The Importance of Independent Rules-Based Central Banks

John B. Taylor
Stanford University

Lecture at
National University of Kyiv-Mohyla Academy
Kyiv, Ukraine

May 18, 2017

Central Bank Independence

- Research and experience show value of CBI for good economic performance.
  - Time consistency
    - applies to monetary policy proper
  - Trade off between price stability and output stability
    - Implies flexible IT or dual mandate
- But granting independence to a public agency in a democracy, requires

  a limited purpose & *strong accountability*.

From Limited Purpose to Multi-Purpose Institutions

- If purpose is broadened, rationale for independence weakens
  - Close connection between financial stability and monetary policy, - LOLR
  - But financial regulatory activities can be in less independent agencies
- Independent multi-purpose institutions escape checks & balances
  - Inappropriate interventions and poor economic performance
  - Interventions in particular sectors or in credit allocation
    - US Consumer Financial Protection Bureau—with oversight of payday loans
- Reform? legislative appropriation for regulatory activity in central bank
- Future? If central banks do not keep to a limited purpose, they will be seen as too powerful and will lose independence

Independence is Not Enough

- Large shifts to & away from rules-based monetary policy
  - 1970s: accompanied by high inflation and high unemployment.
  - 1980s, 1990s, early 2000s: improvements in price & output stability.
  - Move away from rules-based policy circa 2003-2005 followed by Great Recession & Not-So-Great Recovery.
  - Nikolsko-Rzhevskyy, Papell, Prodan provide statistical evidence
- Shifts occurred without change in *de jure* independence.
  - Numerical indices: Crowe and Meade (2007).
  - But closely correlated with shifts in *de facto* independence:
    - Meltzer (2009), Goodfriend (2012), Issing (2012)
    - Independence sometimes taken away; sometimes given away.
- Policy implication: Encourage more rules-based policy by reforming the objective, or the mandate, given to the central banks.

Monetary policy gets more predictable, inflation targets, rules-based

From "Has the Fed Gotten Tougher on Inflation?" The FRBSF Weekly Letter, March 31, 1995, by John P Judd and Bharat Trehan of the San Francisco Fed

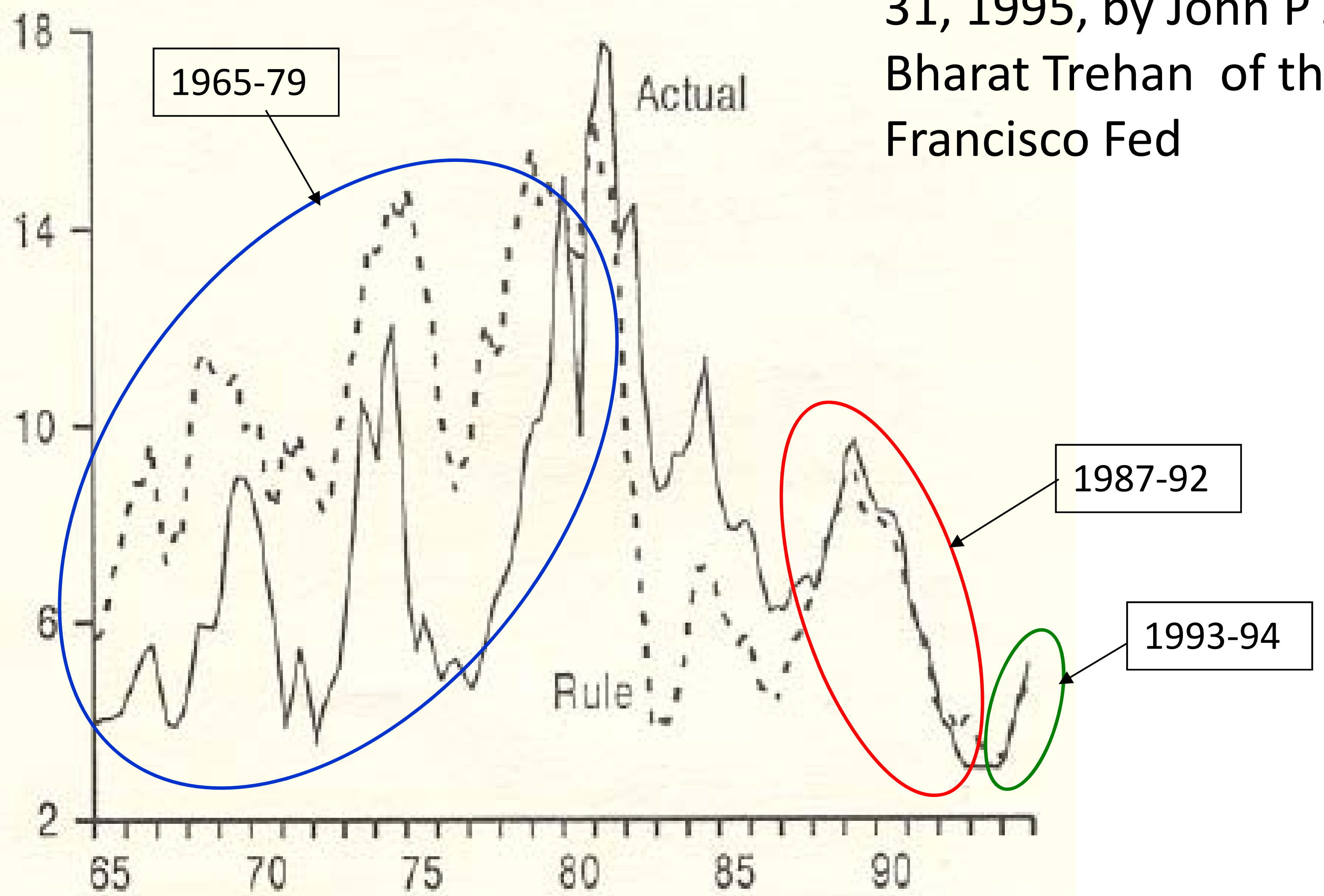
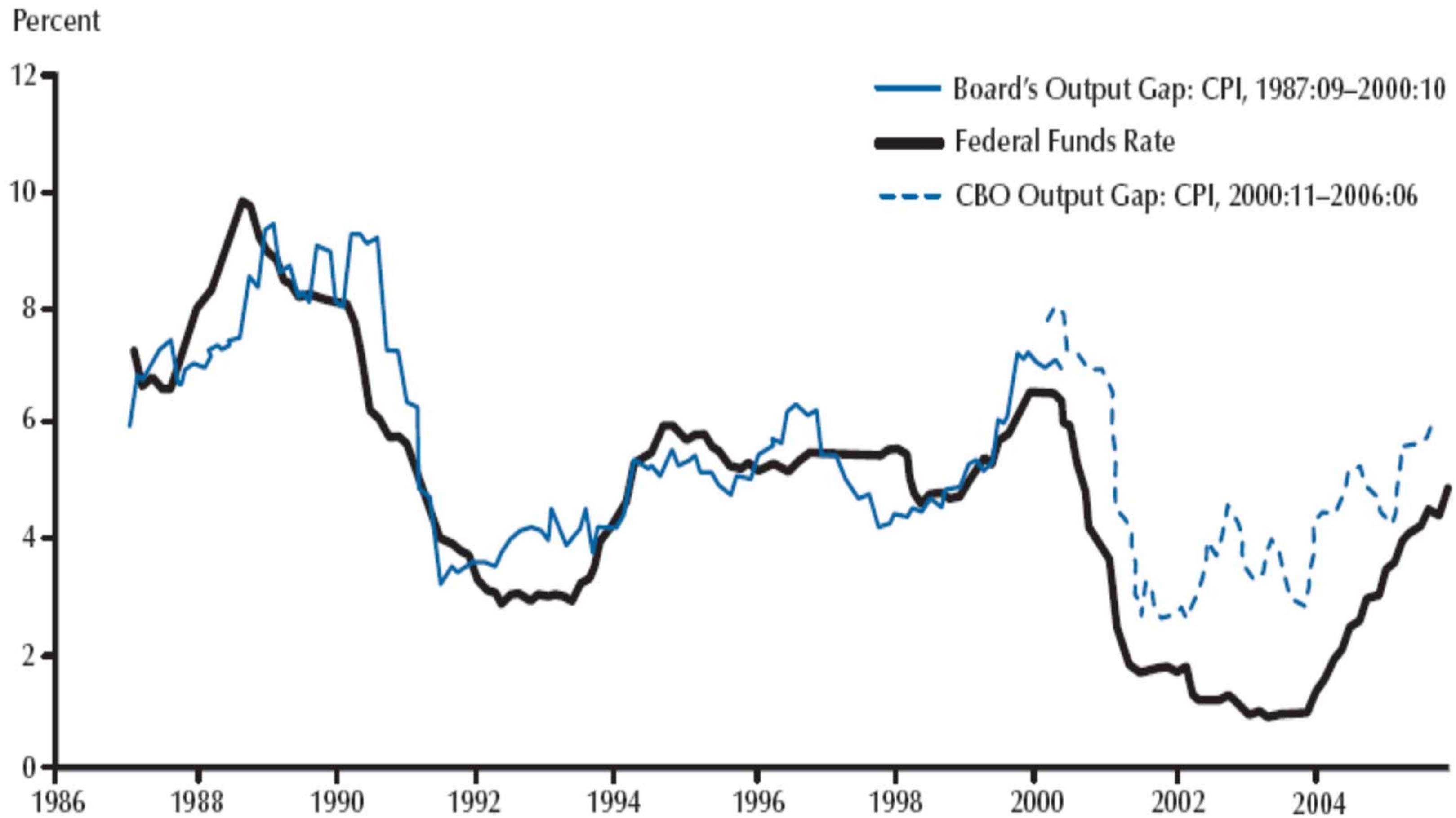
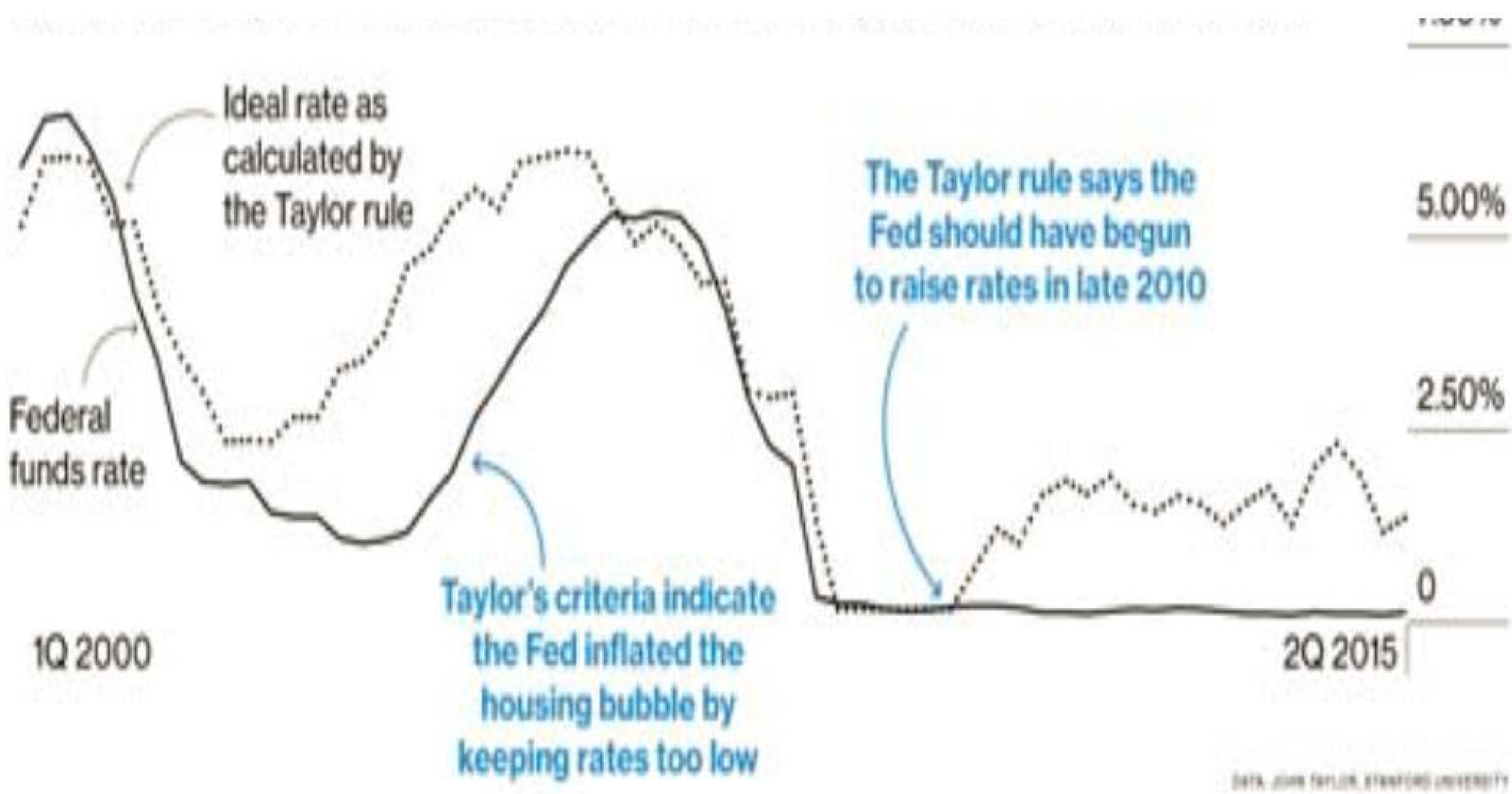
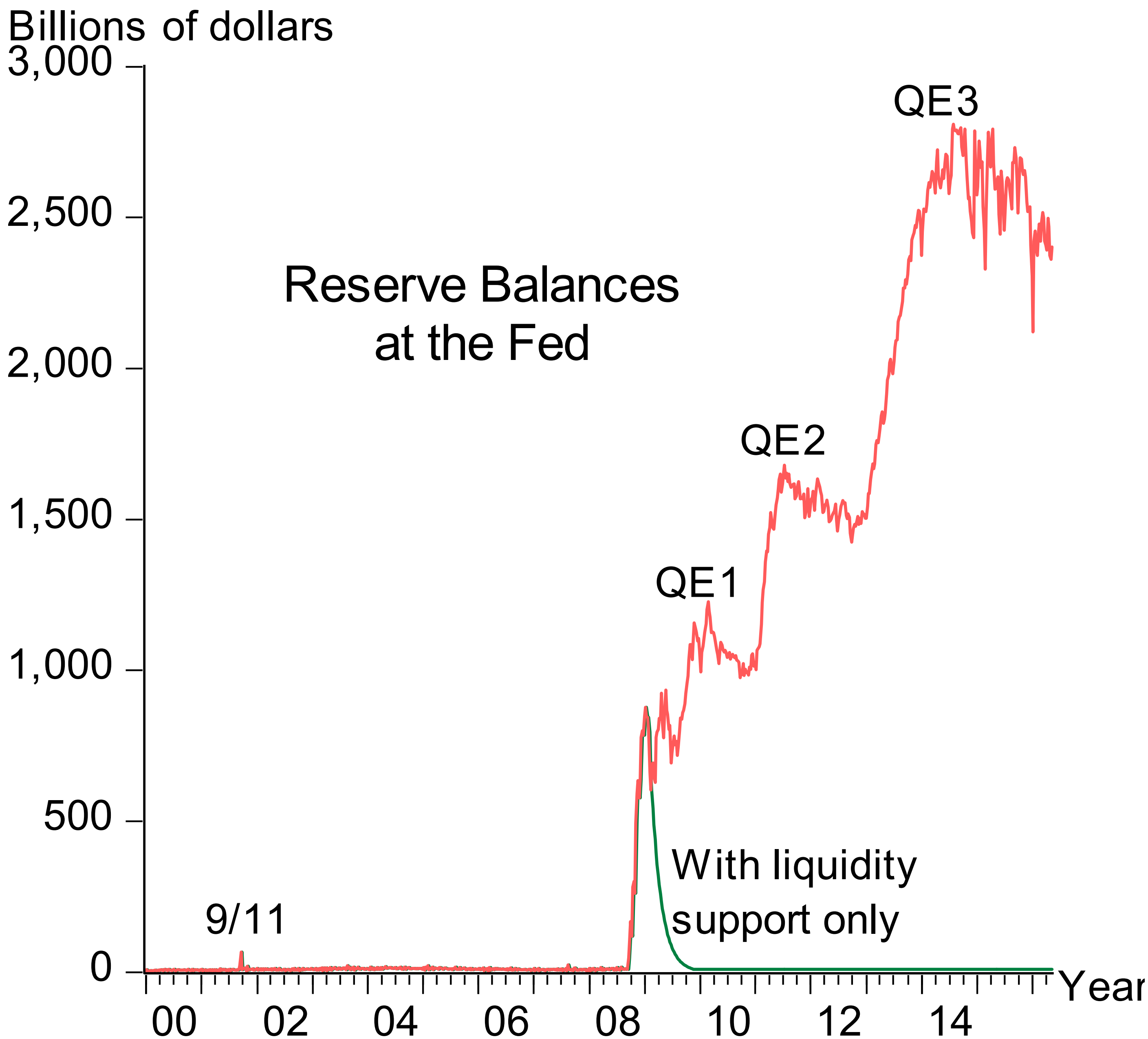


Chart from Fed, St. Louis *Review,* William Poole (Jan/Feb 2007)
Showing Shift Back Toward Discretion

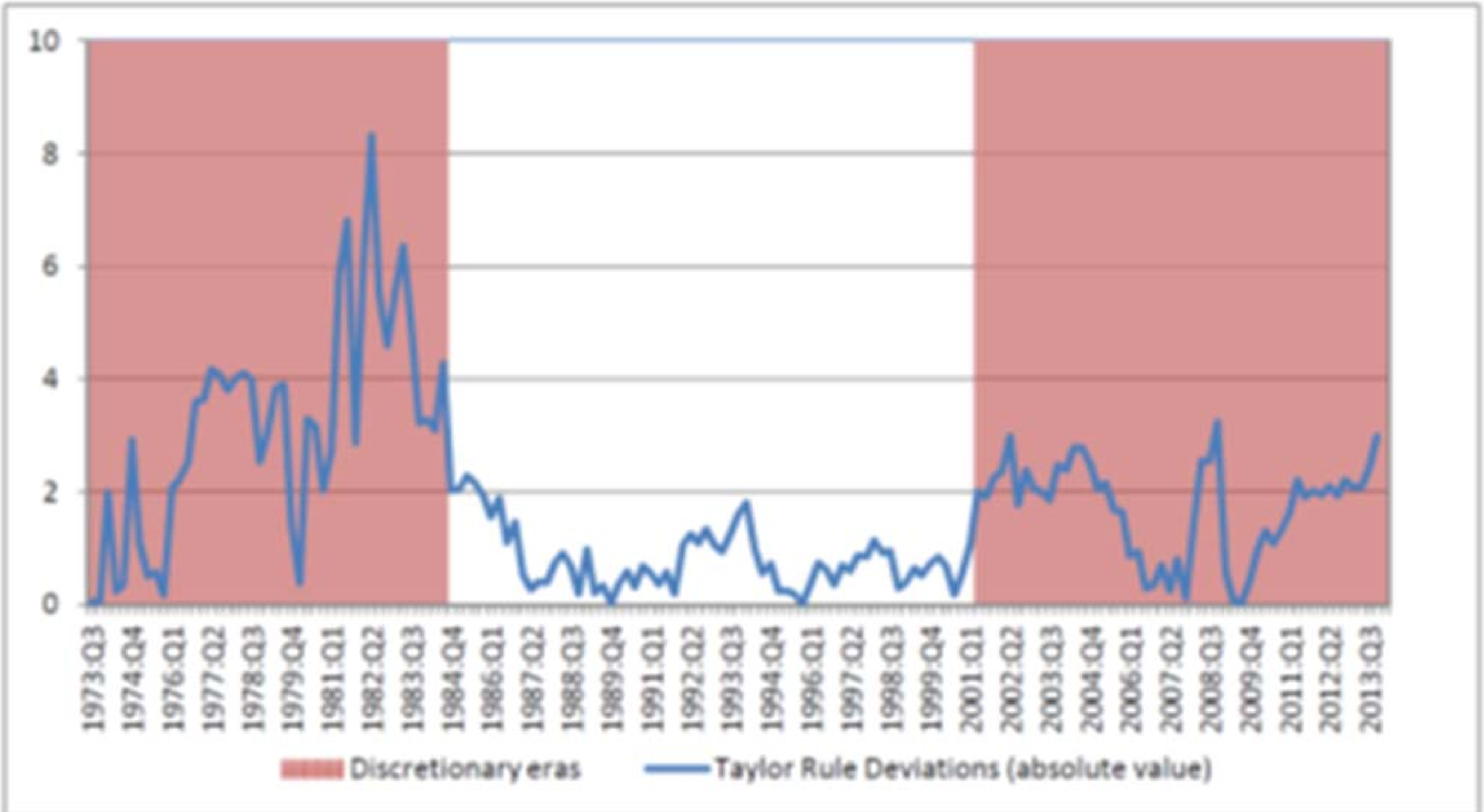
Greenspan Years: Federal Funds Rate and Taylor Rule
(CPI $p^* = 2.0$, $r^* = 2.0$) $a = 1.5$, $b = 0.5$

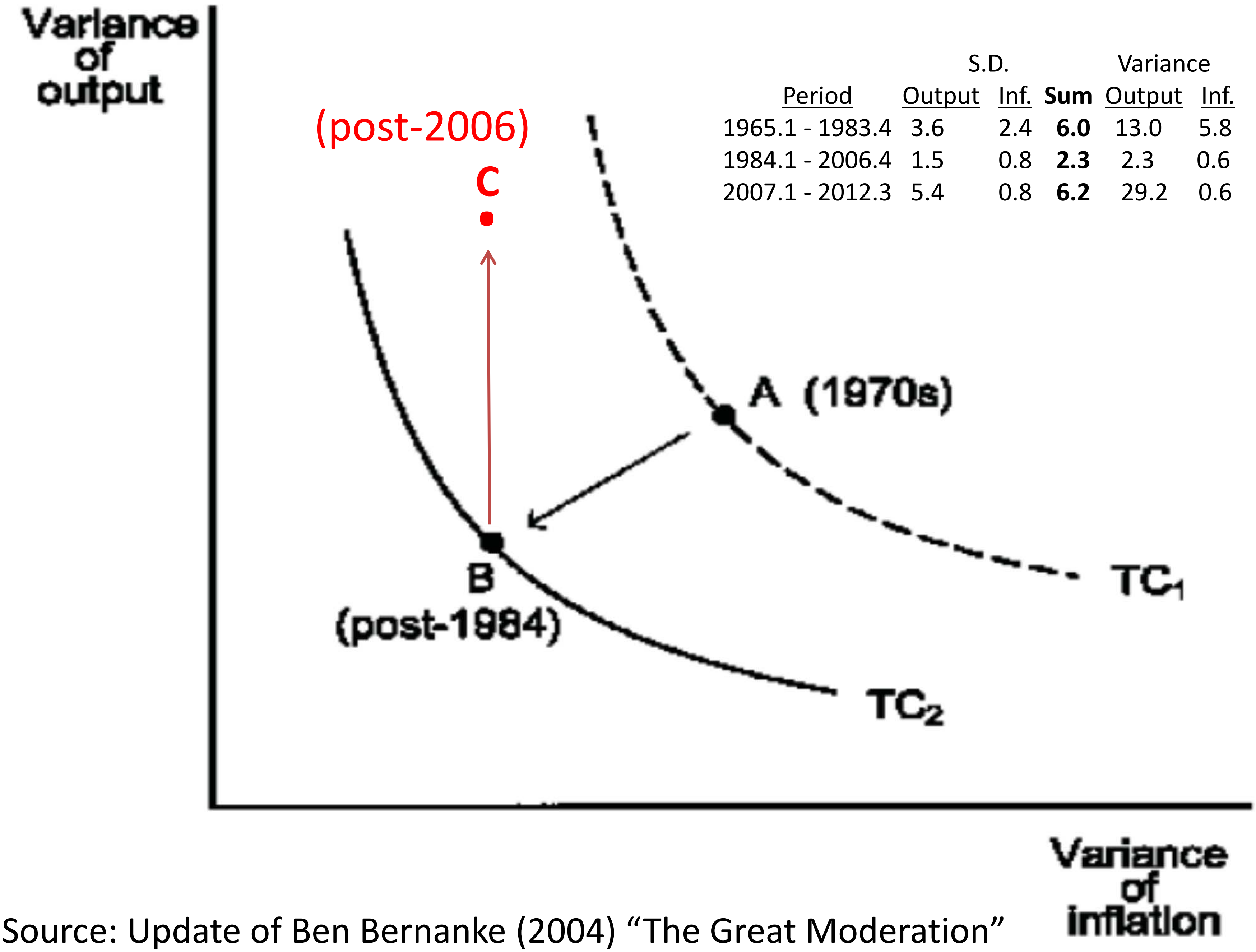



Ideal rate as
calculated by
the Taylor rule
Federal
funds rate
The Taylor rule says the
Fed should have begun
to raise rates in late 2010
Taylor's criteria indicate
the Fed inflated the
housing bubble by
keeping rates too low
5.00%
2.50%
0
1Q 2000
2Q 2015


Billions of dollars
3,000
2,500
2,000
1,500
1,000
500
0
Reserve Balances
at the Fed
QE3
QE2
QE1
With liquidity
support only
9/11
Year
00
02
04
06
08
10
12
14

Historical analysis (Meltzer) and statistical tests (Nikolsko-Rzhevskyy, Papell, and Prodan) agree that when policy is rules-based performance is better





	S.D.			Variance		
Period	Output	Inf.	**Sum**	Output	Inf.	**Sum**
1965.1 - 1983.4	3.6	2.4	**6.0**	13.0	5.8	**18.8**
1984.1 - 2006.4	1.5	0.8	**2.3**	2.3	0.6	**2.9**
2007.1 - 2012.3	5.4	0.8	**6.2**	29.2	0.6	**29.8**

Source: Update of Ben Bernanke (2004) “The Great Moderation”

Independence is Not Enough

- Large shifts to & away from rules-based monetary policy
  - 1970s: accompanied by high inflation and high unemployment.
  - 1980s, 1990s, early 2000s: improvements in price & output stability.
  - Move away from rules-based policy circa 2003-2005 followed by Great Recession & Not-So-Great Recovery.
  - Nikolsko-Rzhevskyy, Papell, Prodan provide statistical evidence
- **Shifts occurred without change in *de jure* independence.**
  - Numerical indices: Crowe and Meade (2007).
  - But closely correlated with shifts in *de facto* independence:
    - Meltzer (2009), Goodfriend (2012), Issing (2012)
    - Independence sometimes taken away; sometimes given away.
- **Policy implication**: Encourage more rules-based policy by reforming the objective, or the mandate, given to the central banks.

The Scope of the Objective Given to Central Banks

- Deepen rather than widen
  - Do not need more goals
  - Need a strategy to achieve the existing goals,
    - With details about the rules-based policy for the instruments.
- The current situation
  - Fed statement: "Longer-Run Goals and Monetary Policy Strategy"
  - ECB statement: "Strategy"
    - But these statements say little about strategy for instruments of policy
  - NBU statement: "Objectives and Tasks of Monetary Policy"
    - "The main monetary policy instrument and the operational target under such a monetary framework is the interest rate. If the projected inflation is above the targeted level, the central bank pursues a tight monetary policy in order to contain inflation, that is, the interest rate is raised. Conversely, if the projected inflation is below the target, an easy monetary policy is conducted, whereby the interest rate is cut.

Policy Rules Legislation

- Requires central bank to report its strategy for the instruments.
- Proposal for Fed: Now in a bill which passed U.S. House
  - Would require that Fed "describe the strategy or rule of the FOMC for the systematic quantitative adjustment" of policy instruments.
- Proposal for NBU: "Verkhovna Rada would have to legislate the NBU's commitment"
  - "Obeying any reasonable rule would prevent the NBU from taking populist measures. To maintain credibility in the future, switching to a rules-based policy might be the solution." Alex Nikolsko-Rzhevskyy (2014)
- Central bank's job to choose the strategy and how to describe it.
- Could change its strategy, but it would have to explain why.
  - "It would improve transparency for the Governor to explain why." ANR
- Central bank would not be chained to any mechanical rule or lose its independence.
- What about uncertainty about output gap, effective lower bound on interest rate, changes in the equilibrium real interest rate? Even more difficult for discretion

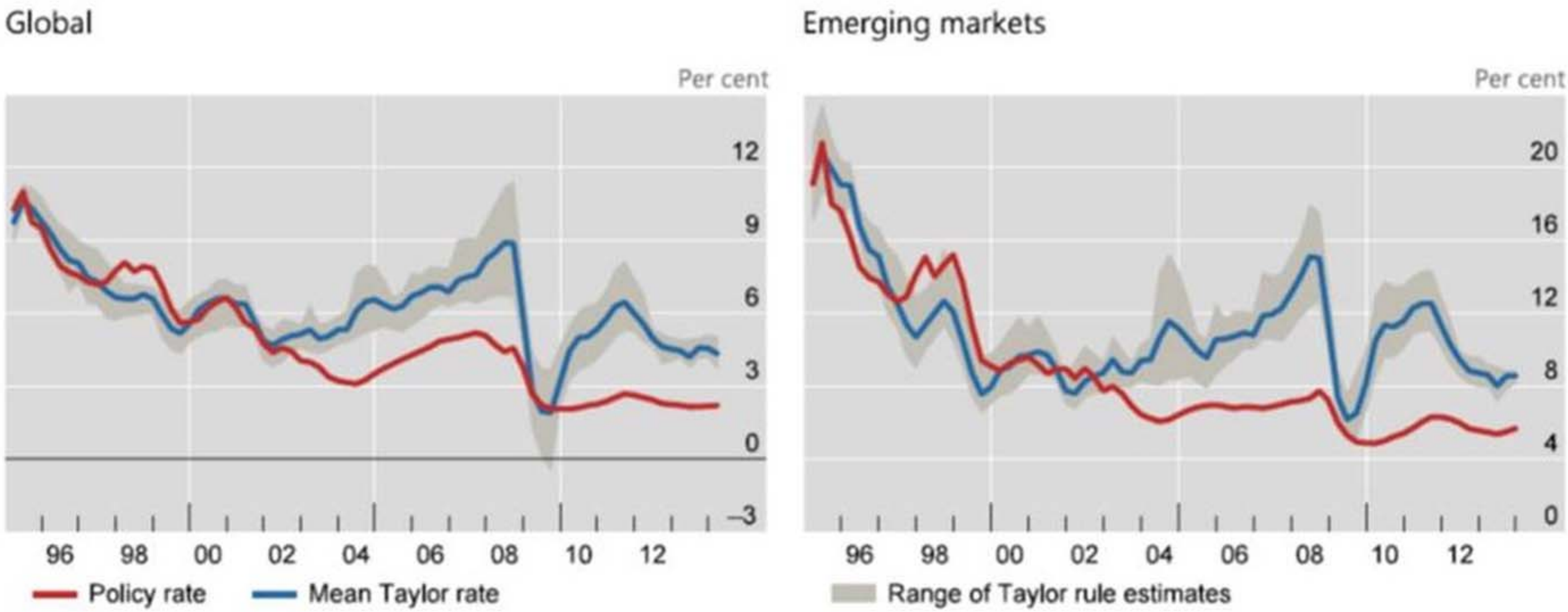
Forecast Targeting Legislation?

- Rather than a policy rule for the instruments, the legislation could require the central bank to report its *forecast targeting* strategy
  - Qvigstad(2005), Woodford (2012):“Forecasting Targeting as a Monetary Policy Strategy”
  - Example $$(\pi_{t+h,t} - \pi^*) + \phi x_{t+h,t} = 0$$
  - Dual to the same problem, like first-order condition & decision rule
  - As with the policy rule legislation one must write it into legislation without impinging on central bank independence
  - The central bank would decide on forecast targeting approach and how to describe it
  - Policy evaluation method of Svensson (2012) could be used
- Perhaps would meet requirement in existing bill!
- Much deeper than “constrained discretion” where all one has are goals & policymakers do whatever it takes
- Constrained discretion is an appealing term, but it does not induce rules-based policy as the term suggests.

International Considerations

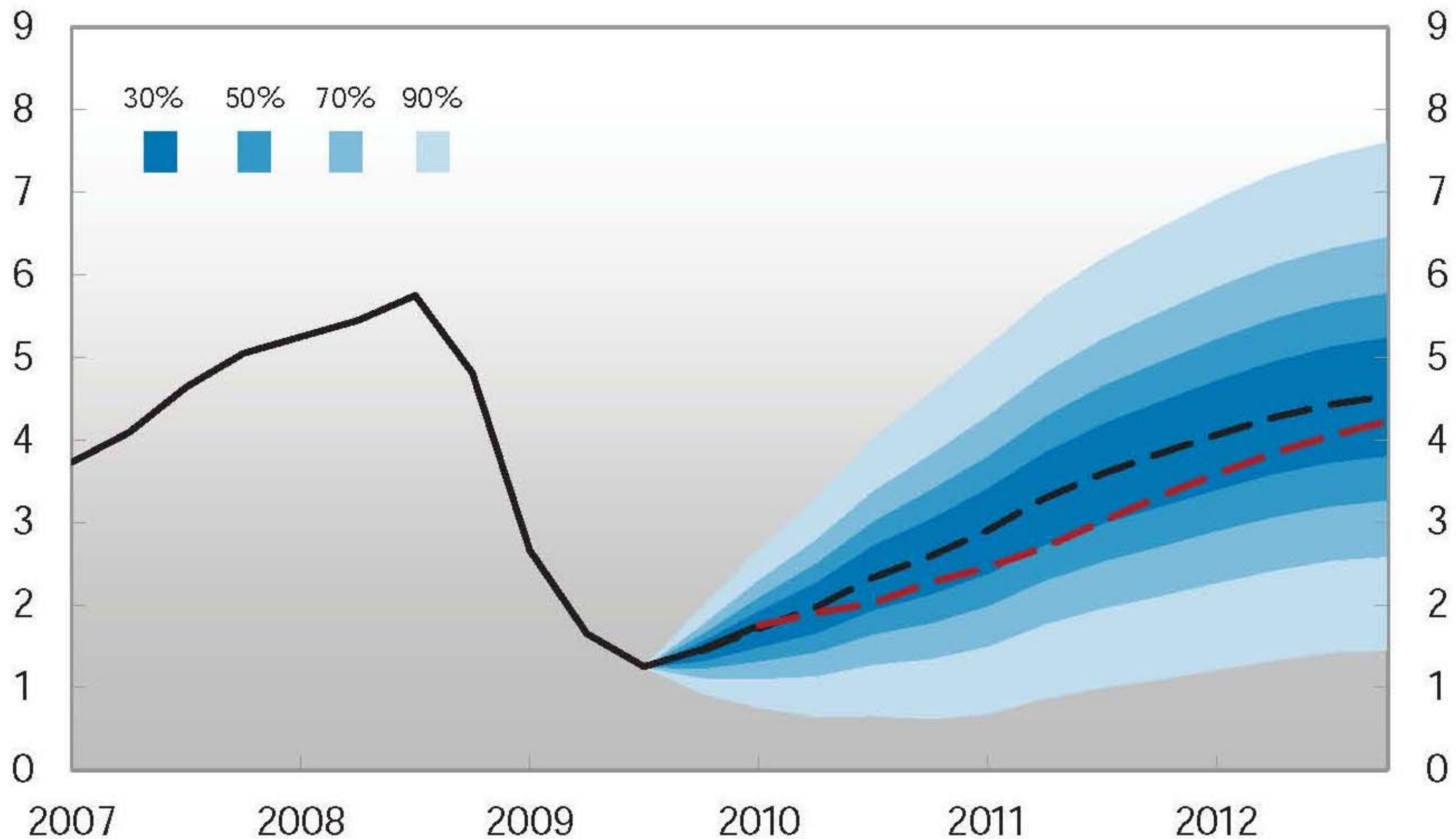
- The deviations from rules-based policy spread.
- Central banks tend to follow each other.
  - Low interest rates in large countries are followed by low interest rates in other countries, trying to fight off currency appreciations.
  - QE begets QE
- So international monetary system has drifted away from a rules based system.
- International economic performance has been poor.
  - Huge swings of capital flows, increased volatility of exchange rates, and disappointing economic growth

Policy rates compared to Taylor rules[1] Graph 2



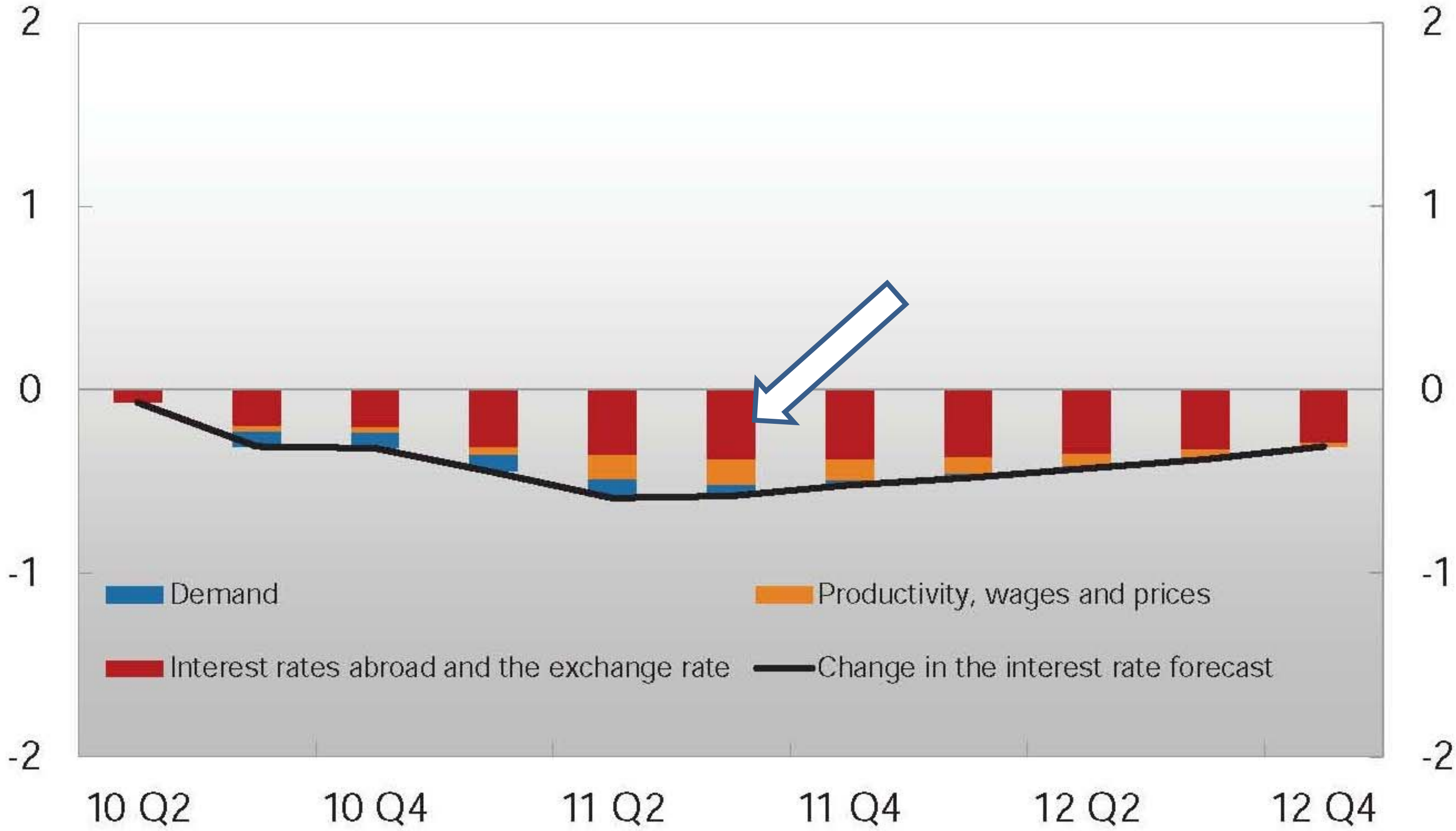
Source: BIS, Shin

A cut in the Norges bank policy rate (black line to red line)…

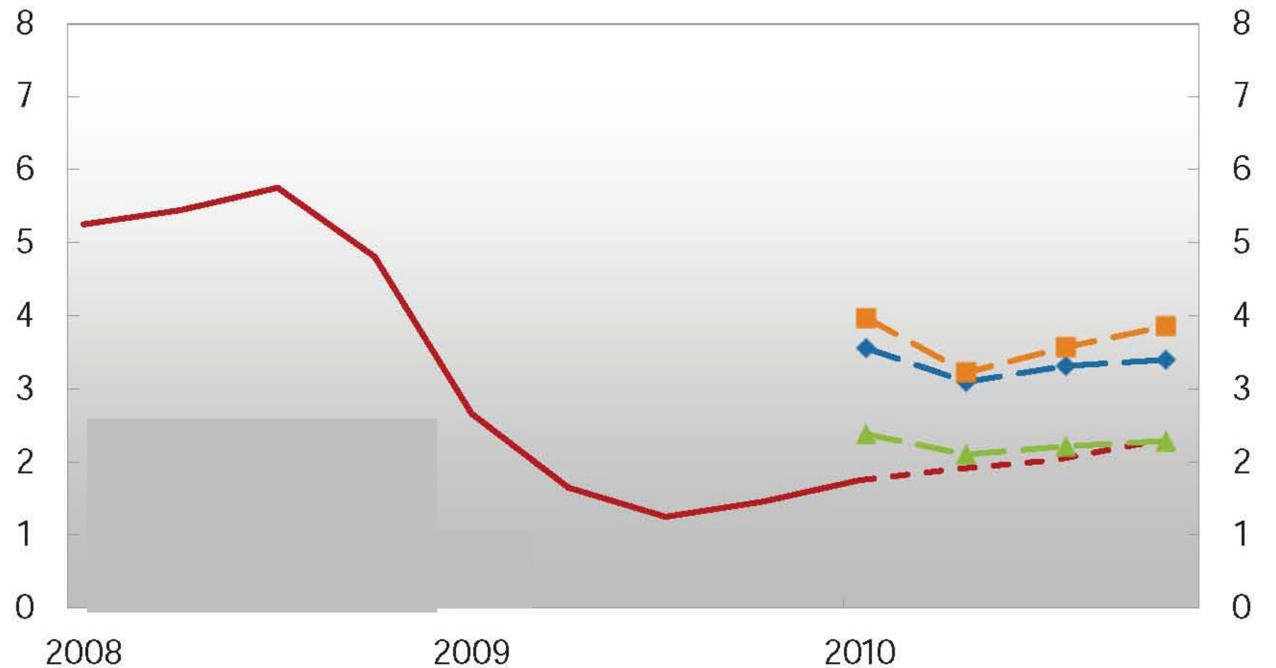


Source: Norges Bank

....because of interest rates were cut abroad.



Source: Norges Bank

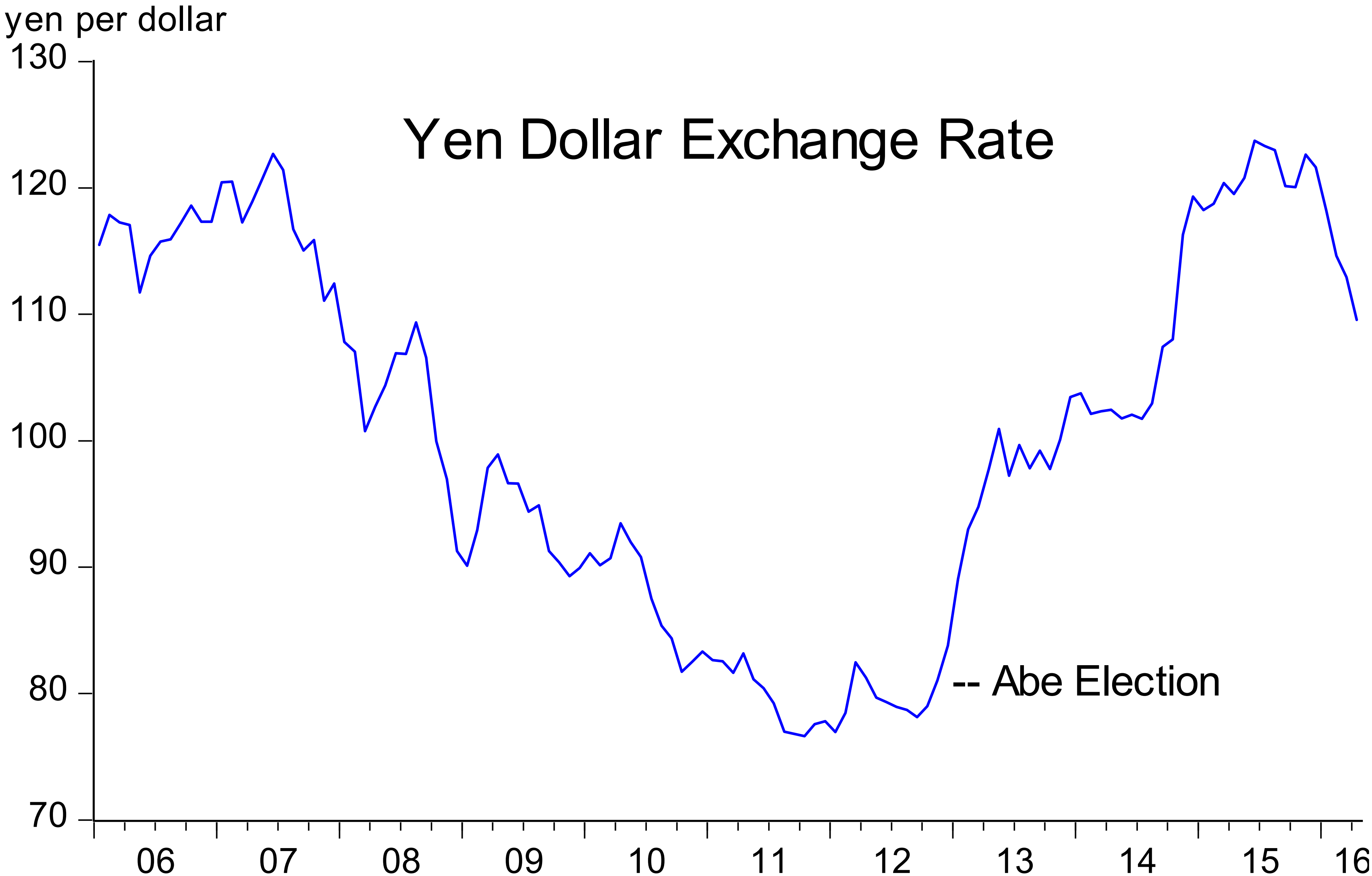


Taylor Rule

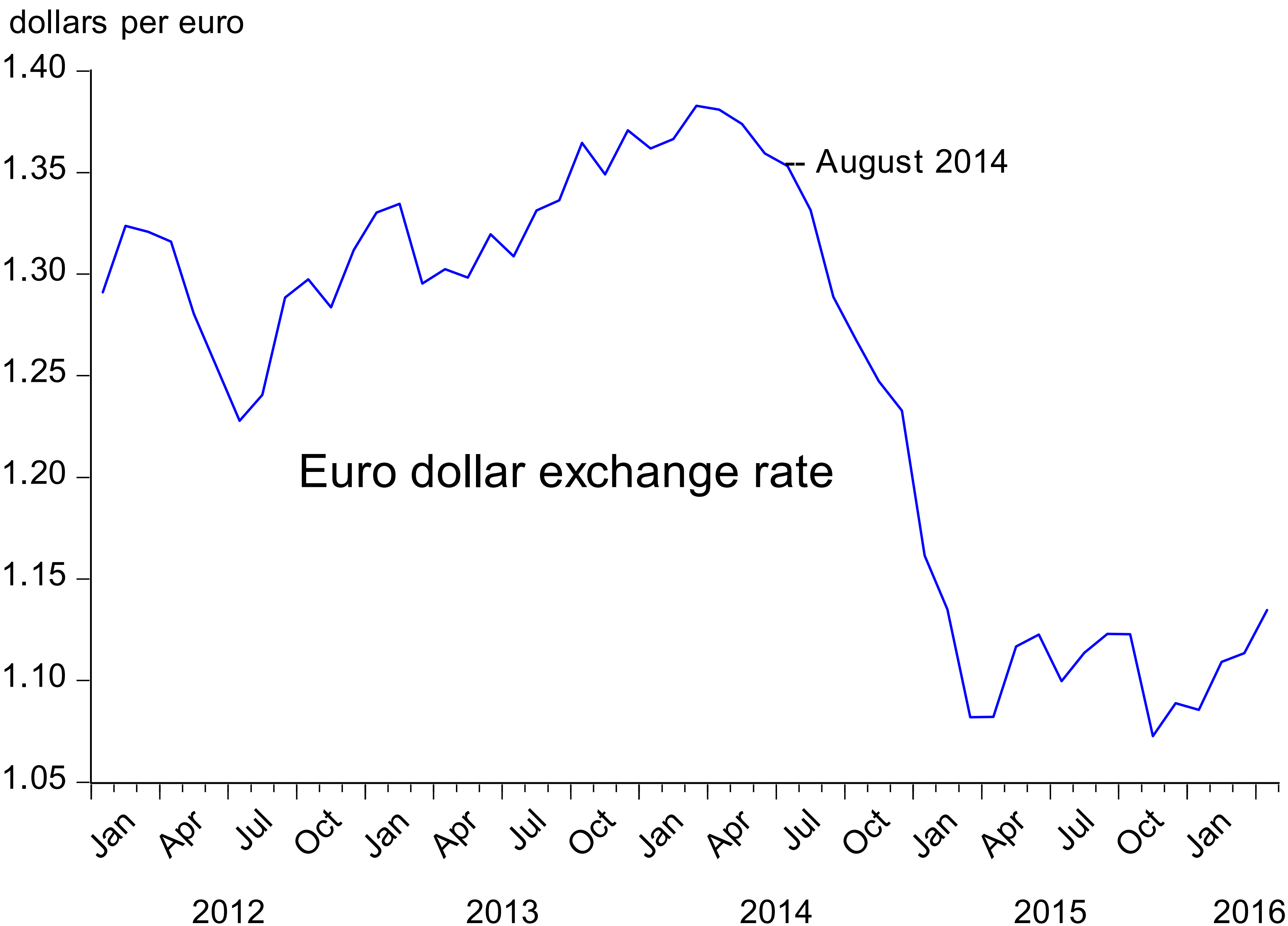
Key Policy Rate

Rule with external interest rates

Growth rule



yen per dollar
130
120
110
100
90
80
70
Yen Dollar Exchange Rate
-- Abe Election
06
07
08
09
10
11
12
13
14
15
16



dollars per euro
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
August 2014
Euro dollar exchange rate
Jan
Apr
Jul
Oct
2012
2013
2014
2015
2016

Calls for International Monetary Reform

- Paul Volcker: "the absence of an official, rules-based, cooperatively managed monetary system has not been a great success."
- Raghu Rajan:"what we need are monetary rules that prevent a central bank's domestic mandate from trumping a country's international responsibility."
- Mario Draghi: "We would all clearly benefit from…improving communication over our reaction functions…"
- This proposal: A rules-based international monetary system built on policy rules in each country
  - Research (old and new) shows it will work well even with capital mobility and flexible exchange rates (Taylor 2007)

Specific Proposal

- Countries forge an international agreement:
  - each central bank describes and commits to a monetary policy strategy for the policy instruments.
- Important lessons from previous international monetary agreements: 1945, 1973, 1985
- Given many calls for reform, now is a good time.
- Need for a transition to more rules-based policy.

References

- Crowe, Christopher and Ellen E. Meade (2007), “The Evolution of Central Bank Governance around the World,” Journal of Economic Perspectives, Vol. 21, No. 4, 69–90
- Draghi, Mario (2016), “The International Dimension of Monetary Policy,” The ECB Forum on Central Banking, Sintra, Portugal, June 28
- Goodfriend, Marvin (2012), “The Elusive Promise of Independent Central Banking,” *Monetary and Economic Studies*, Bank of Japan, Vol. 30, November, pp. 39-54.
- Issing, Otmar (2012), “The Mayekawa Lecture: Central Banks—Paradise Lost*,” Monetary and Economic Studies*, Bank of Japan, Vol. 30, November, pp. 55-74
- Meltzer, Allan H. (2009), *A History of the Federal Reserve*, Vol. 2. Chicago: University of Chicago Press, Chicago
- Nikolsko-Rzhevskyy Alex (2014), “NBU and Inflation Targeting: Monetary Policy Rules for the Road Ahead,” Vox Ukraine , August
- Nikolsko-Rzhevskyy, Alex, David H. Papell, Ruxandra Prodan (2014), “Deviations from Rules-Based Policy and Their Effects,” In Frameworks for Central Banking in the Next Century, Edited by M.Bordo and J.B Taylor*, Journal of Economic Dynamics and Control,* 49, (December), pp. 4–18.
- Qvigstad, Jan F. (2005), “When Does an Interest Rate Path `Look Good'? Criteria for an Appropriate Future Interest Rate Path—A Practitioner's Approach," Norges Bank Staff Memo: Monetary Policy, No. 2005/6, June 15, 2005
- Rajan, Raghuram (2016) “New Rules for the Monetary Game” *Project Syndicate* March 21
- Svensson, L E O. (2012), “Evaluating Monetary Policy”. In *The Taylor Rule and the Transformation of Monetary Policy*, edited by Evan F. Koenig, Robert Leeson and George A. Kahn, Hoover Institution Press, Stanford, CA pp. 245–274
- Taylor, John B. (2011), “Legislating a Rule for Monetary Policy,” Cato Institute’s 28th Annual Monetary Conference, Asset Bubbles and Monetary Policy, *The Cato Journal*, 31 (3), pp. 407-415.
- Taylor, John B. (2013), “The Effectiveness of Central Bank Independence Versus Policy Rules,” *Business Economics*, 48 (3), July, pp. 155-162.
- Taylor, John B. (2016), “A Rules-Based International Monetary System for the Future,” in C. Fred Bergsten and Russel Green (Eds*.) International Monetary Cooperation: Lessons from the Plaza Accord after Thirty Years*, Peterson Institute for International Economics, Washington. D.C
- Volcker, Paul A. (2014), “Remarks,” Bretton Woods Committee Annual Meeting, June 17
- Woodford, Michael (2012), “Forecast Targeting as a Monetary Policy Strategy: Policy Rules in Practice,” *In The Taylor Rule and the Transformation of Monetary Policy*, edited by Evan F. Koenig, Robert Leeson and George A. Kahn. Hoover Institution Press, Stanford, CA, pp. 185-233