## Christopher J Waller: Thank you, John

Speech by Mr Christopher J Waller, Member of the Board of Governors of the Federal Reserve System, at the "John Taylor and Taylor Rules in Policy" Hoover Monetary Policy Conference "Finishing the Job and New Challenges", The Hoover Institution, Stanford, California, 9 May 2025.

\* \* \*

Thank you, Volker, and thank you for the opportunity to speak to you today.

John Taylor is deservedly well known for his work on monetary policy rules, the best known of which bear his name. But in the early 1980s, John was part of a broader discussion about rules versus discretion in the setting of monetary policy.

The traditional argument for discretionary monetary policy was that any policy choice that a rule would recommend could be replicated by discretion, especially when policymakers are aware of the rule, but not vice versa. Discretion allowed more flexibility than a rule and thus was the dominant strategy for setting monetary policy.

Then, in 1977, Finn Kydland and Ed Prescott published their paper "Rules Rather than Discretion: The Inconsistency of Optimal Plans," which argued that policy promises made today may not be carried out in the future if there are advantages to reneging on those promises.<sup>2</sup> Reneging on promises made by discretionary policymakers, they argued, is much easier than reneging on a policy rule, which is a way to commit to future actions.

Kydland and Prescott provided a simple and appealing model at the end of their paper. The model had an incentive for the central bank to renege on its promise to keep inflation low, since doing so would expand the economy and lower unemployment. If rational agents knew of this incentive, they would not find the promise of low inflation credible and would therefore raise their expectations for future inflation. The central bank would then have to validate those expectations with higher inflation to avoid a recession. In the end, the economy ends up in a high-inflation equilibrium with no gains from higher output or lower unemployment.

Kydland and Prescott then showed that if, on the other hand, the central bank could commit to following a rule to set policy, then it could not renege on its promises. As a result, inflation would stay low while yielding the same outcomes for output and employment. In this case, rules beat discretion. This was pathbreaking research, and it came to influence both the theory and practice of central banking. It was also part of the basis for Kydland and Prescott's Nobel Prize in Economics in 2004.

But commitment to most things in life is easier said than done. Even rules can be abandoned if it is optimal to do so. In the absence of commitment, can the central bank do anything to enhance the credibility of its promise to keep inflation low?

In 1983, Robert Barro and David Gordon used the Kydland–Prescott example to study reputation building by the central bank.<sup> $\frac{3}{2}$ </sup> The basic idea is to establish a reputation for

fulfilling promises. But what promises can be made in a discretionary world that the public would find credible? They showed that promising the low-inflation outcome wasn't credible. However, the central bank could promise an inflation rate that was between the low-inflation equilibrium and the high-inflation equilibrium. If private individuals expected this intermediate inflation rate, then the gains from reneging would be reduced just enough to dissuade the central bank from breaking its promise. Consequently, promises to deliver this intermediate inflation rate were credible, and society was better off than it would be in the high-inflation world, showing that credibility really mattered in a world in which commitment was not feasible.

I now introduce John Taylor and his work into the story, which coincided with the beginning of my own research career.

In 1983, having read the Barro and Gordon paper, I started working on reputationbuilding strategies as part of my Ph.D. dissertation research. In the process, I was struck by the thought that the building of credibility and reputation hinges on the person setting monetary policy at the time: If that person leaves, does the central bank have to start over to rebuild its credibility? At the time, I had in mind Paul Volcker, whose personal credibility seemed so crucial in the Federal Reserve's campaign to vanquish high inflation. Relying on the credibility of individual policymakers seemed like a weak foundation for sustaining the credibility of policy promises.

That is when I went back and read John Taylor's discussion of the Barro and Gordon paper in the *Journal of Monetary Economics*.<sup>4</sup> John applauded the analytical contribution that Barro and Gordon-as well as Kydland and Prescott-had made, but he was skeptical about the practical applicability of their story. In his critique, John said, "In other well-recognized time inconsistency situations, society seems to have found ways to institute the optimal (cooperative) policy."<sup>5</sup>

As I read that sentence, I thought, "How does society build credibility into the institution instead of relying on the credibility of an individual?" That one sentence that John wrote in 1983 set me off on a 20-year journey studying central bank design.

So where did it lead me?

Around that time, Ken Rogoff published his paper on what he referred to as "conservative" central bankers.<sup>6</sup> In his terminology, a conservative central banker was someone who disliked inflation more than the rest of society did. Rogoff showed that a conservative central banker would choose a lower rate of inflation than the average citizen but at the cost of greater instability of output and employment. This tradeoff improved social well-being, but there was one catch to this solution-there had to be safeguards to guarantee that the conservative central banker could not be fired for this policy decision, ensuring that these promises to control inflation were credible. In short, the central bank had to be independent and protected from the threats to its independence.

This type of institutional design issue was one that I was interested in researching.

Up until Rogoff's work, the underlying assumption had been that the central bank was trying to maximize social welfare and that its preferences were aligned with those of

society. Think of it as a "representative agent" economy. But as I read Rogoff's work, it suggested that society consisted of people who had a variety of views about inflation, meaning that they would also have different views on the tradeoff between inflation and output stability. Consequently, members of society may have different views on how conservative the central banker should be. But where are these views coming from?

So I tried to endogenize the heterogeneity in preferences. I had the idea that individuals all had the same fundamental preferences for inflation and output stability but that they varied if they worked in different sectors of the economy. In one sector, wages and employment were determined in a standard competitive fashion. In the other sector, wages were determined by wage contracts, and employment was determined by demand. Thus, when a negative shock hit the economy, the wage contract workers suffered a bigger reduction in employment because wages couldn't adjust, whereas in the competitive sector, wages would adjust to soften the blow to employment-implying that if the wage contract sector got to choose a conservative central banker, they would want a more dovish central banker who would accept higher inflation in return for greater employment stability. The flexible wage workers wanted the opposite: They were more hawkish on inflation because they didn't bear the same employment volatility. The punchline was that if political parties formed around workers from different sectors, then they would install central bankers with different policy preferences if they won the election.

It was around that time that I read Alberto Alesina's paper on "partisan business cycles." <sup>7</sup> In that paper, he assumed there were different political parties, each having different preferences about inflation and unemployment. One party was more concerned with price stability and less concerned about output stability than the other. Monetary policy and inflation outcomes were determined by the party that won a national election. As power changed hands after an election, monetary policy would differ from expected policy depending on who won the election. These election surprises would create volatility in monetary policy and thus inflation and output. In other words, elections would lead to partisan business cycles. In Alesina's model, monetary policy was fully accountable to the electorate, which is desirable, but it came at the cost of causing greater economic instability.

This was a brilliant paper, but, again, it raised a serious question for me: Why would society choose full electoral accountability and maximum volatility in monetary policy? Economists usually think there are tradeoffs on the margin such that "corner solutions" like these aren't optimal. It seemed to me that there could be a welfare-improving institutional design for the central bank. I looked at the Federal Reserve's Board of Governors structure, and I felt that electoral accountability could be achieved through the appointment process, but economic instability would be reduced by having a monetary policy board composed of current and past appointees who set policy according to majority rule. This thinking led me to taking a variant of Alesina's model and studying how a policy board would change his results.

I assumed that board members were appointed by the winning party of an election to serve for multiple periods. This appointment process provided accountability to the electorate via the nomination and confirmation process. To ensure that economic stability would be improved, I assumed these members served staggered and long (relative to the election cycle) terms in office.<sup>8</sup> Furthermore, as in Rogoff's model, board

members could not be removed from office. This feature of the model captured the idea that the central bank board would be independent.

My research showed that by having an independent policy board set monetary policy, social well-being was improved relative to Alesina's results. Accountability to the electorate could be achieved through the nomination and confirmation process, and economic stability was enhanced by having a group of individuals set policy who could not be removed from office. This structure is the one that we have in place today at the Federal Reserve. I would argue that it has stood the test of time, and I hope that it continues to be in place for years to come.

To conclude, I have come full circle in my professional life-from first reading that sentence that John wrote in 1983 to researching central bank independence and central bank boards for 20 years to then becoming a central bank board member, which led me here today. So, I can finally thank John for sending me on a wonderful journey that he had no idea he launched me on.

 $\frac{1}{2}$  The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

<sup>2</sup> See Finn E. Kydland and Edward C. Prescott (1977), "Rules Rather than Discretion: The Inconsistency of Optimal Plans," *Journal of Political Economy*, vol. 85 (June), pp. 473–92.

<sup>3</sup> See Robert J. Barro and David B. Gordon (1983), "Rules, Discretion and Reputation in a Model of Monetary Policy," *Journal of Monetary Economics,* vol. 12 (1), pp. 101–21.

<sup>4</sup> See John B. Taylor (1983), "'Rules, Discretion and Reputation in a Model of Monetary Policy' by Robert J. Barro and David B. Gordon," *Journal of Monetary Economics,* vol. 12 (1), pp. 123–25.

<sup>5</sup> See Taylor, "Rules, Discretion and Reputation in a Model of Monetary Policy' by Robert J. Barro and David B. Gordon" in note 4.

<sup>6</sup> See Kenneth Rogoff (1985), "The Optimal Degree of Commitment to an Intermediate Monetary Target," *Quarterly Journal of Economics,* vol. 100 (November), pp. 1169–89.

<sup>7</sup> See Alberto Alesina (1987), "Macroeconomic Policy in a Two-Party System as a Repeated Game," *Quarterly Journal of Economics,* vol. 102 (August), pp. 651–78.

<sup>8</sup> See Christopher J. Waller (1989), "Monetary Policy Games and Central Bank Politics," *Journal of Money, Credit and Banking,* vol. 21 (November), pp. 422–31; Christopher J. Waller (1992), "A Bargaining Model of Partisan Appointments to the Central Bank," *Journal of Monetary Economics,* vol. 29 (June), pp. 411–28; and Christopher J. Waller (2000), "Policy Boards and Policy Smoothing," *Quarterly Journal of Economics,* vol. 115 (February), pp. 305–39.