# Rules Versus Discretion: Assessing the Debate Over the Conduct of Monetary Policy

John B. Taylor

Federal Reserve Bank of Boston Conference on
“Are Rules Made to be Broken?
Discretion and Monetary Policy”

October 13, 2017

# Questions to Define Scope of Paper

1. "How have the various rules suggested for monetary policy changed over time?"
2. "Have the reasons given for why we might want to tie a central banker's hands evolved?"
3. "How should we think about discretion? What is the line demarcating a rules-based policy and a discretionary policy when the latter already features a large systematic component?"
4. "How is the practice of central banking being influenced by the current debate on the optimal conduct of monetary policy?"
5. "How does the recently proposed Congressional legislation on conducting monetary policy fit into this debate?"

# 1. How Have Suggested Policy Rules Changed Over Time?

- Smith (1776): "a well-regulated paper-money"
- Thornton (1824): an explicit mechanism, not ongoing discretion
- Ricardo (1814): ministers "could not be safely entrusted with the power of issuing paper money"
- Wicksell (1907), Fisher (1920), Simons (1936), Friedman (1948)
- Goal: a monetary system that
  - prevents monetary shocks
  - cushions the economy from other shocks
  - thereby reduces the chances of inflation, financial crises, and recession.
- Idea: simple monetary rule with little discretion would do it
  - Really a choice of "rules versus chaos" (Taylor-Williams (2012))

# Taking the Idea Forward

- First macro model (Tinbergen, 1936) designed to answer a monetary policy question:
  - Should the currency be devalued to stimulate economy?
  - Model calculations had an impact
- "Path-Space"
  - Instruments and targets
  - Simultaneous equation models, Cowles, Klein,…
  - MPS model at Fed. Other central banks too
- "Rules-Space"
  - Dynamic, stochastic, new classical, new Keynesian
  - Brookings Model Comparison
  - FRB/US model at Fed
  - Perspective from vintage models in Volker Wieland's model data base
  - Rules were complex

# Complex rules became simple rules

- Easier to understand
- Used by the markets (Lipsky)
- Robust (McCallum, Levin, Wieland, Williams)
- Helped explain unusual phenomena
- Variations: inertial rules, other variables, forecasts rather than actual inputs
- International
- Worked in practice:
  - To Great Moderation (Gali, Gertler, Clarida)
  - From Great Moderation
  - Alternative explanations: King, Carney,  Bernanke
  - Nikolsko-Rzhevskyy, Papell, and Prodan
  - International evidence (Teryoshin)

# Rules Start to Change Again

- Renewed interest in nominal GDP targeting
- Impact of effective lower bound on interest rate
  - Money growth rules
  - Meta rule (Reifschneider-Williams)
    - Forward Guidance
  - Price level targeting
  - Higher inflation target
- R-Star Wars
  - Holston, Laubach and Williams
- Future
  - Now-casting
  - Digital central bank currency

# 2. Have the reasons for tying the hands of central bankers evolved?

- The reasons are not why we should tie central banker's hands.
- The reasons are why central bankers should choose rules-based policy
- And the reasons have not evolved much (example, Taylor (1998))
  - Time inconsistency.
  - Clearer explanations.
  - Less short-run political pressure.
  - Reduction in uncertainty.
  - Teaching the art and science of central banking.
  - Greater accountability.
  - A useful historical benchmark
- Actually these are just reasons for a strategy
  - George Shultz: "if you have a strategy, you get somewhere. If you don't have a strategy, you are just a tactician at large and it doesn't add up." \
- Also need to limit the scope of a central bank.
  - In granting independence, one needs a well-defined limited purpose.

# Reasons against policy rules have evolved

- Summers: "I'd rather have a doctor who most of the time didn't tell me to take some stuff, and every once in a while said I needed to ingest some stuff…That would be a doctor who's [advice], believe me, would be less predictable."
  - But huge progress due to doctors using checklists
  - Checklist-free medicine is dangerous, like rules-free monetary policy
- Constrained discretion.
  - All you need is a goal.
  - Then do whatever you think needs to be done.
  - An appealing term, but it does not create a strategy.
  - Evidence that it has not worked very well.

# Forecast Targeting

- Set instrument so that $(\pi_{t+h,t} - \pi^*) + \phi x_{t+h,t} = 0$ over a range of h where policy instrument can affect these variables. Svensson (1998), Woodford (2012).
- Advantage is more information, though model-specific
- An interest rate path can be calculated, but it need not yield a simple rule for the instruments
- So need diagnostic checks, Qvigstad (2005)

# 3. Difficult to Demarcate Discretion?

- McCallum (1999): “When it comes to practical application to the behavior of actual central banks, however, the distinction cannot be easily drawn.”
- Taylor (1993): “to study the role of policy rules in a world where simple, algebraic formulations of such rules cannot and should not be mechanically followed by policymakers.”
- Thus 1985-2003 “rule-like,” pre & post “discretionary”
- To apply formal tests Nikolsko-Rzhevskyy, Papell, Prodan (2014) and Teryoshin (2017) are more precise

# More Difficult When

- There are lagged policy variables:
  - Closer fit: Dotsey
  - Optimality reasons: Giannoni-Woodford
- Optimal may leave little for discretion
  - Ramey (2016) *Handbook of Macroeconomics* paper
- Deviations are rules-based
  - Taylor (2008) on Libor-OIS spread

# 4. Influence on the practice of central banking?

- Correlation between policy rules, monetary policy decisions and economic performance.
- But *direct* effect on analysis and decisions of policy makers and committees
- Kahn (2012):
  - Examines transcripts and records of Fed; other central banks
  - Documents a great deal of discussion in the 1990s
- Also direct evidence from some central banks
  - Norges Bank
- But discussions also outside of formal meetings

# Very recent

- Policy Normalization Principles and Plans (2014)
  - FOMC "intends to reduce the Federal Reserve's securities holdings in a gradual and predictable manner…."
- "Addendum" (June 2017) is much different from taper tantrum
- Yellen (2017a): "When the economy is weak and unemployment is on the rise, we encourage spending and investing by pushing short-term interest rates lower. …. Similarly, when the economy is threatening to push inflation too high down the road, we increase interest rates."
  - "price stability": a level of inflation of "2 percent a year,"
  - the maximum level of employment that can be sustained in the longer run: an unemployment rate of around 4-3/4 percent,
  - "longer-run neutral rate": a "3 percent" federal funds rate
- Yellen (2017b): Compared this policy with the Taylor rule and other rules, and explained difference s.
- Algebraic summary: $r = \pi + ay + b(\pi - 2) + 1$, $a > 0$, $b > 0$. Could contrast with: $r = \pi + .5y + .5(\pi - 2) + 2$.

# “Monetary Policy Rules and Their Role in the Federal Reserve’s Policy Process”

- New section of *Monetary Policy Report (2017)*:
- Lists 5 rules and 3 “key principles of good monetary policy” in policy rules.
- One principle, sometimes called the Taylor Principle,
  - “the policy rate should be adjusted by more than one-for-one in response to persistent increases or decreases in inflation”
- One of the five policy rules is based on the Reifschneider and Williams (2000) paper on the zero lower bound.
- Shows that the interest rate was too low for too long in the 2003-2005 period according to some rules
- Focuses on differences, rather than similarities, but rules translate differences in measurement into differences about policy in a systematic way.

# Practical thinking on the international front

- Paul Volcker (2014): "the absence of an official, rules-based, cooperatively managed monetary system has not been a great success."
- Raghu Rajan (2016): "what we need are monetary rules that prevent a central bank's domestic mandate from trumping a country's international responsibility."
- Mario Draghi (2016): "We would all clearly benefit from…improving communication over our reaction functions…"

# 5. How does the policy rules bill fit into the debate?

- Taylor (2011) proposed legislation requiring Fed to establish and report on a policy rule
- No such suggestion with rule back in 1992
- Why now?
  - legislation can help normalize policy,
  - Help restore rule-like monetary principles consistent with long-term price stability and strong economic growth,
  - prevent harmful deviations in the future, and
  - provide a catalyst for international monetary reform.

# “Requirements for Policy Rules of the FOMC”

- Bill would require that the Fed “describe the strategy or rule of the Federal Open Market Committee for the systematic quantitative adjustment” of its policy instruments.
- Fed’s job to choose strategy and how to describe it.
- Fed could change strategy or deviate from it if circumstances called for a change, but explain why.
- Fed would also describe how its strategy or rule might differ from a “reference rule”
- Issues: independence, flexibility, committee decision-making, forecast-targeting

# Conclusion

- Many suggestions and proposals for rules are based on economic models, robust methodologies, empirical findings.
  - Important to continue.
  - That there are many proposals does not imply we should discard a systematic approach. In any policy situation, there are many strategies from which to choose.
  - Job of policy makers to choose a strategy and make it work.
- Rules should not be viewed as ways to tie central bankers' hands. They help policy makers improve monetary policy, operate in a democracy and in the global monetary system.
- While research distinguishes discretionary policy from rules-based policy, the demarcation is difficult. Still policy makers can internalize strategic principles as they make decisions.
- Research on policy rules has impacted the practice of central banking even as debate continues and enthusiasm waxes and wanes. Impact has recently increased in US and other countries.
- Central bank independence has not been enough to prevent swings away from rules-based policy. In the US where Congress has responsibility under the Constitution, legislation can help.