On the Evolution of the Rules versus Discretion Debate*

Harris Dellas
University of Bern, CEPR

George S. Tavlas
Bank of Greece and the Hoover Institution, Stanford University

Economics Working Paper 21105

HOOVER INSTITUTION
434 GALVEZ MALL
STANFORD UNIVERSITY
STANFORD, CA 94305-6010

March 2021

We discuss the evolution of the debate on policy rules vs discretion. Doctrinal historians place the starting point of the debate in the nineteenth-century controversy between the Currency and Banking Schools in Britain. We establish that this controversy was not about discretion but about the degree of activism under a single rule —that of the gold standard. The rules vs discretion issue originated with Henry Simons and the Chicago School in the 1930s, and came to center stage following the Great Inflation in the 1970s. Both the 1930s and 1970s literatures were triggered by monetary-policy failures. The modern literature's main innovations concern its (1) comparison of discretion to optimal policy rather than just to rules, (2) shift of focus to benevolent governments that lack commitment, (3) demonstration of discretion's inefficiencies in both stochastic and deterministic environments, and (4) support of activistic policy rules.

Keywords: Rules versus discretion; Monetary policy; Modern debate; Chicago School; Currency School; Banking School

JEL Codes: B22, E52

---

* We have benefitted from comments by Samuel Demeulemeester, Tom Humphrey, and Ed Nelson. We thank Elisavet Bosdelekidou and Maria Monopoli for technical assistance. Correspondence may be addressed to George Tavlas, Bank of Greece, 21 E Venizelos Ave, Athens, 10250, Greece, Tel. no. +30 210 320 2370; Fax. no. +30 210 320 2432; Email address: gtavlas@bankofgreece.gr.

1. Introduction

Beginning with the works of Simons (1936), Mints (1950), and Friedman (1960), a debate was initiated about whether a central bank should base its policy on a rule or should conduct policy with discretion. This debate received rigorous theoretical treatment and moved to center stage in macroeconomics with the influential work of Kydland and Prescott (1977), Calvo (1978), and Barro and Gordon (1983). The debate culminated in the widespread adoption of the Taylor (1993) rule in both central-bank practice and theoretical models of monetary policy.

The modern debate on rules was accompanied by renewed interest among historians of economic thought in the doctrinal origins of the rules-versus-discretion literature. As we document, there is presently a widespread consensus among doctrinal historians that the rules-versus-discretion issue originated in the debate between the Currency School and the Banking School in the early part of the nineteenth century in Britain. In this paper, we dispute that view and present a correct timeline of the debate. We also provide an overdue comparative study of the evolution of ideas on this subject from early-nineteenth-century England to both the 1930s and the modern, post-1970 era.

In particular, we show that, through the lenses of contemporary economic thinking, the nineteenth-century debate was not about rules versus discretion, but rather about the ‘’optimal’’ degree of activism in a rule; both sides of the debate were hostile to discretionary policies. Both sides favored an automatic mechanism to regulate the quantity of money in order to stabilize the economy, but the Banking School, unlike the Currency School, favored an activistic, interest-rate rule. We show that our interpretation of the Currency School - Banking School debates coincides with that of historians of economic thought prior to the 1970s.

What accounts for the recent miscasting of that debate? We argue that, with the ascendancy of the rules-vs-discretion issue to center stage of policy discussions since the 1970s, doctrinal historians sought to discover earlier use of the terms “rules” and “discretion” in past policy debates. Precursors were found in the aforementioned nineteenth-century debates, but the historians did not realize that the earlier usage does not correspond to the modern one. In particular, Currency School advocates used the term “discretion” to criticize the Banking School rule which, although more activist than their preferred rule, was nonetheless a rule. The modern literature has made it very clear that activism and discretion are distinct concepts.

We claim that there is a good reason that the rules-versus-discretion literature originated in the 1930s (with the work of Simons) and moved to center stage starting in the late-1970s. The reason is that the Fed started acting in a highly unsystematic and unpredictable fashion during the 1920s, pursuing inconsistent objectives and changing them from year-to-year, fostering uncertainty about monetary policy. Opportunistic and unsystematic behavior also characterized Fed policy during the 1970s, resulting in unprecedented high rates of inflation and inflation volatility. The literature that emerged from both of these historical episodes sought to gain insight into the reasons underlying the policy failures, the implications of those failures, and to propose solutions. The reason identified was policy discretion and the suggested remedy was the adoption of rules. There was no such opportunistic, *active* use of monetary policy preceding or during the Banking-Currency School debates.

While sharing a similar trigger (namely, policy failure), mechanism (policy unpredictability), diagnosis (the identification of discretion as the problem) and proposed remedy (rules), the two twentieth-century literatures also have substantial differences. The emergence of the modern (post-1970) literature coincided with the introduction of two significant methodological innovations, namely rational expectations and microfoundations. In the context of policymaking, these two innovations led to the modelling of government as a benevolent agent whose objective function was known to the public. Unlike the earlier, Chicago-based literature, which associated discretionary policy with political manipulation and special-interest-group action, the newer literature analyzed discretion when it emanated from well-meaning policymakers who, none-the-less, lacked the capacity to commit. Inability to commit is the source of the infeasibility - time inconsistency- of optimal policy.

In such an environment, rational expectations have a profound effect on the evaluation of alternative policy regimes. In the earlier (pre-1970) literature, policy discretion was viewed as synonymous with unpredictable future policy, so that it operated by generating uncertainty. Destabilizing expectations played the key role in demonstrating the inefficiency of discretion. Policy uncertainty is not a *sin qua non* property of discretion in the modern literature. In particular, the main issue is not that economic agents do not necessarily know what the policymakers will do in the future; on the contrary, agents know that policymakers will do the ‘’wrong’’ thing (the inflation bias result). Expectations render discretion inferior to rules; this result holds irrespective of whether policy delivers surprises or not. The modern literature has also a broader perspective than its pre-1970 counterpart because of its focus on mechanisms other than rules that can support optimal policy, such as reputation building and performance contracts. It also provides a strong case for activistic rules.

In what follows, we start by reviewing the modern literature on rules vs discretion. After highlighting its main features and results, we step back in time and discuss the Chicago School's views. We then step even farther back in time and dissect the debate between the Currency and the Banking Schools. We establish that the nineteenth century debate is similar to the branch of the modern literature that focuses on the optimal degree of activism in monetary policy.

2. The modern debate

In this section, we offer an overview of the modern theory on rules vs discretion, identify its main elements and use them as a template for evaluating the earlier debates. We argue that the contemporary literature arose in response to the monetary policy failures of the 1970s; was enabled methodologically by -- but also contributed to -- the rational expectations revolution of the 1970s that furnished the appropriate tools for studying the issue rigorously and insightfully; provided a novel and more general treatment of this issue; and led to a fundamental rethinking of the implementation of monetary policy in favor of rules-based policies. It has had a substantial impact on the practice of monetary policy, with the main examples being the widespread adoption of central-bank independence and inflation-targeting rules.

The 1970s were a great failure of macroeconomic policy in the United States, with consumer price inflation rising from an annual rate of 3.9 percent at the beginning of the decade to 16 percent in 1980 amidst considerable volatility and an increase in the unemployment rate. There is a widespread consensus that "the dominant inflation impulse came from monetary policy" (Meltzer, 2009, p. 844). The monetary-policy literature that emerged from that experience sought to understand the source and the implications of the policy failures, and to propose solutions. The source identified was policy discretion in the face of unsustainable targets for unemployment amid adverse shocks. The suggested remedy was the imposition of direct and indirect constraints on the conduct of policy, with simple rules, such as the Taylor rule, representing the most popular proposal.

The modern literature on rules vs discretion, or equivalently, on policy commitment and time inconsistency, started with the seminal contributions of Kydland and Prescott, 1977 (K-P) and Calvo, 1978. Interestingly, the original motivation underlying these works had nothing to do with either the contemporaneous Keynesian-monetarist debate on the desirability of

rules versus discretion.[1] Nonetheless, the Phillips curve example that K-P used to show that (1) discretionary policy produces excessive inflation without any corresponding benefits on the unemployment front and (2) a simple inflation rule results in higher welfare than discretion, had a profound effect. Following on their footsteps, Barro and Gordon, (1983) used the K-P model to provide a positive theory of inflation under which policymakers' use of discretionary policies to attain short-term objectives could account for the experience of the 1970s. A large literature on possible remedies for discretion followed.

The analysis of optimal policies introduced the important concept of time consistency. A policy is time consistent if what it prescribes at time T for time T+t remains optimal to implement when time T+t arrives. A policy is time inconsistent if it is no longer optimal to implement when T+t arrives. The importance of this concept lies in the fact that it determines whether a policy is actually feasible -- that is, whether it can be implemented. Discretionary policies are time consistent –and thus feasible- because they represent the best action that a policymaker can take in any period irrespective of what policy choices were made in the past or what policy decisions are expected to be made in the future. Obviously, policy according to a rule is also time consistent because the properties of the rule are not a function of time.[2]

In contrast, optimal policies are, in general, time inconsistent and thus cannot be implemented without some commitment mechanism. The time inconsistency of the optimal policy plan is due to the fact that it requires policymakers in the future to behave in a way that is consistent with the previously-formed expectations of policy. But i*n the absence of policy commitment*, there is nothing that compels them to honor the previously-formed expectations: often they will have an incentive to not validate them and pursue instead the best discretionary policy. Naturally, if agents have some notion of the structure of the economy and are endowed with rational expectations, they will be able to infer such behavior and will adjust expectations accordingly. And herein lies the problem. Current expectations about the future shape current economic decisions and thus matter for current optimal policy. If the expectations are not the ''right'' ones, then current policy cannot be the right one either.

---

[1] Kydland and Prescott's intention was to apply optimal control to characterize the optimal policy plan in a stochastic environment with rational expectations. Naturally, those authors soon recognized and acknowledged the connection of their results to those of Friedman. Calvo's motivation was also quite theoretical and abstract.

[2] The fact that both discretion and rules are time consistent explains why the time inconsistency issue did not arise in the previous literature on rules vs discretion.

The current government's ability to steer expectations depends on its leverage over future policy. If future policy can be precommitted (or if it follows a rule) then current expectations about the future can be ''managed'' the right way by the current government in order to support optimal policy now and in the future. But if such ''coordination'' between present and future governments in the setting of policy is absent, the optimal plan becomes time inconsistent and, thus, infeasible.

It should be stressed, however, that discretion does not necessarily represent myopic or misguided behavior. As K-P (1977, p. 481) put it: "It is hard to fault a policymaker acting consistently. The reason that such policies are suboptimal is not due to myopia. Rather, the sub-optimality arises because there is no mechanism to induce future policymakers to take into consideration the effect of their policy, via the expectations mechanism, upon current decisions of agents."

Calvo's paper contained two important innovations. The first concerned the use of the maximization of the utility of the representative agent as the objective of the government (the so called Ramsey approach). Thus, private agents and the policymakers share the same objective. This innovation made it completely transparent that the time-inconsistency-infeasibility of the optimal plans does not rest on any disharmony (conflict) between the objectives of the private agents and the government. Calvo's formulation has become the standard approach in the study of optimal policy. The second innovation concerns the demonstration that, for time inconsistency to be an issue for optimal policy, there must be some distortion in the economy that gives rise to a policy trade-off and motivates the choice of discretionary actions. In Calvo's model, the implementation of optimal policy requires taxes to be used to facilitate the issuance or absorption of money. Had lump sum taxes been available to carry out this function, the distortionary inflation tax would have been an inferior source of tax revenue, there would be no need for seignorage surprises, and optimal inflation policy would have been time consistent. We owe to Calvo for making it explicit that the existence of a policy trade-off is a prerequisite for the time inconsistency of optimal policy. Note that this trade off is present in all models of time inconsistency but is often not transparent.[3]

The papers discussed above identified the inflation bias as the key disadvantage of discretionary policy. Once random disturbances are admitted to the economy, though,

[3] For instance, in the literature that follows Barro-Gordon, this trade off is generated from the assumption that the natural level of output is not efficient. Were it not for this assumption, optimal policy would be implementable as there would be no inflation bias.

discretionary policy has an additional disadvantage, namely, suboptimal response to certain unanticipated shocks (Woodford, 2003, Chapter 7.2, Clerc *et al.*, 2011). The main result here is that shocks that do not confront optimal policy with a trade-off between inflation and output (such as ‘’demand’’ shocks) can be dealt equally efficiently by both discretionary and optimal policies. This point relates to the observation made earlier that in the absence of a policy trade-off, optimal policy is time-consistent. But for shocks that do give rise to a trade-off (such as ‘’cost-push’’ shocks), discretionary policy is inferior to optimal policy because it cannot rely on expectations management to smooth its total response over time. If it could, instead of delivering the total policy response to the shock in one doze in the period when the shock takes place, it would deliver it in credible ‘’instalments,’’ spreading the total response over time and producing a smoother output gap (Gali, 2008, Chapter 5.2.2). Analogously to the inflation bias, this one is called the stabilization bias of discretionary policy.

Proposed remedies

How can an economy achieve superior results to those available under discretion? And even better, how can optimal policies be implemented? K-P suggested, without elaborating, the use of simple and easily understood rules so it would be obvious when a policymaker deviated from the policy. A voluminous, subsequent literature has been investigating the forms and properties of alternative rules. But while rules occupy the pre-eminent position in the modern optimal policy literature, they are not the only means available for suppressing discretion. Reputation, institutions and performance contracts are among the alternative mechanisms that have been proposed as capable of alleviating the inconsistency problem.

Rules

While rules were identified as a means of preventing discretion in the earlier literature, and while there was also a comparison of alternative rules, it was not until the development of the modern literature that we saw a comprehensive study of optimal rules.[4] Numerous rules have been proposed, differentiated according to various criteria: state contingent or not, purely forward looking or history dependent, flexible or rigid, optimal or sub-optimal (but still performing better than discretion), targeting or instrument, passive or activistic, and so on. From the point of view of the earlier debates on rules versus discretion, and in order to draw comparisons, the most relevant category is that of passive versus activistic rules. Under

[4] For a thorough discussion of monetary policy rules, see Woodford (2003, Chapters 7 and 8).

a passive rule, policymakers are obliged to follow the same course of action in all circumstances; under an activist rule, policymakers can respond to different circumstances in pre-determined ways. Examples of the former are a money supply or an exchange rate target, and of the latter, strict inflation targeting or a Taylor type of rule.

The main conclusion that has emerged is that activistic rules outperform passive ones; and simple activist rules like a version of the Taylor rule, may even be close to being optimal, at least in some circumstances. This is a robust finding that survives the presence of imperfect information in the conduct of policy (limited knowledge of the structure of the economy and of the effects of policies, say due to lags), a consideration underlying Friedman's preference for passive rules (money supply targeting).

Other remedies

If simple rules cannot support optimal policymaking, it is worth exploring whether there exists some other simple mechanism for resolving time inconsistency and supporting optimal policy. This could be the case if such a mechanism discouraged discretionary behavior and, at the same time, allowed for welfare improving policy flexibility. The main mechanisms suggested in the literature concern reputation (credibility) building, appointing ''conservative'' policymakers, offering suitable contracts to policymakers and undertaking institutional reforms that set and enforce an appropriate mandate.[5] The reputation sub-literature has made heavy use of games theory, in particular of games with incomplete information, while the contracting sub-literature has relied on the principal-agent approach. Both sub-literatures have thus introduced up-to-date micro-economic tools in the analysis of optimal policy which has led to valuable, novel insights.

A summary

The path breaking work by K-P, Calvo and their followers provided a framework for the rigorous study of optimal policy in dynamic settings and had a big impact on the design of monetary (and fiscal) policy in the modern era. It was conducted within microfounded environments with rational, forward looking, optimizing agents and policymakers. It contained six key elements. First, by allowing policymakers and private agents to *share the same objective,* it established that discretion is not necessarily a consequence of a disharmony between public and private interests. As we shall see, this contrasts with the pre-1970

[5] Walsh (2010) contains a comprehensive treatment of all these prescriptions.

literature that emphasized conflicts of interest as the driver of discretion. Second, it introduced the concept of time consistency and policy commitment. It showed that discretionary policies are always time consistent and thus feasible while optimal policies will in general be time-inconsistent and infeasible; and, it prescribed the use of policy rules as a solution to the time-inconsistency problem. Third, it demonstrated that the time inconsistency of optimal policies requires a policy trade-off that provides motivation for deviations from the optimal plan. Removal of the trade-off resolves the inconsistency issue. Fourth, it introduced the concept of expectations management. Managing expectations properly, that is, creating the correct sort of expectations about future policy is an essential element of optimal policymaking. Fifth, it established that the inefficiency of discretion is not due to the fact that it creates uncertainty, which, as we shall see, was the main theme in the earlier literature, but rather to its treatment of expectations (ignoring that expectations *are influenced by and in turn influence* government policy). And sixth, unlike the earlier literature that focused exclusively on rules as a solution to the problem of discretion, it proposed additional, alternative mechanisms (such as reputation building) that could lead to better outcomes than discretion.

3. The View from Chicago

With the end of World War I in 1918, the Fed began to use its discount rate and conduct open-market operations with the aim of achieving three, "incompatible" objectives: the restoration of the international gold standard, the prevention of inflation, and the mitigation of business fluctuations (Meltzer, 2003, pp. 261-62). For the first time since its establishment, the Fed engaged in discretionary policies. By the end of the 1920s, a fourth objective, the dampening of stock-market speculation, had been added to the list. The Fed pursued these objectives amidst a fragmented Federal Reserve System and a power struggle between the New York Fed and the Federal Reserve Board in Washington. Friedman and Schwartz (1963, p. 297) characterized monetary policy during the 1920s as follows: "Inevitably, in the absence of any single well-defined statutory objective, conflicts developed between discretionary objectives of monetary policy. The two most important arose out of the re-establishment of the gold standard abroad and the emergence of the bull market in stocks."

At the University of Chicago in the early-1930s, the Fed's policy shifts during the previous decade gave rise to the view that its actions generated policy uncertainty, which

undermined business and consumer confidence, dampened investment and consumer spending, and deepened the Great Depression. In November 1933, Chicago economist Henry Simons wrote and circulated a twenty-seven page (unpublished) memorandum, titled "Banking and Currency Reform," that presented policies that aimed to address the uncertainty which Simons saw as having emanated from the Fed's policies.[6] A few years later, in 1936, Simons published the paper, 'Rules versus Authorities in Monetary Policy," which expanded on the policy proposals set forward in the 1933 memorandum. These papers marked the genesis of the subsequent debate on the merits of rules versus discretion in monetary policy.

During the 1920s, economists such as Irving Fisher had argued that the Fed should pursue the single objective of price-level stabilization, a policy that amounted to a policy rule. But those economists did not cast their advocacy of price-level stabilization in the context of a preference for rules over discretion; nor did they assess alternative policy rules. In his above-cited papers, Simons did three things that no one had ever done before. First, he evaluated the benefits and costs of *alternative* monetary-policy rules. The rules were (1) a steady percentage increase in the quantity of money; (2) a stable price level; (3) a fixed quantity of money; (4) a fixed quantity of money per capita; (5) a moderately declining price level; and (6) the gold standard. Second, Simons provided *criteria* to be used in assessing the merits of the alternative rules. The criteria included freedom from political interference, simplicity (that is, ease of communicating the rule), definiteness, compatibility with fiscal discipline, and the absence of judgement in the rule's administration (Simons, 1936, pp. 163-64). Third, Simons pinpointed as the single-most important attribute of a rule its ability to *minimize policy uncertainty* so that a market-based economic system could function efficiently: "An enterprise system cannot function effectively in the face of extreme uncertainty as to the action of the monetary authorities or, for that matter, as to monetary legislation. We must avoid a situation where every business venture becomes largely a speculation on the future of monetary policy" (1936, p. 161). Simons believed that, apart from the gold-standard rule, any one of the other rules would be preferable to a discretionary regime because the rule would minimize uncertainty.

In his 1933 memorandum, Simons favored a rule that fixes the quantity of money because of its (1) simplicity, (2) ease of communication, (3) definiteness, (4) compatibility

[6] The memorandum was widely distributed (see Phillips, 1995, p. 49). It was based on regular departmental meetings and social gatherings among Chicago economists. In drafting the memorandum, Simons received substantial input from Aaron Director (see Tavlas, 2020).

with a balanced budget, and (5) because it would bind the authorities to a policy instrument -- the money stock -- and deliver an objective -- economic stability. By 1936, however, he had come to favor a rule that stabilizes the price level, although he recognized that such a rule could allow the policymakers to exercise discretion in the choice and use of policy instruments.[7] As he explained, due to the inherent instability of velocity under a financial system dominated by short-term debt instruments, the "limitations [of the fixed quantity rule] have to do mainly with the unfortunate character of our financial structure -- with the abundance of what I may call 'near moneys' -- with the difficulty of defining money in such a manner as to give practical significance to the conception of quantity" (1936, p. 171). Thus, "the obvious weakness of a fixed quantity lies in the danger of sharp changes on the velocity side" (1936, p. 164).

In the 1940s and early-1950s, Lloyd Mints, Simons's Chicago colleague, followed Simons in pushing forward the rules-versus-discretion issue. In his 1950 book, *Monetary Policy for a Competitive Society*, Mints characterized the Fed's discretionary policies in the 1920s as follows:

> During the 1920's this belief [in the power of central-bank policy] was greatly strengthened, and what were held to be the goals of central-bank action were more explicitly formulated. The most unfortunate aspect of this development was the general belief that the central bank should be given wide discretionary powers to take whatever action seemed to it wise in given circumstances. The Federal Reserve System was created and was operated (and still is) in accordance with this point of view (1950, pp. 38-39).

Like Simons, Mints considered alternative policy rules and provided criteria to assess their merits, coming out in favor of a price-level-stabilization rule; and, also like Simons, Mints emphasized that the most important attribute of a rule is its ability to reduce policy uncertainty. While Mints supported activistic policy (targeting the price level), he was distrustful of policies that "would require [the central bank] to forecast economic conditions with at least a fair degree of accuracy and a considerable time in advance," an ability which Mints thought that central banks did not possess (1945, p. 279). In this regard, Mints anticipated arguments in the modern debate questioning the wisdom of adopting forward looking rules, such as a Taylor rule that respond to deviation of inflation forecasts from some target level (Gali, 2008, Chapters 3.1.3 and 4).

---

[7] In modern terminology, the fixed-quantity-of-money rule is a passive rule; the price-stabilization rule is an activist rule.

Mints extended Simons's work in two directions, both of which would figure prominently in the rules-based framework developed by Milton Friedman. First, in his 1950 book Mints explicitly blamed the Federal Reserve for causing the Great Depression. He attributed the "tragic failure" of monetary policy during the Great Depression to discretionary management -- and not to the particular individuals in power: "I intend that my criticism of the Reserve System shall be unambiguous and largely adverse; but I do not mean to imply that another group of men, under the same conditions and operating with the same grant of discretionary power, would have done better. It is to discretionary monetary authorities, that I object" (1950, p. 46, fn. 5). Second, Mints brought attention to the fact that monetary-policy actions were subject to long lags, which made it difficult to predict the effects of those actions. Mints argued that the existence of lags would accentuate the uncertainty created by discretionary policy. But he apparently thought that this problem, while present when following informationally demanding activistic rules, would be less pronnouced with simple activistic rules, such as price targeting.

Similar to the modern literature, Simons and Mints identified expectations management as the key advantage of rules over discretion. They maintained that a policy rule would help stabilize expectations, helping to dampen economic fluctuations. For instance, Mints (1946, p. 60) argued that, under a rule that stabilizes the price level, "aggregate demand could be quickly restored by monetary-fiscal measures, *if not by mere expectations of such measures*, and thus nothing more than a minor recession in business activity need ever arise."

Friedman (1948) was also a strong proponent of rules. In his early work, he favored a rule under which changes in the stock of money would be linked to the federal budget. The stock of money would automatically be increased when there was an increase in the budget deficit -- by the amount of the deficit.[8] From 1956 onward, Friedman favored a rule under which the money supply would grow at a rate between 3 to 5 percent per year in order to attain economic stability and "a roughly stable price level" (1960, p. 91). Among the key reasons that Friedman cited in support of such a passive rule were the following. First, discretion has had "unfortunate monetary consequences" since it "meant continued and unpredictable shifts in the immediate guides to policy and in the content of policy as the persons and attitudes dominating the authorities have changed" over time. Second, discretion exposed the authorities "to political and economic pressures and to the deceptive effects of short-lived ideas of events and opinions." Third, reliance on discretion in pursuing general goals "meant

[8] The aim of Friedman's proposal was to stabilize demand at full employment.

also the absence of any criteria for judging performance. The absence of clearly-defined rules and criteria for judging performance had been a serious defect of our present monetary arrangements." The role of monetary authorities, Friedman argued, was "to provide a stable monetary background." Yet, the absence of rules for guiding policy and of criteria for judging performance had rendered monetary policy "a potential source of uncertainty and instability" (1960, pp. 85-86). A "great" advantage of the money-supply growth rule, according to Friedman, was its "simplicity [which] would facilitate the public understanding and backing" (1960, p. 90). Friedman believed that limited knowledge about the lags in monetary policy could make discretionary policies destabilizing (1953, pp. 129-31).[9] His concerns about imperfect information and potential, conflicting political influences led him to reject activistic rules in favor of a perfectly passive rule, namely, money targeting.

To sum up and to compare with the modern literature: the rules versus discretion literature originated at the University of Chicago in the aftermath of the Fed's implementation of discretionary policies in the 1920s. That literature and the modern literature share the feature that they were both motivated by monetary policy failure on a grand scale -- in the late-1920s / early-1930s and the 1970s, respectively. The earlier literature identified business-cycle-amplifying uncertainty as the main drawback of discretionary policy. Policy uncertainty has played a less prominent role in the modrn literture. Similarly to the modern lierature, the Chicago-based literature recognized that the critical factor underlying the inefficiency of discretion was its inability to fruitfully manage expectations. Finally, similar to the modern literature, it considered alternative rules and was cognizant of the trade-offs involved in activistic vs passive rules. But unlike the modern literature, it viewed activistic policies with suspicion and, apart from a price-level targeting rule, did not consider other types of activistic rules that carry minimal risk of discretion. An example of such a rule is a Taylor rule that has the interest rate respond in a systematic way to observable variables.

4. The Currency School - Banking School Controversy

4.1 A Brief Overview

In 1793, the British government declared war on revolutionary France, precipitating a drain of gold from the British banking system. In February 1797, the Bank of England -- then a private institution at the center of the British financial system -- reported to the government that its gold reserves had fallen to such a low level that it would not be able to remain open. On

[9] This point was made by Nelson (2020, p. 301).

February 26, 1797, the Bank requested -- and the government approved -- a prohibition of the Bank's exchanging its notes for specie. The restriction remained in place until 1821.[10]

With the end of the Napoleonic Wars in 1815, the British economy entered a deflationary phase that persisted through the 1820s.[11] Following parliamentary debates on the issue, convertibility was reinstituted in 1821. Three severe financial crises -- in 1825, 1836, and 1839 -- marked the following twenty years. The crises took the form of bank runs as holders of bank notes and banks' depositors sought refuge in the safety of gold. The crisis of 1825 gave rise to the view among some commentators that convertibility alone would be insufficient for maintaining confidence in the mixed-currency system. The discussions about the causes of the crisis marked the beginning of the debate between members of the Currency and the Banking School. Members of the Currency School included Samuel Jones Loyd (later Lord Overstone), Robert Torrens, and George W. Norman. Members of Banking School included John Fullarton, John Stuart Mill, Thomas Tooke, and James Wilson. The debate, which lasted into the middle of the nineteenth century, focused on the way to ensure against the overissue of notes so that convertibility could be maintained and commercial crises avoided.

The members of the Currency School believed that, under convertibility, banks frequently issued notes in amounts greater than those under a pure metallic standard. Such "overissues" of notes raised prices and fostered gold outflows beyond the amount compatible with Humean adjustment, culminating in severe commercial crises. Consequently, there was a need, they believed, to arrest gold drains in their early stages so that the severity of commercial crises could be reduced (Daugherty, 1942). What was required, they argued, was convertibility plus special restrictions on the issuance of bank notes so that a mixed currency of notes and gold fluctuated in amount exactly as a wholly metallic system would have done under identical circumstances -- a view called the "currency principle" (Humphrey, 1974, p. 7; O'Brien, 1992, p. 564).[12]

---

[10] During the period from 1797 to the end of the Napoleonic Wars in 1815, there was a widespread perception that British prices had risen sharply. This perception was based on the premium of bullion over the face value of paper currency and the discount of sterling against other currencies relative to the metallic parities of the pound and those currencies. The suspension of specie payments set the stage for the Bullionist controversy that took place in the first two decades of that century. The key issue addressed was the following: what caused the premium of bullion and the depreciation of the pound sterling following the suspension of convertibility? For discussions, see Humphrey (1974) and Laidler (1992).

[11] The initial years of the deflation featured an economic slowdown associated with the restoration sterling to its pre-war parity.

[12] Meltzer (2003, p. 36) pointed-out that Ricardo had earlier made this argument in his writings and Parliamentary testimony.

Members of the Banking School argued that -- if bank notes had been issued against the discount of short-term commercial bills drawn to finance real goods in the process of production and distribution -- it was not possible for the quantity of money to be excessive, and to thus cause inflation -- a view that became known as the real bills doctrine (Mints, 1945). Therefore, the nominal quantity of bank notes was determined by the real volume of goods under production. The Bank of England could not force an excess issue of notes on the market since no one would borrow at interest unnecessarily. Any excess would be extinguished as borrowers paid back costly interest-bearing loans to the Bank -- an idea known as the law of reflux (Humphrey, 1988, p. 5). Consequently, the quantity of notes in circulation was adequately controlled by competitive processes. Under convertibility, the quantity of notes would not exceed the needs of business for any appreciable length of time -- the "banking principle" (Viner, 1937, p. 223). In light of these factors, members of the Banking School argued that statutory control on the issuance of bank notes was unnecessary.

The debate between the Currency School and the Banking School culminated with the Bank Charter Act of 1844 -- sometimes called Peel's Act after then-Prime Minister Sir Robert Peel. The Act marked a triumph for Currency School ideas. The main components of the Act were as follows. (i) The Bank of England was split into two departments: an Issue Department and a Banking Department. The Bank remained under private ownership. (ii) The Issue Department was limited to an issuance unbacked by bullion -- the fiduciary issue -- of fourteen million pounds (Viner, 1937, p. 220).[13] Above that amount, the Issue Department could issue notes only in exchange for gold (or, within certain limits, silver). Effectively, the 1844 Bank Act established a 100 percent marginal reserve requirement on the Bank's note liabilities. (iii) The Banking Department *functioned* as a private bank. Nonetheless, it occupied a special place in the banking system because the reserves of the London bankers consisted, in part, of deposit balances held on the books of the Banking Department.[14] The Banking Department's reserves mainly comprised notes issued by the Issue Department. These reserves would increase if a Bank customer deposited funds or if loans were repaid. The Banking Department could also create deposits; there was no reserve requirement on that

[13] The amount was set considerably below the actual circulation, so that there would be a safe margin backed by gold.

[14] The Banking Department competed with other banks in providing lending services, but it maintained higher shares of reserves relative to its total liabilities than those banks. Bagehot (1873, pp. 18-19) reported that, in the middle of the nineteenth century, the Banking Department's reserves in bank notes and coin averaged between thirty and fifty percent of its total liabilities, compared with between eleven and thirteen percent for other banks.

Department's deposits. (iv) No new banks of issue could be established. Those in existence received a compensation if they relinquished the right of issue. Those banks that continued to issue notes were limited to an amount equal to the average circulation in the three months immediately preceding the passage of the Act (Daugherty, 1942).

4.2 Evaluation

The use of the terms "rules" and "discretion" was commonplace in the Currency School - Banking School debates. To illustrate, consider the 1840 Parliamentary *Report from the Select Committee on Banks of Issue*. The Committee heard evidence from ten experts, including Palmer, Norman, Loyd, and Tooke. During the course of the hearings -- amounting to some four hundred pages -- the terms "rule" or "rules" were used one-hundred-and-twenty-three times; the term "discretion" was used eighteen times. But do these terms correspond to those used in the modern debate? In other words, is the Currency-Banking School conflict the starting point for the rules vs discretion debate?

Some Currency School advocates framed their debate with the Banking School in the context of rules versus discretion. For example, Loyd characterized the currency principle as follows: "By this means, and *by this means only*, can we obtain in paper circulation varying in amount exactly as the circulation would have varied had it been metallic" (1837, p. 15). He equated the principle to a rule and, in so doing, equated alternative ways of conducting policy to discretion:

> Without this *rule* [*i.e.*, the currency principle], all must be left to the irregularity and uncertainty of individual *discretion*. The manager of the circulation must undertake to foresee and to anticipate events, instead of merely making his measures conform to a self-acting test…. In the exercise of such a *discretion*, the manager of the circulation … will, in nine cases out of ten, fall into error; whilst the interests of the whole community, and the fate of all mercantile calculations, will be dependent upon the sound or unsound *discretion* of some individual or body; instead of depending upon their own prudence and judgment, exercised under the operation of a fixed and invariable law, the nature and provisions of which are equally known to every body (italics supplied, 1844, p. 21; quoted from Demeulemeester, 2019, p. 80).

Similarly, some members of the Banking School thought that their policy framework had a discretionary element. Tooke argued that the Bank should hold a sufficiently-large quantity of reserves so that it could withstand a gold outflow without endangering convertibility. In that way, the Bank would be able to distinguish between a gold outflow that was temporary and self-correcting and an outflow that would be long-lasting, requiring an interest-rate increase. Although in his 1844 *Thoughts on Separation of the Departments*

of The Bank of England, Tooke set a lower limit for reserves of ten million pounds before the Bank would need to raise interest rates, he was not always specific about the amount at which the lower limit should be set. In parliamentary testimony in 1848, he was asked about the limit at which the Bank needed to act. He replied: "I am quite sure that you must leave it to the *discretion* of some men or body of men; no doubt they are fallible in their judgement, and Bank directors have sometimes signally failed in their judgement" (italics supplied, quoted from Arnon, 1991, p. 138).

The widespread use of the terms "rules" and "discretion" in those debates has led doctrinal historians to conclude that the rules-versus-discretion literature originated in the Currency School - Banking School literature. Here are some examples. According to O'Brien:

> Another way of looking at the distinction between the Currency and Banking principles is to view it as a distinction between rules and discretion. This is because at some point the reality of long-run equilibrium values will force even the adherents of the Banking principle into discretionary action. This was indeed recognised by the leading member of the Banking School, Thomas Tooke, who proposed that the Bank of England should hold a gold reserve of between £ 10 million and £ 15 million and that it should avoid taking contractionary action on a discretionary basis, only pursuing monetary contraction if the reserve, starting at £ 15 million, fell below £ 10 million.... The Currency School sought to link the money supply automatically to the balance of payments while the Banking School relied on discretion to avert the catastrophe of a sustained departure from long-run equilibrium values, resulting in the suspension of convertibility (2007, pp. 98-99).

Likewise, in a paper on the development of monetary rules, Laidler (2002, pp. 17-18) stated:

> Severe crises involving internal drains and bank failures occurred under convertibility in 1825, 1836 and 1839, and these eventually prompted a renewal of debate about the proper conduct of the Bank of England, the so-called Currency School - Banking School controversy. Here the issue of rules versus discretion in the specific matter of coping with crises, which had lain just below the surface of earlier exchanges, was squarely joined. The Banking School were content with the then existing institutional status quo, but urged the Bank of England to adopt what amounted to the principles of discretionary policy (2002, pp. 17-18).

Similar views have been expressed by, amongst others, Humphrey (1988, p. 4), Flanders (1989, p. 34), Arnon (1991, Chapter 9; 2010), Schwartz (1992, p. 151), and Goodhart and Jensen (2015, p. 21).

We think that, viewed through the lenses of the modern debate, the term discretion used by participants in the Currency-Banking School debate does not correspond to its modern

usage. First, note that "both groups were staunch supporters of the gold standard" and in the efficacy of the Humean adjustment process (Schumpeter, 1954, p. 727). That is, both groups were in favor of a rule -- the gold-standard rule. Second, it seems that they inappropriately identified activist rules with discretion. That is, they did not recognize that methods of conducting policy, other than on the basis of the passive currency principle, could also constitute a rule under which the gold standard could operate. But contrary to their perception of the matter, policy can be viewed as being formulated on the basis of a rule if it is systematic and predictable. For example, an increase in the discount rate to stem gold outflows once reserves have fallen to a certain level, as under the Banking School framework, does not constitute a discretionary regime any more than does a hike in the interest rate in response to a rise in inflation under the Taylor rule.

The positions taken by leading Currency School participants following the passage of the 1847 financial crisis confirm that leading proponents of the Currency School accepted the fact that the Banking School policy proposal did indeed constitute rules-based behavior. During the first three months of that year, the Bank's gold reserves fell from fifteen million pounds to ten million pounds. The Bank responded to the crisis by raising its discount rate (Daugherty, 1943, p. 241) an action consistent with the views of Banking School advocates, including Tooke and Fullarton. What about the views of Currency School advocates? Here is how Robbins (1958, p. 119) characterized the views of Torrens and Loyd (i.e. Overstone).

> Now neither Torrens nor Overstone, the chief [Currency School] writers concerned in this connection, were disposed to deny the possibility of such emergencies. Nor, when there had actually occurred a crisis of this degree of severity, which happened in the autumn of 1847, were they disposed to criticize the action of the government of the day in promising an indemnity to infringements of the Bank Act. Each of them expressed the view that what had happened was both necessary and sensible.

Consequently, on the issue of using the discount rate to respond to exceptional gold drains, the views of the Currency and Banking School essentially coincided.

It is important to point out that the pre-1970s secondary literature on the Currency School - Banking School debate did *not* interpret that debate within the context of rules versus discretion. That literature took the position that *both* Schools opposed discretion. Here is what Viner had to say.

> Both schools were hostile to discretionary management. The currency school thought that the currency could be made nearly automatic again merely by limiting the issue of bank notes uncovered by specie. The banking school held that there was no acceptable way of escape from the discretionary power of the Bank of England over the volume of deposits, although the 'banking principle,' according to which the issue of means of payment could not be carried appreciably beyond the needs of business

under convertibility, set narrow limits to this discretionary power (1937, p. 389).

Similarly, Schumpeter (1954, p. 727) wrote that "Both [the Currency School and the Banking School] were equally averse to monetary management." Mints (1945, p. 100) stated: "it was precisely this [discretionary management] that the currency school desired to avoid, while the banking school took no definite position on this question." Robbins (original italics, 1958, p. 122) expressed the following view: "The grand point of difference [between the two Schools] concerned the means of securing … convertibility. Whereas … it was the contention of the Currency School that a strict regulation of the volume of note issue was necessary, it was the leading contention of the Banking School that, *provided the obligation of convertibility was maintained*, no further regulation was required." Blaug (1962, p. 185) argued: "It is clear that at bottom neither school recognized the necessity of discretionary management of the currency. The Currency School wanted to regulate the note issue ... while the Banking School balked at the idea of any monetary management whatever."

What happened to produce an about-face amongst recent doctrinal historians compared to the position of their predecessors concerning the applicability of rules versus discretion in the Currency School- Banking School debate? We conjecture that, with the ascendance of the rules-discretion debate in the 1970s, doctrinal historians sought to discover historical instances that involved these concepts.[15] The extensive usage of the terms rules and discretion by participants in the Currency-Banking School debate seems to have mislead the modern historians into taking these terms at face value rather than viewing them through the lens of the modern literature that clearly establishes that activistic policy is not synonymous with discretion.[16]

5. Conclusions

This paper has provided a timeline of the rules vs discretion debate and has offered a summary and comparison of its main features in each of its stages. We established three things. First, the debate originated with Chicago School economists in the 1930s (mostly Simons) following the monetary policy failures associated with the Great Depression era.

[15] For instance, O'Brien (1992) connects the debate between the Currency School and the Banking School with the rules-versus-discretion literature but O'Brien (1975) does not.

[16] Not all contemporary historians identify the Banking School with discretionary policies. In a paper on the history of rules, Asso and Leeson (2012, p. 8) stated: "both the Currency School and the Banking School provided cases for subjecting the Bank of England to some preconceived rules of conduct."

This literature's descendant is the modern literature that also grew out of monetary policy failure (of the 1970s).

Second, the two literatures share important properties but also exhibit significant differences. Both emphasize the crucial role played by the successful management of expectations for the superiority of rules. Both are also cognizant of the fact that a high degree of activism in a rule may create room for discretion and may also prove counterproductive if it carries excessive informational requirements for the policymakers. But the modern literature places more faith in activistic rules in-so-far as the rules take a form that does not open the door to discretion (eg. a Taylor rule containing only easily observable variables).

Third, in contrast to conventional thinking among current doctrinal historians, but consistent with the view of earlier historians, the nineteenth century Currency-Banking School controversy in England was not about rules vs discretion, despite the heavy usage of such terms in the debates. Both Schools were staunch supporters of rules, namely, the gold standard. Their disagreement was about the best rule for ensuring balance-of-payments adjustment under the gold standard, and in particular, about the active use of policy instruments to react to exceptional circumstances --that is to excessive gold flows. Those debates have little to do with the discretion part of the debates of the 1930s and 1970s, but are closely related to the emphasis of the modern literature on the properties of alternative rules, and especially the optimal degree of activism in a rule.

References

Arnon, Arie (1991). *Thomas Tooke: Pioneer of Monetary Theory*. Ann Arbor: University of Michigan Press.

Arnon, Arie (2010). *Monetary Theory and Policy from Hume and Smith to Wicksell: Money, Credit, and the Economy.* New York: Cambridge University Press.

Asso, Francesco Pier and Leeson, Robert (2012). "Monetary Policy Rules: from Adam Smith to John Taylor." In *The Taylor Rule and the Transformation of Monetary Policy*, edited by Evan F. Koenig, Robert Leeson, and George A. Kahn. Stanford, California: Hoover Institution Press, pp. 3-62.

Bagehot, Walter (1873). *Lombard Street: A Description of the Money Market.* Reprinted in 1962 with a new introduction by Frank C. Genovese. Homewood, Illinois: Richard D. Irwin.

Barro, Robert J. and Gordon, David B. (1983). "A Positive Theory of Monetary Policy in a Natural Rate Model," *The Journal of Political Economy*, 91 (4): 589-610.

Blaug, Mark (1962). *Economic Theory in Retrospect*. Cambridge: Cambridge University Press.

Calvo, Guillermo A. (1978). "On the Time Consistency of Optimal Policy in a Monetary Economy," *Econometrica*, 46 (6): 1411-28.

Clerc, Laurent, Dellas, Harris and Loisel, Olivier (2011). "To be or not to be in monetary union," *Journal of International Economics*, 83 (2): 154-67.

Daugherty, Marion R. (1942). "The Currency-Banking Controversy: Part 1," *Southern Economic Journal*, 9 (2): 140-55.

Daugherty, Marion R. (1943). "The Currency-Banking Controversy: Part 2," *Southern*

Economic Journal, 9 (1): 241-50.

Demeulemeester, Samuel (2019). "The 100% Money Proposal of the 1930s: Conceptual Clarification and Theoretical Analysis." Ph.D. Thesis, Université de Lyon, December.

Flanders, June M. (1989). *International Monetary Economics, 1870–1960: Between the Classical and the New Classical*. New York: Cambridge University Press.

Friedman, Milton (1948). "A Monetary and Fiscal Framework for Economic Stability." Reprinted in Milton Friedman, ed., *Essays in Positive Economics*. Chicago: University of Chicago Press, 1953, pp. 133-56.

Friedman, Milton (1953). "The Effects of a Full-Employment Policy on Economic Stability: A Formal Analysis." In M. Friedman (ed.), *Essays in Positive Economics*. Chicago: University of Chicago Press, 117-132.

Friedman, Milton (1960). *A Program for Monetary Stability*. New York: Fordham University Press.

Friedman, Milton and Schwartz, Anna J. (1963). *A Monetary History of the United States, 1867–1960.* Princeton, N.J.: Princeton University Press for the NBER.

Gali, Jordi (2008). *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework*. Princeton: Princeton University Press.

Goodhart, Charles A. E. and Jensen, Meinhart A. (2015). "Currency School versus Banking School: An Ongoing Confrontation," *Economic Thought*, 4 (2): 20-31.

Humphrey, Thomas M. (1974). "The Quantity Theory of Money: Its Historical Revolution and Role in Policy Debates," Deferal Reserve Bank of Richmond, *Economic Review*, May/June, pp. 2-19. Reprinted in *Essays on Inflation* (3rd ed.), edited by Thomas Humphrey. Richmond: Federal Reserve Bank of Richmond, 1982, pp. 1-18.

Humphrey, Thomas M. (1988). "Rival Notions of Money," Federal Reserve Bank of Richmond, *Economic Review,* September/October, pp. 3-9.

Kydland, Finn E. and Prescott, Edward C. (1977). "Rules Rather than Discretion: The Inconsistency of Optical Plans," *Journal of Political Economy*, 85 (3): 473-92.

Laidler, David (1992). "Bullionist Controversy." In *The New Palgrave Dictionary of Money and Finance*, Vol. 1, edited by Peter Newman, Murray Milgate, and John Eatwell. London: Macmillan Press, pp. 255-61.

Laidler, David (2002). "Rules, Discretion, and Financial Crises in Classical and Neoclassical Economics," *Economic Issues*, 7 (2): 11-34.

Loyd, Samuel Jones (1837). *Reflections Suggested by a Perusal of Mr. J. Horsley Palmer's Pamphlet: On the Causes and Consequences of the Pressure on the Money Market.* London: Palhan Richardson.

Loyd, Samuel Jones (1844). *Thoughts on the Separation of the Departments of the Bank of England*. Cornhill: Pelham Richardson.

Meltzer, Allan H. (2003). *A History of the Federal Reserve*. Chicago: Univeristy of Chicago Press.

Meltzer, Allan H. (2009). *A History of the Federal Reserve*. Volume 2, Book 1, 1951-1969. Chicago: University of Chicago Press.

Mints, Lloyd D. (1945). *A History of Banking Theory*. Chicago: University of Chicago Press.

Mints, Lloyd W. (1946). "Monetary Policy," *The Review of Economic Statistics*, 28: 60-9.

Mints, Lloyd W. (1950). *Monetary Policy for a Competitive Society*. New York: McGraw-Hill.

Nelson, Edward (2020). *Milton Friedman and Economic Debate in the United States, 1932 –*

1972. Chicago: University of Chicago Press.

O'Brien, Denis P. (1975). *The Classical Economists*. Oxford: Oxford University Press.

O'Brien, Denis P. (1992). "Currency Principle." In *The New Palgrave Dictionary of Money and Finance*, Vol. 1, edited by Peter Newman, Murray Milgate, and John Eatwell. London: Macmillan Press, pp. 564-65.

O'Brien, Denis P. (2007). *The Development of Monetary Economics: A Modern Perspective on Monetary Controversies*. U.K.: Edward Elgar Publishing.

Parliamentary Committee on Banks of Issue (1840). *Report from the Select Committee on Banks of Issue*. Ordered, by the House of Commons, to be printed, August 7.

Phillips, Ronnie J. (1995). *The Chicago Plan and New Deal Banking Reform*. New York: M.E. Sharpe.

Robbins, Lionel (1958). *Robert Torrens and the evolution of classical economics.* London: Macmillan New York: St. Martin's Press.

Schumpeter, Joseph A. (1954). *History of Economic Analysis*. New York: Oxford Univeristy Press.

Schwartz, Anna J. (1992). "Banking School, Currency School, Free Banking School." In *The New Palgrave Dictionary of Money and Finance*, Vol. 1, edited by Peter Newman, Murray Milgate, and John Eatwell. London: Macmillan Press, pp. 148-51.

Simons, Henry C. (1936). "Rules versus Authorities in Monetary Policy, " *Journal of Political Economy*, 44 (1): 1-30.

Simons, Henry C. *et al.* (1933). "Banking and Currency Reform," including Appendix, "Banking and Business Cycles," and Supplementary Memorandum, "Long-term Objectives of Monetary Management." Unsigned mimeograph. Department of Economics, University of Chicago.

Tavlas, George S. (2020). "A Reconsideration of the Doctrinal Foundations of Monetary-Policy Rules: Fisher versus Chicago," *Economics Working Paper 20103*, May, Hoover Institution. *Journal of the History of Economic Thought*, forthcoming.

Taylor, John B. (1993). "Discretion versus Policy Rules in Practice." *Carnegie-Rochester Series on Public Policy*, North-Holland, 39: 195-214.

Tooke, Thomas (1844). *An Inquiry Into the Currency Principle: The Connection of the Currency with Prices, and the Expediency of a Separation of Issue from Banking*. London: Longman, Brown, Green, and Longmans.

Viner, Jacob (1937). *Studies in the Theory of International Trade*. New York: Harper and Brothers Publishers.

Walsh, Carl E. (2010). *Monetary Theory and Policy* (3rd ed.). Cambridge, MA: The MIT Press.

Woodford, Michael (2003). *Interest and Prices: Foundations of a Theory of Monetary Policy*. Princeton: Princeton University Press.