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

February 25, 2004

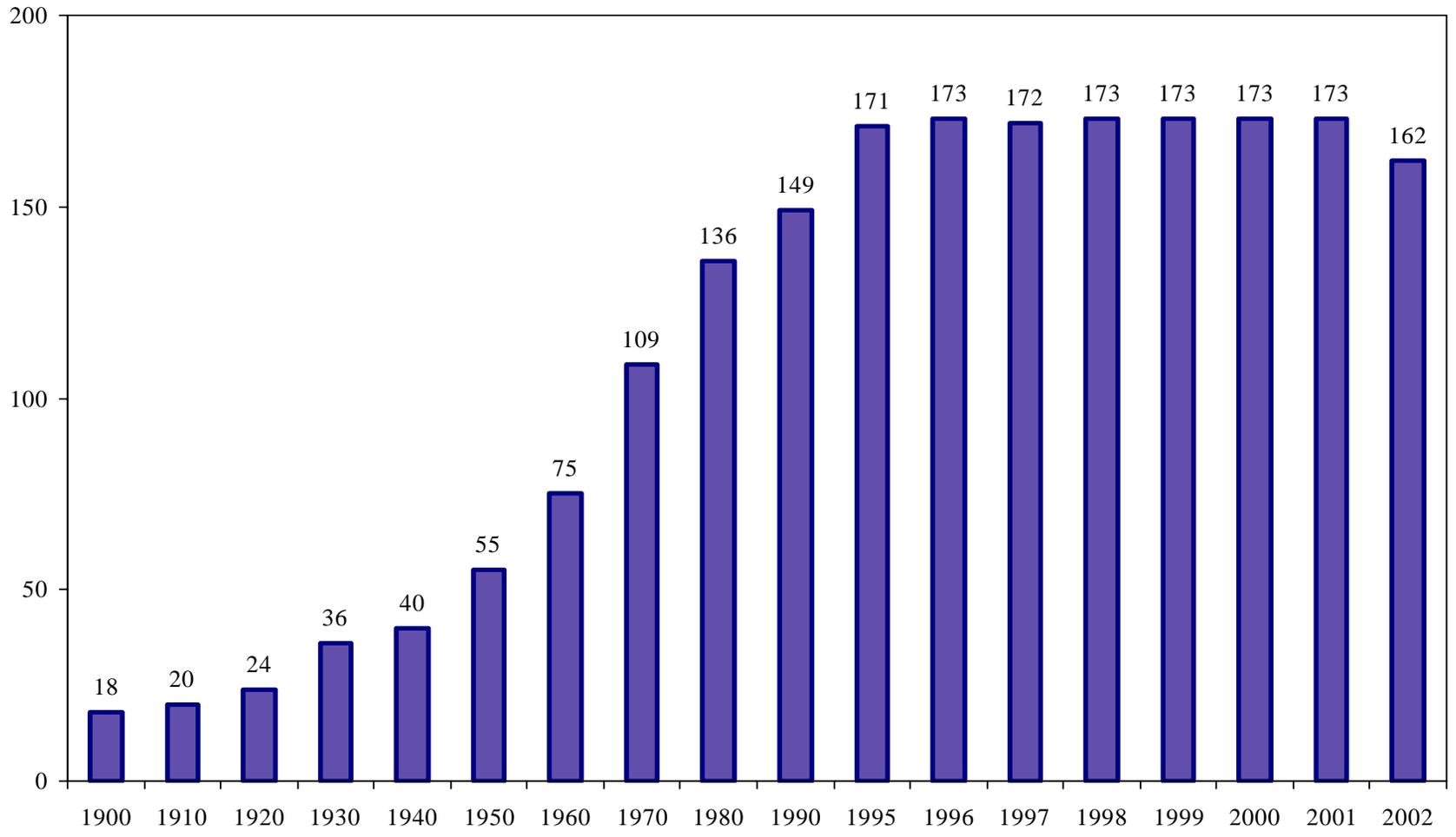
A Professor's Guide to Economic Data and Monetary
Policy Making

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Basic Data on Central Banks

Number of Central Banks

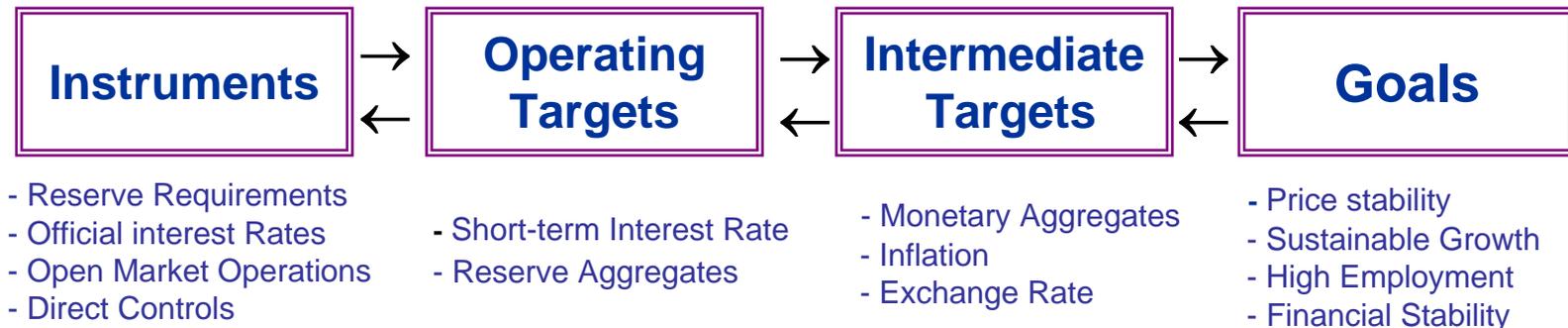


Central Banks by Staff Size: 2002

5 Largest		5 Smallest	
<i>Country</i>	<i>Number of Workers</i>	<i>Country</i>	<i>Number of Workers</i>
China	150,000	Nauru	26
Russia	82,000	Brunei	28
Euro System	56,538	Comoros	37
India	29,922	San Marino	43
United States	23,438	Djibouti	51
Mean	3,304	Median	614

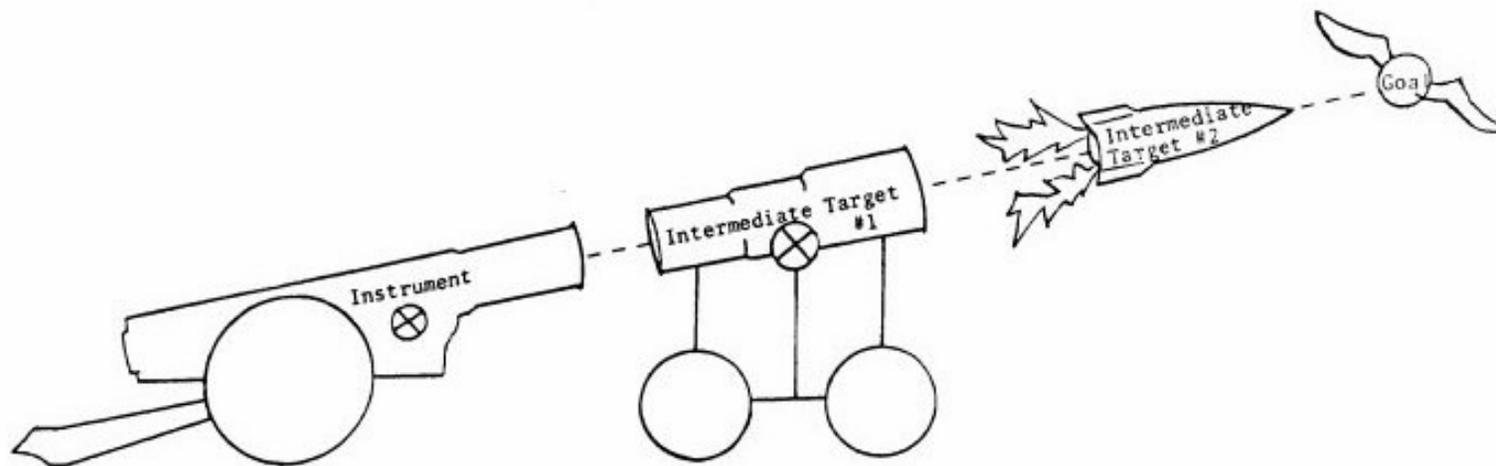
Source: Robert Pringle, editor, *The Morgan Stanley Dean Witter Central Bank Directory*, (London: Central Banking Publications), 2003.

Monetary Policy Framework



Tactics →

← **Strategy**



Monetary Policy Framework

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

Institutional Arrangement

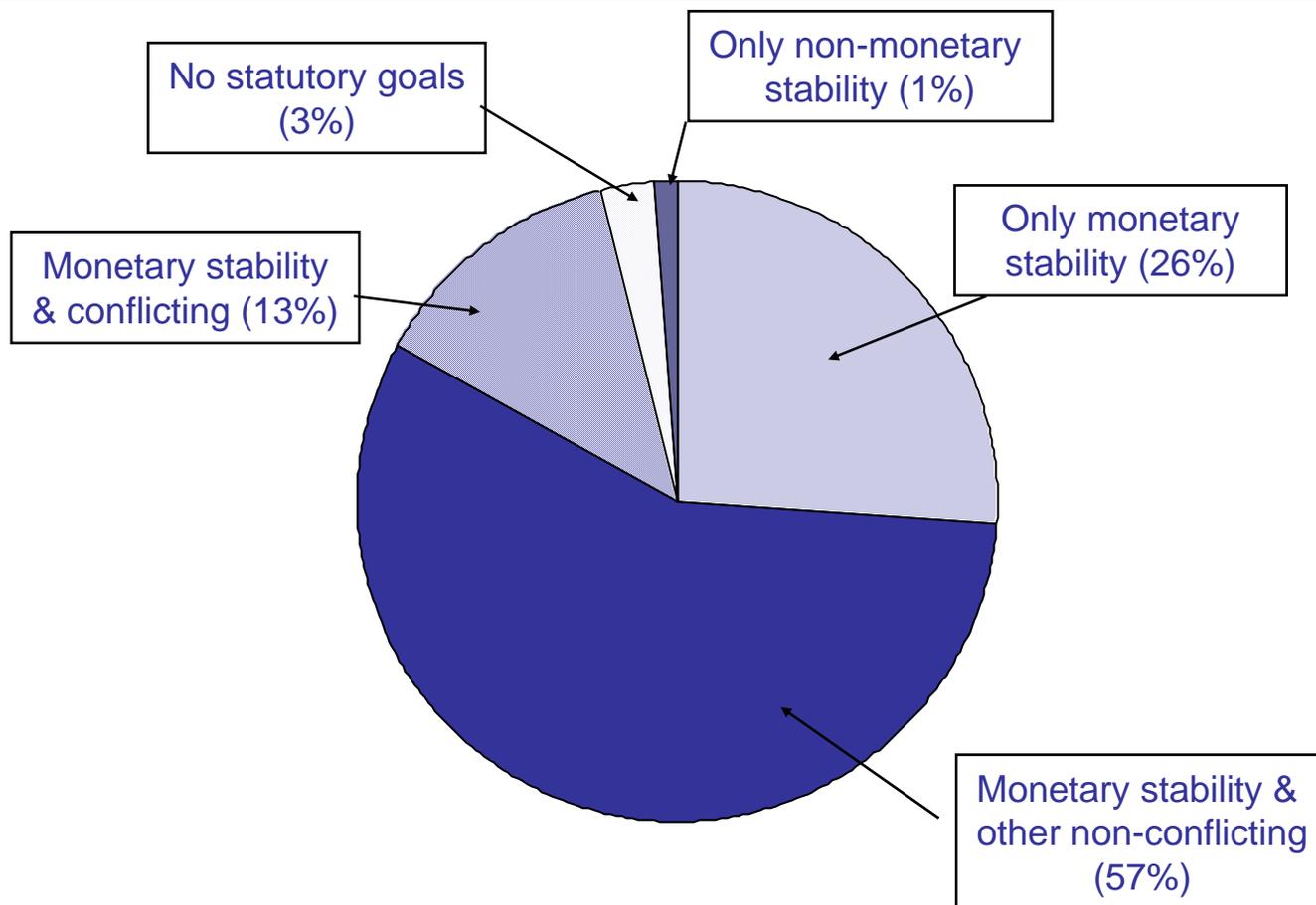
- Who Determines the Framework?
 - Government
 - Central Bank
 - Interaction
 - Goal versus instrument independence

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)

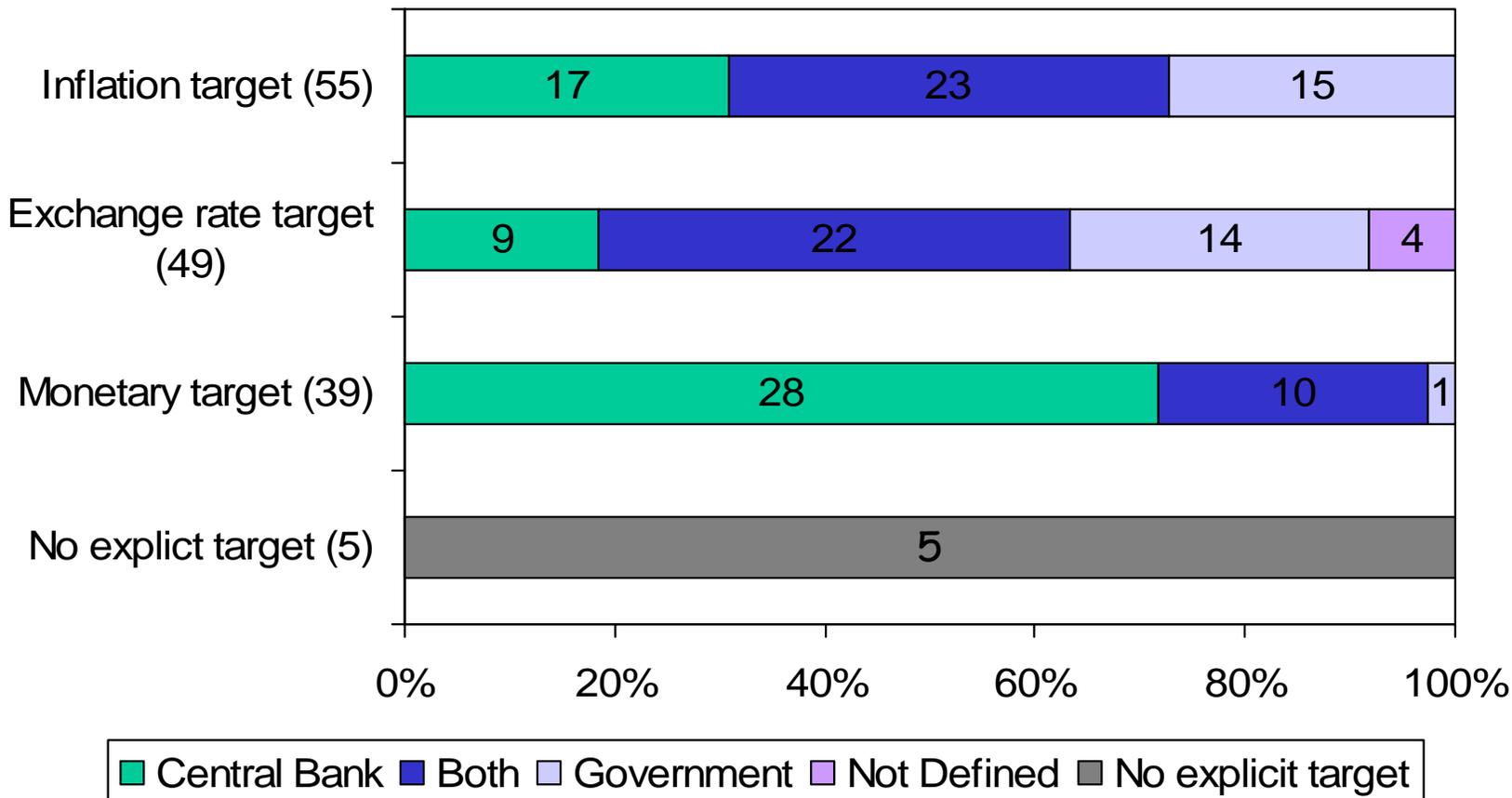


Targets of Monetary Policy

- What Do Central Banks Target?
 - Inflation Rate
 - Exchange Rate
 - Monetary Aggregates
- Who Sets the Target?
 - Central Bank
 - Government
 - Both

Explicit Targets and Who Sets Them: 1998

Survey of 93 Central Banks



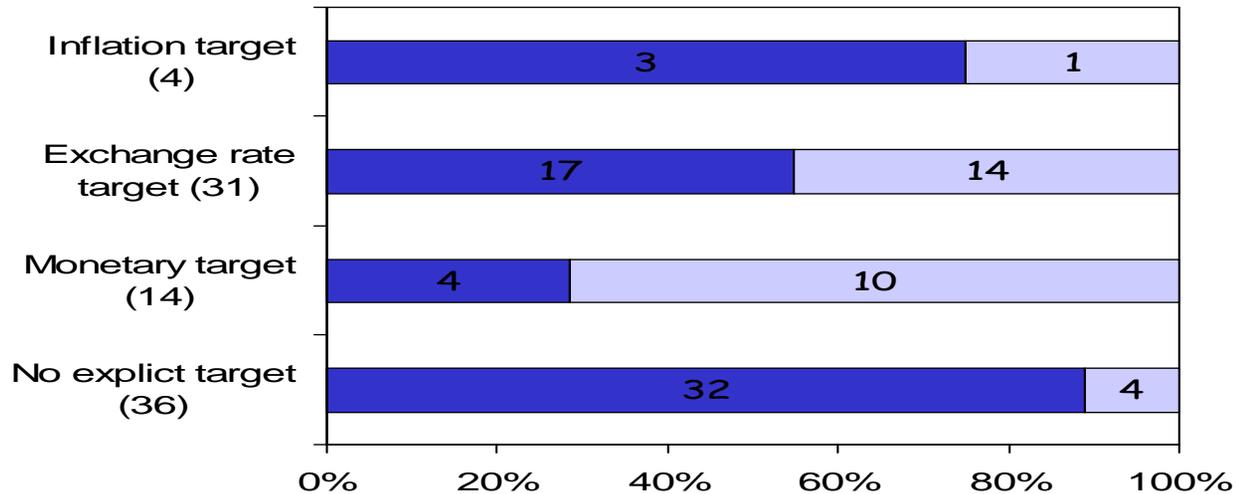
Targets of Monetary Policy

- 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

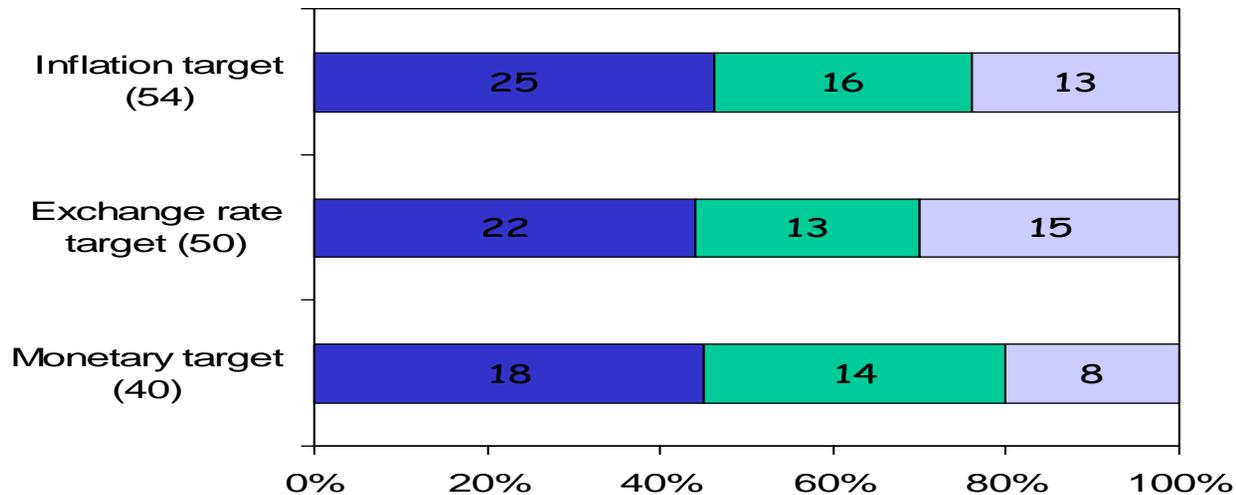
Targets of Monetary Policy

- 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

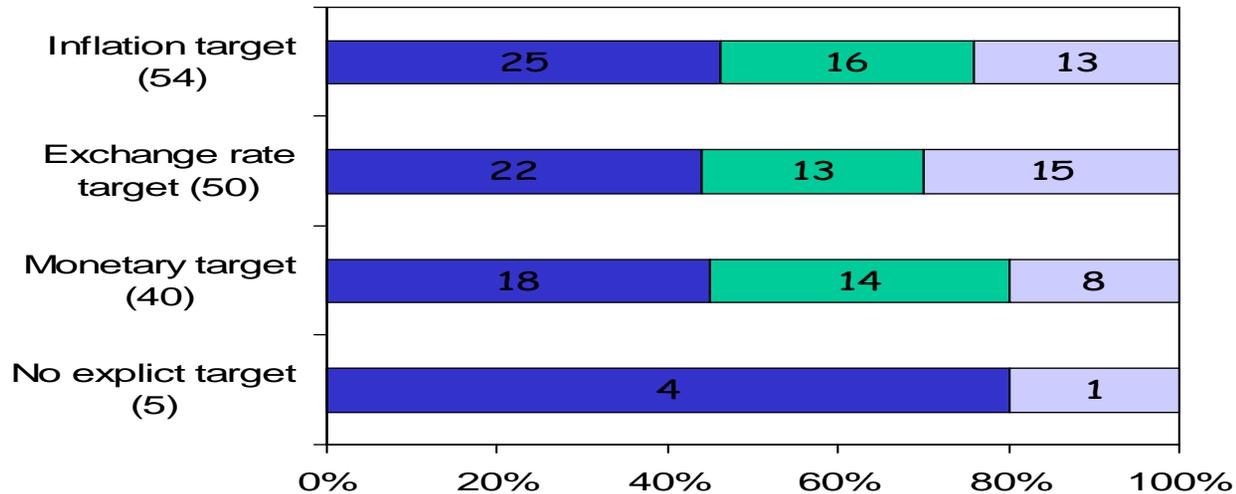


■ Developing
■ Advanced

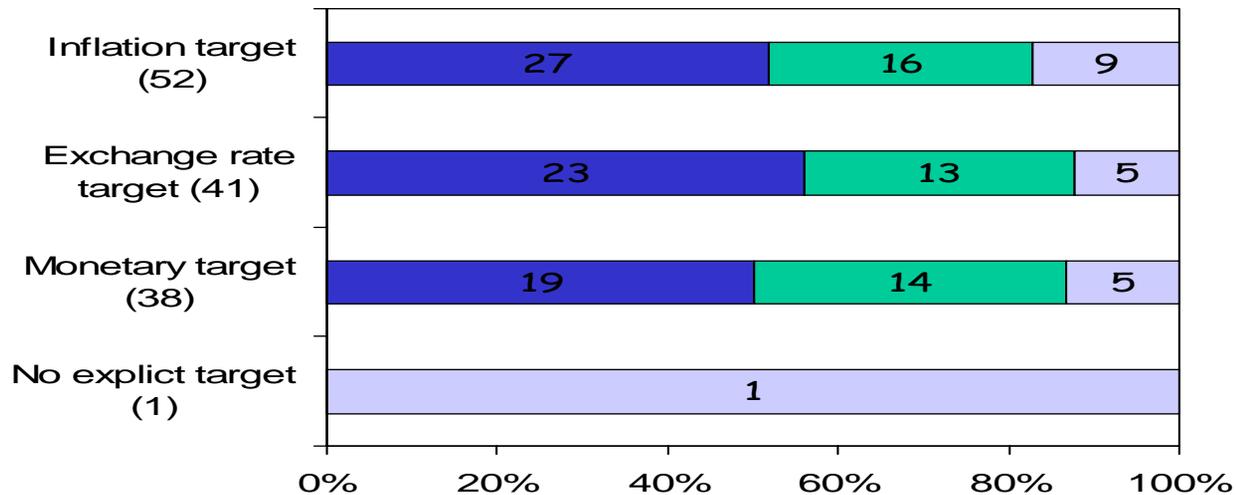


■ Developing
■ Transitional
■ Advanced

Explicit Targets: 1998 and 2004



1998



2004



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

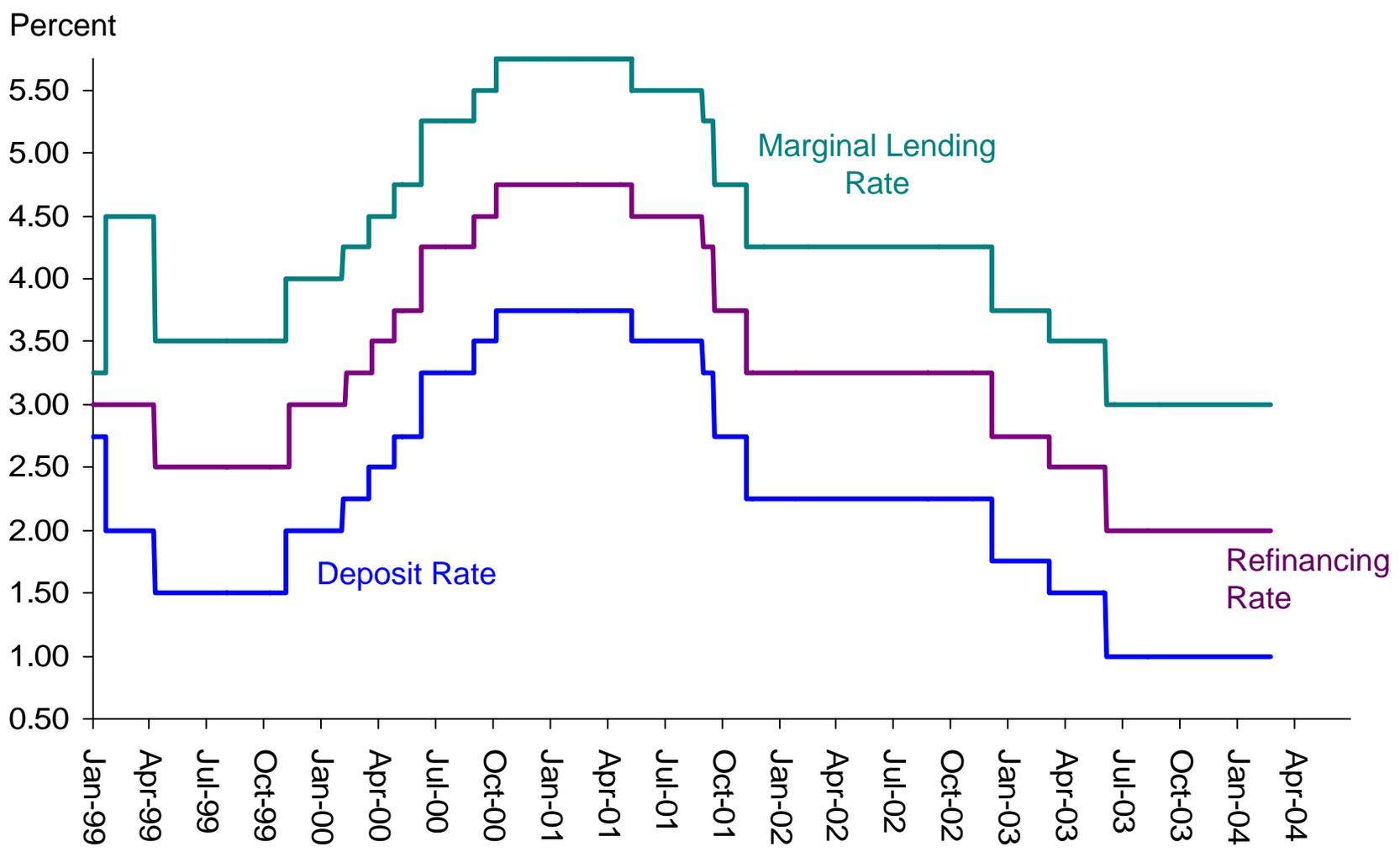
- Standing Facilities: Central Bank Lending
 - Bank of Japan
 - Basic Loan Rate (Discount Rate)
 - Penalty rate, with additional penalties for frequent borrowers
 - Bank of Canada
 - Bank Rate
 - Penalty rate, set at 25 basis points above the target for the overnight rate

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

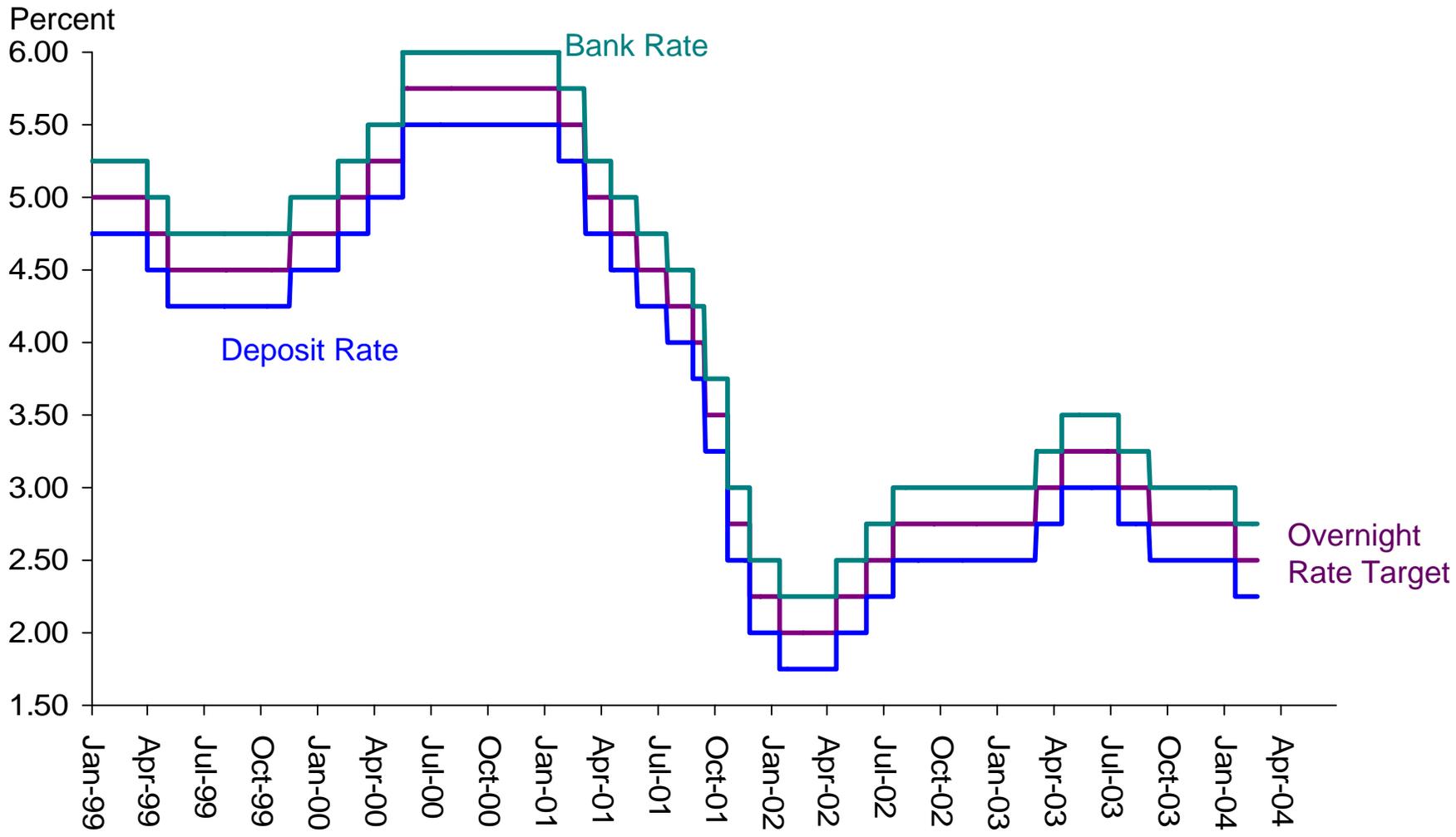
ECB Key Interest Rates

January 1, 1999 - February 23, 2004



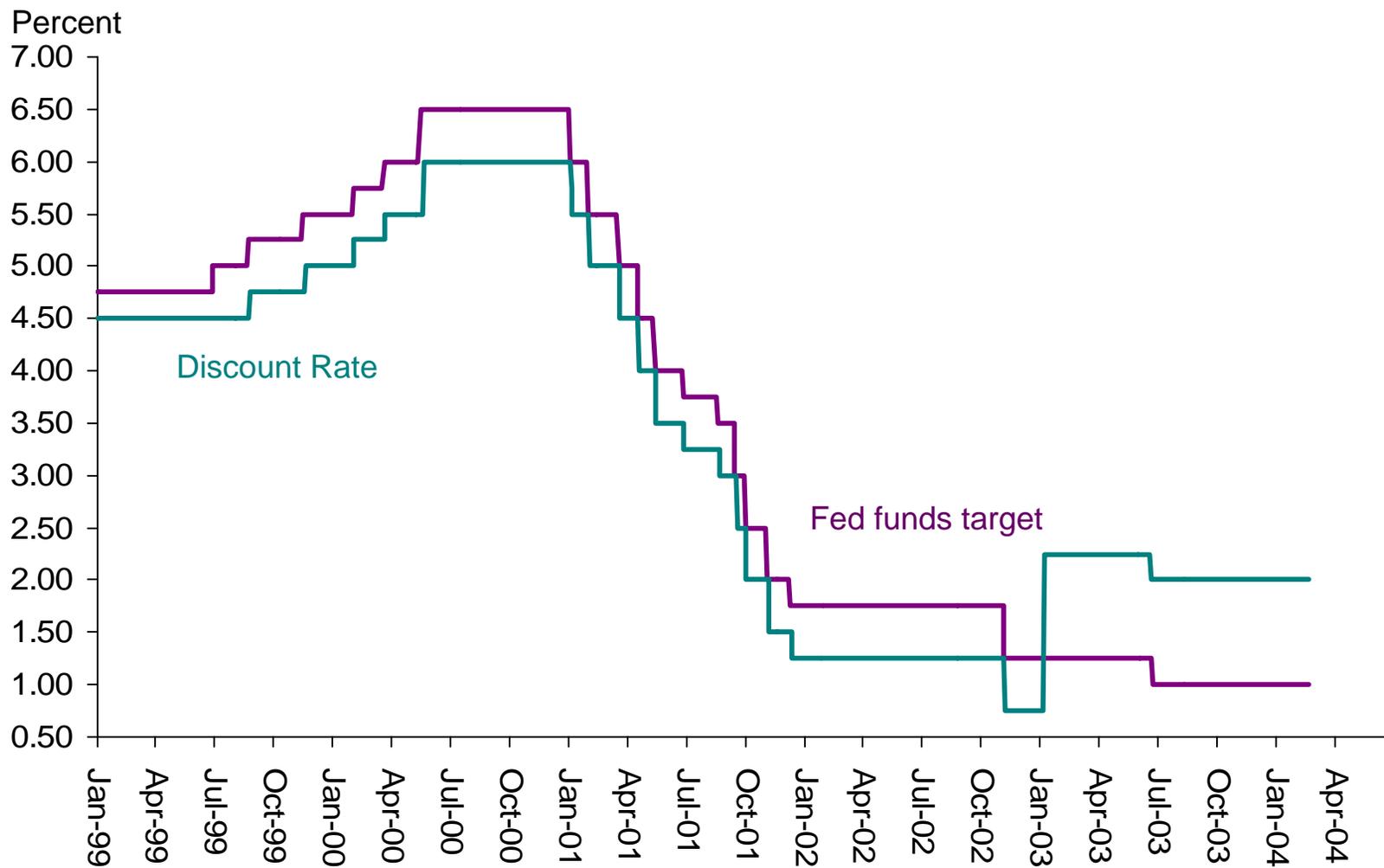
Bank of Canada Key Interest Rates

January 1, 1999 - February 23, 2004



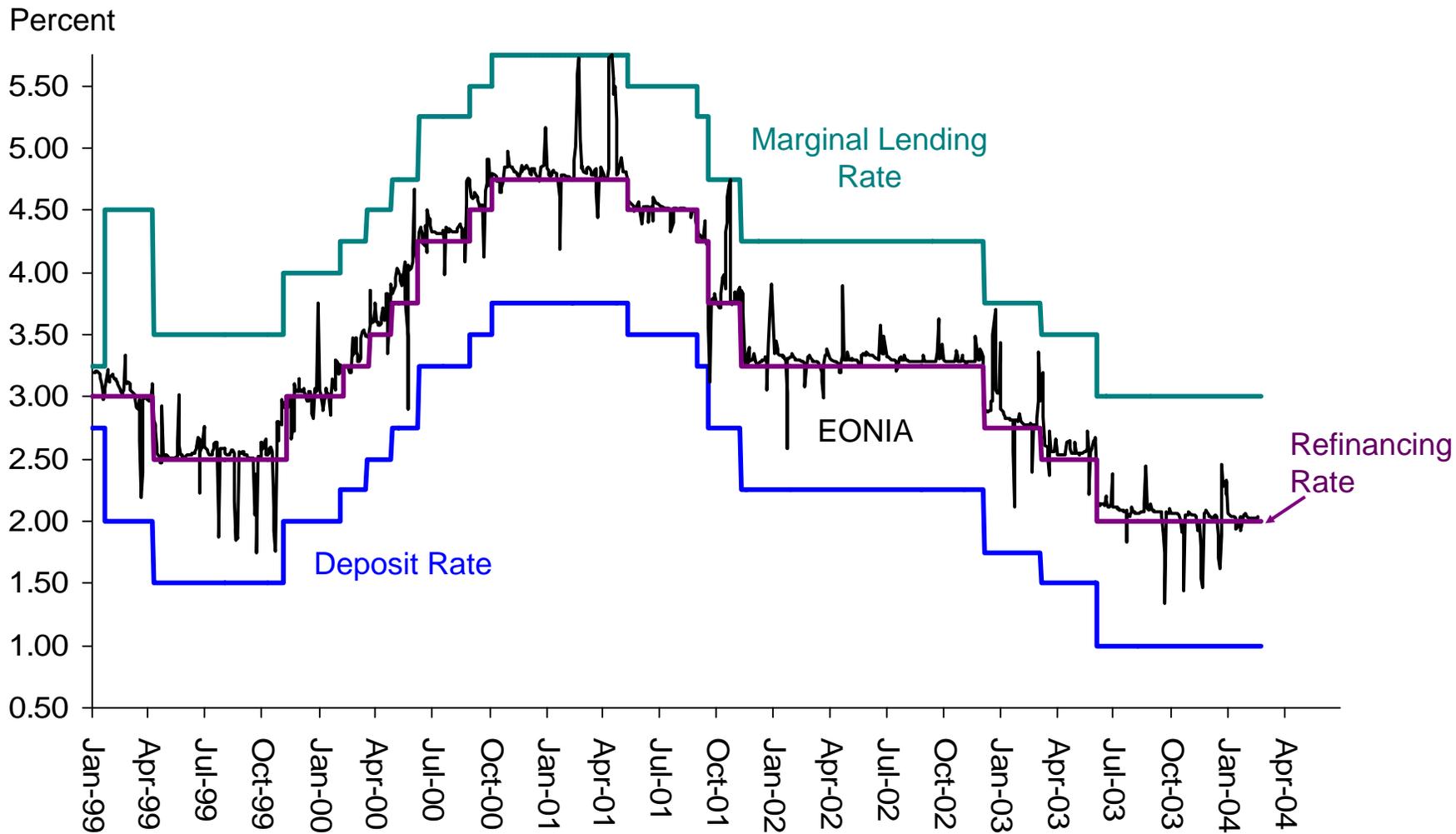
Federal Reserve Key Interest Rates

January 1, 1999 - February 20, 2004



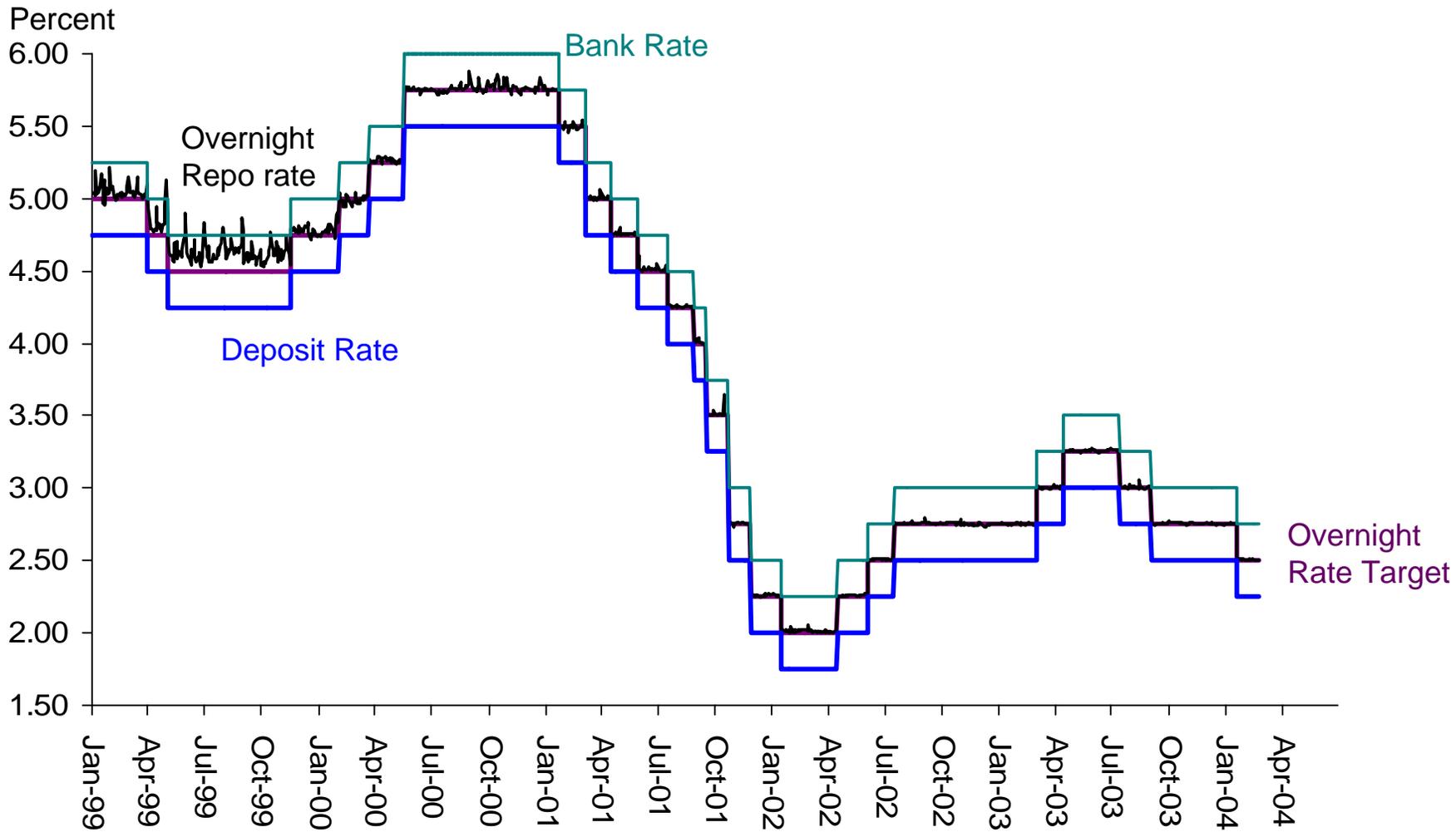
ECB Key Interest Rates

January 1, 1999 - February 23, 2004



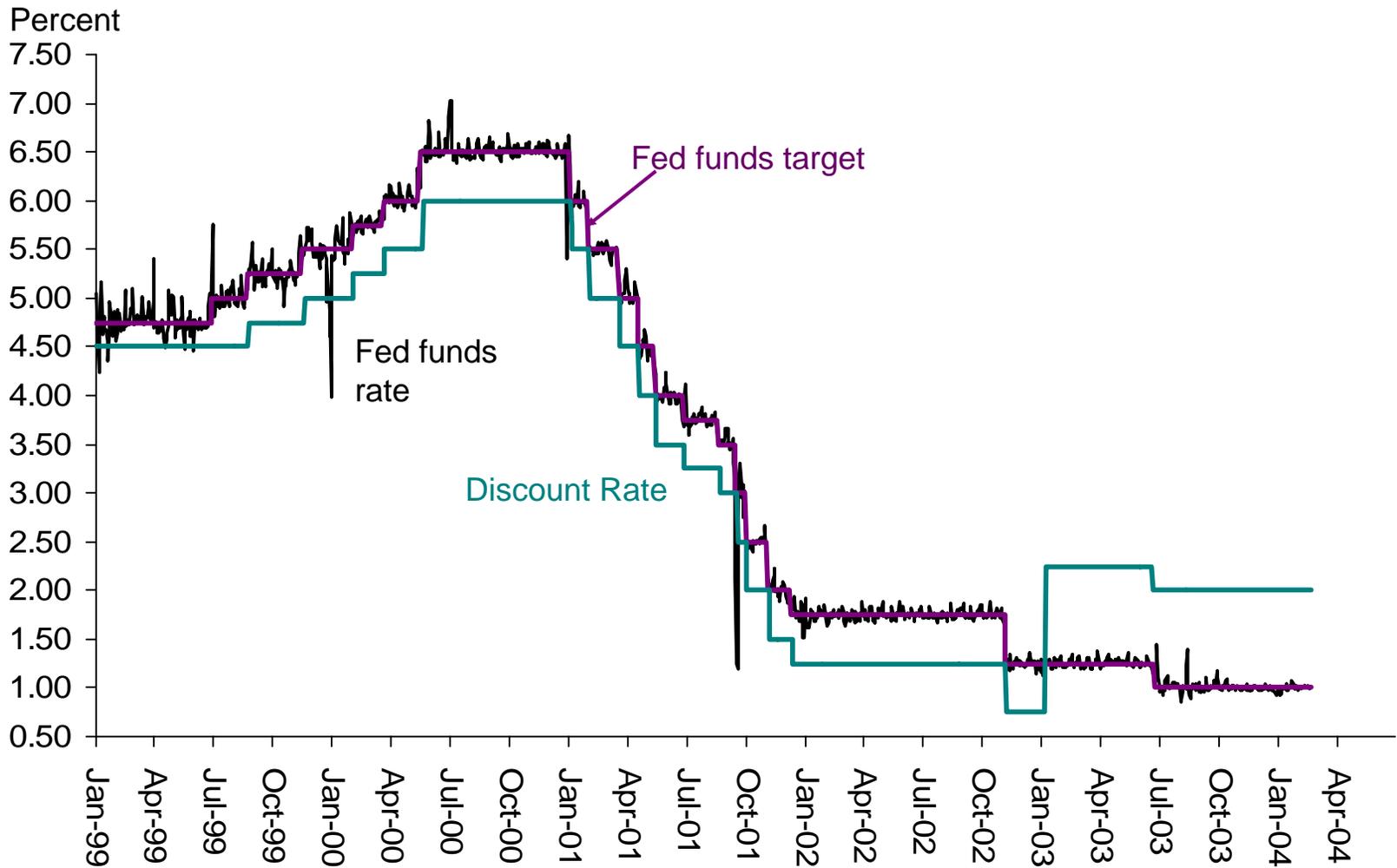
Bank of Canada Key Interest Rates

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Federal Reserve Key Interest Rates

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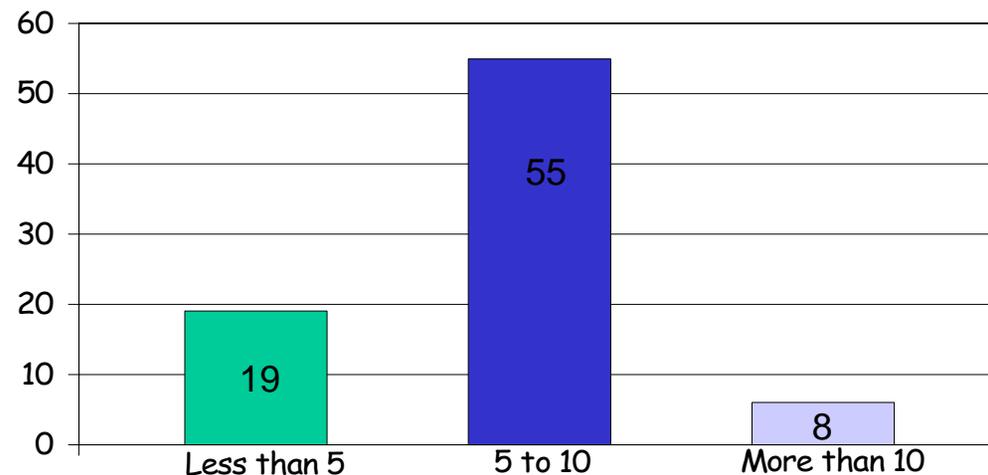
Monetary Policy Process

- 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

Members of Policy Board



Monetary Policy Process

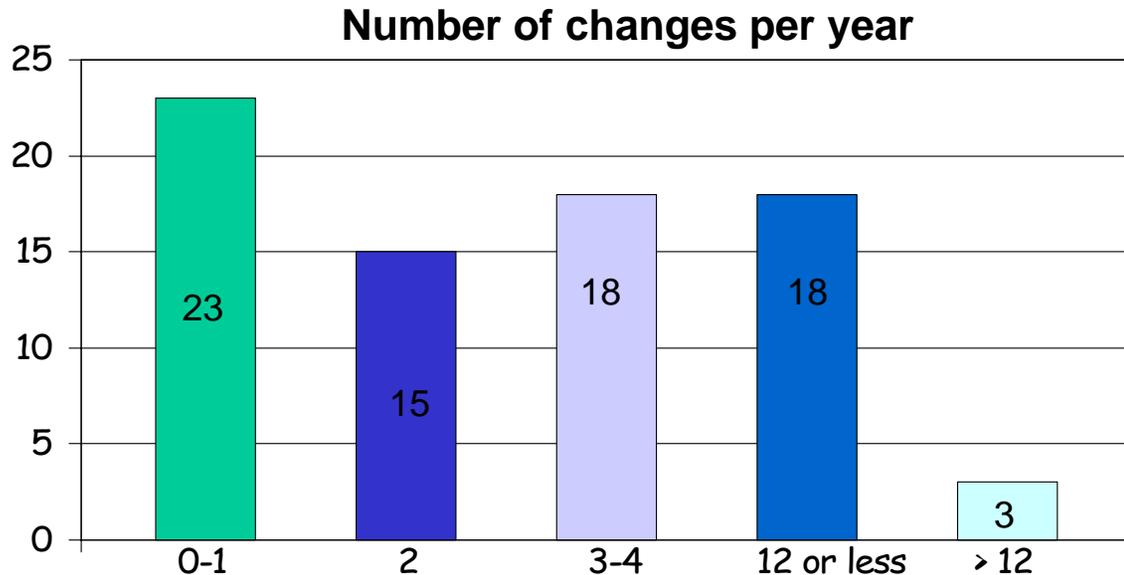
- How Frequent Are the Policy Meetings?
 - 40 percent meet monthly
 - 34 percent meet weekly
 - FOMC – 8 times a year
 - ECB -- Monthly
 - Bank of England -- Monthly
 - BOJ – 15 times a year?
 - Bank of Canada – 8 times a year

Frequency of Policy Board Meetings	
Frequency	# of CBs
Less than quarterly	1
Quarterly	4
More than quarterly	2
Monthly	36
Fortnightly	8
Weekly	30
Twice per week	4
Daily	4

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

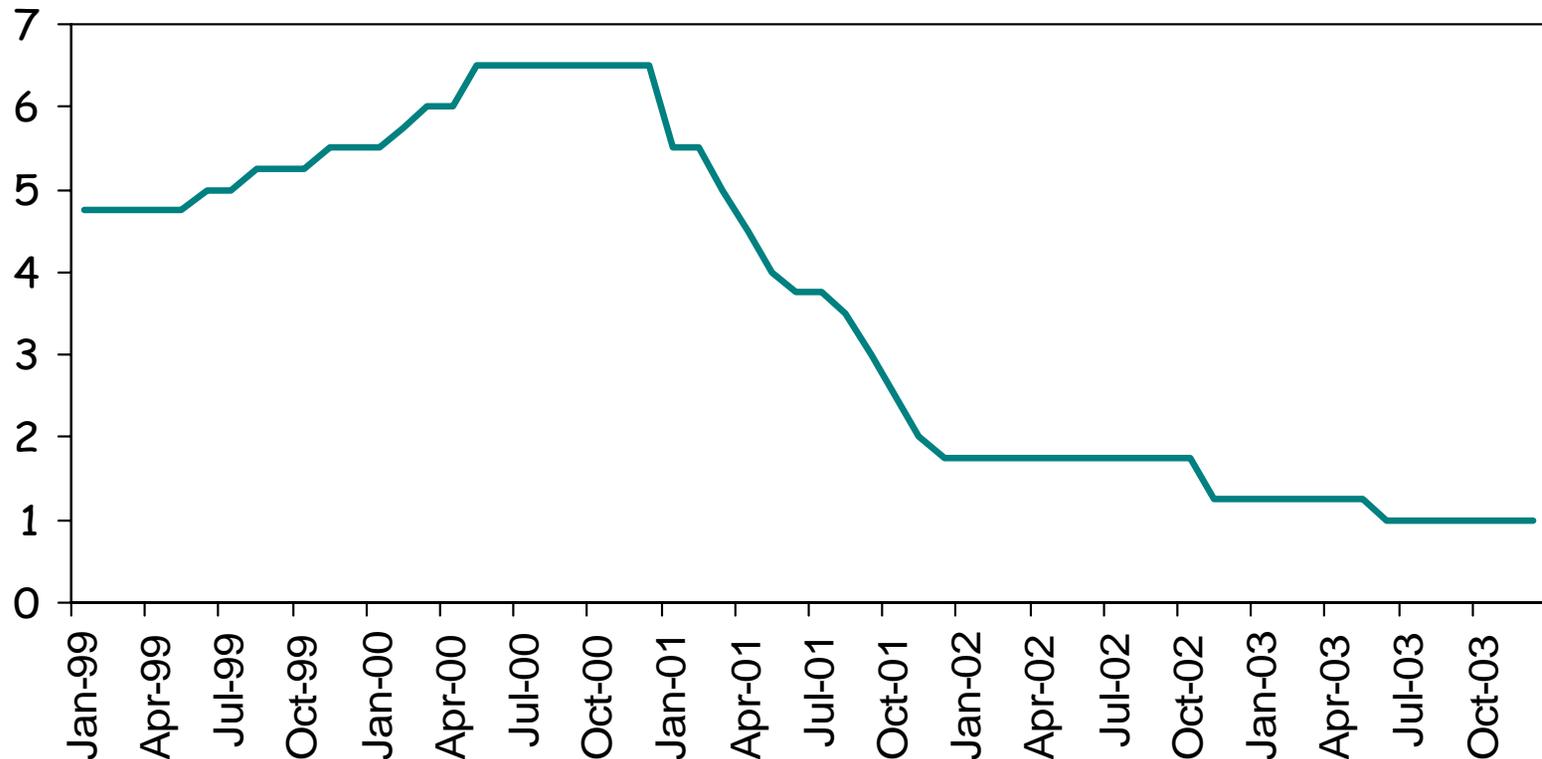


Monetary Policy Process

Number of Changes in Main Policy Instrument 1999-2003				
Year	FOMC	ECB	BOC	BOE
1999	3	2	3	6
2000	3	6	3	2
2001	11	4	9	7
2002	1	1	4	0
2003	1	2	4	3
Total	19	15	23	18

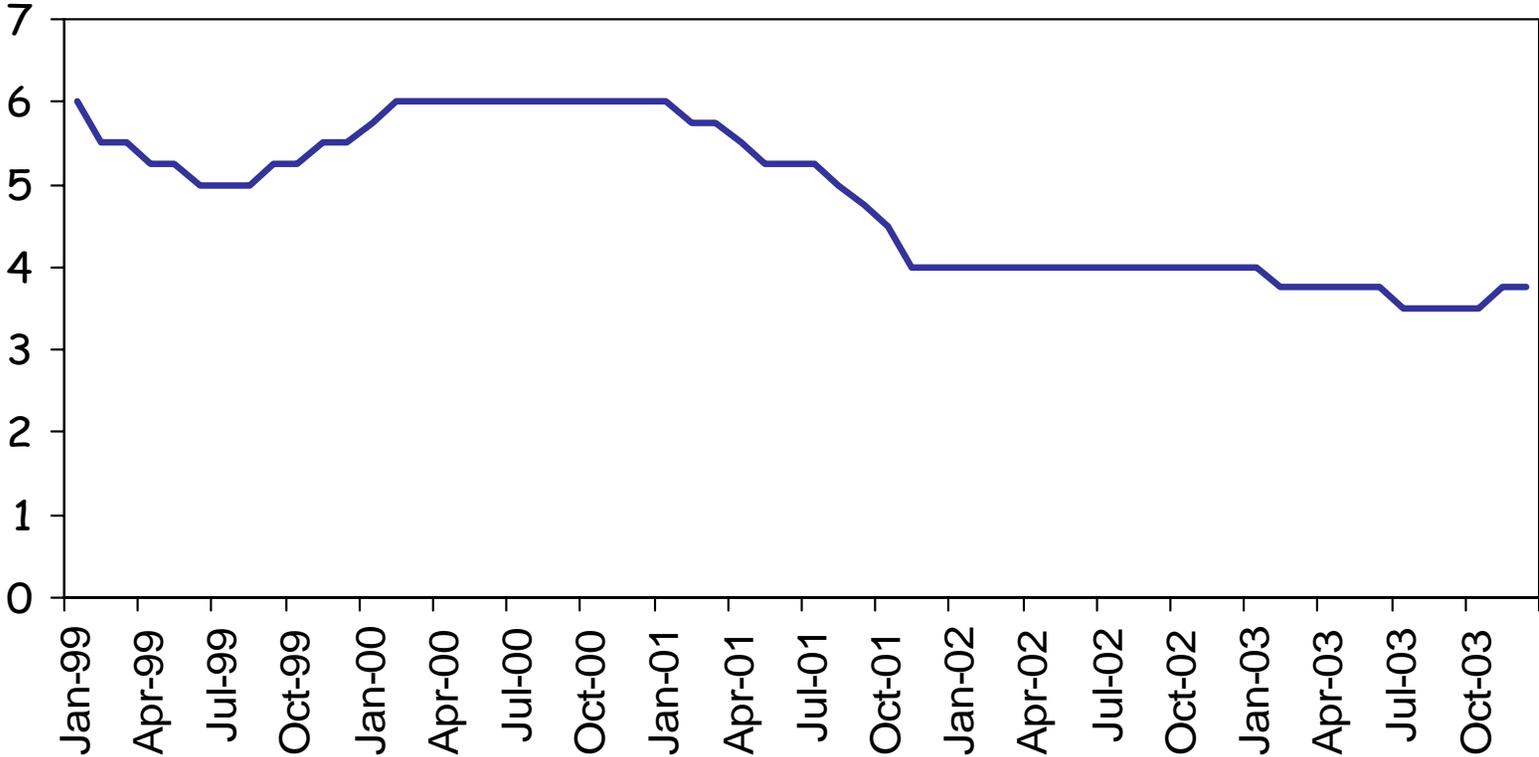
Changes in the Main Policy Instrument

FOMC - Federal Funds Rate Target



Changes in the Main Policy Instrument

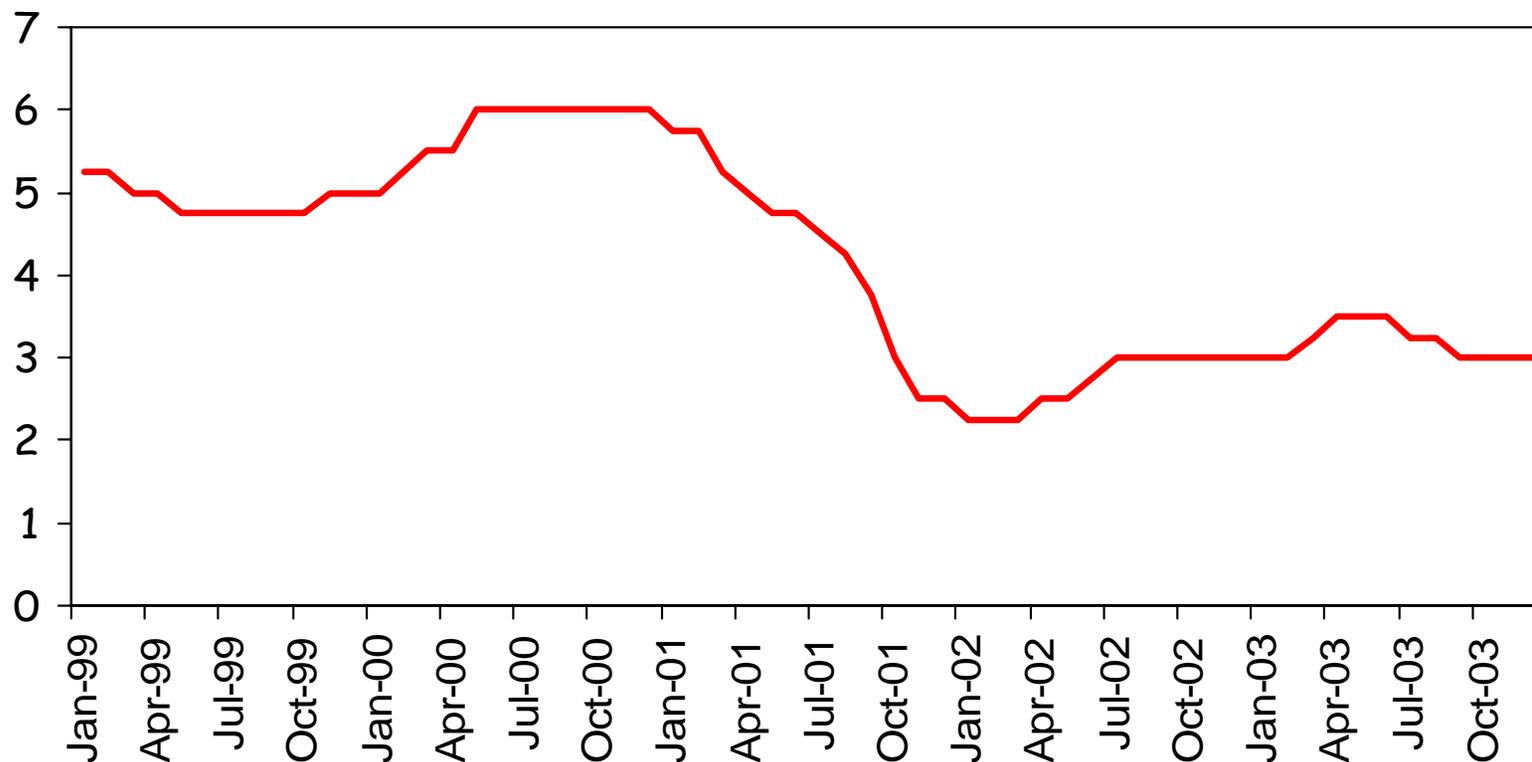
Bank of England - Repo Rate



Source: Bank of England

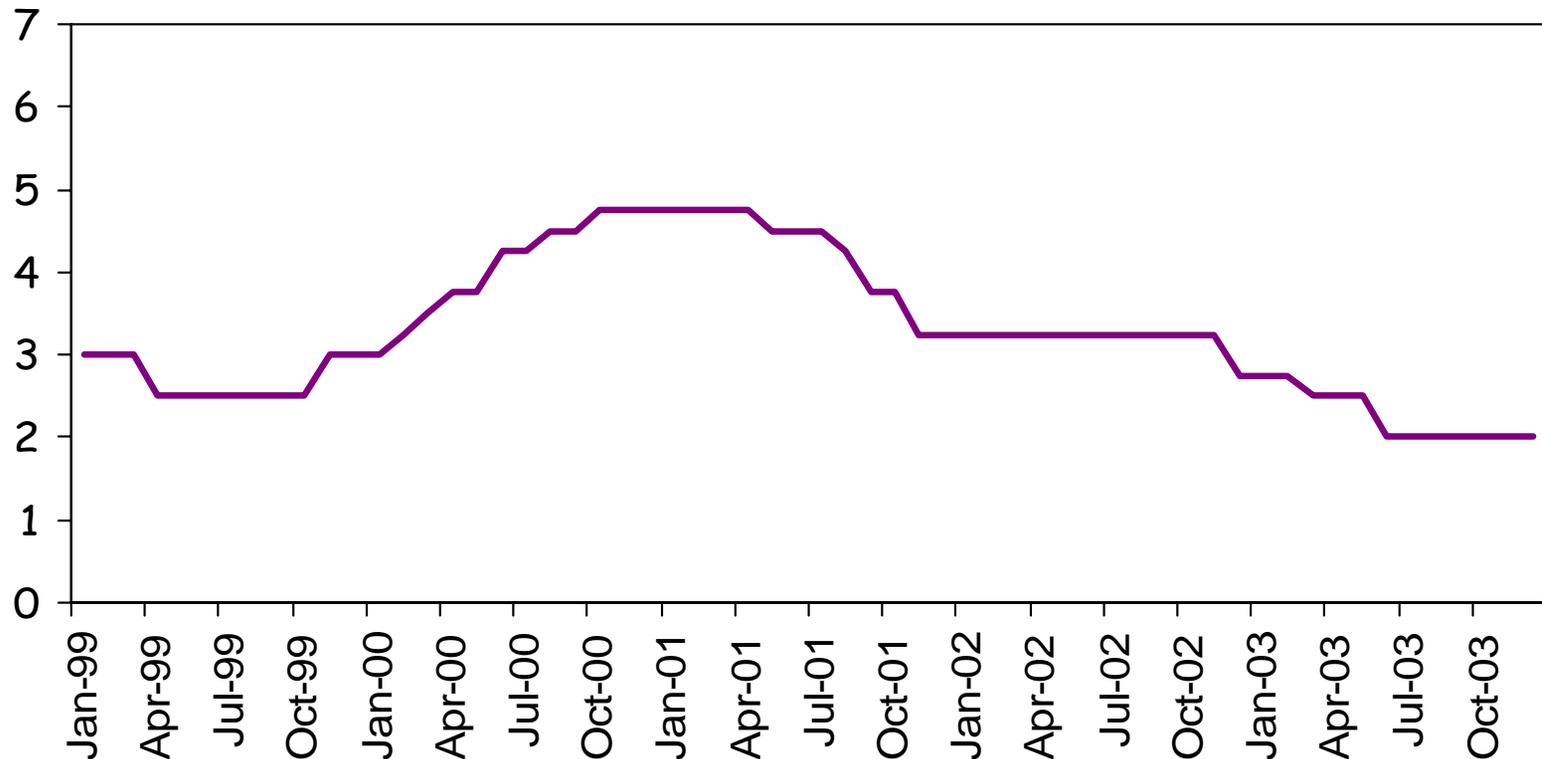
Changes in the Main Policy Instrument

Bank of Canada - Bank Rate



Changes in the Main Policy Instrument

European Central Bank - Main Refinancing Rate



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

	FOMC	ECB	BOC	BOE
Announcement	Immediately	Immediately	Immediately	Immediately
Vote Published	Immediately	No*	No	With minutes
Minutes Released	Thursday after next scheduled meeting	No	No	Two weeks after meeting

•No vote is taken.

Want to Learn More?

- Central Bank Websites
 - Bank of Canada
 - www.bankofcanada.ca/en
 - Bank of England
 - www.bankofengland.co.uk
 - Bank of Japan
 - www.boj.or.jp/en
 - European Central Bank
 - www.ecb.int
 - Federal Reserve System (Board of Governors)
 - 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

Want to Learn More?

- Books and Articles

- Alexander, William E., Tomas J.T. Balino, and Charles Enoch, “The Adoption of Indirect Instruments of Monetary Policy, IMF Occasional Paper No. 126.
- Bank for International Settlements, “Comparing Monetary Policy Operating Procedures Across the United States, Japan and the Euro Area,” BIS Papers No. 9, December 2001.
- Mahadeva, Lavan and Gabriel Sterne, editors. *Monetary Policy Frameworks in a Global Context*. Routledge Publishers: New York, 2000.
(<http://www.bankofengland.co.uk/ccbs/publication/pdf/mpfagcabstract.htm>)
- Paulin, Graydon, “The Changing Face of Central Banking in the 1990s,” *Bank of Canada Review*, Summer 2001.

Want to Learn More?

- Books and Articles
 - Pollard, Patricia S. “A Look Inside Two Central Banks: The European Central Bank and the Federal Reserve.” Federal Reserve Bank of St. Louis *Review*. January/February 2003.
(research.stlouisfed.org/publications/review/03/01/Pollard.pdf)
 - “Central Banking in Other Industrialized Countries, Federal Reserve Bank of Boston, *New England Economic Review*, Second Quarter 2002.
(<http://www.bos.frb.org/economic/neer/neer2002/index.htm#2>)