Monetary Policy Strategies

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The views expressed herein are those of the author and do not reflect those of the Federal Reserve Board or its staff.

Presentation based on

[The Fed - Monetary Policy, Employment Shortfalls, and the Natural Rate Hypothesis (federalreserve.gov)]

[The Fed - Monetary Policy Strategies to Foster Price Stability and a Strong Labor Market (federalreserve.gov)]

[Central Banking Post Crises | NBER] (with Frederic S. Mishin)

Motivation

- I revisit three questions:
  - Is the ELB likely to bind, and, if so, what strategies can mitigate any adverse effects?
  - Should policy respond to measured slack and, if so, how forcefully and symmetrically?
  - How can monetary policy promote labor market strength, with price stability?

Findings

- The ELB is a significant constraint on monetary policy for reasonable views on the equilibrium real interest rate—and make-up strategies alleviate this constraint.
- Strong responses to inflation and activity in a monetary policy rule limit ELB risks and employment shortfalls.
- Asymmetric (shortfalls) approaches can exacerbate economic volatility and worsen both employment shortfalls and price stability.

	Balanced approach rule		With make-up strategy	
	Mean	Standard Deviation	Mean	Standard Deviation
Output	-0.5	3.7	0.0	3.3
Inflation	1.4	2.5	2.1	2.0
ELB frequency	14.9		22.0	
Symmetric Loss	20.4		15.1	
Shortfalls Loss	15.8		10.2	

Balanced approach rule:

$$r(t) = 0.85 * r(t-1) + 0.15(r^*(t) + 2 + 1.5\{\pi(t) - 2\} + 1\{y(t) - y^*\})$$

Is the ELB likely to bind?
Outcomes for balanced approach rule

	Preemptive rule, $\boldsymbol{\pi^{threshold} = 2}$ & $\boldsymbol{(u - u^{*})^{threshold} = 1}$		**Shortfalls rule**	
	Mean	Standard Deviation	Mean	Standard Deviation
Output	0.0	3.0	1.8	4.5
Inflation	2.0	1.9	3.6	2.4
ELB frequency	31.4		8.0	
Symmetric Loss	12.5		31.2	
Shortfalls Loss	8.5		13.3	

Should policy respond to measured slack and, if so, how forcefully and *symmetrically*?

- I examine a large set of coefficients in a reaction function, and stronger responses to output and inflation promote stability (despite sizable measurement error)
- *Shortfalls rule*:

$$r(t) = 0.85 * r(t-1) + 0.15(r^{*}(t) + 2 + 1.5\{\pi(t) - 2\}$$
$$+1\min(\{y(t) - y^{*}\}, 0)$$

How can monetary policy promote labor market strength, with price stability?

- Symmetric policy responses promote stability, which limits employment shortfalls
- Asymmetric policies can lead to a deterioration in stability

Robustness to risk management considerations

- Is policy robust to other forms of stimulus?
  - Symmetric make-up strategies—Yes
  - Asymmetric strategies—No
- Other considerations not analyzed
  - Is policy robust to nonlinearities in the Phillips curve?
  - Is policy robust to unmodeled costs and benefits of a high-pressure economy (positive hysteresis)?

Conclusions

The ELB remains a significant constraint, hindering achievement of the inflation objective and worsening employment shortfalls.

Make-up strategies address ELB risks.

Threshold approaches are simple and effective

Symmetric policy reaction functions mitigate the most adverse effects of employment shortfalls by contributing to economic stability.

Asymmetric approaches can exacerbate economic volatility

Additional considerations

- Monetary policy has the primary responsibility for price stability
- Crises have emphasized the role of central banks in promoting financial stability, as financial stability is key to achieving price and economic stability.
  - This role increases risks to independence.
- Goals for central banks other than price and economic stability, complemented by financial stability, can make it more difficult for them to stabilize both inflation and economic activity.