Jacob Viner, Milton Friedman, and the Chicago Monetary Tradition: A Reconsideration

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

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

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Milton Friedman claimed that Jacob Viner's views in the early-1930s on (a) the monetary origins of the Great Depression and (b) the need of expansionary openmarket operations established a linkage between the 1930s Chicago monetary tradition and Friedman's monetarist economics. I show that Viner's views on those issues, and on such issues as the retention of the gold standard, money-financed versus bondfinanced deficits, 100 percent reserves, the usefulness of cost-cutting to combat the Depression, and rules-versus-discretion, differed fundamentally from a core group of Chicagoans. I conclude that Viner's views were not representative of the Chicago tradition.

Keywords: Jacob Viner, Milton Friedman, Great Depression, Chicago monetary tradition
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1. Introduction

The relationship of Jacob Viner's monetary economics to (a) the monetary economics that characterized the Chicago tradition of the early-1930s and (b) Milton Friedman's monetarist framework of the 1950s and after has long been the focus of doctrinal research.[1] Friedman (1972) provided evidence showing that Viner had been a trenchant critic of Federal Reserve policies during the Depression and a proponent of monetary policies that worked through the banking system, views that, Friedman claimed, established a direct linkage with his monetarist economics. Thus, after presenting Viner's views on the effectiveness of open-market operations and on his criticisms of the Fed's policies in the early-1930s, Friedman (1972, 940-41) stated:

> What, in the field of interpretation and policy, did Keynes have to offer those of us who learned their economics at a Chicago that was filled with these [Viner's] views? Can anyone who knows my work read Viner's comments and not see the direct links between them and Anna Schwartz's and my *Monetary History* (1963) or between them and the empirical *Studies in the Quantity Theory of Money* (1956)? Indeed, as I have read Viner's [work] for the purposes of this paper, I have myself been amazed to discover how precisely it foreshadows the main thesis of our *Monetary History* for the depression period, and have been embarrassed that we made no reference to it in our account.

Other research has painted a different picture. Nerozzi (2009) and Alacevich, Asso, and Nerozzi (2015) documented that Viner, who had studied at Harvard and had written his Ph.D. dissertation under the supervision of Frank Taussig, held policy views in the 1930s that were similar to those held by other Harvard-educated economists; these authors concluded that Viner's monetary views were marked by a distinct Harvard, rather than a Chicago, orientation.[2] Adding to the ambiguity of the relationship between Viner's views and those of his Chicago colleagues, Viner refused to add his signature to a critical March 1933 memorandum signed by eight other Chicagoans; the memorandum introduced what became known as "The Chicago Plan of Banking Reform" into professional discussion (Hart 1935; Phillips 1995); it called for 100 percent reserve requirements on demand deposits, monetary-policy rules, money-financed deficits, and the abandonment of the gold standard. Moreover, many

[1] See, for example, Davis (1968; 1971), Patinkin (1969), Rotwein (1983), Laidler (1993), Steindl (1995), Tavlas (1997; 2019), and Leeson (2003). Interest in this issue originated in Friedman's claim in his "Restatement" (1956, 3) of the quantity theory of money that his monetary framework was a direct outgrowth of a Chicago monetary tradition developed by his mentors Henry Simons, Lloyd Mints, Frank Knight, and Viner. Nelson (2020) provides the authoritative study of the development of Friedman's monetary economics.

[2] The Harvard-trained economists included Lauchlin Currie, Harry Dexter White, and John H. Williams.

years after he left Chicago for Princeton in 1946, Viner made it clear that he did not consider himself to have been a member of a 1930s "Chicago school" that had been engaged in an organized effort to support the quantity theory of money and laissez-faire doctrine. In a letter addressed to Don Patinkin, dated November 24, 1969, Viner wrote: "at no time was I consciously a member of [the Chicago school] and it is my vague impression that if there was such a school it did not regard me as a member, or at least as a loyal and qualified member" (Patinkin 1981, 266).

Viner (1892-1970) was born in Montreal.[3] In 1914 he went to Harvard, where he wrote (under Taussig) his Ph.D. thesis on balance-of-payments adjustment in Canada under the gold standard (see Section 3.1). Viner joined the faculty at the University of Chicago as an instructor in the fall of 1916. After working for the U.S. Tariff Commission under Taussig during 1917-19, he returned to Chicago, where he remained until 1946, when he joined the faculty of Princeton University; he taught at Princeton until his retirement in 1960. At Chicago, Viner mainly taught courses on price and distribution theory and international economic theory and policy.[4] Friedman, who took Viner's graduate course on price theory in the fall quarter of 1932-33, described the course as "unquestionably the greatest intellectual experience of my life" (Friedman 2009, 70). Upon Viner's departure for Princeton in 1946, Friedman, who filled the faculty position at Chicago's Department of Economics that opened-up with that departure, took over teaching responsibilities for the course on price theory.[5]

In what follows, I consider Viner's policy views during the period 1931 to 1936. I demonstrate that Viner's views on key policies rendered him an outlier among a core group of Chicagoans who had a strong interest on monetary issues; in addition to Viner, the group included Simons, Mints, Knight, Aaron Director, and Paul Douglas.[6] Viner was the *only* Chicagoan to hold the Fed accountable for the Great Depression during the early-1930s and the *only* Chicagoan who was a proponent of expansionary monetary policies that operate through the banking system. Moreover, Viner's positions on such policy issues as (i) the retention of the gold standard, (ii) the monetary

[3] The following biographical account is based on Bloomfield (1992) and Irwin (2016).

[4] Lionel Robbins (1970, 2) called Viner "the outstanding all-rounder of his time in our profession." Bloomfield (1992) provided an assessment of Viner's contributions to economics.

[5] See (Mitch 2016) and Nelson (2020, Chapter 4).

[6] The Chicagoans referred to themselves collectively as "The Group." See Tavlas (2019). Rotwein (1983, 265) wrote that "Viner was probably the most moderate and eclectic of all the early Chicago School economists," but Rotwein provided *no* evidence to support that contention. Irwin (2016) provided an excellent comparison of Viner's views with those of Friedman mainly during the period after the 1930s.

financing of fiscal deficits, (iii) 100 percent reserves, and (iv) rules versus discretion, differed fundamentally from the positions taken by the other members of the core Chicago group. Thus, although his views on the Fed's role in the Great Depression and the desirability of conducting monetary policy through open-market operations clearly presaged Friedman's monetarist economics -- as Friedman claimed -- Viner's views on those issues were not representative of the components of the 1930s Chicago monetary tradition.[7] I also show that a fundamental factor underlying the differences in policy positions between Viner and the other Chicagoans was their respective views on the role played by the fractional-reserve banking system in the business cycle. Each of the other members of the Chicago core group thought that such a system contained an "inherent" tendency toward self-perpetuating instability, subjecting the economy to periodic crises. Viner, as we shall see, held a different view of the matter.[8]

2. The Chicago Monetary Tradition Revisited

The essence of what the early-1930s Chicago monetary tradition was in terms of policy advocacy -- and what it was not -- is contained in four memoranda.[9]

The first memorandum consisted of policy recommendations that emerged from a conference held at the University of Chicago in January 1932. The memorandum was sent (in the form of a telegram) to President Hoover; it was an amalgamation of non-Chicago and Chicago views, with the latter views reflecting those of Viner to a significant extent. The conference statement was drafted by a committee of six participants -- Viner, Irving Fisher (Yale), Alvin Hansen (Minnesota), Charles Hardy

[7] Friedman's (1972) reliance on Viner's views on the monetary origins of the Great Depression and on the efficacy of policies that work through the banking system to establish the validity of a Chicago monetary tradition had a powerful -- and misrepresentative -- effect on the nature of that tradition and on the subsequent doctrinal literature. Laidler (1993, 1068) followed Friedman, claiming that the 1930s Chicago tradition "offered a monetary interpretation of cyclical fluctuations in general and the Great Depression in particular, [and] an optimistic view of the power of monetary policy." Laidler went on to argue that, since those characteristics marked the views of Harvard economists, Friedman's monetarist framework had a distinct Harvard influence. A similar argument was made by Alacevich, Asso, and Nerozzi, (2015, 402, fn. 31), who, after discussing the views of Harvard-trained economists, including Viner, argued that those views reinforced "Laidler's (1993) disputed contention that there was a strong Harvard link ... to the Chicago school." Laidler (1993, 1068) correctly noted that the Chicago tradition was also characterized by a preference for policy rules.

[8] It needs to be stressed that I present evidence that Viner was an *outlier* on key policy issues within the group of economists who comprised the early-1930s Chicago monetary tradition. Whether Viner was a *member* of that tradition is a different matter. The evidence that I present shows that the other members desired to have Viner considered part of their group.

[9] The following discussion is based on material presented in Tavlas (2019), which provides listings of the signatories of the memoranda.

(Brookings), Henry Schultz (Chicago), and John H. Williams (Harvard).[10] Twelve Chicagoans and twelve non-Chicagoans signed the telegram. The memorandum has been -- inaccurately -- interpreted as an important representation of the early-1930s Chicago monetary tradition (Friedman 1972, 936-41; Laidler 1999, 236-39). The policy recommendations were as follows: (1) the liberalization of the collateral provisions underlying issuance of Federal Reserve notes by permitting the substitution of government securities for commercial paper, and preferential treatment of the discount rates on commercial paper backing the notes "as necessary prerequisites to the following recommendations with respect to open-market operation[s]"; (2) "open-market operations with the double aim of facilitating necessary government financing and increasing the liquidity of the banking structure"; (3) encouragement of the Reconstruction Finance Corporation to make loans on assets not eligible for rediscounting; (4) a program of public works and public services "at a level not lower than that of 1930-31"; (5) the "reduction or cancellation of intergovernmental debts"; and (6) a "substantial lowering of tariffs and other barriers to world trade" (Harris Foundation 1932, 413-15).

The other three memoranda were strictly-Chicago products. An April 1932 memorandum was sent to Congressman Samuel Pettengill. It assigned responsibility for the severity of the Depression to the instability of the volume and velocity of demand deposits and to the stickiness of the cost structure, which prevented the restoration of profit margins in the face of falling prices. To raise prices, restore profit margins, and thus output, the memorandum advocated fiscal deficits financed by money creation. The memorandum produced an about-face on the Hoover telegram's emphasis on policies that operate through the banking system: "little is to be gained merely by easing the conditions of the banks, in a situation where, by virtue of cost-price relations, everyone, including the banks, is anxious to get out of debt. Such measures may retard deflation and prepare the way for recovery; but they cannot much mitigate the fundamental maladjustments between prices and costs" (Pettengill Memorandum 1932, 524). The memorandum's position on the use of cost-reductions to generate recovery was as follows: "[this] method is conveniently automatic but dreadfully slow" (Pettengill Memorandum 1932, 524). The memorandum referred to the "remote" possibility that money-financed fiscal deficits may force the abandonment of the gold

[10] Williams, like Viner, had been a student of Taussig at Harvard. Schultz was a quantitative economist. Friedman was Schultz's research assistant during the 1934-35 academic year.

standard, an issue to which I return in the next section. Twelve Chicagoans, including Director, Douglas, Knight, Mints, Simons, and Viner signed the memorandum.

An untitled March 1933 memorandum was distributed to about forty individuals -- policymakers and economists. It introduced the idea of 100 percent reserve requirements against demand deposits into professional discussion. The proposal aimed to (1) reduce the frequency and severity of business cycles, (2) eliminate the possibility of losses on demand deposits by depositors, and (3) allow better control of the money supply. The Chicagoans argued that instability of the economy is strongly exacerbated by the nature of fractional-reserve banking, under which a large part of the money supply is backed by private-sector debt. Consequently, whenever the system of loans collapses, the money supply also collapses as businesses deleverage and individuals convert their demand deposits into cash. The Chicagoans continued to advocate an expansion of the money supply generated through fiscal deficits; there was no mention of the use of monetary policies that operate through the banking system. Recognizing that an expansion of the money supply would not be consistent with the gold standard's rules of the game, the Chicagoans expressed the view that the gold standard needed to be abandoned. They identified several possible monetary rules, but did not take a position on a particular rule (Knight et al. 1933). The memorandum was signed by eight Chicagoans, including Director, Douglas, Knight, Mints, Simons, but not by Viner for reasons that I will explain. In a letter that introduced the memorandum to its recipients, Knight wrote: "P.S. We hope that you are one of the forty odd who will get this who will not think we are quite looney. I think Viner really agrees but does not believe it is good politics" (Knight 1933). As shown in the next section, Viner did *not* agree; he did not sign the memorandum because he disagreed fundamentally with *all* of its policy proposals.

Finally, a November 1933 memorandum, titled "Banking and Currency Reform," attributed the severity of the Great Depression to the self-reinforcing quality of a fractional-reserve banking system:

> Each bank seeks to contract its loans; but none augments its reserves unless it contracts more rapidly than the rest. Every reduction in bank loans means reduction in the community's effective money [currency and demand deposits]; and this in turn means lower prices, smaller volumes of business, and still lower earnings. Moreover, in a country where wages and freight rates (to name only the most important items) are as inflexible as they are in the United States, there is no limit, in the absence of drastic federal interference, to the deflation which may ensue (Simons et al. 1933, 5).

The document provided an assessment of alternative monetary rules, concluding with a preference for a rule that fixes the quantity of money. It also provided a lengthy critique of the gold standard, concluding with: "The gold standard has been a fair-weather system, functioning smoothly only so long as convertibility really mattered to no one concerned. It can hardly survive serious war anywhere; and most countries discard it readily under pressure, whether of war or depression" (Simons et al., Supp. 1933, 10).[11] The memorandum was drafted by Simons, with considerable assistance from Director, on the basis of discussions among the Chicagoans.

From the above discussion of the 1932 and 1933 documents, the following conclusions emerge. First, the Chicagoans favored money-financed fiscal deficits to combat the Great Depression; as I show in the next section, however, Viner took an exception to that view. Second, although twelve Chicagoans, including Viner, signed the January 1932 Hoover telegram calling for monetary measures that operated through the banking system, that telegram reflected the sometimes-conflicting views of a wide spectrum of economists, including the views of Viner, a co-drafter of the telegram.[12] Third, there was a critical difference between the external policies proposed in the Hoover telegram and the corresponding policies proposed in the three strictly-Chicago memoranda. The Hoover telegram called for debt relief and tariff reductions, but said *nothing* about the gold standard; it took the gold standard as a given. The three strictly-Chicago documents either suggested (April 1932 memorandum) or advocated (March and November 1933 memoranda) an abandonment of the gold standard. Fourth, to attain longer-term economic stability, the three Chicago documents proposed, in addition to the abandonment of the gold standard, 100 percent reserves on demand deposits and monetary-policy rules. Fifth, there was *no* mention in *any* of the 1932 and 1933 memoranda of the role that the Federal Reserve may have played in precipitating and/or exacerbating the Great Depression. In the three strictly-Chicago memoranda, the severity of that episode was attributed *only* to the inherent tendency of a fractional-reserve banking system to generate self-perpetuating business cycles.

[11] Several of the criticisms of the gold standard in the November 1933 memorandum anticipated the views expressed by Friedman (1953) in his classic paper on flexible exchange rates. See Tavlas (2019).

[12] As Laidler (1993) argued, many of the views expressed in the telegram were similar to views held by John H. Williams, who was also a co-drafter of the telegram.

As will be shown in what follows, Viner was a strong advocate of the gold standard. Yet, he signed the April 1932 Pettengill Memorandum which raised the "remote" possibility that the gold standard might have to be abandoned. Why did he sign that document? Also, why did Viner refuse to sign the March 1933 memorandum that advocated, among other policies, 100 percent reserve requirements and monetary-policy rules?

3. Viner's Policy Views, 1931-36

This section describes Viner's views on policy issues during the early-1930s, and compares those views with the positions set-out in the above-mentioned strictly-Chicago documents. The issues addressed are the following: (1) the gold standard; (2) the use of cost reductions to combat the Great Depression; (3) the relative efficacy of generating changes in money through the banking system compared with changing the money supply though the government's fiscal position; (4) the origins of the Great Depression; (5) the 100 percent reserves scheme; and (6) rules-versus-discretion. I identify issues on which Viner's views changed during the course of 1931-33. I substantiate the important differences that existed on each of the foregoing issues between Viner and the other Chicagoans, thus, explaining Viner's refusal to sign the March 1933 memorandum. In addition, I provide previously-undiscovered evidence indicating that Viner signed the April 1932 Pettengill Memorandum, despite the memorandum's oblique suggestion that the United States might have to leave the gold standard at some point, because that suggestion was a reversal from an earlier draft of that memorandum that called for the immediate abandonment of the gold standard.

My data sample includes, but is not confined to, the following works by Viner: (1) a lecture, "Problems of International Commercial and Financial Policy," delivered in 1931 at the Institute of Politics in Williamstown, Massachusetts;[13] (2) a lecture, "International Aspects of the Gold Standard," delivered at the previously-mentioned conference held at Chicago in January 1932; (3) a lecture, "Balanced Deflation, Inflation, or More Depression," delivered at the University of Minnesota in February 1933 -- that is, *before* the United States left the gold standard on April 20, 1933;[14] (4) a lecture, "Inflation as a Possible Remedy for Depression," delivered at the University of Georgia in May 1933, that is, *after* the United States left the gold standard; and (5) the

[13] What is available is a *Report of the Round Tables* that provides quotes from Viner's lecture and comments from attendees of the lecture.
[14] The lecture was published in April 1933.

paper, "Recent Legislation and the Banking Situation," published in the *American Economic Review* (*AER*) in March 1936.

3.1 The Gold Standard

Viner's belief in the efficacy of balance-of-payments adjustment under the gold standard played an important role in shaping his views about the policies needed to combat the Great Depression. These policies consisted of both cost reductions and macroeconomic measures that were formulated so as not to jeopardize the U.S. commitment to remain on the gold standard. Viner's interest in the workings of the gold standard stemmed from his Ph.D. dissertation, in which he examined external adjustment in Canada between 1900-13 (Viner 1924).[15] During those years, Canada's economy provided several interesting features. The country had no central bank, precluding the possibility of sterilization operations, it imported large amounts of capital from the United Kingdom, and Canadian banks held large quantities of their short-term assets in New York banks. Viner found that both relative-price changes and capital flows played an equilibrating role in bringing about balance-of-payments adjustment, confirming the automatic character of the adjustment mechanism under the gold standard.[16] In his dissertation, Viner found that short-term capital movements, in the form of changes in Canadian deposits with New York banks, contributed to the equilibrating process, helping to stabilize exchange rates within the gold points, thereby minimizing the need of specie movements.

Viner's lecture at the 1932 Chicago conference provided an assessment of the operation of the gold standard. The basic case for the gold standard, he argued, was the automatic character of adjustment. The process, Viner (1932, pp. 19-20) argued, worked as follows. A country with, say, a balance-of-payments surplus would experience an accumulation of gold, resulting in an expansion of domestic credit (assuming that the gold inflows were not sterilized). The expansion of domestic credit would push down interest rates and raise prices in the country. Both the rise in domestic prices and the decline in domestic interest rates would help restore balance-of-payments

[15] Flanders (1989, 227-29) provided a discussion of Viner's dissertation.

[16] Capital would flow quickly between countries to eliminate interest-rate differentials. See Bordo (1987; 1999). Viner (1937, 405) noted that short-term capital flows allowed necessary adjustments in national gold stocks to be spread over longer periods, helping to avoid internal crises. For example, a country with a trade deficit could borrow short-term abroad so that bank credit in that country could be gradually -- instead of abruptly -- contracted. Adam Smith had identified the equilibrating role played by short-term capital -- in the form of bank money -- in external adjustment. See Laidler (1981, pp. 189-90).

equilibrium -- the rise of domestic prices by reducing net exports of goods and services, and the fall in interest rates by bringing about an outflow of gold and short-term capital to other countries as investors searched for higher yields.

That process, however, operated very differently in the pre-World War I period compared with the post-War period. In the former period, adjustment tended to take place automatically, with the Bank of England exercising responsibility at the center of the system. Viner argued that the foregoing adjustment mechanism had "encountered countervailing forces" in the reconstructed post-War gold-exchange standard (Viner 1931, 20).[17] He singled-out the following factors that prevented the effective functioning of the post- War regime. First, in the 1920s the Federal Reserve sterilized large amounts of gold inflows, thwarting the operation of the adjustment mechanism in the United States. To the extent that the gold inflows were not sterilized, some of the inflows were used for stock-market and real-estate speculation, rather than for purchases of goods and services (1932a, 20). Second, the Banque de France and the French Treasury had adopted a "deliberate" policy of accumulating large amounts of gold in the late-1920s, again thwarting the operation of external adjustment (1932a, 20-22). Third, "international co-operation" among central banks and national treasuries, which marked the pre-War gold standard, was abandoned in the post-War years. This circumstance reflected, in part, the decline of England as the "good administrator of the gold standard" and the failure of the United States and France to assume that role (1932a, 26-27).[18] Fourth, compared with the pre-1914 period, the responsiveness of trade flows to changes in relative prices had declined in the post-War years in light of increased wage rigidities and the imposition of higher tariffs during the latter period. Fifth, the unwise peace settlement following World War I had contributed to growing instability of the international political environment (1932a, 24-25). Consequently, Viner argued, "the gold standard, strained beyond the breaking point, crashed." That crash, however, was not attributable to the gold standard itself; the gold standard, he stated, "was … not responsible for all these difficulties" (1932a, 25). Instead, Viner

[17] Under the gold-*exchange* standard, key currencies, including the pound sterling and the U.S. dollar, were used, along with gold, as foreign-exchange reserves.

[18] In the late-nineteenth century, a follow-the-leader convention with regard to interest rates emerged among central banks. If there was a need to act on interest rates, the Bank of England often took the lead, changing its discount rate, and other central banks followed. Keynes (1930, Vol. 2, 306-07) referred to the Bank of England under the classical gold standard "the conductor of the international orchestra." During crises, central banks took exceptional steps to support one another -- for example, by lending gold to the monetary authorities of a central bank facing an attack on its gold reserves. See Eichengreen (1996, 33-34).

believed that the responsibility for the collapse of the gold standard was a result of "the anarchic way the gold standard has been operating" (1932a, 25).

Viner, therefore, did not want the United States to leave the gold standard. "The gold standard," he stated, "is a wretched standard, but it may conceivably be the best available to us" (1932a, 37). He concluded his presentation as follows: "it seems wise for countries still on the gold standard [including the United States at the time] to exploit more fully its possibilities of exercise before abandoning it as utterly incorrigible" (1932a, 39).[19]

The following puzzle emerges from the above discussion. Since Viner was a strong advocate of the gold standard, why did he agree to sign, along with eleven other Chicagoans, the April 1932 Pettengill Memorandum? In that memorandum the Chicagoans argued: "It is well to face the possibility, though it seems *remote*, that adequate fiscal inflation might force us to abandon gold for a time" (italics supplied, Pettengill Memorandum 1932, 525). They continued:

> If the time comes, as it probably will not, when we must choose between recovery and convertibility, we must then abandon gold, pending the not distant time when world recovery will permit our returning to the old standard on the old terms. The remote possibility of our being forced to this step, however, should not influence our decision now (Pettengill Memorandum 1932, 526).

I conjecture that the preceding statement represented a compromise position between those of the Chicagoans, including Director, Douglas, Knight, Mints, and Simons, who believed that the United States should immediately abandon the gold standard, and Viner, who wanted the United States to remain on the gold standard. My conjecture is based on the following previously-undiscovered evidence. The final version of the Pettengill Memorandum was dated April 26, 1932. An earlier draft of the memorandum was dated "April 1932," without a specific date. It was almost an exact duplicate of the

[19] Following the (temporary) abandonment of the gold standard by the United States in April 1933, Viner favoured a return to the gold standard (Meltzer 2003, 451, fn. 69; 544). In 1942, he wrote: "[W]hat we should hope for, and work for, in the field of post-war monetary structure, is a return to the international gold standard, but with regulation through international action of either or both the rate of production of gold and the world monetary value of gold, and with provision for modification through international agreement of the gold value of particular national currencies when conditions peculiar to such countries seem to call for such modification" (1942, 130; quoted from Irwin, 2016, 765).

final version, with the part on the gold standard being an exception.[20] The draft included -- but the final version omitted -- the following statement:

> It should be recognized, however, that any program of fiscal inflation which does not begin by cutting loose from gold is doubly precarious: we might lose gold to foreigners and domestic hoarders, and thus be forced gradually to the necessity of suspending our currency laws; or, protecting gold, we might abandon inflation, and revert to fiscal deflation, at a stage such that the whole enterprise would prove disastrous. Great damage can be done by a policy which involves abandoning gold 'by inches,' with desperate and persistent effort to maintain convertibility. It is not unlikely that we would be forced to choose between gold and recovery. This being the case, we should abandon gold in advance, suddenly and, if possible, unexpectedly. The shock would cause little serious disturbance; while protracted uncertainty and strain would do much harm (Pettengill Memorandum, Draft 1932, 5).

Clearly, the idea of abandoning the gold standard "in advance" of other policy measures would have been firmly opposed by Viner. His signature on the final memorandum came when the policy recommendation with respect to gold was reversed.

3.2 The Deflation Alternative

Previous studies of Viner's policy views have suggested that Viner was *not* an advocate of cost-cutting during the Great Depression. Davis (1971, 42) argued that "Viner considered the argument for 'induced balanced deflation' little more than a mistaken supposition." Rotwein (1983, 273, fn. 35) stated that Viner had considered the idea of cutting wages and other costs during the early-1930s, "but [Viner] argued that it would cause widespread distress, encounter strong social resistance, and probably meet with little success." Nerozzi (2009, 589) correctly noted that Viner thought that balanced deflation should be part of a counter-cyclical policy package, but that "monetary policy should be the engine with which to actively boost recovery." In fact, consistent with the operation of the gold standard's adjustment mechanism, Viner believed that cost reductions were an essential response to the Great Depression although he became less confident about the effectiveness of cost reductions during the course of the early-1930s.

In his 1931 Williamstown lecture, Viner advocated nominal wage cuts as part of a package response to the Great Depression; the other elements of the package were

[20] The quotation below is from a six-page, double-spaced text. A copy of the draft is in the Henry Simons Papers in the Special Collections Section of the The Regenstein Library of the University of Chicago. The earlier quotations are from a three-page, single-spaced text of the final memorandum.

counter-cyclical fiscal policy and expansionary open-market operations. The components of what he called (1931, 183) his "wage [reduction] policy" were as follows: (i) a "substantial horizontal reduction of wage rates in all industries in which they have not yet occurred"; (ii) a "pledge" by employers to maintain their total payrolls; (iii) a "pledge" by employers to raise future wage rates in line with future increases in prices; and (iv) similar reductions in rents, interest rates on loans, and other costs as necessary (1931, 183). Viner then stated that recovery would not come about until the "prevailing cost and price levels ... are such as to assure a satisfactory profit on new operations." He concluded: "Either, therefore, prices must be raised, or wage rates must be cut, and if there is no price recovery, *wage reductions are a necessary preliminary to business recovery*" (italics supplied, 1931, 184). For the policy to be effective, the cost-reductions, and the pledges to maintain total payrolls and raise wages in the future, would have to be coordinated through government intervention. Evidently, Viner's proposal was not received favorably by participants at the Williamstown Roundtable. According to the Roundtable *Report*, objection to Viner's proposal was raised on the ground that "only a dictator could put [the proposal] into effect." Viner replied that: "we underestimate the power of [governmental] leadership" (1931, 185).

Why did Viner advocate nominal wage cuts to combat the Great Depression? He provided the answer in a 1932 review of the book, *The Problem of Maintaining Purchasing Power,* by P. W. Martin. In his review, Viner noted that, in the face of sticky wages, profit margins could be increased either by injecting purchasing power into the economy or by cutting costs. He argued, however, that adherence to the gold standard placed a limit on the use of the former policy. He thought that "perhaps undue emphasis" had been placed on the "manipulation of purchasing power" in light of the need to conform to the gold standard's rules-of-the-game: "for a single country under the gold standard and suffering from severe unemployment, deflation of monopoly prices and of money costs may be the only way out" (1932b, 419).

Viner returned to the issue of cost-cutting during his February 1933 lecture at the University of Minnesota. He distinguished between two kinds of cost-cutting policies.

(1) The "Do Nothing" policy, under which the "self-corrective process" drives costs down: this process "*does* tend to bring depressions to an end, and … has always hitherto succeeded in doing so" (original italics, 1933a, 7). Viner argued, however, that "the price structure is shot through with rigidities"

(1933a, 9). Consequently, while the self-corrective mechanism would "eventually" restore profit margins, Viner stated that he was "becoming more and more convinced" that the mechanism "won't do so quickly enough to forestall wholesale economic collapse" (1933a, 10).

(2) The "Induced Balanced Deflation" policy, under which "the government has a deflating role to play" in coordinating wage reductions (1933a, 15). The government could also play a role, he argued, in facilitating debt write-downs and in reducing utility charges (1933a, 16-17).

Viner acknowledged that the latter policy would "inevitably involve hardships and inequities in individual cases." Nevertheless, "to have its maximum beneficial effect, it would be necessary that a program of induced balanced deflations should be pursued rigorously and simultaneously along the whole front of undeflated costs" (1933a., 19).

By the time of Viner's May 1933 lecture at the University of Georgia, circumstances had changed. The banking crisis had peaked; upon assuming the presidency in March, Roosevelt shut-down the banks, and, in April, the United States (temporarily) left the gold standard. In his May lecture, Viner acknowledged that his earlier policy of "balanced deflation," had been strongly tied to the gold standard's rules-of-the-game:

> Until we went off the gold standard, it seemed to me that [along with mildly expansionary monetary and fiscal policies] the only safe path for our government to follow in endeavors to bring about artificial recovery from the depression was the method of balanced deflation, that is to exercise pressure on business costs so as to restore equilibrium between costs and prices, and so offer to business men an inducement to give employment to the productive factors (1933b, 121).

Viner added that, in 1931, he had not believed that the depression would "last forever." He had anticipated that, in the absence of expansionary monetary and fiscal policies, a policy of "induced balanced deflation" would be accompanied by "social costs and strain" and "wholesale bankruptcies, major redistributions of national wealth, protracted continuation of unemployment in pronounced degree" (1933b, 121). Viner continued: "I, nevertheless, advocated [induced balanced deflation] because I saw no other available alternative. I blundered seriously on one point. I did not see that this country could go off the gold standard with as little trouble, as little controversy, as proved to be the case" (1933b, 122).

3.3 Macroeconomic Policies

Viner and the other Chicagoans were in agreement about the need to increase the money supply in order to generate inflation and, thus, combat the Depression. They disagreed, however, over the most effective means of bringing currency expansion into effect. As documented, the other Chicagoans favored money-financed fiscal deficits in order to put newly-created money directly into circulation. Viner held a different view.

In his 1931 lecture in Williamstown, Viner advocated both expansionary fiscal and monetary policies, provided that the expansionary policies did not jeopardize the gold standard. With regard to fiscal policy, Viner criticized the U.S. Treasury for its "traditional policy, based on sound principles of public finance, of taxing heavily, spending lightly, and redeeming debts" during the Depression. Such a policy, he argued, "is sound in periods of prosperity and business expansion, but is unwise and inappropriate for a period of depression" (1931, 182). During periods of depression, "a precisely opposite policy should be followed, of taxing lightly, spending heavily, and borrowing" (1931, 183). Viner thought that the fiscal deficits should be financed by borrowing, either from private investors and/or from the banking system: "in so far as the funds spent by government are primarily financed ... by borrowing from existent funds which otherwise would have remained uninvested, or by expansion of bank credit which would otherwise would been unexploited, the public works ... so financed during a period of economic depression are from the national point of view almost costless" (1931, 183).[21] With regard to monetary policy, Viner called on the Federal Reserve to "begin market operations on a considerable scale, buying up securities" (1931, 184). He believed that expansionary open-market operations would, by increasing the reserves of the banks, force the banks to make new loans (1931, 183).

In light of Viner's advocacy of both expansionary fiscal and monetary policies, what was his view about the possibility of financing fiscal expansion through money creation? That policy was espoused in the April 1932 Pettengill Memorandum, which Viner signed, the untitled March 1933 memorandum, which he refused to sign, and the November 1933 memorandum. Viner thought that the need to remain on the gold standard precluded such a policy. In a letter to John Commons (University of Wisconsin), dated September 21, 1931, Viner wrote:

[21] Viner (1931, 183) argued that government spending "financed from taxation" could also exert an expansionary effect on economic activity provided that the taxable funds would have otherwise been "hoarded and saved." The suggestion of financing government spending through taxation would seem inconsistent with Viner's call for "taxing lightly" during depressions.

> The scheme, therefore, should be either one of credit expansion through governmental assistance and stimulations plus maintenance of the Gold Standard, or greenback and departure from the Gold Standard. I believe it would be much more possible to get action on the former plan than on the latter, and in any case I believe the former plan is more desirable ... I believe that, from the point of view of tactics, there is great deal to be said for choosing mild ways of formulating strong programs (quoted from Nerozzi 2009, 589).

Viner expressed a similar view is his February 1933 Minnesota lecture. There, he cautioned about the use of budget deficits, financed by either "the issue of legal tender greenbacks [i.e., money-financed] or by borrowing from the banks" because those deficits could "cause general fear of an early departure from the gold standard" (1933a, 25).

By the time of his May 1933 lecture in Georgia, Viner was less sanguine about the effectiveness of open-market operations.

> What this [method] does is to increase the cash reserves of the banking, and therefore, it is hoped, to give the banks the desire to put their idle funds to work. But the bankers have learned in recent years, not how to make money without lending, but that under certain circumstances the rate at which they lose money is less if they stop lending, so it is conceivable that the banking system would welcome the additional liquidity and would not increase its loans or investments (1933b, 131).

He continued to favor fiscal deficits "financed by borrowing from the banking system, with the hope that what the banks lend is newly created credit or credit which otherwise would have remained idle and not funds that would otherwise have been used by private business" (1933b, 133). [22]

3.4 The Great Depression

What caused the Great Depression? Criticism of the role of the Federal Reserve was a persistent theme of Viner's work in the early-1930s. In his 1931 lecture in Williamstown, he cited figures to show that (i) Federal Reserve credit had decreased since 1929, (ii) total deposits of all member banks in the system had also decreased, and (iii) the indebtedness of member banks to the System had reached " a low figure" (1931, 188-89).[23] Anticipating a key argument made by Friedman and Schwartz (1963, Chapter 7), Viner attributed the Fed's policy stance, under which the Board had refrained from undertaking "market operations on a considerable scale," to the void left

[22] Viner has been incorrectly characterized as a proponent of money-financed fiscal deficits. Thus, Steindl (1995, 84) contended that Viner called-for "the monetization of budget deficits created as a conscious matter of policy" to generate increases in the money supply.

[23] The conference Report did not provide the numerical data.

by the death of Benjamin Strong, who had been the Governor of the Federal Reserve Bank of New York: "It would be equally true to say that, except under Governor Strong, the Federal Reserve Board has avoided having a definite policy; it has acted in a purely opportunistic manner" (1931, 189).[24] Viner similarly criticized Fed policy in his February 1933 lecture in Minnesota:

> At no time ... since the beginning of the depression has there been for as long as four months a net increase in the total volume of bank credit outstanding. On the contrary, the government and Federal Reserve bank operations have not nearly sufficed to countervail the contraction of credit on the part of the member and non-member banks. There has been no net inflation of bank credit since the end of 1929. There has been instead a fairly continuous and unprecedentedly great contraction of credit during this entire period (1933a, 21-22).

There were two important differences in the early-1930s between Viner's views and those of the other members of "The Group" on the business cycle in general, and the Great Depression in particular. First, in contrast to Viner, in their individual writings during the 1930s none of the other Chicagoans expressed the view that the Fed played a detrimental role in the Depression. Likewise, none of the Chicago memoranda, discussed above, criticized the Fed's policy during the Depression. Yet, at least several of the Chicagoans were aware that the Fed's policy in the early-1930s had come under attack. During the first half of the 1930s, Lauchlin Currie published the book, *The Supply and Control of Money in the United States* (1934b), and several articles in which he presented data on the decline of the money supply to criticize the role of the Federal Reserve in bringing on the Great Depression.[25] Two of the articles, "Treatment of Credit in Contemporary Monetary Theory" (1933) and "The Failure of Monetary Policy to Prevent the Depression of 1929-32" (1934a), were published in the *Journal of Political Economy* (*JPE*), then co-edited by Knight and Viner. Currie's book was reviewed favorably in the *JPE* by Simons (1935a). Clearly, at least several of the Chicagoans were aware of Currie's work.

Why, then, did the Chicagoans, other than Viner, fail to criticize the Fed's policy? This brings us to the second crucial difference between Viner's views on business-cycle theory and the views of the other members of "The Group." In his analysis of the

[24] Strong died in October 1928. Friedman and Schwartz (1963, 413) stated: "Once he [Strong] was removed from the scene, neither the Board nor the other Reserve Banks ... were prepared to accept the leadership of the New York Bank." For a similar view, see Fisher (1934, 228). For a contrary view, see Brunner and Meltzer (1968) and Wheelock (1992).

[25] See Humphrey (1971), Sandilands (1990), and Laidler (1993). Currie wrote his Ph.D. thesis at Harvard under the supervision of John H. Williams, who, as mentioned, was one of the six draftees of the Hoover telegram.

business cycle, Viner *never* mentioned the role played by a fractional-reserve banking system in the cycle -- not even in his discussions of the cumulative nature of the cycle (1931, 189; 1933b, 7). In contrast, the other Chicagoans thought that the fractional-reserve banking system was the major reason for economic instability. Thus, as mentioned, the April 1932 Pettengill Memorandum attributed the severity of the Depression to the "exceedingly flexible and sensitive" volume and velocity of credit; along with the rigid cost structure, the Chicagoans argued: "this is at once the explanation of our plight" (Pettengill Memorandum 1932, 524). The *purpose* of the March 1933 memorandum was to propose a method -- the 100 percent reserves scheme -- to eliminate fractional-reserve banking in order to lessen the severity of the business cycle. The November 1933 memorandum contained an Appendix on business cycles that was titled "*Banking* and Business Cycles" (italics supplied). In that Appendix, Simons et al. (1933, 3) wrote: 'if some malevolent genius had sought to aggravate the affliction of business and employment cycles, he could hardly have done better than establish a system of private deposit banks in the present form." Earlier, in 1927, Knight provided the following assessment of the fractional-reserve system: "important evils result, notably from the frightful instability of the whole economic system and its periodical collapse in crises, which are in large measure bound up with the variability and uncertainty of the credit structure if not directly the effect of it" (Knight 1927, 46).[26]

Apart from Viner, therefore, the Chicagoans attributed the collapse of the money supply to the nature of the fractional-reserve banking system. That system, they believed, was the primary cause of the severity of the Great Depression; the inherent feature of the system was a self-perpetuating decline in the money supply. Thus, in 1934 Simons wrote the following about the cause of the Great Depression: "It is no exaggeration to say that the major proximate factor in the present crisis is commercial banking" (1934, 54). In his favorable review of Currie's 1934 book, which provided statistical data documenting the decline in the money supply that occurred during the early-1930s, Simons expressed the view that the data presented by Currie were not needed to convince him (Simons) about what the fractional-reserve banking system had produced -- namely, a sharp decline in the money supply and the collapse of economic

[26] For similar views, see Director (1933, 24-25), Douglas (1935, 19-24), and Mints (1945). Mints reportedly criticized the Fed's policies during the Great Depression in his classroom lectures in the late-1930s. On Mints's views, see Dellas and Tavlas (2019).

activity. Simons (1935a, 556) stated: "For critical students, however, Dr. Currie's inductive verifications will be largely gratuitous -- although everyone will be grateful for the excellent statistical compilation and analysis. In general, the author's fundamental insights are so sound that failure of statistical confirmation would only indicate error or inadequacy in the statistics."

3.5 100 Percent Reserves

As discussed above, the early-1930s Chicago memoranda attributed the severity of the Great Depression to the massive contraction of demand deposits that occurred during that episode. Viner held a similar view. In his 1936 paper, "Recent Legislation and the Banking Situation," he noted that the Depression was more severe in the United States than in most other countries. He attributed responsibility for this circumstance to "the mass withdrawals of cash by the banks, the forced liquidation of their assets … in their desperate attempts to remain open … the repeated waves of bank failures … [and] the final closing of the system as a whole." The weakness of the banks, he argued, "must be held responsible" for the severity of the Depression in the United States (1936, 106).

Where Viner differed fundamentally from the other Chicagoans was in the *diagnosis* of the factors underlying the banking system's weakness, and the needed policy response to rectify that weakness. For the other Chicagoans, the problem was seen in the "inherent instability" of fractional reserve banking; the policy response was the 100 percent reserves scheme. Viner disagreed. In what follows, I show that Viner believed that the fractional reserve banking system could be maintained, yet sharp contractions and expansions of the money supply could nevertheless be prevented by reforming the banking system in a way other than by adopting 100 percent reserve requirements.

In his 1936 *AER* paper, Viner argued that the problem with the U.S. banking system was that it comprised small and isolated units: "I am convinced [that the weakness of the banking system] lies in the fact that of all modern banking systems, it alone has adhered predominantly to the eighteenth-century model of individual small-scale units, as distinguished from large-scale banking institutions with many branches" (1936, 107). Several factors contributed to this situation, including "jealousy of encroachment on state autonomy," "small-town jealousy of the metropolitan areas," and "fear of undue concentration of financial power in the great metropolitan centers" (1936, 107). The unit-based architecture, Viner argued, exposed the U.S. banking system to the

kinds of periodic crises experienced by English banks in the nineteenth century: "American bank-closings of 1931 to 1933 were but a typical reproduction of the normal events of an English business depression before the development of branch banking on a large scale" (1936, 107).[27]

The solution to the banking problem, Viner maintained, was two-fold. The first part lay in the development of branch banking. Such a system would have several advantages: (1) it would provide risk-diversification for each "independent unit in the banking structure;" (2) the larger units inherent in branch banking could afford to attract personnel with "a higher grade of talent;" (3) by reducing the number of executive positions it would facilitate "the achievement of co-operative action in emergency situations," and (4) the large size of the institutions would "give to them a prestige and appearance of strength, which … is extremely valuable in a crisis" (1936, 108). Viner believed that many industries were dominated by large firms which had been responsible "for many of our economic woes." Although the size of these firms needed to be reduced, Viner thought that "an exception should be made for banking" (1936,107). Th e second part of the solution, Viner argued, was the federal deposit-insurance program: "deposit insurance should be expected substantially to lessen the danger of [bank] runs, and thus increase the ability of the banking system as a whole to meet a depression without engaging in a drastic liquidation to ensure liquidity" (1936, 110).[28]

In espousing a two-fold solution, comprising a branch banking and deposit insurance, to stabilize the banking system, Viner went against the views of his Chicago colleagues. In the November 1933 memorandum his colleagues expressed the following view about branch banking and deposit insurance:

> Branch banking, another proposed remedy [for banking crises], contemplates a system composed of, say, twenty-five private institutions and their enormous network branches. This implies, as we see it, an intolerable concentration of power in private hands. It threatens dangerous domination of industry, and even of the Treasury, by the banks. It promises substantial safety for depositors, to be sure, but

[27] The severity of the Great Depression was more pronounced in countries that experienced banking crises than in countries that did not experience such crises. For example, in the United Kingdom and the United States, real GDP fell by six percent and twenty-five percent, respectively, during the Depression. In the United Kingdom there were no bank failures; in the United States, about nine thousand banks (accounting for one-seventh of total deposits) failed. See Crafts (2014, 714). The major factor accounting for the severity of the fall in real output during the Great Depression was countries' adherence to the gold standard. In general, countries that abandoned the gold standard earlier had sharper recoveries than those countries that were slow to leave the gold standard (Morys 2014, 732-35).

[28] The Banking Act of 1933 established deposit insurance in the United States.

> only because the government could never afford to let private institutions of this kind fail. Under such a system, as under deposit guarantee, the government could not escape direct responsibility to depositors in any severe emergency (Simons et al. 1933, 2).[29]

Two other points about Viner's view of the 100 percent reserves scheme in particular, and of the 1930s Chicago memoranda in general, merit comment. First, in Hart's (1935, 105) review of the 100 percent reserves scheme, that author noted that proponents of the scheme believed that, as the Fed bought government bonds from the commercial banks in exchange for newly-issued Federal Reserve notes to implement the scheme, the Fed's purchases of debt would amount to the cancellation of a large part of the national debt. Hart, however, called that purported advantage "fallacious" (1935, 115). He stated that while it would be possible to achieve cancellation of the national debt, the interest charge on the debt, which is "the economic substance of the debt, would be replaced by [a] subsidy on checking accounts" to compensate the banks for the "forced sale" of a substantial part of "their earning assets" (1935, 115). After presenting that argument, Hart wrote: "This is the consideration which ... Professor Viner has suggested to the author" (1935, 115).[30] Second, in a letter, dated August 19, 1935, from Simons to James Angell, Simons wrote the following about the November 1933 memorandum: "Viner has communicated your request for a copy of our 1933 memorandum on banking and currency.... Viner is a bit sensitive about the memorandum. He should be absolved of all responsibility. He had no part in the preparation of the memorandum, and he has never evidenced sympathy with the proposals" (Simons 1935b).

Viner's rejection of the 100 percent reserves scheme did not mean that he thought that -- in the absence of branch banking and deposit insurance -- the fractional-reserve banking system would be stable. As the other Chicagoans, Viner thought that the U.S. banking system was susceptible to destabilizing shifts from deposits into currency, and from currency into gold. As the other Chicagoans, Viner thought that such shifts were induced and exacerbated by changes in confidence. Where Viner differed from his

[29] Friedman was also generally in favor of a large number of small firms in an industry. With respect to banking, he was critical of large money-center commercial banks' influence on the Federal Reserve's posture on domestic and international monetary arrangements, particularly with regard to its support of the status quo (*e.g.*, in opposing monetary-base-control regimes and favoring fixed exchange rates). Against this, some of the mechanisms promoting a system with many banks were regulatory (such as the ban on interstate banking); Friedman opposed some of those regulations. I thank Ed Nelson for these observations.

[30] The argument is not logically correct since banks could impose negative interest rates on deposits.

Chicago colleagues was in his belief that branch banking and deposit insurance -- and not 100 percent reserves -- could prevent, or at least moderate, destabilizing movements in the currency/deposit and reserve/deposit ratios.

3.6 Rules-versus-Discretion

Reflecting his strong attachment to the gold standard, Viner was neither a proponent of domestic monetary rules nor of policy discretion. Instead, he favored the adjustment of the money supply under the gold standard's rules-of-the-game with limited room for discretionary sterilization operations. Thus, in his 1932 lecture at the Chicago conference, Viner considered two alternatives to the gold standard: (1) a "rigid formula," such as that embedded in the English Bank Act of 1844, which aimed to minimize the ability of the central bank to engage in discretionary monetary policy at the domestic level by establishing a ratio between the gold reserves of the Bank of England and the notes that the Bank could issue; and (2) discretionary management by the monetary authorities. Regarding the former alternative, Viner noted that a "rigid formula," such as that of the Bank Act, would leave little or no opportunity for discretionary policy. He expressed the view that "we know too little as yet of the possibilities of stabilization to take any major steps in that direction" (1932a, 37).

The English Bank Act of 1844 provided the intellectual underpinning of the Chicago proposal for the 100 percent reserves scheme.[31] Viner's negative view of the 1844 Bank Act was one reason for his refusal to support the 1933 Chicago memoranda that advocated such a scheme. He maintained that view in his 1936 *AER* paper: "we still have a long way to go before we can frame with assurance the desirable objectives and limits of credit control and a mechanical procedure to be followed in executing it.... [The] concrete issues which [the Federal Reserve] faced were always complex and involving a conflict of legitimate objectives, instead of being reducible to the statistically definable objective and the arithmetically definable procedure for attaining it which figure so prominently in much of the recent academic literature on credit control policy" (1936, 115-16). Regarding the choice between discretionary management of monetary policy and the gold-exchange standard, Viner expressed his preference for the latter. Discretionary policy, he argued, would involve "the necessity of reconciling ourselves to the persistence of management which falls far short of

[31] See Demeulemeester (2019, Chapter 1) and Tavlas (2020).

perfection, and of knowledge still far from complete as to the proper objectives and technique of even perfect management" (1932a, 39).

3.7 Chicago Distinctiveness

An issue that arises concerns the distinctiveness of the 1930s Chicago monetary tradition.[32] How did the Chicagoans' position to stimulate aggregate demand during the Great Depression contrast with the positions that prevailed at other academic centers during the early-1930s? Friedman (1972, 936-39) wrote that when he was a graduate student at the University of Chicago in the early-1930s, the Great Depression was not seen as something that needed to work itself out. He noted the way this position differed from the views that prevailed at other key academic centers; Friedman specifically referred to the view at the London School of Economics "where the dominant view was that … the only sound policy was to let the depression run its course" (1972, 936).[33]

The following comments are warranted. First, the advocacy of expansionary open-market and rediscounting operations to combat the Great Depression was widely prevalent in the American economics profession in the early-1930s. As mentioned, twenty-four economists, Chicagoans and non-Chicagoans, had signed the 1932 Hoover telegram which specifically called for such operations. Second, as Davis conclusively showed in his 1971 book, *The New Economics and the Old Economists*, the advocacy of expansionary fiscal measures was also widespread among American economists -- both at Chicago and outside of Chicago -- in the early-1930s. In his forward to Davis's book, Gordon Tullock, who was a graduate student at Chicago in the 1940s, wrote: "I was aware of the fact that the 'Chicagoans' had been in favor of fairly drastic action to prevent or cure the depression very early. I thought, however, that this was an isolated phenomenon -- that the whole rest of the profession held opinions [i.e., non-interventionist] which Keynes attributed to his predecessors. The discovery, as a result of reading Davis's study, that practically *no* leading American economist held these views was a distinct shock to me" (original italics, Davis 1971, pp. ix-x). Thus, the doctrinal evidence leads to the conclusion that Friedman's choice of the London

[32] A referee raised the question of whether the "non-fatalistic view of the depression" by the 1930s Chicagoans, including Viner, "distinguished the university from many academic centers."

[33] The same referee, citing Paul Samuelson's recollections of his graduate studies at Harvard, stated: "even Harvard University in the mid-1930s had a considerable body of thought that was opposed to expansionary policies and that called for self-adjustment on the part of the U.S. economy to the situation of the Depression."

School of Economics to infer the policy views of the economics profession as a whole was unreliable. Third, what distinguished the members of "The Group" from the rest of the economics profession, and what made "The Group" less susceptible to the Keynesian revolution than the rest of the profession, was its development of the quantity theory in a way that provided a rationale for fiscal deficits as the most effective way of increasing the money supply to combat the Depression. At the same time, the Chicagoans downplayed the effectiveness of monetary policies that operate through the banking system. In this connection, Patinkin (italics added, 1987, 24) argued: "The advocacy *per se* of public works expenditure was not the purpose of the *General Theory*; rather it was to *provide a theory …* which would rationalize such a policy." The Chicagoans had such a theory -- their particular formulation of the quantity theory. Consequently, they did not need Keynesian income-expenditure theory to rationalize fiscal deficits.

During the 1940s, Simons and Mints continued to advocate fiscal deficits to generate increases in the money supply within the framework of the quantity theory. Both economists continued to downplay the use of open-market operations. Both economists continued to favor monetary rules, 100 percent reserves, and flexible exchange rates.[34] I know of only one other American economist who advocated (in writing) all of those positions in the 1940s. That economist was Milton Friedman. In his first substantive paper on monetary economics, his 1948 "A Monetary and Fiscal Framework for Economic Stability," Friedman advocated a monetary rule, 100 percent reserves, flexible exchange rates, and fiscally-generated changes in the money supply. He also called for the *abolition* of open-market operations.[35]

To sum up, while the view that the Depression should be allowed to run its course may have been the dominant position at the London School of Economics and, perhaps, at Harvard in the early-1930s, most of the American economics profession favored expansionary fiscal and central-bank actions to combat the Depression. A key feature of the Chicago monetary tradition was its emphasis on the government's fiscal

[34] See Tavlas (2015) for a discussion of Simons's views. On Mints's views, see Dellas and Tavlas (2019).

[35] Nelson (2020, Vol. 11, 139) stated that Friedman's 1948 article "marked Friedman's permanent move into monetary economics." Nelson (2020, 139) also remarked that, underlying Friedman's advocacy of fiscally-generated changes in the money supply was Friedman's view "that increases in the money stock can be counted on to have a powerful impact on nominal sending if they enter circulation through a fiscal policy action, but not if they enter via other means." The view was also part of the 1930s Chicago monetary tradition.

position to generate changes in the money supply. That feature, along with monetary rules, 100 percent reserves, and flexible-exchange rates, characterized the policy views of Chicago economists into the late-1940s -- and via the works of Mints and Friedman -- into the early-1950s. Those views distinguished the Chicago monetary tradition from the views held by other American economists in the 1930s and 1940s.[36]

4. Friedman versus Viner

As mentioned, Friedman filled the faculty position at Chicago that opened-up with the departure of Viner for Princeton in 1946.[37] In what follows, I briefly compare the respective views of Friedman and Viner on monetary policy after 1946 in the context of two direct exchanges: (1) a 1951 conference on "The Economics of Mobilization," sponsored by the University of Chicago Law School; and (2) an exchange of letters in late-1955 and early-1956.[38] The views expressed in those exchanges provide additional evidence of Viner's continuing discordance with the Chicago monetary tradition after he left Chicago.

The major theme of the Law-School conference was the nature and extent of controls on prices that should be applied by the government following the start of the Korean War in June 1950.[39] During the conference, Friedman and Viner disagreed about the way to keep inflation in check. Friedman firmly opposed controls on prices because he did not believe that they would contain inflation. He argued that "monetary measures, given a reasonable fiscal policy, could be effective in stabilizing the level of prices" (Director 1952, 48). To support that argument, he referred to the experiences in the United States with inflation during the Civil War, World War I, and World War II. Friedman argued that wage and price controls during those wartime periods served only to "postpone but not to reduce the ultimate price rise." Inflation in each of the

[36] As Laidler (1993) emphasized, another distinguishing characteristic of the Chicago monetary tradition was its emphasis on the advantages of a free-market economy. We encounter that emphasis below.

[37] Friedman was appointed to the position of Associate Professor. Viner had been a full Professor, a level that Friedman achieved in 1948.

[38] The conference was held from April 5 to April 8, 1951, at White Sulphur Springs, West Virginia. There were seventy participants, including academics, government officials, and business and union leaders. The academics included Chicagoans Friedman, Aaron Director, Friedrich Hayek, Frank Knight and Lloyd Mints. Hayek, who was at Chicago from 1950 to 1962, held an independently-funded position on the Committee on Social Thought. In addition to Viner, non-Chicago participants included Alvin Hansen, Roy Harrod, Ludwig von Mises, and George Stigler (then with Columbia University). The transcripts of the presentations and interventions were published in a book titled *Defense, Controls and Inflation*, edited by Director (1952).

[39] The start of the Korean War increased public concern that inflation would accelerate (Meltzer 2003, 582). U.S. wholesale prices increased at an annual rate of nearly eight percent in the first half of 1950; they rose at a rate of twenty-two percent in the second half of the year.

wartime periods, he maintained, was strictly determined by the quantity of money (Director 1952, 176).[40] During the conference discussions, Director, Knight and Mints expressed views similar to those of Friedman.

Viner disagreed. He maintained that controls on prices, along with fiscal and monetary policies, were needed to restrain inflation. Responding to Friedman's assertion that monetary policy would be effective in restraining inflation, Viner asserted: "I do think there is a tendency toward too simple explanations ... [the] doctrine which explains the course of events in terms of the quantity of money alone, as if nothing else matters, is a grossly simplified explanation. I hope nobody believes in that kind of explanation, even though I occasionally hear talk that sounds that way" (Director 1952, 178). Friedman countered Viner's criticism:

> Those of us who have been concentrating on the monetary sources of inflation have ... been accused, by some of the few and rare individuals here who are our critics, of adopting an oversimplified view of the monetary mechanism. It has been implied that we believe if the quantity of money doubles, prices inevitably double.... I want to deny that accusation explicitly. We are not so naïve as all that (Director 1952, 230).

Friedman went on to explain that the relationship between the money supply and prices is a complex one, with factors other than money impacting on prices. Nevertheless, the money supply, he argued, is the most important factor affecting prices and it could be manipulated so as to offset the effects of other factors (Director 1952, 230-31).

One additional matter about the 1951 conference is important to mention. That conference may have marked the first occasion during which the words "Chicago tradition" were used in public. Moreover, the use of those words triggered an exchange between Director and Viner over whether the latter economist considered himself part of the Chicago tradition. During the session on "The Role of Direct Controls," held on April 7, Director stated:

> All I plan to do is to state the position that price controls should not be used. I apologize for the dogmatic character of the statements I shall make. My excuse is that I find it very difficult to argue the position. This in turn may be due to the fact that the position is so much part of the Chicago tradition that we [at Chicago] have

[40] In 1952, Friedman published the paper, "Price, Income and Monetary Changes in Three Wartime Periods," in which he provided evidence showing that, during each of the wars, price behavior was proximately explained by the stock of money per unit of output. Friedman (1952) also found that wage and price controls did not help explain any of the three wartime inflations. Friedman's comments at the conference were clearly based on his 1952 paper although he did not refer to the paper.

> forgotten how to argue the issue. At Chicago, the advantages of the market as a method of organizing economic affairs are valued too highly to be laid aside during so-called emergency [i.e., wartime] periods (Director 1952, 158).[41]

Having referred to a "Chicago tradition" under which price controls should not be used to control inflation, Director made a not-very-subtle attempt to include Viner in that tradition. Viner, after all, was a major figure in the profession, and his inclusion within what Director called the Chicago tradition would have lent prestige to such a tradition.[42] Here is what Director stated: "I understand that recently this [Chicago] tradition has been spreading eastward. If that is so, it can perhaps be partly explained by the fact that one of the Chicago economists responsible for establishing this tradition has recently moved in that direction [to Princeton]" (Director 1952, 158).

The following day, at the concluding session of the conference, Viner took up the gauntlet that Director had thrown down to him. The chair of that session asked Viner to provide a summary statement of the conference proceedings. Viner began as follows: "What I will say may disturb some old friends and new enemies here." He went on to say that some speakers had treated the free market as if were a virtue, and controls as if they were a vice. He then stated: "But I, unfortunately, do not believe in an excess of virtue.... I also believe that there can also be an excess of vice" (Director 1952, 336). He went on to argue that price controls were needed to keep inflation in check. Those controls, Viner noted, would entail an enlarged role for government intervention in the economy, but that enlarged role was necessary. Viner stated: "Despite my free-market convictions, I have never been able to get seriously afraid of American bureaucrats" (Director 1952, 337). Viner's remarks at the conference were in accord with his 1969 letter to Patinkin, mentioned in the introduction, in which Viner wrote that he did not consider himself to have been a member of the Chicago tradition.

Friedman and Viner's exchange of letters in late-1955 and early-1956 took place following a 1955 University-of-Chicago conference on "The State of the Social Sciences."[43] Viner presented the paper "Some International Aspect of Economic Stabilization," in which he criticized arguments Friedman had made in the latter's

[41] Subsequently, in his only remarks during the conference, Knight intervened to defend the free-market system in order "to express my loyalty to the Chicago tradition about which you have heard something" (Director 1952, 295).

[42] A referee wrote: "But Viner was such a key figure that his views should be counted as part of the Chicago monetary tradition."

[43] See White (1956).

1953 paper, “The Case for Flexible Exchange Rates.” Specifically, in his 1953 paper Friedman distinguished between fixed-but-adjustable exchange rates and flexible exchange rates.[44] He argued that the former are subject to destabilizing speculation because equilibrating adjustments in the exchange-rate under those exchange-rate systems typically occur late in the day, inviting speculation against the fixed rate; in contrast, under the latter arrangements, exchange-rate adjustments take place in anticipation of events, and produce stabilizing speculation. In addition, Friedman challenged the view -- widely held in the 1950s -- that the interwar period provided evidence that freely-floating exchange rates lead to unstable exchange rates. He argued that the reason for the instability of exchange rates during the interwar period was the instability of the underlying macroeconomic fundamentals -- and not any inherent instability of flexible-exchange-rate systems (Friedman 1953, 176-79).

In his conference paper, Viner defended fixed-but-adjustable exchange-rate systems. He maintained that, like other asset markets, the foreign-exchange-rate market could be subject to destabilizing speculation if exchange rates were allowed to be flexible. Referring to past periods of high exchange-rate instability, he argued that those periods were marked by flexible rates, providing evidence that flexible exchanges had encouraged destabilizing speculation.

Friedman did not attend the Chicago conference. However, he replied to Viner’s criticisms through personal correspondence. In a letter dated December 2, 1955, he wrote:

> I have read your paper with very great interest and admiration but you will not be surprised that I too am unconverted. It seems to me that your historical references to allegedly destabilizing speculation fail to distinguish between cases in which the exchange rate was held temporarily rigid but subject to change without notice -- a situation that is certain to produce a maximum of destabilizing speculation -- and truly floating exchange rates, when I doubt that there is much historical evidence of destabilizing speculation. The big hot money movements of the 30’s were largely under regimes of pegged exchange rates. In any event, with respect to this period, does it not seem in retrospect that the flight from the mark and other European currencies was a correct anticipation of the future and hence to be regarded as stabilizing rather than destabilizing speculation?

Friedman also argued that exchange-rate changes under flexible rates were more likely than fixed rates to impose discipline on governments. During the 1950s and 1960s, proponents of fixed-but-adjustable exchange rates argued that pegged exchange

[44] The Bretton Woods System was a system of fixed-but-adjustable exchange rates.

rates impose discipline on the authorities for two primary reasons.[45] First, under pegged rates a country's foreign-exchange reserves are put on the line so that a country needed to maintain disciplined policies to protect its reserves. Second, the authorities who devalued were considered to have failed in their macroeconomic management, a situation that imposed political costs on the authorities. The need to protect reserves and to avoid the political costs of devaluation were thought to impart discipline to pegged rates. Friedman challenged that argument. He questioned the assertion that changes in foreign-exchange reserves "should be more effective in stiffening the backbone of the monetary authorities to follow on tough monetary policy than more immediate and obvious declines in the exchange rate."

In a letter dated January 16, 1956, Viner responded to Friedman.[46] He expressed the view that extent of exchange-rate changes during the interwar period had been in excess of what was warranted by the economic fundamentals, with the implication that the changes had been destabilizing. [47] Second, Viner disputed Friedman's contention that changes in exchange rates under floating can impose discipline: "you are arguing that for a government *greatly concerned about the level of the exchange value of its currency* actual declines in that level will be a more effective pressure than declines in reserves under a pegged exchange. But my interpretation of the whole exchange propaganda is that any concern about the level of the exchange rate is foolish and should be dropped" (original italics).

5. Conclusions

In 1956, Milton Friedman presented the quantity theory of money as a portfolio theory of the demand for money; he claimed that his "Restatement" of the quantity theory was "an attempt to convey the flavor of the [1930s Chicago] oral [quantity-theory] tradition" (1956, 4). Friedman's assertion was challenged by Don Patinkin (1969), who showed that the theoretical framework used by the earlier Chicagoans was the velocity-based Fisherine equation of exchange, $P = (MV + M'V')/T$, where P is the price level,

[45] For discussion, see Dellas, Swamy, and Tavlas (2002).

[46] In their respective letters, Friedman and Viner conformed to their early-1930s roles of student and teacher, respectively. Friedman addressed Viner as "Dear Professor Viner; the latter addressed Friedman as "Dear Milton."

[47] The idea that exchange-rate changes can be in excess of those warranted by the fundamentals is entirely consistent with the idea that, in a model with sticky prices in the short run, the exchange rate will initially react more to a shock to bring about an equilibrium than it would have if prices were flexible. Over time, goods prices will respond so that the exchange-rate overshooting is dissipated (Dornbusch 1976). Friedman (1953, 188) argued that exchange-rate changes overshoot their equilibrium values although he did not present a formal model of exchange-rate overshooting.

M is the stock of currency, *V* is the velocity of circulation of currency, *M'* is the volume of checking deposits, *V'* is their velocity, and *T* is a measure of aggregate real transactions. Patinkin also showed that, in contrast to Friedman's view that the demand for money is a stable function of a few variables, the earlier Chicagoans thought that a basic feature of economic life is the danger of sharp, unpredictable changes in the velocity of circulation, the reciprocal of money-demand.

Responding to Patinkin's criticism, in 1972 Friedman defended his earlier claim of a direct connection between his monetary economics and the ideas that characterized the early-1930s Chicago monetary tradition, using Jacob Viner's views to substantiate that claim. While Viner's views on the monetary origins of the Great Depression, the void left by the death of Benjamin Strong in that episode, and the Fed's failure to employ expansionary open-market operations to combat the Depression, clearly anticipated the theses of Friedman and Schwartz (1963), those views were not representative of the Chicago monetary tradition.

Furthermore, those were not the only areas in which Viner's views differed from those of the other Chicagoans. In contrast to Viner, the other Chicagoans believed that: (1) the gold standard should be abandoned in favor of flexible exchange rates; (2) a fractional-reserve banking system is "inherently" unstable and, thus, 100 percent reserves should be imposed on demand deposits; (3) cost-cutting would be ineffective in combatting the Depression; (4) expansionary monetary policy should be conducted through the government's fiscal position; and (5) monetary rules are preferable to discretionary policies. It is noteworthy that Friedman's views on each of the above five areas in the late-1940s and early-1950s were similar or identical to the views of the other Chicagoans.[48] The differences between Viner's positions on fundamental policy issues and the positions of the other Chicagoans on those issues explain Viner's refusal to add his signature to the March 1933 memorandum that comprised what became known as the "The Chicago Plan of Banking Reform." Contrary to Knight's explanation, Viner's refusal to add his signature was not simply because he did not believe it was "good politics." Nevertheless, Knight's explanation has had an enduring effect on the literature dealing with Viner and the Chicago monetary tradition. Thus,

[48] Friedman's views on several key issues changed between the late-1940s and the mid-1950s in light of his research. For example, while continuing to favor 100 percent reserves, from the mid-1950s and after he placed less emphasis on the 100 percent reserves scheme, viewing it as a step toward reducing government interference with lending and borrowing. He would also come to favor the use of open-market operations to effectuate changes in the money supply. See Lothian and Tavlas (2018) and Nelson (2020).

Van Overtveldt (2007, 160) argued that -- "although he was in agreement with the economics of the [Chicago] plan for the most part, Jacob Viner did not sign because he thought it was politically impossible to realize."[49]

In light of the above discussion, why was Friedman not aware that the other Chicagoans' views differed from those of Viner? And why did Friedman single-out Viner's views in his aim to establish a linkage between his monetarist framework and the work of his Chicago predecessors? Viner was one of the four Chicagoans who had been identified by Friedman in his 1956 Restatement of the quantity theory as having influenced his (Friedman's) thinking on monetary issues -- the others being Simons, Mints, and Knight. In contrast to the other Chicagoans, however, in the first half of the 1930s, Viner had established a track record of publications on monetary-policy issues.[50] Viner published four lectures on monetary issues in the early-1930s; Friedman discussed the contents of two of the lectures -- the 1932 lecture delivered at the Chicago conference and the 1933 lecture delivered at Minneapolis -- to support his claim of a Chicago quantity theory tradition. In both lectures, Viner criticized the Federal Reserve's policies during the Depression and argued in favor of expansionary open-market operations.

The following question emerges. How did Friedman come upon those lectures? There are two main possibilities. First, Viner may have presented his views on monetary and fiscal policies, and referred to his published 1931 (at Williamstown) and 1932 (at Chicago) lectures in his price theory course which Friedman took in the fall of 1932, with the effect that Friedman had been exposed to, and influenced by, Viner's policy views.[51] That explanation, however, is implausible. In a letter to Patinkin, dated November 24, 1969, Viner wrote the following about what he taught in his courses: "As far as my teaching at Chicago was concerned ... I chose to exclude from my

[49] Similarly, Steindl (1995, 84, fn. 7) argued that "Viner's refusal to publicly endorse the Chicago economists' Memorandum on Banking Reform" reflected Viner's "judgement on the political feasibility of [the] policies." It should also be noted that, contrary to what Steindl wrote, the March 1933 memorandum was untitled.

[50] Mints published the article "The Elasticity of Bank Notes" in 1930; the article was a critique of the real-bills idea that bank notes based on commercial paper provide an "elastic" currency. Mints did not publish *anything* else, apart from book reviews, until 1945 (see Dellas and Tavlas 2019). In the first half of the 1930s, Simons published a single article, his 1934 paper "A Positive Program for Laissez Faire." Knight did not publish anything on money until 1937, at which time he published a critique of Keynes's *General Theory* (see Knight 1937). Of the other Chicagoans, Douglas wrote extensively on monetary issues, but Douglas taught in the field of labor economics; moreover, Friedman did not take a course with Douglas. Director co-authored a book with Douglas -- see Douglas and Director (1931) -- but was let go from Chicago in 1935 because of failure to publish sufficiently.

[51] The Chicago conference took place in January 1932. The publication year of the book, *Gold and Monetary Stabilization*, containing the lecture, was 1932. See Wright (1932).

courses considerations of monetary-fiscal doctrine [and] of business cycles" (quoted from Patinkin 1981, 265).

A second possibility is more plausible. Friedman was not a doctrinal historian. In debating Patinkin, who was an eminent scholar in the field of the history of monetary doctrine, it would have been natural for Friedman to turn to the secondary literature on 1930s macroeconomics that interpreted and analyzed evidence derived from primary sources.[52] As it turned out, in 1968, J. Ronnie Davis published the paper, "Chicago Economists, Budget Deficits, and the Early 1930s" in the *AER*. In his paper, Davis discussed Viner's 1933 lecture at Minneapolis and the 1932 telegram sent to President Hoover; that telegram, advocating expansionary open-market operations, emerged from the Chicago conference at which Viner delivered his lecture on the gold standard.[53] In his exposition of the early-1930s Chicago quantity theory tradition, Friedman (1972) provided evidence from three sources: Viner's 1932 and 1933 lectures, and the Hoover telegram; Friedman also cited, and quoted from, Davis's paper. I conjecture that Friedman turned to and read those three works, which he then used to draw an incomplete and misconstrued depiction of the policy content of the early-1930s Chicago quantity theory tradition.

[52] This argument is consistent with the view expressed by Nelson (2020, Chapter 2, 40): "there is evidence that Friedman was not someone who kept close tabs on Viner's monetary writings. Only in retrospect did Friedman appreciate the strength of the links between Viner's arguments in the 1930s and those in Friedman-Schwartz's *Monetary History* of 1963."

[53] As mentioned, in 1971, Davis published the book, *The New Economics and the Old Economists*, which provided a thorough account of policy thinking among American economists, including those at Chicago, in the early-1930s. Davis's contributions remain standard references for researchers -- including this one -- who work in the area of the development of monetary economics in the United States in the 1930s and 1940s.

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