The Taylor Rule is (almost) Everywhere in Monetary Economics (but there is Still Room to Expand Market Share !)

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The two most consequential papers in monetary economics written over the past 75 years are Friedman 68 and Taylor 93. Friedman 68 introduced the concept of a "natural rate of unemployment," and with it the associated construct of the vertical long run Phillips Curve . It also contains an insightful discussion of Wicksell's "natural rate of interest ". But while u* and r* as they are known today provide key reference points in Friedman's framework for assessing how far an economy may be from its long-run equilibrium, they play absolutely no role in the famous k percent monetary policy rule he advocates. In Friedman's policy framework, u* and r* are economic destinations, not policy rule inputs.

Of course, I do not need to elaborate for this audience that the history of k-percent rules is that they were rarely tried, and when they were tried in the 1970s and the 1980s,they were found to work much better in theory than in practice. By the early 1990s, thanks to Paul Volcker the back of inflation had been broken, and thanks to Alan Greenspan, the conditions for price stability had been achieved. The time was right for something and someone to fill the vacuum in central bank practice left by the realization that monetary aggregate targeting was not, in reality, a workable monetary policy framework to maintain price stability.

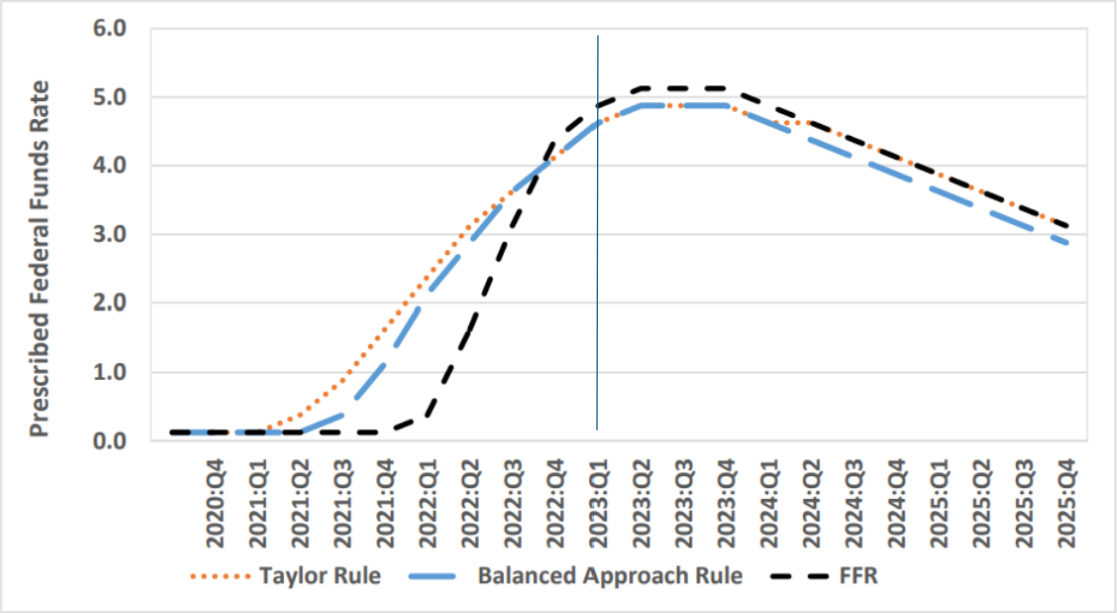
That vacuum, of course, was filled by the other most consequential monetary economics paper written in the past 75 years Taylor 93. A crucial insight of "Discretion vs. Policy Rules in Practice" was that, whereas a central bank could pick the "k" in a "k-percent" rule on its own, without any reference to the underlying parameters of the real economy (including r* and u*), a well designed rule for setting a short-term interest rate as a policy instrument should, John argued, respect several requirements.

First, the rule should anchor the nominal policy rate at a level equal to the sum of its estimate of the neutral real interest rate (r*) and the inflation target. Second, to achieve this nominal anchor, the central bank should be prepared to raise the nominal policy rate by more than one-for-one whenever inflation exceeds target (the Taylor principle). And, third, the central bank should lean against the wind when activity deviates from its estimate of potential. The third requirement—that monetary policy lean against the wind in response to an output or unemployment gap—not only contributes to the objective of price stability, but is also obviously desirable from the perspective of a central bank like the Fed that has a dual mandate.

The title of these remarks is" the TR is almost everywhere in monetary economics" and indeed it really is! The TR is ubiquitous in both Woodford's monetary and Cochrane's fiscal theories of the price level . It provides a parsimonious and rigorous empirical account of how good monetary policy is conducted by real world central banks (at least when they are not constrained at the zlb) and it represents

optimal monetary policy in a workhorse class New Keynesian models (as shown in CGG) . Even more impressively it is remarkably robust – as was certainly not the case with k percent rules for money growth - in the sense it delivers very good, nearly optimal, policy outcomes across a wide range of macroeconomic specifications and environments as was highlighted in CEE, including in models of monetary policy making and exchange rate determination in the open economy . As Monika will highlight , Taylor rules feature prominently in empirical macro finance models of yield curves and bond pricing. . Finally, Taylor type policy rules are everywhere in the briefing books that staff prepare to present economic forecasts and discuss policy options with policymakers

One place in which policy rules are at present absent is in public communication by many central banks – including the Fed – about the future path of the policy rate under either a baseline outlook or an alternative scenario. Research by Papell and Prodan suggest a straightforward way that policy rules could be added to the existing SEP .



The chart shows you how this would have worked in the March 2023 SEP using inertial policy rules as are favored by many policymakers as a reference. It is important to note how the policy paths are constructed in the PP exercise. At each calendar date before 2023:01, the policy rule paths are computed using actual data available to Fed at dates up to the March 2023 SEP along with model consistent values for the lagged policy rate (not actual policy rates) in the inertial rule. For dates following the "live " SEP – here March 2023 - the paths reflect the SEP on the date projections for inflation and unemployment. Friedman's u* and r* are set equal to their median longer run values in the SEP. A similar exercise could and should be presented in a revamped SEP that included alternative scenarios to the SEP baseline. For example, the SEP could include projections conditional on slower productivity and labor force growth than is assumed in

the baseline or a scenario in which both u* and r* are higher than committee consensus.

There is much more to say but I am running out of time, so let me conclude by wishing the Taylor Rule a very very happy 32th birthday and another 75 years!