

Central Bank Independence and Economic Performance: It's Not Only the Law

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Congratulations!

Article 28:

The State shall have a central bank, which shall be autonomous in exercising its function and management. Its main goal will be to foster the stability of the national currency's purchasing power, therefore strengthening the State's role in guiding the country's development. No authority shall order the central bank to grant financing.

Result:

1970-94: $\pi = 43\%$ $\sigma_{\pi} = 43\%$

2001-12: $\pi = 4\%$ $\sigma_{\pi} = 2\%$

Challenges: It's Not Only the Law

- Within a given law (de jure independence), there can be
 - (1) Variations in de facto independence
 - (2) Variations in rules-based vs. discretionary policy
 - (3) Variations in macroeconomic performance
- All three are closely related

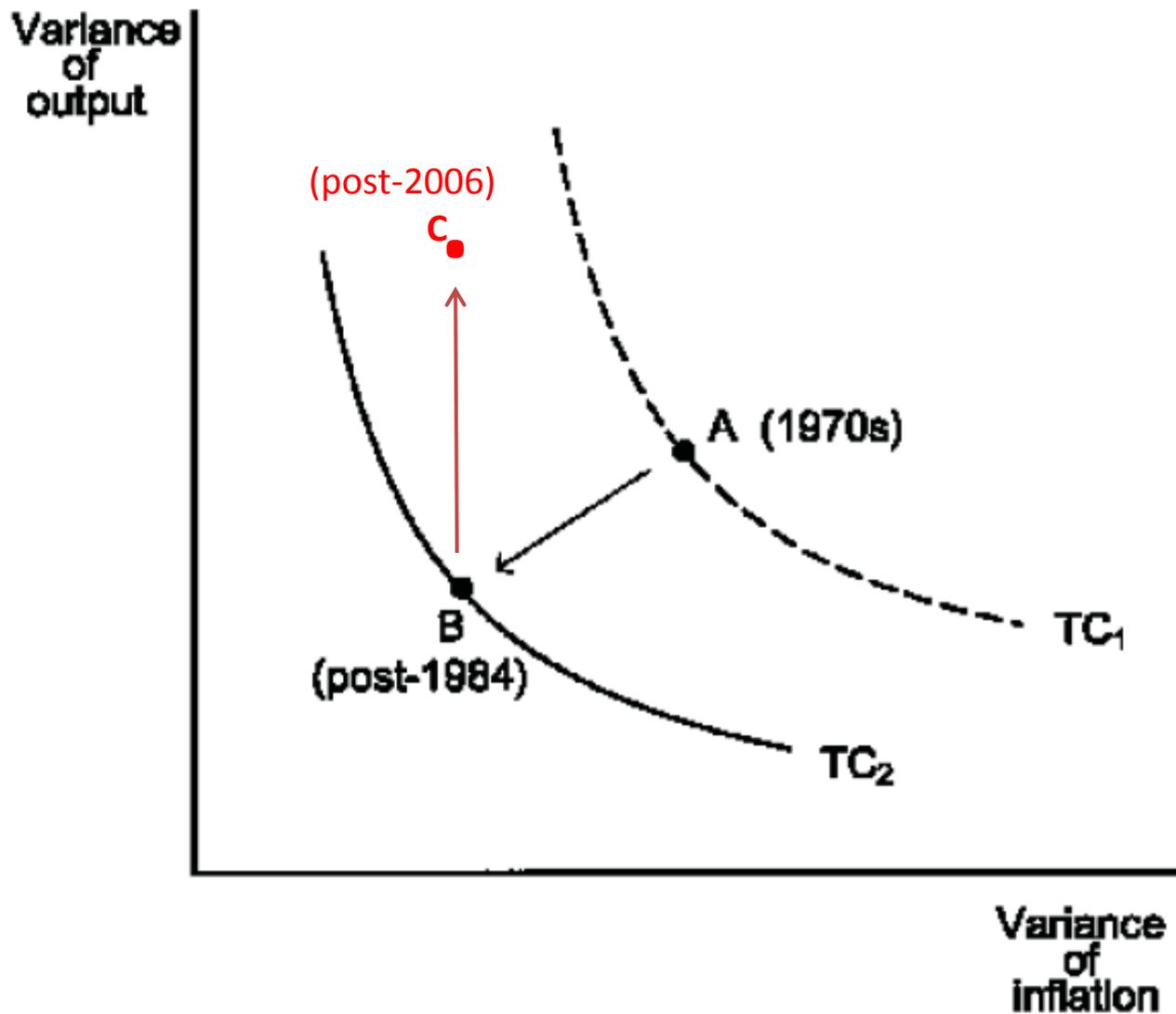
Measuring Macro Performance

- Look at both inflation and output stability
- Framework: Inflation-output variance tradeoff
 - Reflects a standard objective for monetary policy
- Compare performance over long periods of time

Variability (σ) of U.S. Output and Inflation (%)

	<u>Output</u>	<u>Inflation</u>
1965.1-1983.4	3.6	2.4
1984.1-2006.4	1.5	0.8
2007.1-2012.4	5.4	0.8

Tradeoff Curves from Bernanke (2004) (updated)



Virtually No Change in De Jure Independence

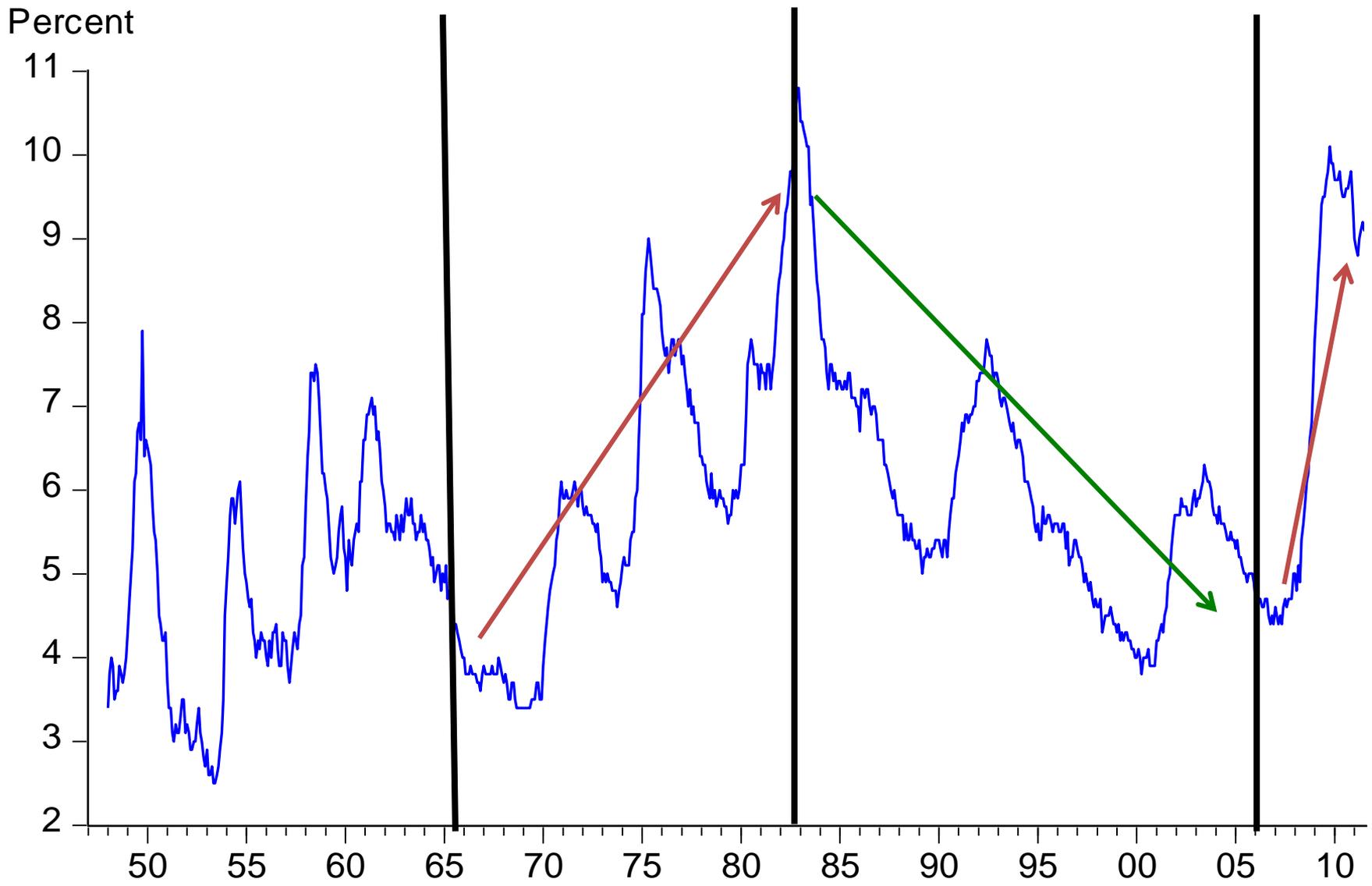
- Small legal changes in 1977, 2000, 2010
- Crowe and Meade (2007)
 - Used standard indices of de jure central bank independence
 - Bade and Parkin (1985)
 - Cukierman, Webb, and Neyapti (1992)
 - Alesina and Summers (1993)
 - Found no change over time for the US.

Changes in De Facto Independence

- Meltzer *A Monetary History of the Federal Reserve*
 - 1970s e.g. Burns-Nixon
 - 1980s-1990s e.g. Volcker (1983) “We have...gone a long way toward changing the trends of the past decade and more.”
 - 2000s
 - Involved in fiscal policy, credit policy, housing policy,...
 - Can be driven by the executive branch or the central bank, or both
- Goodfriend (2012) Issing (2012) come to similar conclusions

Changes in the Rules-Discretion Balance: A Rough Historical Classification

- Late 1960s and 1970s
 - Moving toward discretionary policies
- 1980s-1990s
 - Swinging toward rules-based policies
- 2000s
 - Veering away again



A Timeline of Swings in the Rules-Discretion Balance

Source: Taylor (2012) *First Principles*

Swings in the Rules-Discretion Balance: A Formal Statistical Classification

- Nikolsko-Rzhevskyy, Papell, Prodana (2013)
- Statistical tests (structural breaks)
 - discretionary era from 1974 – 1984
 - rules-based era from 1985 – 2000
 - discretionary era from 2001 to 2008
- Similar results with Markov switching model

Performance is Better in the Statistically-Determined Rules-Based Periods

Rules-Based States

Discretionary States

Panel A: Misery index $L = \text{inflation} + \text{unemployment rate}$

Markov Switching	8.58	10.99
Structural Change	8.50	11.46

Panel B: Linear absolute loss function $L = |\text{inflation} - 2\%| + |\text{unemployment rate} - \text{natural rate}|$

Markov Switching	2.12	4.01
Structural Change	2.31	4.03

Panel C: Quadratic loss function $L = (\text{inflation} - 2\%)^2 + (\text{unemployment rate} - \text{natural rate})^2$

Markov Switching	4.75	15.96
Structural Change	5.06	17.23

Source: Nikolsko-Rzhevskyy, Papell, Prodana (2013)

Conclusion

- Experience shows that
 - de facto independence
 - adherence to rules-based policy
 - good economic performanceare related.
- De jure independence necessary, not sufficient
- Implication: Look for ways to “encourage” more rules-based policies and more de facto independence. Examples include:
 - Restore accountability requirements on instruments
 - Restrict purchases of certain types of assets