Rules and Discretion

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Tug of war between rules and discretion

• Gold standard: rules

• Period after 1930s to 1960’s: transition to discretion
  – Keynes’ critique of Churchill’s proposal to return to the pre-war gold parity, followed by the wholesale abandonment of the gold standard in the 30s and the 1946 US Full Employment Act, culminating in President Kennedy’s activist Keynesian council of economic advisors.

• Period of 1970s: back to rules
  – Heyday of monetarism and monetary targets.

• Current period: back to discretion
  – Monetary policy strategy increasingly left to the discretion of central banks.
• Current transition to discretion:

  – Greenspan ‘saved the world’ several times by activist intervention
    • supports idea of leaving monetary policy to the discretion of monetary policymakers

  – Increasing confidence about models
    • Striking degree of agreement on the model
    • Rapid advance of techniques for analyzing policy in the model

  – Perception that problems with discretion are ‘overblown’
    • Just be ‘grown up’ and exercise ‘self discipline’
    • Prediction of view that rules (e.g., $k$ percent money growth, 100% reserves, etc.) should be imposed by society on central banks seems to have been rejected by US experience getting rid of high inflation
Assessment

• Society should not impose external constraints that central banks follow particular simple rules.

  – Central banks will continue to find simple rules to be very useful for internal policy deliberations and as useful devices for communicating with the public.
    • Taylor rule and principle has been enormously useful for this

  – But, Taylor principle cannot be a mechanical guide in itself.

  – Could even lead to trouble

  – The rules that central banks work with should be chosen at the discretion of central banks
    • Rules should evolve as central banks’ understanding of the economy evolves.
Assessment...

- Example of how mechanical following of Taylor principle could lead to trouble:
  - Suppose interest rates are a component of costs
    - In fact, interest charges are a large component of manufacturers’ costs.
  - Suppose inflation expectations of inflation rise 1%
  - Taylor principle: raise nominal rate *more* than 1%
  - By raising costs, this could place upward pressure on inflation, confirming initial higher expectations of inflation.
  - Result: inflation expectations lose their anchor.

- Other rules:
  - Very narrow focus on inflation ~ bad with wage frictions
  - *k* percent money rule ~ bad with financial shocks
What about the problems with discretion?

- A general perception that the warnings of Kydland and Prescott not valid (at least, for the US).

- Barro-Gordon model predicted that return to low inflation could only occur if there is institutional reform.

- But, US inflation was eliminated without institutional reform.

Current evolution of discretionary monetary policy

• Estimate a model for the economy.

• Compute optimal policy and report graphs showing future distribution of inflation, output, etc.

• Let’s see how it works in a simple example..
Model

• Preferences:

\[ E_0 \sum_{t=0}^{\infty} \beta^t \left( \log C_t - \frac{N_t^{1+\phi}}{1+\phi} \right) \]

• Technology:

– Final goods

\[ Y_t = \left( \int_0^1 Y_t(i) \frac{e^{-1}}{\varepsilon} \, di \right)^{\frac{\varepsilon}{e-1}}, \quad \infty > \varepsilon \geq 1 \]
Model...

– Monopoly intermediate good producers

\[ Y_t(i) = A_t N_t(i) \]

\[ \log A_t = \rho \log A_{t-1} + u_t. \]

– Profits in time \( t \)

\[ \underbrace{P_t(i)Y_t(i)}_{\text{revenues}} - \underbrace{(1 - v)W_t(1+\psi R_t)/A_t}_{\text{marginal cost}} Y_t(i) \]

– Calvo frictions on setting of \( P_t(i) \)

Financial friction in labor market if \( \psi > 0 \)

Fiscal subsidy which undoes effects of monopoly power and financial friction in steady state
Optimal (Ramsey, ‘natural’) Policy

- Private sector equilibrium conditions:
  \[ z_t - \beta z_{t+1} - \gamma y_t = 0, \ t = 0, 1, \ldots \]

- Welfare criterion:
  \[ \sum_{t=0}^{\infty} \beta^t u(z_t, y_t) \]

- Lagrangian problem:
  \[
  \max_{\{z_t, y_t; t=0,1,\ldots\}} \{ u(z_0, y_0) + \beta u(z_1, y_1) + \ldots \}
  \]

  constrains choice of \( z_1 \) at \( t=0 \), but not at \( t=1 \)

  \[
  + \lambda_0[z_0 - \beta z_1 - \gamma y_0] + \lambda_1[z_1 - \beta z_2 - \gamma y_1] + \ldots \}
  \]

- Time-consistency: at \( t=1 \), respect \( \lambda_0 \)
Experiment in optimal policy

• The economy is in a steady state up to period $t$ and no deviation has occurred from the Ramsey plan.

• A positive shock to technology occurs.

• Monetary authority computes optimal policy and displays it in a set of charts.

• Redo the charts in the next period.....
Implications for rules and discretion

• Mechanical rules, as an external constraint imposed on the central bank by society, are not an option.

• There is no good alternative to leaving monetary policy to the discretion of policy makers
  – must be free to move in a crisis
  – must be free to change strategy as understanding of the economy evolves

• But, time inconsistency is (still) alive.
  – It’s not in the very simplest model (CGG model with only technology shocks and tax subsidy to neutralize monopoly friction)
  – It is an issue in small perturbations on that model.
Conclusion

• Discretion in central banking is here to stay.

• Traditional strategy for inoculating against problems with discretion
  – Society imposes that central bank follow particular simple rules
  – This approach is not a good option today.

• So, how to deal with the problems associated with discretion?

• Get the monetary policy institutions ‘right’.

• Need an independent Fed, with a formal, legal, mandate to
  – Make inflation the priority
  – Be transparent
    • Be clear about the rationale for policy
    • Explain deviations of current plans from past (‘respect the multipliers’)
  – Make clear that focus on stabilizing inflation is the best strategy for stabilizing output/unemployment.

• A group of economists advocating ‘Flexible inflation targeting ‘ is pushing in this direction.