Monetary Policy

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Monetary Policy: Outline
1. Modern monetary policy regimes: Mandate, independence, and accountability
2. Implementing monetary policy: The interest-rate path and its credibility
3. Evaluating flexible inflation targeting

Modern Monetary Policy Regimes
Three pillars:
1. Mandate
2. Independence
3. Accountability

1. Mandate
- Possible objectives for monetary policy: What can monetary policy achieve?
  - Long run
    - Nominal variables (price level, inflation, exchange rates, ...): Level and variability
    - Real variables (output, employment, unemployment, output gap, resource utilization, ...): Not levels, only variability
    - Possible tradeoff between variability of real and nominal variables
    - Imperfect control

- Possible objectives for monetary policy: What can monetary policy achieve?
  - Short run
    - Nominal variables: Permanent impact
    - Real variables: Temporary impact
    - Lags: Variable, 1-2 years
    - Uncertainty:
      - Current state of the economy
      - Future effect on real and nominal variables of given monetary policy action
    - Forecasts!
1. Mandate

**Suitable** objectives for monetary policy: What should monetary policy try to achieve?

- Nominal stability
  - “Price stability”: Low and stable inflation
- Costs of high inflation
  - High inflation variability → more uncertainty in economic decisions
  - Distortions (taxes, demand for financial services, transactions costs, …)
  - Arbitrary redistributions (owners vs. renters, borrowers vs. lenders, …)
- Price stability: Low and stable inflation
- Costs of high inflation

1. Mandate

**Suitable** objectives for monetary policy: What should monetary policy try to achieve?

- Real stability
  - Stable resource utilization
- “Flexible inflation targeting”: Low and stable inflation as well as stable resource utilization
  - Reasonable compromise between stable inflation and stable resource utilization

Flexible inflation targeting

**Characteristics:**
1. Numerical inflation target
2. “Forecast targeting”: Setting the interest rate (an interest-rate path) such that forecasts of inflation and resource utilization “look good”
3. A high degree of transparency and accountability

Numerical inflation target

- Target and index specified by government, parliament, or central bank
  - Government: NZ, Canada, UK, Australia, Norway
  - Central bank: Euro area, Sweden
- Pros and cons
  - Government/parliament commitment to inflation target
  - Target level and index not suitable as election issue
  - Index and level of target arguably a technical question

Numerical inflation target

- Target explicitness, level, and index vary across countries
  - Implicit target (“comfort zone”) for (core) PCE deflator (Fed)
  - “Below but close to 2%” (ECB)
- Target (2%, 2.5%); point target w/ range (2%-1%); range (1-3%, 2-3% over the cycle)
- Headline inflation (CPI, HICP, …); underlying (core) inflation (CPIF, CPIX, RPIX, UND1X, …)

2. Independence

- Avoids short-run interference by governments/parliaments: Political business cycle
- Avoids “inflation bias”
- Allows longer horizon in monetary policy
- Emphasizes responsibility for fulfilling mandate
2. Independence

- Several dimensions of independence
  - Functional, institutional, personal, financial
  - Goal vs. instrument
  - Formal (legal) vs. informal (actual)


- Degree of independence varies across countries

- Norges Bank Watch 2002: “Monetary policy among the best in the world; institutional framework among the worst in the world”

- Informal independence even if not formal

- Safer with formal independence

3. Accountability

- Democracy: Independence requires accountability (Blinder)

- Efficiency: Accountability strengthens CB incentives to fulfill mandate

- Accountability requires transparency

- Transparency

- Degree of transparency varies across countries
  - Inflation target, stabilization of resource utilization
  - CB forecasts, analysis, motivation for decisions (Monetary Policy Reports)
  - Analysis of outcomes: Unanticipated shocks, etc.
  - Alternative scenarios (interest rates, shocks, international developments, …)
  - Forecasts of output, output gap, resource utilization
  - Interest-rate forecasts (NZ, Norway, Sweden, …)
  - Attributed (Sweden) vs. nonattributed minutes

- Possible improvements:
  - Interest-rate forecasts (optimal interest-rate plans)
  - Resource-utilization stabilization
    - Weight relative to inflation stabilization
    - Role in decision process
    - Forecasts of potential output and output gap
  - Explicit loss functions and explicit optimal policy
Accountability in practice

- Current discussion by experts and interested parties in media, reports, conferences, etc.
- Parliaments and governments: Evaluation of past policy, not interference in current policy
- Respect independence
- Hearings in Parliaments
  - Avoid superficial political points
  - Expert assistance, evaluation reports, questions
  - Submissions from interested parties

- Official evaluations by experts
  - New Zealand 2001
  - Sweden 2007,…
- Independent evaluations (could be sponsored by CB/Government)
  - Norges Bank Watch
  - Annual conference (ECB Watchers’ Conference, US Monetary Policy Forum)

Accountability in practice

- Evaluation of monetary policy: Difficulties
  - Lags (1-2 years), uncertainty
  - Current inflation affected by policy about 2 years ago
  - Current inflation on target
    - Policy right 2 years ago, unanticipated shocks small or cancel
    - Policy wrong 2 years ago, unanticipated shocks compensate (luck)
  - Current inflation off target
    - Policy right 2 years ago, unanticipated shocks explain deviation
    - Policy wrong 2 years ago, unanticipated shocks don’t compensate
    - Ex post evaluation difficult: Must identify shocks to judge policy

- Ex ante evaluation of decisions better
  - Evaluate decision given info at the time of decision
  - Requires transparency: CB info at the time
  - Compare with other forecasts/policy recommendations at the time

Modern monetary policy regimes

- Mandate, independence, accountability
- Flexible inflation targeting
  - Works very well in many countries
- Room for further improvements of transparency and accountability
- Accountability in practice, evaluations
- We learn more from some variety across countries

Riksbank governance

- Riksdag
  - General Council
    - 11 members
  - Executive Board
    - 6 members
Implementing monetary policy: The interest-rate path and its credibility

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Flexible inflation targeting
- Stabilize both inflation around target and resource utilization
- “Forecast targeting:” Choose an instrument-rate path such that the forecast of inflation and resource utilization “looks good”
- “Looks good:” Inflation goes to target and resource utilization goes to normal at an appropriate pace
- Publish and explain instrument-rate path and forecast of inflation and real economy
- “Management of expectations”

Publishing instrument-rate paths
- RBNZ 97, Norges Bank 05, Riksbank 07, Sedlabanki Islands 07, CNB 08
- Why so few?
- Commitment? Not a problem in NZ, Norway, Sweden: “It is a forecast, not a promise”
- Decrease welfare if more bad public information (Morris-Shin 02, Svensson 06)
- But CB info about own intentions should be better

Management of interest-rate expectations
- Riksbank publishes and explains forecast of inflation, real-economy, and repo-rate
- What is the Riksbank’s record in managing interest-rate expectations?
- Compare repo-rate path to market expectations (adjusted implied forward rates) before and after announcement

February 2007

June 2007
Management of interest-rate expectations

- Overall pretty good through February 2009
- From April 2009: Higher market expectations, imperfect credibility
- Result: Actual policy more restrictive than intended policy

Possible reasons for lack of credibility?
- Communication, divisions in Board, lower bound?
- Mean or mode?
- Market expectations of future inflation and growth?
Evaluating flexible inflation targeting

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Why not just check if inflation equals the inflation target?

(1) Imperfect control of inflation: Lags, intervening unforeseen shocks
   - Inflation on target: MP wrong but CB lucky
   - Inflation off target: MP right but CB unlucky

(2) Deviation from target may be intentional
   - Flexible inflation targeting: Stabilize both inflation around target and the real economy

Flexible inflation targeting

More formally:
Minimize quadratic forecast loss function

\[ \sum_{t=0}^{\infty} (\pi_{t+1} - \pi_t)^2 + \lambda \sum_{t=0}^{\infty} (y_{t+1} - \overline{y}_{t+1})^2 \]

- \( \pi_{t+1} \) output gap
- \( \lambda \) constant relative weight on output-gap stabilization

Flexible inflation targeting

- Mean squared gaps:
  \[ \sum_{t=0}^{T} (\pi_{t+1} - \pi_t)^2 / (T+1) \]
  \[ \sum_{t=0}^{T} (y_{t+1} - \overline{y}_{t+1})^2 / (T+1) \]

- Variability tradeoffs

Evaluations of monetary policy, examples

- Riksdag’s Committee on Finance (annual)
- Giavazzi-Mishkin (2006)
- Independent Review of Monetary Policy in New Zealand (2001)
- Norges Bank Watch (annual, 2002)
Evaluation ex post or ex ante?

- Evaluation ex post, after the fact?
- In hindsight, policy could normally have been better (but this is trivial)
- More relevant: Given available information at the time of decision, could policy have been better?
- Evaluation ex ante arguably more relevant
- Can be done in real time