Pre-Keynesian Monetary Theories of the Great Depression:

What Ever Happened to Hawtrey and Cassel?

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I. Introduction

Ralph G. Hawtrey and Gustav Cassel were among the most influential economists of the 1920s and 1930s. Both were internationally renowned monetary theorists who had advanced well-known business-cycle theories and whose pronouncements and recommendations on monetary policy were respected by policy makers in many countries. Immediately after World War I, Hawtrey and Cassel independently warned that attempts by countries to re-establish the convertibility of their currencies under the gold standard could cause a deflationary catastrophe unless countries proceeded cooperatively to reduce the world's monetary demand for gold. Without adopting their independently formulated, but similar, proposals in detail, government policy makers did pay attention to these warnings and recommendations. And for most of the 1920s, the world avoided the deflationary catastrophe about which they had warned.

In the late 1920s, however, international cooperation to economize on the demand for gold reserves dissolved, and the gold standard countries quickly slid into the worst depression in recorded history. But, amazingly, although Hawtrey and Cassel had warned almost ten years earlier that restoring the gold standard without limiting the international demand for gold would cause an economic disaster, and although they specifically warned against the actions of both the French and the American monetary authorities in the late 1920s that triggered the initial downturn, and continued to speak out against the monetary policies that intensified the Depression, their analysis of the Great Depression is now almost entirely forgotten.

This neglect is in part attributable to the Keynesian revolution which caused the work of many worthy economists to fall into unmerited obscurity.

Yet, even so, it remains a puzzle that nearly three decades after the work of Friedman and Schwartz (1963) rehabilitated a monetary approach to explaining the Great Depression, the monetary explanation of Hawtrey and Cassel, which differs fundamentally from that of Friedman and Schwartz, continues to be almost completely forgotten. We propose therefore to present a summary of the Hawtrey-Cassel explanation of the Great Depression, to relate this explanation to their view of price adjustments under the gold standard, and to offer some conjectures about the possible reasons for the prolonged and undeserved obscurity of their explanation of the Great Depression.

We begin in section two by explaining a correct theory of price adjustment under the international gold standard. It is argued that the conventional theory of domestic price adjustment in gold-standard countries is a misspecification of how the law of one price operates under a gold standard. While neither Hawtrey nor Cassel were explicit in rejecting the rules of the game version of how monetary authorities "should" operate under, it is clear that neither embraced the process as an explanation of international price adjustment. In section three, we describe their views about the post-war gold standard. Section four continues by explaining the nature of the regime change associated with the postwar gold standard, a change resulting from the emergence of the United States as the world's leading holder of gold reserves and its leading creditor. Section five interprets the onset of the Great Depression and how closely it corresponded to the scenario that Hawtrey and Cassel had warned against. In section six, exploring the reasons for the subsequent neglect of their explanation, we discuss the relationship between Hawtrey, the Austrians, and the Keynesian Revolution. Section seven suggests some reasons why Monetarists as well as

Keynesians have ignored the monetary approach of Hawtrey and Cassel to explaining the Great Depression. In section eight, we offer some concluding remarks.

II. Price Determination Under the Prewar International Gold Standard

The conventional theory of the price-adjustment process under the international gold standard is derived from David Hume's celebrated essay "Of Money" (Hume 1752/1955, pp. 62-63), and has come to be known as the price-specie-flow mechanism (PSFM). Although it eventually became orthodoxy, PSFM never commanded universal assent of economists. In fact, Adam Smith ignored it in his discussion of money in the Wealth of Nations (1776/1976) despite his clear understanding of the Hume's argument.[1] Later classical monetary theorists working in the Banking-School tradition also rejected PSFM (Glasner 1985, 1989a).

The key issue separating adherents of PSFM from dissenters was the dependence of the quantity theory of money at the national level to the analysis of a metallic (gold) or convertible currency. Supporters of PSFM believed that the national price levels corresponded to a single world-wide determined price level (when national currencies consisted of gold coins or convertible notes), as a long-run condition that did not preclude substantial deviations from the long-run, equilibrium price level. Many economists believed (as Hume himself [1752/1955, pp. 67-68] argued in his aforementioned essay) that bankers were induced to inflate because of the profitability of substituting paper notes for precious metals. The domestic

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[1]The omission was characterized by Viner (1937) as one of the great mysteries in the history of economics. However, subsequent studies by Girton and Roper (1978), Humphrey (1981), Laidler (1981), and Glasner (1985, 1989a) have justified Smith's omission as a reasonable dissent from PSFM.

rise in prices would lead to a loss of gold reserves under convertibility. That would check this tendency toward expansion, but only with a long lag during which time national price levels could diverge significantly from the levels consistent with long-run international monetary equilibrium.

Almost a century later Hume's view of bankers and the international monetary adjustment mechanism dominated the Currency School's analysis of business cycles and financial crises, and provided the intellectual basis for the banking reforms contained in Peel's Bank Charter Act of 1844. The Currency Principle held that changes in the amount of convertible currency should respond to international movements of gold exactly as a purely metallic currency would have to respond. Just as the domestic stock of a purely metallic currency would increase or decrease by the amount of gold entering or leaving the country, so, according to the Currency Principle, the domestic stock of a convertible currency should be adjusted by the amount of gold entering or leaving that country. Only in this way could national price levels in countries with convertible paper currencies be kept from deviating significantly from their equilibrium levels; i.e., equality in gold values.

According to the contrary view held by the Banking School, arbitrage -- in individual commodity markets as well as in the gold market itself, not the actual transfer of gold -- constrained the national value of gold (prices of goods in terms of gold) to a narrow range of variation across countries. International gold movements, therefore, were not caused primarily by disparities between national price levels that in turn evoked equilibrating gold movements through deviations of exchange rates from their parities to the gold-export or import points. Instead, gold movements reflected primarily changes in the international distribution of gold demand

and supply for all uses. Moreover, domestic banks were not inherently disposed to inflationary overissue, and, indeed, were subject to an economic mechanism (the law of reflux) which, even without an external drain, prevents the supplied amount of their liabilities from exceeding the amount demanded (Glasner 1985, 1989a, 1991). Notwithstanding this (dissident) interpretation of the gold standard, which extended at least from Adam Smith to the Banking School and J.S. Mill,[2] the "domestically held stock of gold" (or quantity-theoretic) view of price-level determination and international monetary adjustment under the gold standard had, by the late nineteenth century, reached the status of orthodoxy (Fetter 1965, Laidler 1988).

The orthodox view of price-level determination and international monetary adjustment conditioned on gold flows implied a set of policy rules for the monetary authorities under the gold standard. According to these rules (often referred to as the "rules of the game") any loss of national monetary gold reserves indicated that the domestic price level was above its equilibrium level. The national monetary authorities were therefore supposed to counter the inflationary pressures, evidenced by a gold outflow, by restricting domestic credit and raising interest rates in domestic monetary units. These steps would in turn reduce the domestic price level, halting the outflow of gold. Otherwise, the gold outflow itself would later have required a reduction in the domestic stock of money and reduced the price level. Similarly, an increase in domestic monetary reserves indicated

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[2]In other contexts, we (Glasner 1985, 1989a, 1989b, Batchelder and Glasner 1991) have characterized this tradition as the classical monetary tradition in contrast to the opposing quantity-theoretic tradition emanating from Hume. We refer to it here as a "dissident tradition," because our main focus is on the late nineteenth and twentieth centuries by which time the classical tradition had been largely displaced from the position of parity, if not semi-dominance, it enjoyed from the time of Adam Smith to 1844.

that the domestic price level was below its equilibrium level. The national monetary authorities were then supposed to ease domestic credit, halting deflation and preventing the further inflow of gold.

The identification of the gold standard with these "rules of the game" (rules for a monetary authority) designed to avoid the more serious disturbances resulting from the adjustment lags to the overissuing tendencies of national commercial banking systems has fostered confusion about what being on the gold standard means. It is asked, for example, whether the gold standard was in force during World War I, during the time free convertibility into gold was interrupted? Similarly, did the United States leave the gold standard after Roosevelt devalued the dollar and banned private ownership of gold in 1933? Were the United States and the rest of the world on the gold standard during the Bretton Woods period, when the United States was committed to convert the dollar holdings of central banks into gold at a fixed rate? Many commentators regard these situations as somewhat ambiguous, because various gold-cover requirements on various central-bank liabilities along with a limited degree of convertibility, and even a formal definition of the monetary unit in terms of a fixed quantity of gold, remained in force in some countries until nearly the end of the Bretton Woods System.

If the gold standard refers to merely a more or less complex <u>set of rules</u>, then it is not necessarily clear when the gold standard ceases to function. However, we regard all such definitional considerations as irrelevant to the operation of <u>the</u> gold standard, which depends entirely on the <u>commitment</u> by the issuer to the free <u>convertibility</u> of its liabilities into <u>gold</u> (coin or bullion) or into another currency that is freely convertible into gold. The only ambiguity concerned how easily, in

practice, people could convert a given currency into gold or into another instrument that was unquestionably convertible into gold. This ambiguity, however, had nothing to do with the existence of any legally specified reserve requirement, whatever its ratio to issued currency. A nationally specified gold reserve is neither necessary nor sufficient for the gold standard to operate.

In varying degrees, the dissenting views of Hawtrey and Cassel departed from the orthodox view of the role of gold reserves, in some ways conforming to the views of Adam Smith and the Banking School. Thus, Hawtrey and Cassel believed that national price levels under the international gold standard, as it had operated before World War I, were determined by the world-wide, internationally determined value of gold (not the national domestic held gold reserve) and by the fixed gold parities of participating countries' monetary units. Nevertheless, although both argued that the free international movement of gold ensured international commodity-price equalization in terms of gold, they differed on how this common international price level was actually achieved. In particular, they differed on the role of gold transfers.

Cassel (1932, pp. 1-7) believed that international monetary adjustment operated more or less as described by PSFM, with the domestic money supplies of participating countries adjusting to gold flows into and out of the country, and changes in domestic price levels in turn adjusting to the quantity of money. However, Cassel seems not to have been very sensitive to the inherent tension between assuming (a) that a uniform world-wide value of gold determined domestic price levels under the gold standard and (b) that PSFM was operating. Hawtrey, on the other hand, more closely reflecting the "dissident" monetary tradition, argued that both commodity-price arbitrage

and the free international purchase and sale of gold would ensure that the gold prices of commodities could not differ across countries by more than transportation costs, so that convertibility into gold would cause domestic money price levels to move together in gold-standard countries. Thus, domestic money supplies could vary independently of physical gold flows into and out of a country without causing any divergence from the common international price level.[3] So long as a market for gold existed, where the gold was held and by whom it was owned was irrelevant; what mattered was the world demand and supply of gold. Implicit in Hawtrey's discussion is a simple arbitrage model in which either gold or international debts denominated in convertible gold currencies move internationally to equalize commodity prices.[4] Thus, like Smith and the Banking School, Hawtrey was a

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[3] Early on, Hawtrey (1913, p. 180) noticed that gold movements were common even when exchange rates were within the gold points. "It is sometimes found that gold is sent to a place where the exchanges are still far from the specie point . . . This is particularly the case with the Bank of France, which can defend its gold from attack under a rampart of overvalued five-franc pieces, but which is unwilling to push its use of this defence so far as to drive its notes to a discount. But quite apart from this resource it can choose its own moment for sending gold to London . . . and the knowledge that it will do so prevents other people from speculating in the export of gold. If the Paris exchange on London goes up to the export specie point, any one in Paris who has a considerable quantity of gold can send it to London without loss, but if the Bank of France is also going to send gold, the exchanges may have gone back to par in a few days. In that case it would have been more advantageous to wait and save the cost of freight by using the machinery of the exchange. This advantage in controlling gold movements is open to any central bank which possesses the only large stock of gold to be found in the country in which it is situated, and consequently in practice the theory of the specie points is often found to be quite at fault."

[4] Hawtrey (1923, p. 51) states: "The gold standard, in fact, gave uniformity to the monetary unit, not only in time, but in space too. A trader could with confidence exchange a credit in his own country, not only for a future credit in the same place, but for a credit, present or future, in almost any other part of the world. In peace time the portability of gold is such that, unless there are legal restrictions on its movement, its value can only differ very slightly in different places at the same time, and its world value remained steady enough from year to year for it to be

forerunner of the monetary approach to the balance of payments (Frenkel and Johnson 1976).

But even though Cassel accepted the PSFM, his practical orientation caused him to attribute trends in the international price level to long-term changes in the world gold stock. His empirical studies (1924) showed that the main determinant of the secular variation in the general price level (i.e., value of gold) for the period 1850 to 1910 was changes in the relative world gold supply. He inferred from these studies that a 3.1 percent annual increase in the world gold stock would have been needed to maintain a stable gold-price level during this period.[5] Extrapolating that trend into the foreseeable future, he believed the gold standard to be inherently deflationary, because he doubted that the world could indefinitely maintain an annual output of gold equal to three percent of the total stock. Hawtrey (Royal Institute of International Affairs,1932, p. 76) however, noted that such an inference ignored the distribution of gold between monetary and non-monetary uses and the development of credit instruments that economize on the monetary demand for gold.

While we have not found a theoretically consistent specification by Cassel of how the gold standard operated, Hawtrey's discussion, eschewing PSFM, is generally consistent, and it's what we believe to be the valid analysis of how the gold standard actually achieves a common international price level (Thompson, 1974; McCloskey and Zecher, 1976, Samuelson 1980;

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accepted without reservation as the basis of financial contracts extending far into the future."

[5]These results were also confirmed by the empirical studies of Warren and Pearson (1933, pp. 76-87). Warren and Pearson estimated that a 3.1 percent annual increase in the monetary stocks of gold was necessary to maintain stable prices.

Glasner, 1985; Batchelder and Glasner, 1991). Contrary to the conventional textbook story, the gold standard did not require the operation of PSFM (via the quantity theory of money) to equalize the national price levels of gold-standard countries.

Put simply, individual countries set the parities of their currency units in terms of gold, and then issued the amount of notes demanded by banks and the public.[6] The banking system in turn simply issued the amount of deposits demanded by the public and converted notes into deposits on demand. Thus, the amounts of notes and bank deposits expanded and contracted with demand at the fixed parity of the currency unit into gold. The monetary authority maintained an infinitely elastic supply of notes convertible into gold, while the banking system maintained an elastic supply of deposits (liabilities that are indirectly convertible into gold).[7] The domestic price level was determined by the equilibrium prices of commodities in terms of gold and the currency-gold parity, while international arbitrage ensured that the domestic commodity price levels moved together across gold standard countries. Gold flows were not required for the domestic price levels of gold-standard countries to equal a common price level (i.e., to maintain purchasing-power parity). While gold-standard countries typically

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[6] Indeed, a central bank issuing convertible banknotes was not a necessary condition for the operation of the gold standard either, since competitive private banks could have issued their own convertible bank notes instead of a central bank, as has been argued by Thompson (1974), White (1984), Selgin (1988), Dowd (1989) and Glasner (1989b). However, one of the best arguments against competitive note issue remains that given by Hawtrey (1913, pp.)

[7] The main deficiency in Hawtrey's analysis, in our view, was his failure (shared by most other modern monetary economists) to note that the quantity of deposits created by banks depends not only on the relationship between the "natural" rate and the market (lending) rate, but that it also depends on the spread between the lending rate and the deposit rate, reflecting banks' costs of intermediation.

imposed legal reserve requirements on the issue of notes, these requirements succeeded only in tying up a large portion of the world's gold stock, reducing both the nonmonetary supply of gold and the international gold price level. Such domestically imposed requirements have reinforced the conventional textbook ("rules of the game") version of how the gold standard "must" operate. But, in practice, reserve requirements were either adjusted before they became binding constraints, or, when they became (or were expected to become) binding constraints, precipitated financial panics. The requirements are best rationalized as policies for accumulating gold reserves to serve national-defense objectives unrelated to the operational requirements of the gold standard (Thompson 1987a, 1987b).[8]

While we believe that these reserve requirements were <u>not</u> in any way essential for the gold standard to operate, they did have enormous consequences for the attempt to restore the gold standard after World War I. Shortly after the war, Hawtrey and Cassel both warned that severe deflation could occur if nations returned to the gold standard without reducing their monetary demands for gold either for coinage or as reserves. Although the problem of requiring gold reserves to support note issues seems to have been widely recognized at the time, some nations returning to the gold standard legislated that note issues be backed by gold reserves rather than securities or foreign-exchange reserves. As we shall see, Hawtrey and Cassel both identified such regulations requiring domestically-held gold reserves, particularly those adopted by the French government in restoring the gold standard in the late 1920s, as a major source of deflationary

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[8]This in fact was seen most clearly by Cassel whose criticisms of gold-reserve requirements and their disastrous consequences before and during the Great Depression are extremely powerful.

pressure that helped bring on the Great Depression.

III. Hawtrey and Cassel on the Postwar Gold Standard

The outbreak of World War I, when the belligerent countries abandoned in rapid succession their commitments to full convertibility, ended the relatively brief episode in which the gold standard was the dominant international monetary system.[9] During the war, the belligerent countries used their domestic gold stocks to finance imports for the war effort. This constituted a decrease in the monetary demand for gold, and the release of monetary gold by the belligerents greatly depreciated its value. Thus, even in the U.S., where convertibility was maintained, prices increased significantly during the war. The depreciation of gold also caused gold production during and after the war to decline from pre-war levels.

Support for restoring the gold standard after the War was widespread. Countries formerly on the gold standard faced the problem of how to reestablish convertibility of their, often heavily depreciated, currencies. The deflationary consequences of restoring the gold standard while allowing the monetary demand for gold to increase to pre-war levels was immediately recognized by Hawtrey. "We have already observed," Hawtrey wrote in an article first published in the Economic Journal in 1919 (1919/1923, p. 56),

> that the displacement of vast quantities of gold from circulation in Europe has greatly depressed the world value of gold in relation to commodities. Suppose that in a few years' time the gold standard is restored to practically universal use. If the former currency systems are revived, and with them the old demands for gold, both for circulation in coin and for reserves against

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[9]The modern gold standard was first developed in England during the eighteenth century, with other countries eventually imitating or linking up with the English system. The international gold standard can be dated to the early 1870s, when most of the leading commercial countries of the world had more or less adopted the gold standard.

> note issues, the value of gold in terms of commodities will go up. In proportion as it goes up, the difficulty of regaining or maintaining the gold standard is accentuated. In other words, if the countries which are striving to recover the gold standard compete with one another for the existing supply of gold, they will drive up the world-value of gold, and will find themselves burdened with a much more severe task of deflation than they ever anticipated.

Writing shortly thereafter in the same journal, Cassel reiterated essentially the same points. "The decrease in the monetary demand for gold," Cassel warned (1920, p. 39)

> in comparison with the more and more abundant supply of paper money has brought the value of gold down to about half its pre-war level, with the consequence that, as seen in the United States, the prices of commodities in gold have risen to about double what they were before the war. Though this enhancement of prices has certainly been a most injurious process, the inverse process of bringing prices down again to their old level would probably be still more disastrous.

The danger that Hawtrey and Cassel identified was not that individual countries could be forced to undergo substantial deflations if they rejoined the gold standard at parities that overvalued their currencies relative to the gold parities chosen by other countries, but that the <u>entire system</u> was vulnerable to deflationary pressure merely because the <u>relative value</u> of gold in terms of commodities had depreciated. Thus, the process of restoring the gold standard, by increasing the international monetary demand for gold, would necessarily raise the relative value of gold in terms of commodities unless international cooperation limited the increase in the world's monetary demand for gold. The international problem was limiting the increase in the demand for gold, not the choice of exchange parities, which was primarily a national not an international problem. Hawtrey and Cassel, of course, also recognized that countries returning to the gold standard would magnify the risk of deflation if they attempted to restore the convertibility into gold of heavily depreciated currencies at their pre-

war parities, and, that, in most cases, countries so circumstanced would be well advised not even to attempt to restore convertibility at the prewar parity.[10] Nevertheless, even if all countries restored convertibility at parities corresponding to the current purchasing powers of their currencies, the deflationary consequences of restoring the gold standard would not have been greatly diminished.

Both Hawtrey and Cassel warned that restoring the international gold standard could cause economic disaster unless countries abolished or strictly limited gold coinage and limited their demands for gold reserves. Such a policy, they argued, would require international financial cooperation among the gold-standard countries to limit their monetary demands for gold. At the Genoa Conference[11] in 1922, Cassel argued that gold-standard countries should agree to end the circulation of gold coins, and his proposal was rejected by the participating countries. However, when England returned to the gold standard under Churchill's Gold Standard Act of 1925, the circulation of gold coinage was eliminated, with paper currency being convertible only into gold bullion. Cassel (1936, p. 41-2) praised Churchill's reform for abolishing gold coins from circulation as a "measure that will stand for all time as a milestone in the world's monetary

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[10]Cassel also provided a restatement of the purchasing-power parity doctrine that could act as a guide for countries seeking to reestablish convertibility at new inflation adjusted parities, thus avoiding deflation. In fact, he was very involved in studying the appropriate gold parities to establish in countries that had experienced differential inflation rates during the war and post-war period, and wanted to select parities that would avoid significant deflation. However, overvaluing one currency meant undervaluing another so that the system-wide impact of setting currency parities should be essentially nil.

[11]The Brussels Conference was summoned by the Council of the League of Nations, and the participants were experts. The Genoa Conference on the other hand was an official conference of governments.

history." This policy was not only gold-economizing, it also eliminated the small speculator from the gold market leaving only large dealers and central banks. Hawtrey and Cassel considered this to be a very significant step and their support for England's return to convertibility at the pre-war parity was largely contingent on their belief that the demand for gold would be limited sufficiently to avoid substantial deflation.

Hawtrey and Cassel also proposed at the Genoa Conference that gold-standard countries return to convertibility under a gold-exchange standard. Under a gold-exchange standard, central-bank reserves primarily consist of the foreign exchange of other gold-standard countries, so that a balance-of-payments disequilibrium could be financed by adjusting foreign-exchange holdings rather than gold flows. They argued that adopting this system was essential to reducing the world's monetary demand for gold reserves and avoiding the deflation that would otherwise occur.

Cassel (1920, p. 40) noted that his own views coincided with those of Hawtrey, except that Hawtrey had ignored the significance of the reduced production of gold that had resulted from the depreciation of gold during and immediately after the war. Reduced gold production, Cassel argued, would intensify the deflationary consequences of restoring the gold standard. Hawtrey (Royal Institute of International Affairs 1932, p. 76), on the other hand, while believing that the immediate risks were heavily on the side of deflation, rejected Cassel's argument that a 3.1 percent rate of growth in the world's gold stock was needed to prevent deflation in the long run. In the long term, the value of gold could become unstable in either direction, so that the gold standard could provide long-term price stability only if supported by a mechanism for absorbing excess supplies of as well as accommodating excess demands for gold.

IV. The Transformation of the Gold-Standard Monetary Regime Advocated by Hawtrey and Cassel

In addition to an extreme vulnerability to deflation, Hawtrey and Cassel identified another important feature of the post-war gold standard not shared by the prewar version, the dominant role of the United States. The dominant U.S. position had three main causes. First, the shipment of gold to the United States by the Allies as partial payment for food and other commodities during the war. At war's end U.S. monetary gold reserves accounted for about 40 percent of the total world stock of monetary gold reserves. Second, the accumulation of vast war debts in exchange for shipments that the allies could not immediately pay for. And third, the creation of the Federal Reserve System which consolidated control of U.S. gold reserves in the hands of a more or less centralized monetary authority.

In the aftermath of the war, the U.S. monetary authorities gained an unprecedented degree of control over the international value of gold. As the world's leading creditor, the United States could, by insisting on repayment in gold, add significantly to the world's demand for gold and force further appreciation of gold, even beyond the deflation implied by an uncoordinated restoration of the gold standard. On the other hand, with its enormous holdings of gold, the United States could, by tolerating a substantial outflow of gold, force down the international value of gold and raise the world's price level. Thus, in contrast to the prewar gold standard, when any single national monetary authority could assume that the international price level was determined independently of its own decisions, the international price level under a restored postwar gold standard would be largely the intended or unintended consequence of the actions of the

United States monetary authorities.

Recognizing this fundamental change in the nature of the postwar gold standard, both Hawtrey and Cassel believed that the United States monetary authorities should acknowledge their responsibility to the world at large and commit themselves to a policy of stabilizing the international price level common to all gold-standard countries. Since restoring an international gold standard would be deflationary, they both argued that the U.S. should tolerate an outflow of gold to accommodate the increasing demand for gold by countries rejoining the gold standard. In turn, international cooperation required that other countries limit their demand for additional gold as they returned to the gold standard.

Although Hawtrey and Cassel gave the earliest and most complete theoretical accounts of the deflationary dangers inherent in restoring the gold standard, the underlying analysis was broadly shared by other leading monetary theorists of the time. Keynes in his Tract on Monetary Reform (1923), argued that restoring the gold standard was probably deflationary in the short run, but possibly inflationary in the long run. This likely instability in the future value of gold prompted Keynes (1923, 1925) to oppose the restoration of the gold standard, proposing instead that national monetary authorities aim at stabilizing their domestic price levels and allowing exchange-rate adjustments to restore international monetary equilibrium. Similarly, Irving Fisher (1913, 1920) recognized that fluctuations in the value of gold would have undesirable inflationary or deflationary effects. He proposed counteracting these fluctuations by varying the gold content of the dollar, a proposal incompatible with the dollar's emerging role as the dominant international currency (Cassel 1920, pp. 42-43). Dennis Robertson, avoiding any explicit policy recommendation,

emphasized the transformation of the postwar gold standard into a dollar standard tied to gold in his Cambridge Handbook, Money (1928). "It would be misleading to say," wrote Robertson (1928, p. 67),

> that in America the value of money is being kept equal to the value of a defined weight of gold: but it is true even there that the value of money and the value of a defined weight of gold are being kept equal to one another. We are not therefore forced into the inconveniently paradoxical statement that America is not on a gold standard. Nevertheless it is arguable that a truer impression of the state of the world's monetary affairs would be given by saying that America is on an arbitrary standard, while the rest of the world has climbed back painfully on to a dollar standard.

Thus, Hawtrey and Cassel occupied a middle ground between orthodox advocates of a kind of "rules of the game" gold standard, which never really existed before World War I and whose establishment after the war was potentially disastrous, and advocates of managed money such as Keynes and Fisher who opposed restoring anything like the prewar gold standard, and preferred the stabilization of domestic price levels to the restoration of an international currency. Hawtrey and Cassel believed, that, with sufficient international cooperation to limit the monetary demand for gold and with enlightened leadership by the Federal Reserve System, it would be possible under a new international gold standard to stabilize the prices of internationally traded commodities and provide an international currency.

Although occupying a sort of middle ground on policy, Hawtrey and Cassel were analytically much closer to Keynes, Fisher and other proponents of price-level stabilization or advocates of "managed money" than to more orthodox proponents of the gold standard. Prominent, but by no means alone, among theorists who advocated restoring the gold standard in what they believed was its prewar "rules of the game" form were a group of economists who were then developing an "Austrian" theory of the business cycle synthesizing the capital theory of Bohm-Bawerk, the monetary theory of

Wicksell, and the policy orientation of the English Currency School. Most notably these included Ludwig von Mises, Friedrich Hayek, Gottfried Haberler, and Fritz Machlup, as well as a noted young English theorist, Lionel Robbins. The Austrians (Hayek, 1932/84, pp. 119-20) criticized Hawtrey and Cassel for advocating a managed gold standard rather than the orthodox type based on the rules of the game. According to the Austrians, by not forcing domestic money supplies to contract as gold was exported, a managed gold standard would necessarily imply an unsustainable excess of investment over voluntary savings, which, in their view, would cause, first, an investment boom to be followed, once the outflow of gold forced banks to raise interest rates and contract lending to protect their remaining reserves, by a collapse.

V. The Onset of the Great Depression

Despite never persuading the various national and international monetary authorities to explicitly adopt their view of how the postwar gold standard ought to operate, Hawtrey and Cassel were undoubtedly influential, and the actual course of policy for most of the 1920s was broadly consistent with their proposals. Both Hawtrey and Cassel supported the return of sterling to gold at the prewar parity, and both applauded the Federal Reserve, under the leadership of Benjamin Strong, for stabilizing the international level of prices after 1925.

Perhaps the peak of their influence was reached when the Federal Reserve eased credit in 1927 to counteract what then seemed to be an incipient downturn. After this easing of credit and renewed economic expansion, the New York stock market began a prolonged rise. Despite the success of the Fed's policy, the Austrians and other orthodox supporters of

the gold standard, and even the monetary authorities themselves, interpreted the stock-market boom as evidence of an incipient inflationary boom. Hawtrey (1932) and Cassel (1932) both denied that the stock-market boom had been a symptom of inflation.[12] In the summer of 1928, the Fed began to tighten credit in an avowed attempt to curtail stock-market speculation and halt the boom. Failure of the policy to halt the boom led the Fed to increase the discount rate several times in 1928 and 1929.

Meanwhile, in France, a series of unsuccessful governments had permitted an accelerating depreciation of the franc until it fell to about two cents in July 1926. The crisis led to the formation of a national-unity government by Poincare, which immediately instituted a program of fiscal and monetary reforms to halt the further depreciation of the franc. The reforms quickly restored confidence in the franc, which was soon stabilized at just under four cents. The stabilization attracted capital from abroad, substantially increasing French monetary reserves which were held mostly in the form of foreign exchange rather than gold. However, when France formally returned to the gold standard in 1928, the gold-standard law severely limited the power of the Bank of France to issue notes without a corresponding increase in gold cover (Hawtrey 1932, Eichengreen 1986). The law required the Bank of France to begin liquidating its foreign-exchange reserves to acquire the gold needed to back its note issues.

Thus, in 1928 international monetary conditions tightened markedly as both France and the United States began absorbing large quantities of gold

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[12]Hawtrey denied that the rise in stock prices had been unjustified under the circumstances, while Cassel conceded that the boom could have been fueled by excessive speculation, but denied that an inflationary monetary expansion had fueled the speculation.

from the rest of the world.[13] Both Hawtrey and Cassel viewed these developments as symptomatic of the deflationary tendencies that they had warned against since the end of the war and urged the French and the US monetary authorities to reverse their policies. Moreover, the views of Hawtrey and Cassel on the international financial situation were well known and discussed in the world's business and financial community -- the concept of a gold shortage, for example, was a familiar one in the business press. Thus, the risk of deflation was understood in the world's financial markets (Nelson 1990).

Hawtrey and Cassel continued to criticize monetary policy for remaining too tight after the stock-market crash in 1929, arguing that an aggressive monetary expansion was necessary to counteract growing deflationary pressures. When it became clear that the United States and other gold-standard countries would not promote a monetary expansion to reverse the appreciation of gold, both Hawtrey and Cassel recommended that countries abandon the gold standard to insulate themselves against the deflationary impact of gold appreciation. Both endorsed Britain's departure from gold in September 1931. Cassel, moreover, had played an important role in both Sweden's suspension of the gold standard shortly thereafter and in its explicit adoption of an internal-price-level stabilization target for the Swedish monetary authorities -- a policy whose success is now widely acknowledged (Jonung 1981).

Both Hawtrey (1913, 1919) and Cassel (1924) had already developed their own differing theories of "normal" business cycles. Yet, both insisted that

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[13]The problem with US policy, however, was not so much in the absolute amount of gold that was imported, but in the failure of the United States (given the size of its existing reserves) to have accommodated the increased demand for gold by allowing an outflow of reserves.

the Great Depression was in no sense the result of the forces that produce "normal" business cycles. Instead, they viewed the Great Depression as a special case -- the result of a purely deflationary shock resulting from the rapid appreciation of gold toward its prewar value and caused by the misguided monetary policies of the world's central banks, particularly the Federal Reserve and the Bank of France.

The abandonment of the gold standard by Great Britain and Sweden in late 1931 allowed both countries, along with others that left gold or that never rejoined it in the first place, to avoid the depths reached in countries that remained on gold and to begin recovering sooner than did any gold-standard country.[14] But despite the confirmation that events consistently provided to their analysis of and policy prescriptions for the postwar gold standard and the Great Depression, the fact that Hawtrey and Cassel offered a distinctive monetary theory of the Great Depression seems to have been overlooked or forgotten by later economists, even those espousing a monetary theory of the Great Depression. In the following two sections, we shall speculate about the possible reasons for this gap in the history of monetary theory in the 1920s and 1930s.

VI. The Austrian Challenge and the Keynesian Revolution

Although the onset of the Great Depression and the subsequent course of events seem to provide striking support to the explanation of the Great Depression proposed by Hawtrey and Cassel, there were others who also could claim vindication for their analysis. In 1929 and 1930, the Austrians, for example, maintained that the Depression confirmed their prediction that the

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[14] Indeed, it does not seem that a recovery began in any country so long as it remained on the gold standard.

Federal Reserve's easing of credit in 1927 would trigger an unsustainable inflationary boom. Unlike Hawtrey and Cassel, the Austrians viewed the onset of the Great Depression as a more or less typical business-cycle downturn rather than as a special case. And since the downturn had ultimately been caused by the Fed's easing of credit in 1927, reverting to such a policy (as Hawtrey and Cassel proposed) in response to the 1929 downturn would only cause another even more serious depression at some later time.

Though the timing may be only coincidental, the influence of Hawtrey and Cassel on monetary policy seems to have declined after 1927 as the Austrian analysis became increasingly well known. Surprising as it may now seem, the deflationary policy implications of the Austrian business-cycle theory attracted a following among many policy makers, among groups in the population who were morally offended by the greed, speculation, and financial excesses of the 1920s, and by powerful creditor interests concentrated in the major banks that had an enormous financial stake in a reduced price level (Temin 1990, Batchelder and Glasner 1991).

Moreover, the Austrian theory achieved an enormous breakthrough in 1930, when Hayek, at the invitation of Lionel Robbins, gave four lectures on monetary and business-cycle theory at the London School of Economics. Greatly impressive both for their command of the history of monetary theory and for their analytical brilliance, the lectures caused an instant sensation in the British economics profession, leading to Hayek's being awarded a chair at LSE in 1931 and to their publication as <u>Prices and</u>

Production in the same year.[15]

There is no denying that Hayek's work on business cycles made fundamental contributions to the understanding and analysis of intertemporal equilibria and disequilibria in monetary economics, contributions which account for the enduring impact of Hayek's work. However, as the Depression continued to deepen at an alarming rate throughout 1930 and 1931, it became increasingly clear to most economists that Hayek's analysis was simply not relevant to the conditions of the time. Moreover, the policy message of his analysis -- to accept if not to welcome deflation -- could not have been more wrongheaded.[16]

It would probably be too much to expect that, in those desperate times, the debate about the Austrian theory of business cycles and of the 1929-30 downturn would have been a model of scholarly, scientific discourse -- discriminating and dispassionate in the search for truth, and evenhanded in the evaluation of conflicting arguments. The debate was nothing like that. The attack on the misguided, deflationary policy message of the Austrians became a campaign to extirpate the theoretical framework from which such a policy message could have been deduced. The campaign was launched by Keynes

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[15]Schumpeter (1954, p. 1120) said of the impact of Hayek's lectures that they "met with a sweeping success that has never been equalled by any strictly theoretical book that failed to make amends for its rigors by including plans and policy recommendations or to make contact in other ways with its readers' loves or hates. A strong critical reaction followed that, at first, but served to underline the success."

[16]In fairness to Hayek, it should be pointed out that he soon acknowledged that one ought to distinguish between a normal business-cycle downturn which ordinarily is self-correcting and requires no deliberate countercyclical measures and a "secondary deflation" which ought to be counteracted by a deliberate monetary expansion. Unfortunately, this distinction was somewhat ad hoc and not easily operationalized. Nor did Hayek emphasize the distinction sufficiently to have made much impact on Lionel Robbins's attempt (1934) to bring the Hayekian analysis to bear on the events of the Great Depression.

in 1931 under the guise of a reply to Hayek's critical review of Keynes's Treatise on Money. The "reply" shifted quickly from a defense of the Treatise into a highly personal attack on Hayek and Prices and Production. Thereafter, Keynes orchestrated the campaign in his position as editor of the Economic Journal.

On the central policy question of deflation versus reflation, Hawtrey and Keynes were close allies, despite their earlier differences over resumption at the prewar parity and the ability of public works to reduce unemployment. Both strongly supported Britain's departure from gold in 1931, whose efficacy was being threatened by inhibitions on aggressive monetary expansion, which the Austrian analysis helped reinforce. Moreover, Hawtrey, a career civil-servant with the British Treasury, was never as outspoken as Keynes on policy issues. Thus, as leader of the anti-Hayekian party, Keynes became the dominant figure in British economics. And, as so often happens in highly ideological conflicts between conflicting opinions, those (like Hawtrey, as well as Robertson) with less partisan, more nuanced views and styles of discourse lost their following.

In the early 1930s Keynes was still generally sympathetic to Hawtrey's belief that the Depression, the onset of which Keynes dated in 1925 with the restoration of the prewar parity, had been caused by a deflationary monetary policy. He had articulated his variation on this theme in his Treatise on Money (1930). But responding to telling criticisms of the theoretical apparatus of the Treatise, Keynes in 1932 began work on a revision of that apparatus. In both a letter and in the preface to the Japanese translation of the Treatise, Keynes announced that he was working on a short book, which he expected to complete in a year, extending and correcting the theoretical basis of the Treatise. Keynes gave no indication that this book, clearly

the germ of the General Theory, was aimed at revolutionizing economic theory. But by the time he was finished he had largely abandoned his earlier approach in which the price level, the exchange rate, and the interest rate were the critical determinants of economic activity. Keynes now shifted his attention to aggregate spending. Previously, he had attributed a falling price level and economic stagnation to an overvalued exchange rate that, at a given level of money wages, required an interest rate too high to permit full employment. He now suggested that, under some plausible circumstances, no interest rate, however low, would induce sufficient expenditure to achieve full employment.

Thus, instead of attributing high unemployment to monetary mismanagement, as he and Hawtrey had previously, Keynes saw high unemployment as deeply rooted in the structure of modern economic systems regardless of monetary policy or the exchange rate.[17] Keynes's insistence in the General Theory that money-wage cuts could not achieve full employment would have made no sense within the open-economy framework of the Tract or the Treatise. A proportional fall in money wages and prices in one country would always be expansionary, because of the increase in the international competitiveness of its tradable-goods sector. The model of the General Theory is the model of a world in depression, and makes the Great Depression seem almost normal.

But a world in depression is just what Hawtrey (and Cassel) had foreseen would result from a mismanaged return to the gold standard that resulted in a deflationary appreciation of gold. The Keynesian Revolution

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[17] For an attempt to explain why Keynes wound up shifting his theoretical position in the General Theory more drastically than he at first intended, see Glasner (1988).

was therefore an unnecessary distraction from Hawtrey's (and Cassel's) point of view. But they viewed the Great Depression as abnormal, a special case in which a worldwide deflation resulting from policy errors accompanying the restoration of the gold standard. A purely monetary explanation, which Keynes well understood and until about 1932 had largely subscribed to, was perfectly able to account for the catastrophe. Thus, despite at first supporting Keynes in the battle against the deflationist theories of the Austrians, Hawtrey and Cassel had little sympathy or patience for the General Theory.[18]

However, the impact of the General Theory was such that it overwhelmed not only the Austrian position, whose meteoric rise was followed by an almost equally rapid decline even before the General Theory was in print,[19] but all other monetary theories as well. Thus, for almost a generation

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[18]Which may explain Keynes's evident annoyance with Hawtrey in his correspondence and his complaints that, in reading drafts of the General Theory, Hawtrey had been unwilling to read what he had been writing sympathetically to understand what he was really trying to say. Hawtrey's impatience with a revolutionary break with a theory that was already adequate to explain the Great Depression is not that hard to understand. A similar observation would probably apply to D.H. Robertson's reaction to the General Theory and Keynes's reaction to Robertson. Interestingly, Pigou, who, unlike Hawtrey or Robertson, was a direct object of attack in the General Theory eventually came to view the General Theory in a more positive light than either Hawtrey or Robertson ever did. However, Pigou, an orthodox quantity theorist, seems to have emphasized the parities at which convertibility was restored rather than the effect of restoration at whatever parities on the value of gold, as the main problem in restoring the gold standard (1920, p. 11).

[19]The extent of the decline is evidenced by the number of exponents of or sympathizers with the Austrian theory who later disavowed their earlier support of the Austrian theory. Such a list would include at a minimum: Gottfried Haberler, Fritz Machlup, Lionel Robbins, J.R. Hicks, Alvin Hansen, Nicholas Kaldor, and G.L.S. Shackle. Some hard-core Austrians suggest that these defections reflect not on the validity of the Austrian theory, but on the ambitions for professional advancement of those involved. While we are certainly not inclined to interpret the defections in such an uncharitable light, the wholesale defection by erstwhile supporters still indicates how complete a collapse the Austrian position suffered.

after the General Theory appeared, the work of pre-Keynesian monetary theories was largely ignored.[20] And to the extent that it was not ignored, it was judged according to how well it may have anticipated the General Theory. In particular, the only explanation of the Great Depression that was taken seriously was the Keynesian story of a sudden collapse in investment spending. The account given by Hawtrey and Cassel, which had first been eclipsed by the temporary Austrian ascendancy, was pushed still further into the background by the Keynesian Revolution.

Perhaps another factor that might account for loss of interest by the profession in the Hawtrey-Cassel explanation of the Great Depression is that it may have been brought into disrepute by the work of Warren and Pearson (1933), who, like Hawtrey and Cassel, argued that the Great Depression had been caused by an appreciation of gold in relation to commodities. Actually their scholarly work, which consisted primarily of extensive data collection and presentation, was not without merit and provided a fairly coherent account of the forces that brought about the Depression. It was rather as advisers to President Roosevelt that Professor Warren helped to discredit their contribution and the notion that fluctuations in the value of gold could have a significant impact on the price level or economic conditions in general.

After suspending convertibility upon taking office in March 1933, Roosevelt, on the advice of Warren, began increasing the official price which the United States was setting for gold. Warren assumed that simply by increasing the official price of gold, the government could reflate the

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[20] An exception to this statement is League of Nations study (1944) primarily written by Ragnar Nurkse, whose emphasis on the extent to which central banks redeemed foreign-exchange reserves for gold, reflected the influence of Hawtrey and Cassel.

general price level back to its pre-Depression level. But although the suspension of convertibility did succeed in halting the final burst of deflation during the financial panic of 1932-33 coinciding with the Hoover-Roosevelt transition, changes in the official gold price thereafter had no noticeable impact on the course of prices. It should have been obvious that once convertibility had been suspended and the gold standard abandoned, changes in the gold price had no more economic significance than changes in the price of any other commodity. The whole episode was therefore irrelevant to any evaluation of the role of gold in causing the Depression. Nevertheless, the episode seems to have turned the whole notion that the value of gold could have had a significant impact on the price level into something of a joke.

VII. The Monetarist Counterrevolution

As we all know, the Keynesian Revolution was not permanent either. By the early 1960s, a series of empirical studies of the impact of money and monetary policy conducted by Milton Friedman and his associates and students, culminating in the Monetary History of the United States, 1867-1960 (1963), restored plausibility to the idea that monetary policy could significantly affect macroeconomic conditions, and, in particular, that monetary policy might have been the chief cause of the Great Depression. Although these are propositions that Hawtrey and Cassel had argued for in the 1920s and 1930s, one will find scarcely a mention of the work of either Hawtrey or Cassel in the work of Friedman or other Monetarists.

The major difference between the Monetarist explanation of the Great Depression and that given by Hawtrey and Cassel is that Monetarists view the monetary shocks (U.S. bank failures) that caused the Depression as specific

to the United States, whereas Hawtrey and Cassel viewed the Great Depression as a system-wide failure occasioned by shocks occurring in many countries. Rather than focus on the role of the gold standard in causing the Great Depression, Friedman and Schwartz (1963) concentrated on the role of bank failures beginning in 1931 in causing a contraction of the US money stock, leaving the onset of the Great Depression in 1929 largely unexplained. Friedman and Schwartz only raised the issue of the role of the gold standard in passing (1963, p. 359), casually dismissing the notion that an international disturbance rather than a US monetary shock was causing the Depression. Their point was that the US was accumulating gold from 1929-31, whereas if the monetary shock had been international the US should have been losing gold. This, of course, completely ignores the fact that France accumulated far more gold (not only relatively but absolutely) than the US did in the same period and that, as Fremling (1985) notes, the US accumulated less gold proportionately than its share of total world gold reserves.

In explaining the intellectual sources of his interest in monetary theory and the role of monetary policy, Friedman (1976) pointedly distinguished the monetary tradition from which his work sprang from the monetary tradition that prevailed in London circa 1930, specifically citing Robbins's Austrian-deflationist work The Great Depression (1934), overlooking entirely the work not only of Hawtrey and Cassel, but of Robertson. Friedman instead linked his work to the Chicago oral tradition and to the earlier and largely ignored studies of Clark Warburton. Friedman suggests that the deflationist arguments of LSE monetary economists had given monetary policy a generally bad reputation, so that the profession abandoned interest in monetary policy. But as the example of Hawtrey and

Cassel shows that not all British or European advocates of monetary policy at that time were deflationists.

Friedman argues that since the Chicago oral tradition was not deflationist, there was no reaction against monetary policy at Chicago similar to the one that had occurred in Britain and at other American centers of advanced economic theory. But though a plausible argument, it does not explain why later generations of monetary economists have ignored the anti-deflationist work of Hawtrey and Cassel.

Perhaps part of the answer, at least for Monetarists, is that Friedman did not really trace his intellectual lineage back far enough. In important ways, the roots of his monetary theory go back to the work of the Currency School and even David Hume. The focus on national price-level determination, the uncritical acceptance of the operation of PSFM, the antipathy toward the creation of money by banks reflected in the one-hundred-percent-reserve plan endorsed by Friedman and his mentors at Chicago, the preference for imposing strict quantitative rules on the monetary authorities are all elements of Friedman's approach to monetary analysis drawn from the Currency School. Only in his preference for flexible exchange rates and his hostility to the gold standard does Friedman part company with the Currency School.[21] Eclectics who, if anything, had more in common with the Banking School than the Currency School, Hawtrey and Cassel were probably, in their own way, as uncongenial a source of inspiration for Friedman's monetary studies, as Hayek and Robbins had been.

Ironically, the closed-economy schema of the General Theory (a book

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[21]But, as supporters of the gold standard and fixed exchange rates, Adam Smith and the Banking School hardly offer Friedman and the Monetarists an attractive alterative source of inspiration to David Hume and the Currency School.

Friedman has often praised) turned out to be highly congenial to Friedman and at least one other leading Monetarist, for example Alan Meltzer (1988). Moreover, Friedman and orthodox Monetarists had surprisingly little involvement in developing the open-economy analysis associated with the monetary approach to the balance of payments. It is interesting to note, moreover, that one of the originators of the modern monetary approach to the balance of payments, Harry Johnson, was a severe critic of Friedman and of Monetarism (Johnson 1971).

VIII. Conclusion

Despite the undeserved oblivion into which their theory of the Great Depression has fallen, we believe that time may turn out to be on the side of Hawtrey and Cassel. An increasing interest in the international dimensions of the Great Depression and in the role that the gold standard played in it is evidenced by numerous recent works on the subject (Hamilton 1987, 1988; Eichengreen 1990, Temin 1990, Batchelder and Glasner, 1991). Our confidence that interest in this line of historical inquiry will prove fruitful suggests to us that the names of Hawtrey and Cassel will be more closely identified in the future with an explanation of the Great Depression than they have been for the past 60 years.

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