance of current accounts at BOJ
      – 30 to 35 trillion yen
Targets of Monetary Policy

• Changes in Targets in 1990s
  – Increase in use of targets
    • In 1990 57 percent had an explicit target
    • In 1998 95 percent had an explicit target
  – Increased popularity of inflation target
    • 1990
      – 5 countries set an inflation target
      – 1 country relied solely on an inflation target
    • 1998
      – 54 countries set an inflation target
      – 11 countries relied solely on an inflation target
Explicit Targets: 1990 and 1998

1990
(84 central banks)

1998
(93 central banks)

Source: Mahadeva and Sterne (2000)
Explicit Targets: 1998 and 2004

<table>
<thead>
<tr>
<th>Category</th>
<th>1998</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation target</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Exchange rate target</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Monetary target</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>No explicit target</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Legend:
- Developing
- Transitional
- Advanced
Instruments of Monetary Policy

• Direct Controls
  – Set or limit prices (interest rates)
  – Set or limit quantities (amount of credit outstanding)

• Indirect Controls
  – Adjust the underlying demand and supply of bank reserves
Instruments of Monetary Policy

• Reserve Requirements
  – Not used as a policy instrument in most countries
  – Bank of Canada does not set reserve requirements
  – Bank of England sets a cash ratio deposit, not for policy purposes.
  – Federal Reserve, ECB and BOJ all set reserve requirements
Instruments of Monetary Policy

• Open Market Operations
  – Federal Reserve
    • Uses open market operations to meet the target for fed funds rate
    • Once a day
    • Repurchases – overnight to 3 months
  – European Central Bank
    • Minimum refinancing rate sets lower bound for repurchases
    • Once a week
    • Repurchases – 14 days
  – Bank of England
    • Repo rate is the rate at which BOE provides liquidity to the interbank market, sets the Sterling Overnight Interbank Average Rate (SONIA)
    • Several times a day
    • Repurchases – 14 days
Instruments of Monetary Policy

• Open Market Operations
  – Bank of Japan
    • Uses open market operations to meet target for the outstanding balance of current accounts held at the Bank of Japan
    • Two to three times a day
    • Repurchases and outright purchases
    • Repos range from 7 days to 6 months
  – Bank of Canada
    • Uses open market operations to keep the target for overnight rate within a 50 basis point band
    • Once a day if rate is straying from the target
    • Repurchases – overnight
Instruments of Monetary Policy

• Standing Facilities
  – Facilities that allow financial institutions to borrow directly from the central bank
    • Provide upper bound for official interest rate target
  – May allow for lending to the central bank
    • Provide lower bound for official interest rate target
  – Activated on demand by market participants
  – Typically overnight loans only
Instruments of Monetary Policy

• Standing Facilities: Central Bank Lending
  – Federal Reserve
    • Primary Discount Rate
      – Penalty rate, set at 100 basis points above fed funds rate target
  – European Central Bank
    • Marginal Lending Rate
      – Penalty rate, since April 1999 has been set at 100 basis points above the main refinancing minimum bid rate
  – Bank of England
    • No typical lending rate
    • Late overnight repo facility, penalty rate set at 100 basis points above the repo rate
Instruments of Monetary Policy

• Standing Facilities: Central Bank Lending
  – Bank of Japan
    • Basic Loan Rate (Discount Rate)
      – Penalty rate, with additional penalties for frequent borrowers
  – Bank of Canada
    • Bank Rate
      – Penalty rate, set at 25 basis points above the target for the overnight rate
Instruments of Monetary Policy

- **Standing Facilities: Central Bank Deposits**
  - Federal Reserve
    - No interest on deposits at the Federal Reserve
  - European Central Bank
    - Deposit Rate
      - Since April 1999 has been set at 100 basis points below the main refinancing minimum bid rate
  - Bank of England
    - No interest on deposits at the Bank of England
  - Bank of Japan
    - No interest on deposits
  - Bank of Canada
    - Deposit rate set at 25 basis point below the target for the overnight rate
Bank of Canada Key Interest Rates
January 1, 1999 – February 23, 2004

Bank Rate
Deposit Rate
Overnight Rate Target
Federal Reserve Key Interest Rates
January 1, 1999 - February 20, 2004

- Discount Rate
- Fed funds target
ECB Key Interest Rates
January 1, 1999 – February 23, 2004

Percent

Marginal Lending Rate
EONIA
Refinancing Rate
Deposit Rate
Bank of Canada Key Interest Rates
January 1, 1999 – February 23, 2004

Percent

- Deposit Rate
- Overnight Repo rate
- Bank Rate
- Overnight Rate Target

Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Apr-03
Jul-03
Oct-03
Jan-04
Apr-04
Federal Reserve Key Interest Rates
January 1, 1999 – February 20, 2004
Monetary Policy Process

• Who Makes the Policy Decisions?
  – Individual (9)
  – Committee (79)
    • Consensus (43)
    • Formal Vote (36)
      – Individual votes published (6)
        » Japan, Korea, Poland, Sweden, United Kingdom, United States
Monetary Policy Process

- Who Makes the Policy Decisions?
  - Number of People on Policy Board/Committee
    - Most common is between 5 and 10 members
    - FOMC -- 12 members (19 participants)
    - ECB -- 18 members
    - Bank of England -- 9 members
    - BOJ -- 9 members
    - Bank of Canada -- 6 members
Monetary Policy Process

• How Frequent Are the Policy Meetings?
  – 40 percent meet monthly
  – 34 percent meet weekly
  – FOMC – 8 times a year
  – ECB -- Monthly
  – Bank of England -- Monthly
  – BOJ – 15 times a year?
  – Bank of Canada – 8 times a year

<table>
<thead>
<tr>
<th>Frequency of Policy Board Meetings</th>
<th># of CBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than quarterly</td>
<td>1</td>
</tr>
<tr>
<td>Quarterly</td>
<td>4</td>
</tr>
<tr>
<td>More than quarterly</td>
<td>2</td>
</tr>
<tr>
<td>Monthly</td>
<td>36</td>
</tr>
<tr>
<td>Fortnightly</td>
<td>8</td>
</tr>
<tr>
<td>Weekly</td>
<td>30</td>
</tr>
<tr>
<td>Twice per week</td>
<td>4</td>
</tr>
<tr>
<td>Daily</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Mahadeva and Sterne(2000)
Monetary Policy Process

• How Frequent Is the Main Instrument Changed?
  – Much variation in the frequency with which the main policy instrument is changed.
  – Average changes per year 1999-2003
    • FOMC – 3.8
    • ECB – 3.0
    • Bank of England -- 3.6
    • Bank of Canada – 4.6
## Monetary Policy Process

### Number of Changes in Main Policy Instrument 1999-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>FOMC</th>
<th>ECB</th>
<th>BOC</th>
<th>BOE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2001</td>
<td>11</td>
<td>4</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>2002</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2003</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>15</td>
<td>23</td>
<td>18</td>
</tr>
</tbody>
</table>
Changes in the Main Policy Instrument

FOMC - Federal Funds Rate Target

Source: Federal Reserve Board
Changes in the Main Policy Instrument

Bank of England – Repo Rate

Source: Bank of England
Changes in the Main Policy Instrument

Bank of Canada – Bank Rate

Source: Bank of Canada
Changes in the Main Policy Instrument

European Central Bank – Main Refinancing Rate

Source: Eurostat
Monetary Policy Process

• Transparency
  – Are changes in policy announced?
  – Is the vote published?
  – Are minutes of the policy meeting released?
## Monetary Policy Process

### Indicators of Transparency

<table>
<thead>
<tr>
<th></th>
<th>FOMC</th>
<th>ECB</th>
<th>BOC</th>
<th>BOE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcement</td>
<td>Immediately</td>
<td>Immediately</td>
<td>Immediately</td>
<td>Immediately</td>
</tr>
<tr>
<td>Vote Published</td>
<td>Immediately</td>
<td>No*</td>
<td>No</td>
<td>With minutes</td>
</tr>
<tr>
<td>Minutes Released</td>
<td>Thursday after next scheduled meeting</td>
<td>No</td>
<td>No</td>
<td>Two weeks after meeting</td>
</tr>
</tbody>
</table>

• No vote is taken.
Want to Learn More?

- **Central Bank Websites**
  - Bank of Canada
    - [www.bankofcanada.ca/en](http://www.bankofcanada.ca/en)
  - Bank of England
    - [www.bankofengland.co.uk](http://www.bankofengland.co.uk)
  - Bank of Japan
    - [www.boj.or.jp/en](http://www.boj.or.jp/en)
  - European Central Bank
    - [www.ecb.int](http://www.ecb.int)
  - Federal Reserve System (Board of Governors)
    - [www.federalreserve.gov](http://www.federalreserve.gov)
  - Links to the website of most central banks can be found on the website of the Bank for International Settlements
    - [www.bis.org/cbanks.htm](http://www.bis.org/cbanks.htm)
Want to Learn More?

- **Books and Articles**
Books and Articles
