The Commodity Reserve Currency Chapter: Friedrich A. Hayek, John Maynard Keynes, and the International Monetary Order

O Capítulo da Moeda Baseada em Reservas de Commodities: Friedrich A. Hayek, John Maynard Keynes e a Ordem Monetária Internacional

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ABSTRACT: The frontal clash between Friedrich A. Hayek and John Maynard Keynes in 1931 was unique in scale and influence. Although this event had intense repercussions on the profession as a whole, in 1943 occurred a lesser-known episode. Hayek and Keynes entered into controversy regarding the re-foundations of the international monetary order. This round was somewhat neglected but is important since it was the only public debate with the engagement of both sides in a professional journal after 1931. Moreover, it epitomized the personal and intellectual mature relationship between both men, marked by convergence, dialogue, and friendship. This collaboration was particularly developed when the London School of Economics (LSE) evacuated to Cambridge during the Second World War and Keynes found rooms for Hayek in King's College.

Keywords: Friedrich A. Hayek, John Maynard Keynes, Benjamin Graham, commodity reserve currency, international monetary system.

RESUMO: O choque frontal entre Friedrich A. Hayek e John Maynard Keynes em 1931 foi singular em escala e influência. Apesar deste evento ter tido intensas repercussões na profissão como um todo, em 1943 ocorreu um episódio menos conhecido. Hayek e Keynes entraram em controvérsia sobre as refundações do sistema monetário internacional. Esse round foi negligenciado, mas é importante já que foi o único debate público com engajamento de ambos os lados em uma revista científica depois de 1931. Ademais, o mesmo é representativo da relação madura pessoal e intelectual entre ambos, marcado por convergência, diálogo e amizade. Essa colaboração foi particularmente desenvolvida quando a

London School of Economics (LSE) teve de ser evacuada para Cambridge durante a Segunda Guerra Mundial e Keynes arranjou acomodações para Hayek no King's College.

Palavras-chave: Friedrich A. Hayek, John Maynard Keynes, Benjamin Graham, moeda baseada em reservas de commodities, sistema monetário internacional.

JEL: B25, B31, B41.

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INTRODUCTION

The controversy between Friedrich A. Hayek and John Maynard Keynes on the causes of business cycles and economic depression in the early 1930s was a titanic event that shaped the paths of both theorists. However, a surprisingly neglected episode in the historiography of economics is the 1943 debate between Hayek and Keynes on the post-Second World War international monetary order and the commodity reserve currency proposal in the pages of the *Economic Journal*.

In August 1931, the first part of Hayek's "Reflections on the Pure Theory of Money of Mr. J. M. Keynes" (1931b) appeared in *Economica*. It was a detailed and lengthy review of Keynes' *A Treatise of Money* ([1930] 1973), published in the autumn of 1930, requested by the editor Lionel Robbins. Keynes replied to the first part review even before the publication of the second part, initially planned for the November issue, but published only in February 1932 (Hayek, 1932a). Keynes' early response in November mainly complained about Hayek's criticism of his terminology, suggesting some obscure motivation behind it. Interestingly, in addition, he attacked Hayek's own book, *Prices and Production* (1931a), published in September 1931. As Keynes (1931, p. 394) wrote in one of his most acid and critical passages, one that marked the tone of the controversy:

> The reader will perceive that I have been drifting into a review of Dr. Hayek's *Prices and Production*. [...] The book, as it stands, seems to me to be one of the most frightful muddles I have ever read, with scarcely a sound proposition in it beginning with page 45, and yet it remains a book of some interest, which is likely to leave its mark on the mind of the reader. It is an extraordinary example of how, starting with a mistake, a remorseless logician can end up in Bedlam. Yet Dr. Hayek has seen a vision, and though when he woke up he has made nonsense of his story by giving the wrong names to the objects which occur in it, his Khubla Khan is not without inspiration and must set the reader thinking with the germs of an idea in his head.

Hayek's (1931c) note in rejoinder to Keynes occurred in the same November issue of *Economica*. As Hayek (1931c, p. 398) sustained in his rejoinder, "[i]nstead of devoting his answer mainly to clearing up the ambiguities which I have indicated clearly and in detail, and the existence of which he cannot deny, he replies chiefly by a sweeping accusation of confusion, not in my critical article but in another work." In his *Economics in Practice*, based on his six 1934 lectures on current issues delivered at the London School of Economics (LSE), Arthur Cecil Pigou (1935, p. 24) also disapproved the reaction by Keynes in the debate. Pigou observed that the "author's answer was, not to rebut the criticisms, but to attack with violence another book, which the critic had himself written several years before! Body-line bowling!"

After this acid exchange, at the end of 1931, Keynes had already begun to change his mind on the theoretical structure of the *Treatise*. This was partly a reflection of the influence of the Cambridge Circus criticisms. On March 29, 1932, in a letter accepting Hayek's (1932b) request to reply to Piero Sraffa's
(1932a, 1932b) review of *Prices and Production*, Keynes wrote to Hayek that "[h]aving been much occupied in other directions, I have not yet studied your *Economica* article as closely as I shall […] I doubt if I shall return to the charge in *Economica*, I am trying to re-shape and improve my central position, and that is probably a better way to spend one's time than in controversy" (Hayek, 1995, p. 173).

Although the scope and proportions of the 1943 commodity currency reserve debate are quite smaller than the great 1931 controversy between Hayek and Keynes, the episode is still important since it is the only public direct confrontation in a professional journal with the involvement of both sides after the first round in 1931. In some sense, this can be considered the second round between Hayek and Keynes - if we define each round as a direct public confrontation in a professional journal with an engagement of both economists. All their other disputes and confrontations in the 1930s and 1940s occurred in an indirect form of battle. That is, they took place not in direct critiques with responses by each side, be that in the public media or professional journals.

Therefore, for instance, Hayek did not review Keynes' *The General Theory* (1936) when it appeared

in February 1936. This is more surprising when we consider that Keynes mentions Hayek directly at least four times in the book ([1936] 1973, pp. 39, 60, 79-80, 192). Nevertheless, although Hayek did not review Keynes' book or wrote a critical note on some themes that he was puzzled about in *The General Theory*, he nonetheless will react to Keynes' new theory of aggregate income determination and liquidity preference interest rate in some detail in *Profits, Interest and Investment* (1939a) and part IV of *The Pure Theory of Capital* (1941).

In these works, Hayek was explicit in his critical reaction to Keynes' *General Theory* but there is no direct public exchange between Hayek and Keynes. Thus, in the essay on "Profits, Interest, and Investment," the first essay in the 1939 book, Hayek assumed labor and capital goods specificity in addition to no factor mobility in the short period and downward money wage rigidity, as Keynes had assumed. In this case, Hayek argued that other adjustment variables gained prominence that contributed to his vision of the business cycle phenomena as a problem of the structure of production caused by an intertemporal coordination failure. In particular, the movements of profits and real wages would indicate the profitability differences in each stage of the capital structure.

In the case of private exchanged letters, of course, there is no public debate. Keynes read *Profits, Interest and Investment* and a brief correspondence with Hayek started between 20 September and 20 October 1939. As Bruna Ingrao (2005) put it, it was a private controversy. However, this cannot count as a proper instance of public controversy as we delineated. In addition, there are public confrontations or endorsements by Hayek on Keynes' policy prescriptions, such as Hayek's extremely positive and endorsing review of Keynes' pamphlet *How to Pay for the War* (1940). The other economic journalism and public media articles are one against the interest rate policy in the war in *The Banker* and one supporting Keynes' plan to finance war costs in "Mr. Keynes and War Costs" in *The Spectator* (see Hayek, 1939c, 1939d, 1939e).

The 1943 controversy on the commodity reserve currency and the new international monetary order is important mainly because it illustrates some grand lines of philosophical agreement and at the same time the practical disagreement between Hayek and Keynes. It is a good historiographical intellectual stylized fact of the nature of the mature relationship, convergences, and intersections between the economic, philosophical, and social thought shared by these two major thinkers of the twentieth

century. A representative example of the neglecting of the currency reserve controversy in the secondary literature is Jack Birner (1997, p. 1), which says that after 1931 Hayek and Keynes never "crossed swords in a comparable head-on collision in public," mentioning in a footnote that, "[m]uch later, they had a controversy in public about the financing the war, in a few articles in *The Banker*" in 1939.[1]

This episode is also generally neglected in most of the secondary literature on Hayek and Keynes (e.g., Lachmann, 1983; Shearmur, 1997; Carabelli and De Vecchi, 1999, 2001; Butos, 2003; Butos and Koppl, 1997, 2004; Skidelsky, 2006; De Vecchi, 2006; Caldwell, 1998, 2004, 2011; Scheall, 2015; Sousa, 2021). The only place in which it appears with some relevance is in *A Tiger by the Tail: The Keynesian Legacy of Inflation* (1972), a Hobart Paperback of the Institute of Economic Affairs compiled by the Indian economist Sudha R. Shenoy. This short book is a collection of critical notes and excerpts that formed a direct response to Keynes and Keynesian economics that Hayek himself never fully gave.

THE BATTLE OF BRETTON WOODS: THE DEBATE ON THE POST-WAR INTERNATIONAL MONETARY SYSTEM

[1]In fact, this "controversy" mentioned by Birner did not happen. In September 1939, Hayek published an article on "Prices and Rationing" (1939c) arguing that the price system was a better institutional mechanism to determine the relative cost of scarce materials, therefore their importance, than government rationing. In general, Keynes indeed was more optimistic about the planning capacity to allocate essential resources to the war effort. However, Hayek was mainly reacting to an article by R. W. B. Clark published in a previous edition of *The Banker*. In his second article, which appeared in October 1939 as "The Economy of Capital" (1939d), Hayek was reacting to Keynes' policy recommendation to maintain low long-term interest rates in a full-employment wartime scenario. Hayek (1939d, p. 39) was possibly referring to Keynes' "Borrowing by the State," an article published on July 24 and 25, 1939, in *The Times*. "It is often believed, and has been explicitly argued by J. M. Keynes that if the use of all resources […] is effectively controlled, there is no further problem of the economy of capital."

The commodity currency reserve scheme is centered on the broad discussion of the international monetary order reconstruction after the Second World War. As Benn Steil documented in his book *The Battle of Bretton Woods* (2013), political interests, controversies, and rivalry permeated the creation of the post-war international economic order. The agreement was substantially the institutionalization of the American Treasury geopolitical agenda, one in which the United States dollar would lead supreme in its privileged position within the international monetary system as the world's currency reserve (i.e.,

with the dollar being convertible in gold between countries). In this process, the economic and political power of Britain was greatly diminished or eliminated. It was the creation of America's "*privilège exorbitant*," a critical term coined by Valéry Giscard d'Estaing, then the French Minister of Finance in the 1960s (e.g., see Eichengreen, 2011).

During the war, Keynes was in his public service at the British Treasury. As the war was signaling its end, Keynes and the economics profession started to think about the most appropriate international monetary institutions to prevent the economic consequences that in part had led to war, in particular, the dangers of depression as well as inflation. In his influential book *Golden Fetters: The Gold Standard and the Great Depression* (1992), for example, the economic historian Barry Eichengreen argues that the gold standard prevented the appropriated expansionary monetary policy by national central banks (in particular, the Federal Reserve System) to attenuate the depression. Eichengreen's book title evokes Keynes' famous words in an article to *The Sunday Express*, "The End of the Gold Standard," published on September 27, 1931. "There are few Englishmen who do not rejoice at the breaking of our gold fetters. We feel that we have at last a free hand to do what is sensible. The romantic phase is over, and we can begin to discuss realistically what policy is for the best."

This was soon after Britain, in the depths of depression, abandoned the gold standard on September 21, 1931. In this context, one well-received proposal of international monetary reform was the reserve currency based on buffer stocks of primary commodities by Benjamin Graham, the acknowledged father of value investing. Graham started to develop this idea during the American Depression of 1921-22, where prevailed at the same time an excess supply of raw materials (which lead to catastrophic price falls) and insufficient purchasing power expressed in unemployment of labor and capital. Graham (1933) first expressed his idea in an article on "Stabilized Reflation" to the New School of Social Research's short-lived journal *Economic Forum*. The scheme was developed in his 1937 book *Storage and Stability*
(1937), inserted in the general principle of the "Margin of Safety" which demarcated the line between investment and speculation.

Surprisingly, Graham (1996, p. 293) acknowledged the commodity currency scheme as his most important idea. "If my name has any chance of being remembered by future generations it will be as

inventor of the [...] Commodity Reserve Currency Plan." Although the plan was initially proposed for a national monetary reform, Graham naturally extended it to the global economy as an international system in his second book, *World Commodities and World Currency* (1944a). Indeed, he expected that his scheme would be part of the Bretton Woods discussions (see also Graham, 1941, 1944b, 1947).

The basic idea was to replace the gold standard with an international monetary standard based on a predetermined basket of raw commodities, which would form the "commodity unit" - a basket of at least twenty-five high standardized, durable, and low storage costs commodities. In this mechanism, raw commodities reserves would act much better as buffer stocks, especially regarding deflationary pressures. At the same time, they would attach money to a real commodity unit with growth constraints. The buffer stocks, Graham (1937, pp. vi-vii) argued, are "intended primarily to cope with glut and shortage." The scheme would be much more efficient and "suitable backing for a sound and adequate currency" since "[t]he unique prestige of the gold standard has been deeply undermined" and "[a] currency backed by, and actually redeemable in, stored basic commodities would possess an intrinsic soundness superior to that of gold."

Keynes (1938) warmly received these preliminary ideas on buffer stocks, a theme that always had his profound attention. Indeed, John Woods (2022) maintains that the most important part of Graham's plan was the emphasis on the stabilizing aspects of the raw commodities buffer stocks. As Graham (1937, p. 67) writes, a mechanism based on buffer stocks and storage "will result in stabilising the general price level for basic commodities and will supply a sound form of currency secured by these necessary commodities [...] [even though the last two features are] of secondary and collateral importance." The commodity currency standard was also independently developed by the Princeton economist Frank D. Graham (1940, 1941, 1942), which emphasized the gains of replacing an inelastic single commodity reserve such as gold for a multi-commodity basket reserve as a pro full-employment policy, since it would be more elastic in counter-react changes in the money velocity and monetary contraction.

In the early 1940s, Keynes *prima facie* changed his mind on the benefits and practicality of a commodity currency reserve. Keynes and the German economist Ernst F. Schumacher started to develop the embryonic ideas for a supranational currency named Bancor (bank gold) that was

supposed to
exercise only the international unit of account function and trade clearing. This would become the official United Kingdom proposal at Bretton Woods in 1944. In this standard, each national currency would be linked by a fixed rate of exchange to the international currency Bancor. Bancor was planned to be used in all international trade and exchange between nations as a common unit of account inserted in an International Clearing Union (ICU) that was meant to perform the central multi-clearing house task for all countries.

The international unit of account would be used in all international financial transactions and flows of capital, assets, and income via the ICU. Bancors were not supposed to be transacted between individuals or to be held as a money asset. All international relations should be valued and transacted in Bancors. The main feature of this proposal was that correction mechanisms would act symmetrically in countries with surplus trade and Bancor assets and countries with trade deficits and Bancor liabilities to approach the approximately zero Bancors balance equilibrium. In May 1943, Schumacher published the article on "Multilateral Clearing" (1943) in *Economica*, but the paper was already in private circulation since November 1942. Also in May 1943, the proposal formalized the idea and set the basis of Keynes' (1943a) plan for an International Clearing Union, published as the British government's White Paper in the House of Lords.

According to Keynes, international liquidity problems and deflationary pressures would be present in the post-war international monetary order - in the same way as experienced in the 1920s in Britain after the First World War. Keynes' proposal intended to manage international aggregate demand failures that could result from countries' balance of payments disequilibrium. In the old international monetary order, problems in the balance of payments created an *a*symmetrical pressure for adjustment in deficit countries. The privileged surplus countries could maintain a passive position in accumulating international reserves. It forced only deficit countries (in general, undeveloped, raw commodities exporting countries) to respond appropriately to counterbalance the disequilibrium, notably with recessive and contractionary demand policies.

In this scenario, with aggregate demand contraction by the deficit countries and accumulation of international reserves by the surplus countries, deflationary pressures would be a global norm. The

International Clearing Union framework dissuades the accumulation of international reserves in Bancors, Keynes argued, thus sending the right adjustment incentives in the surplus countries to inflation in their respective economies. On 13 March 1943, Hayek sent a letter to Keynes containing a "semi popular exposition of the American commodity-currency scheme" to rebuild the international monetary
system and wondered if the article could be published in *The Times*. One week later, on 21 March, Keynes wrote to Hayek recommending that the draft should be published in the *Economic Journal*. The article appeared in the June-September 1943 issue of the *Economic Journal*, as "A Commodity Reserve Currency" (1943). In his essay, Hayek reaffirmed the initial idea of substituting gold as a reserve commodity for a multi-product raw commodities basket. Thus, opposing Keynes' proposal for an international currency and clearing union. In the same 21 March commending letter, Keynes acknowledged that Hayek's arguments were theoretically correct. However, Keynes argued that the plan was not politically viable in the political and international conditions at the time. "Theoretically," Keynes wrote, "your points are sound. Practically I do not believe that the world is ripe for this sort of thing." Instead, Keynes favored testing schemes to stabilize staple goods prices in the form of "buffer stocks plans and the like" (see Ingrao, 2005, p. 246).

Nevertheless, Keynes' note attached to Hayek's article in the *Economic Journal* was more critical in tone. Keynes criticized the nature and practical viability of such proposals, arguing that stabilizing the national price level should be a national matter subject to national discretion and domestic policies. Keynes maintained that the scheme proposed by Hayek implies an imposition of a stable price level from without, violating national sovereignty regarding different monetary policies and forcing a deflationary policy to equilibrium when necessary. After Keynes' critical note, in 1944, Frank Graham surveyed the controversy and criticized Keynes' imposing view on Hayek. Finally, Keynes stepped back and occupied a more pondered position on the debate, admitting that he could have misrepresented Hayek's intentions. In the following sections, we review this controversy in detail.

HAYEK'S PROPOSAL FOR "A COMMODITY RESERVE CURRENCY" (1943)

In "A Commodity Currency Reserve" (1943, p. 176), Hayek starts his proposal by emphasizing the merits and advantages of the international gold standard. In his opinion, the gold standard in its pre-First World War form had several significant defects but it is unwise to condemn its failures without looking for alternatives. Although Hayek demonstrates sympathy for a global international currency unit along Keynes' lines, he is skeptical of its feasibility. "A wisely and impartially controlled system of managed currency for the whole world [*à la* Keynes] might, indeed, be superior to it [gold standard] in all respects. But this is not a practical proposition for a long while yet." Therefore, alternative options lie within various institutional schemes of monetary management on a national scale.

In this context of national scale arrangements, Hayek (ibid.) writes, the gold standard had three advantages. (i) The gold standard "created in effect an international currency without submitting national monetary policy to the decisions of an international authority," i.e., it creates an international monetary

order that preserves the national autonomy and dispenses a decision-making central committee; (ii) "it made monetary policy in a great measure automatic, and thereby predictable," i.e., it prevents unexpected discretionary policy that can affect the monetary system stability; finally, (iii) "the changes in the supply of basic money which its mechanism secured were on the whole in the right direction." The gold standard acts qualitatively in the right direction when the demand for money rises or falls; although it does not act in the right quantitative intensity, i.e., the gold price elasticity of demand is low. According to Hayek, these advantages are not trivial ones. The difficulties that the problem of deliberate international coordination demands cannot be underestimated, especially because of the complexities of coordinating national entities in an international order. "The difficulties of a deliberate co-ordination of national policies are enormous, because our present knowledge gives us unambiguous guidance in only a few situations." Thus, conflicting national interests in crucial ambiguous and subjectively perceived decisions is a major difficulty to overcome. On the other hand, "[u]ncoordinated national policies, however, directed solely by the immediate interests of the individual countries, may in their aggregate effect on every country well be worse than the most

imperfect international standard" (p. 176).

Naturally, the problem is to construct the best institutional architecture to coordinate individual countries' conflicting interests. The gold standard, Hayek argues, to some degree can surpass this problem because the policy derivative is guided by known impersonal rules that can be expected and foreseen by the national players. In addition, the fact that the gold supply is encouraged when the price rises, and vice versa, also acts in the right direction of stabilization of its value, even with its inherent defects in practice. This last point is perhaps the main defect of gold as a commodity reserve. The "really serious objection," Hayek (1943, p. 177) argues, is the "slowness with which its supply adjusts itself to genuine changes in demand." Gold inelasticity to fluctuations in demand causes time delays in the supply response to changes in demand.

Often supply only becomes available when it is not needed anymore, which accentuates fluctuations tendencies in the business cycle. Moreover, the gold supply response to a temporary increase in money demand remains a permanent change in gold stock. As money demand fluctuates, the gold standard provides the basis for excessive expansionary policies when the demand turns to fall again. The reserve

supply inelasticity is deflationary when temporary increases in demand occur - and it is inflationary when the delayed supply responds to the temporary demand. This causes the logical paradoxical feature of the gold standard, "the fact that the striving of all individuals to become more liquid did not put society into a more liquid position at all" (p. 178).

The same problem is present with effective demand failures caused by hoarding, epitomized in Keynes' parable of the widow cruze in his *Treatise on Money*. This is a situation where the horizontal sum of individual rational decisions leads to a discoordination in the social aggregate level. Note the similarity of the gold standard discoordination "paradoxical feature" due to knowledge failures with Keynes' argument regarding the individual rational decision to save and the effective demand failure with an aggregate intertemporal discoordination result. The coordination failure element in the use of knowledge in the passage of the individual analysis to the aggregate level is essentially the same.

According to Hayek (1943, p. 178), a more rational monetary system is one in which if the liquidity preference rises the whole society can be put in a more liquid position. This can be done by the change

of production being measured in less useful illiquid commodities (like gold) to more useful liquid commodities, things "which will be needed in all conditions, such as the most widely used raw materials. The true irony of the gold standard is that under its rule a general increase in the desire for liquidity leads to the increase in the production of the one thing which can be used for practically no other purpose than to provide a liquidity reserve to individuals."

The advantages of the gold standard, Hayek reminds us, are not "directly connected with any property inherent to gold. Any internationally accepted standard based on a commodity whose value is regulated by its cost of production would possess essentially the same advantages" (p. 176-7). What made gold the international commodity standard was a certain irrational prejudice toward this metal and its value, which made it the most acceptable commodity. This irrational prejudice was the basis on which an international monetary system could be built and operated "at a time when any international system based on explicit agreement and systematic co-operation was out of the question."

Indeed, Benjamin Graham (1937, p. 11) also highlights the superstitious character of gold as the constituent and denominator of wealth. In short, "we have formed individual concepts of what constitutes wealth, and what forms of wealth are preferable to others, which have no support in concrete realities and which depend for their validity on the persistence of a fundamentally irrational mass psychology." Graham (1937, p. 146) also emphasizes the benefits of an automatic currency vis à vis a managed currency. The problem is to find a better suitable arrangement to the old gold standard. "In the

conflict between 'hard money' and 'soft money', we are definitely on the side of hard money. In the conflict between a 'managed currency' and an automatic currency, we are definitely on the side of an automatic, self-generating and self-liquidating currency, free of management and political pressure." The public psychological perception of gold and its merits as an international standard was very shaken by its failure in the post-Great War in the 1920s and 1930s. Hence, it was important to think of new alternative systems that preserved the advantages of an automatic and impersonal international standard (such as the gold standard) with the exclusion from the particular defects of gold as a single commodity reserve. Hayek sustains that one of the alternatives is, in particular, very appealing to those who in the past defended the gold standard. This is not because it is an ideal arrangement but because

it appears to be feasible in the pragmatic times of the post-Second World War. This new system is the multi commodity reserve currency. A more rational scheme, therefore, is the use of many raw commodities as a reserve currency, along the lines of the proposal of Benjamin Graham and Frank Graham. The idea, Hayek explains (1943, p. 179),

> "is that currency should be issued solely in exchange against a fixed combination of warehouse warrants for a number of storable raw commodities, and be redeemable in the same 'commodity unit.' $100, e.g., instead of being defined as so and so many ounces of gold, would be defined as so much wheat, *plus* so much sugar, *plus* so much copper, *plus* so much rubber, etc., etc. Since money would be issued only against the complete collection of all the raw commodities in their proper physical quantities (twenty-four different commodities in Mr. B. Graham's plan), and since money would also be redeemable in the same manner, the aggregate price of this collection of commodities would be fixed, but only the aggregate price and not the price of any one of them."

These different raw commodities would be connected with money in fixed proportions and not in the way as bimetallism where it is possible to change a unit of only gold or silver via an exchange rate to a unit of money. Rather, it is close to Alfred Marshall's (1887) suggestion of symetallism where only a certain fixed weight of gold *and* silver at a certain fixed price could be exchanged by a money unit with the individual price of each metal flexible.

In this arrangement, the commodities elasticity that formed the multi-product fixed reserve basket would be high to respond to money demand changes. Money demand increases would not produce time lags nor fluctuations tendencies in the business cycle. The impersonal mechanism would still act in the right direction (as the gold standard) but, more importantly, it would operate with the right velocity toward stabilization. Moreover, the increased demand for liquid assets in a scenario of high uncertainty would be fulfilled by the accumulation of buffer stocks defined in the fixed multi-product basket. Since
these commodities are of the most general usefulness, and would not permanently increase the reserve stock as in the case of gold, the system will be much more stable.

The raw commodities stocks regulate the aggregate index price level. As a money unit can always exchange for commodities unities, the general aggregate consumers' index price level can never fall below this fixed proportional exchange (due to arbitrage). In addition, the aggregate price of the fixed collection of raw commodities will never rise - as long as the monetary authority can use the buffer

stocks reserves and quickly sell or buy the commodity unit at the fixed price.

Although the commodity reserve currency plan was initially designed by Benjamin Graham primarily for the United States and later expanded to an international system in his 1944 book, Hayek (1943, p. 180) states that this "plan not only could, but, to achieve its ends, ought to be adopted internationally - or, what comes in practice to the same thing, that it ought to be operated on the same principle by all the major countries." The most favorable period for the scheme implementation is in a period of slackness, i.e., when a fall in demand is threatened. The arrangement can be designed to automatically enter into practice in such a context by fixing beforehand a buying price for the multi-product basket commodity unit slightly below the market value. When the slackness hits the raw commodities market and deflationary pressures come to prices, the national monetary authority will buy any commodity units that cannot enter the market at the fixed established price of exchange.

These purchases will create for all the money accumulated in public hands a corresponding amount of raw commodities units in warehouses. In this way, the aggregate monetary demand for commodities in general is stabilized. It is important to note that this process generates a general demand for the multi product raw commodities basket and not for any particular individual commodity. The commodities industry can maintain and sustain more aggregate income since it is a significant industry in the economy, contrary to the gold mining industry. Thus, the system also has significant counterbalance effects on aggregate income in recession periods.

In Hayek's vision, one of the great merits of the commodity reserve currency is the checks and constraints on monetary overexpansion. The system does not permit expansion that leads to consistent and permanent rises in consumers' prices. Observe that the sustainability and effectiveness of this proposal are based on its implementation during a depression phase to first accumulate buffer stocks in warehouses. With this commodity accumulation, the reserves can then be utilized to sustain the fixed price exchange of money and commodity units in the boom period.

An additional advantage, Hayek (1943, p. 182) continues, is that the proposal requires no "need for the monetary authorities or the Government in any way directly to handle the many commodities of which the commodity unit is composed. Both the bringing together of the required assortment of warrants and the actual storing of the commodities could be safely left to private initiative." The

monetary authority's daily operations would be automatic and impersonal as in the gold standard, only defending the fixed price exchange of money and commodity units by buying or selling reserves. Hayek ends his commodity currency reserve proposal by discussing some minor detailed technical features of the system implementation such as substituting currents contracts of specific commodities for future contracts and emphasizing the many ways in which gold can be linked to the new commodity reserve currency if desired without any disadvantageous feature to the general framework.

WHITHER INTERNATIONAL MONETARY ORDER? KEYNES' REPLY ON "THE OBJECTIVES OF INTERNATIONAL PRICE STABILITY" (1943b)

Keynes replied to the commodity reserve currency proposal by Hayek in a short note, "The Objectives of International Price Stability" (1943b), in the same issue of *Economic Journal*. For Keynes, there are two main complaints against the orthodox gold standard system as an instrument for international price stability. First, the gold standard does not provide the appropriate quantity of money in the different contexts of changing money demand. Gold as a commodity is inelastic to respond to fast and abrupt changes in demand for money. Keynes classified this criticism as the "familiar, old-fashioned criticism" of quantity theory proponents.

Many authors tried to meet this problem with different monetary schemes. Some examples are Marshall's tabular standard symetallism, Irving Fisher's compensated dollar, and now the commodity reserve currency proposal defended by Benjamin Graham, Frank Graham, and Hayek. Keynes (1943b, p. 185) then describes how his International Clearing Union would handle the problem of price elasticity of supply. The grand merit of his proposal, Keynes argued, is that the Clearing Union as a design policy instrument acts in international money chronic shortages by operating through the velocity of circulation (V) rather than through the volume or quantity of money (M). Money is only necessarily required to satisfy "hoarding, to provide reserves against contingencies, and to cover inevitable time-lags between buying and spending."

As Keynes' (p. 185) idea was to punish money hoarding, and reserves against contingencies in ICU are provided by facultative injections, a very small credit quantity would be sufficient in clearing

national monetary authorities. The Clearing Union would abolish the problem of defining the correct quantity of money at each time and place "by making any significant quantity unnecessary." From a national price level perspective, Keynes goes on, each national price level is "determined by the relation of the national wage-level to the national efficiency," i.e., by the relation between money costs to the national currency unit. If the price level is determined by money costs relative to efficiency, an appropriate quantity of money in a given context "is a necessary condition of stable prices," but "it is not a sufficient condition."

In Keynes' view,stabilizing the national price level is stabilizing the relation of money costs (especially money wages) in relation to national efficiency. From this last point, it follows the second (modern) criticism of the gold standard. The gold standard, Keynes (ibid.) writes, "attempts to confine the natural tendency of wages to rise beyond the limits set by the volume of money, but can only do so by the weapon of deliberately creating unemployment." In other words, the gold standard can only stabilize the price level on the social cost of unemployment through a recession. Since money wages are downward rigid, any automatic mechanism of deflation by the gold standard is flawed in money wages (or money costs in general), thus the adjustment in the labor market is done in quantity, i.e., via unemployment.

In addition, Keynes argues, "this complaint may be just as valid against a new standard which aims at providing the quantity of money appropriate to stable prices, as it is against the old gold standard." In his view, the commodity reserve currency plan does not have any effective measure through the money quantity manipulation to necessarily secure price level stability with compatible full employment. But Keynes did not detail his reasons to be against the advantages of a multi-product raw commodities basket in stabilizing the price level and income that B. Graham, F. Graham, and Hayek stressed.

According to Keynes, the international monetary arrangement only has a strictly limited objective. This objective is not to pursue *international* stable prices but only to serve as an accounting unit for the International Clearing Union. If the pursuit of international stable prices was the objective, the price level that is stable in terms of an international monetary unit can only be translated and forced into national price levels in deflating the domestic money costs. As the gold standard did. In Keynes' idea, the international unit of account as Unitas or Bancorsis only a unit for international transactions

clearing. Paradoxically, the pursuit of international stable prices in the international monetary unit is not reflected in the corresponding stability of the various national entities and their domestic price levels because they
have to be disciplined by the deflationary money costs mechanism. Thus, Keynes concludes that pursuing international price stability leads to domestic price *in*stability.

Keynes (1943b, p. 186) sustains that the primary policy objective within the international currency scheme should be

> "to prevent not only those evils which result from a chronic shortage of international money due to the draining of gold into creditor countries but also those which follow from countries failing to maintain stability of domestic efficiency-costs and moving out of step with one another in their national wage-policies without having at their disposal any means of orderly adjustment. And if orderly adjustment is allowed, that is another way of saying that countries may be allowed by the scheme, which is not the case with the gold standard, to pursue, if they choose, different wage policies and, therefore, different price policies."

Keynes' idea allows each national entity some discretionary power to implement and pursue different targets on wages and prices, i.e., different combinations between price levels and unemployment. This opens the door for different economic policies according to the particular necessities of each country member. Keynes' position aligns with his caution and rejection of the very tight international constraints that are imposed in some dictating degree form into nations. Of course, this was at the center of his criticism of the Treaty of Versailles after the First World War in his famous and influential denunciation of *The Economic Consequences of Peace* ([1919] 1973).

Therefore, "[t]he fundamental reason for thus limiting the objectives of an international currency scheme is the impossibility, or at any rate the undesirability, of imposing stable price-levels from with out. The error of the gold-standard lay in submitting national wage-policies to outside dictation" (Keynes, 1943a, p. 187). The most difficult task in the International Clearing Union scheme is to deal with country members getting too much out of track in their respective domestic wage and credit policies, that is, countries with more than reasonable expansionary (or restrictive) monetary and fiscal policies.

In this case, the inflationary (or deflationary) pressures in the country would destabilize the international clearing system based on a fixed exchange rate between the national monetary unit and

the international Bancor account unit. To meet this problem, Keynes considered, first, asking countries seriously out of step to reconsider their policies, and, second, to alter the exchange rates "to reconcile a particular national policy to the average pace. If the initial exchange rates are fixed correctly, this is likely to be the only important disequilibrium for which a change in exchange rates is the appropriate remedy" (p. 186). Hence, Keynes' main message is that "[i]t is wiser to regard stability (or otherwise) of internal prices as a matter of internal policy and politics." For Keynes (p. 187), Hayek's proposal fails
on this important point. "Commodity standards which try to impose this [price stability] from without will break down just as surely as the rigid gold-standard."

FRANK D. GRAHAM STEPS INTO THE CONTROVERSY: "KEYNES VS. HAYEK ON A COMMODITY RESERVE CURRENCY" (1944)

The controversy between Hayek and Keynes seemed to be a closed chapter since Hayek did not reply to the note by Keynes reacting to his essay in 1943. More than one year later, however, in the December 1944 issue of *Economic Journal*, Frank Graham enters into the controversy between Hayek and Keynes on the more feasible international monetary order in a review article on "Keynes vs. Hayek on a Commodity Reserve Currency" (1944).

According to Frank Graham (1944, p. 424), we must first note that the main point that Keynes raised against Hayek's commodity reserve currency, i.e., that the system imposes from outside a domestic price level that only can be realized unemployment, is only true if the scheme has an immutably fixed exchange rate. Graham agrees with Keynes about the difficulty of securing wage earners' demands and national stable prices in a scenario where domestic prices appear to be decided by an international convention rather than national economic policy direction. However, Graham disagrees with Keynes' opinion that the error of the gold standard is to submit national wage policies to exogenous dictation. This position throws away the faults of the gold standard with its virtues.

For Graham (ibid.), the gold standard system "did not submit wage-policies to *dictation*, by governing authority anywhere, but made them the result of impersonal forces issuing out the

disposition, and potentiality, of individuals to follow what they conceived to be their interest." Like Benjamin Graham and Hayek, Frank Graham praises the automatic character of the gold standard. This is *per se* a good thing because it settles the basis for predictable system behavior. One of the main prerequisites of a social coordination processisthe capacity for predicting mutual behavior by the decision-making agents. In his opinion, the virtues of the old pre-Great War gold standard are evidenced by a spontaneous process of adhesion to it and by the form of its fall. It was only after the adoption of a gold standard subjected to varying national policies management that the standard was abandoned.

If Keynes' argument of an imposing dictation price level, Graham (1944, p. 424) continues, is only valid in an immutably fixed exchange rate case, by his turn, Hayek did not explicitly state whether in his commodity reserve currency version there would be immutably fixed exchange rates. If it is not the case, there could be no problem for an international clearing organization to offer freely to exchange in both ways for buyers and sellers of the international commodity unit "against warehouse receipts covering a designated composite of raw material." Graham mentions the similar role of promoting the stability of exchange rates and financial flows performed by the "new [International Monetary] 'Fund' or the Bank for International Settlements" created at the Bretton Woods conference in July 1944. Therefore, in this scheme, no particular monetary policy could be imposed on any individual country. Each country would choose the value of its own currency fixed against the international commodity currency and other national currencies.

A country can choose, for instance, its own value currency compatible with expansionary monetary and fiscal policies (i.e., a rising price level) by devaluing its currency against the international commodity standard and the rest of the world. In this case, Graham (p. 425) concludes that "Lord Keynes' arguments that an international commodity reserve currency would *impose*, from without, a price-level policy on any country, or would break down, is quite untenable."

There is no fundamental divergence and logical impossibility in the combination of this sort of international commodity reserve currency and Keynes' International Clearing Union proposal. An international currency along the lines of Keynes' Bancor could be the proper commodity currency with the operational support of an International Clearing Union (or another international fund) institution.

"Such a standard would represent a great advance over anything we have had in the past" (p. 426) and not only could be functional to any country desirous of stable prices in fixing its exchange rates, and thus linking its own currency to the international standard unit, but would also permit the domestic autonomy in national monetary, credit, and fiscal policies as Keynes desired.

Nevertheless, Graham is critical of Keynes' original proposal to have only a mere unit of account function (denominated in Bancors) in a pure debt international monetary system. If no tie with anything real with limits to its growth is made to anchor the monetary supply, the wage earners' pressures to gain an ever-increasing real wage not based on labor productivity can only result in an inflationary path. Keynes assumed the labor pressure as one of the major failures of any commodity currency and was the loose joint of the gold standard. In particular, this pressure expressed in downward wage-money rigidity makes the coordination failure adjustment in quantities and not in price in the labor and product markets. In Graham's (1944, p. 426) opinion,

> "any monetary policy which does not confine such a tendency as (money) wages may have to rise beyond the limits within which it is possible to preserve a stable price level, provides a very vicious 'standard.' If Lord Keynes takes the contrary view, he seems to me, in effect, to be plumping for a progressive inflation, wholly indefinite as to time and amount."

Another problem is that if money cannot be in some level neutral in distributive terms, whoever is in control of the monetary authority will have totalitarian powers over fellow citizens. For Graham, discretionary decisions in monetary affairs have serious upper limits. The real problem in unemployment is not that it is the result of the denied opportunity to work at a given fancy wage that the wage earner desires, but that due to abnormal conditions of liquidity preference workers are denied the opportunity to work at wages that they could accept under normal liquidity conditions. The merit of commodity reserve currency is that the system operates to keep liquidity preference in normal conditions, as Hayek stressed in his essay. The commodity reserve currency can fulfill the demand for more liquidity on an individual and aggregative societal level.

This is a function that the gold standard cannot perform, as Hayek argued, because the standard is based on a single commodity with an inelastic supply. In the new proposal, speculative demand for money that arises in depressing and uncertain times is counterbalanced. Graham (p. 427) agrees with

Keynes that a necessary condition to stabilizing prices is stabilizing the relation of money wages (money costs in general) to efficiency. Indeed, this is precisely what the scheme intends. "As the efficiency of labour rises, money wages would tend to rise in correspondence - no more and no less - and there would be a steady tendency towards full employment without a trace of inflation."

Graham (1944, p. 428) concludes his intervention by reaffirming that so far exchange rates were free to change in correspondence to the national money costs against the international commodity currency, the currency reserve proposal is fully compatible with Keynes' International Clearing Union. Moreover, Keynes' criticism that the arrangement implies an imposed without stable prices is not true. In Graham's words,

> "If one insists upon an unstabilised price level at home, there is nothing in a stabilised international unit to prevent it, or nothing to prevent other countries having stable price levels if they so desire. No country, therefore, would be any more inhibited in the presence of an international monetary unit of stable value than in the presence of an international unit without anchor, and a stable-value international unit would not interfere in any way with anything that Lord Keynes has proposed in his Clearing Union."

Finally, Graham (p. 428) raises a question that emerged in personal correspondence with Keynes on the subject. "It is the intransigence of the attitude taken here, and by Professor Hayek, which is, I think, troubling Lord Keynes." Graham states that Keynes was very reluctant in accepting unemployment and social costs in the name of some international standard purity, such as the gold standard. "How much
otherwise avoidable unemployment, he [Keynes] asks [to Hayek], would you be willing to bring about for this purpose?"

KEYNES' NOTE IN RESPONSE TO FRANK GRAHAM

Keynes (1944, p. 429) replied to Frank Graham in a short two-page note, after Graham's article. He observes that "Prof. Graham's statement of my point is a very fair one," and regrets that in the note in which he responded to Hayek he expressed himself much more briefly than what would be necessary by the complex nature of the subject. Keynes concedes the point that a commodity reserve currency is intrinsically more elastic than the single commodity gold standard. Indeed, Keynes admits that "[m]y

own sympathies have always fallen that way. I hope the world will come to some version of it some time. But the opinion I was expressing was on the level of contemporary practical policy; and on that level I do not feel that this is the next urgent thing or that other measures should be risked or postponed for the sake of it."

Therefore, Keynes agrees with the commodity currency reserve arrangement as a better suitable theoretical proposal. He endorsed it and praised for one day some version of it to be applied. Keynes' fear is merely on the pragmatic ground and the feasible arrangement compatible with the then contemporary practical policy, taking into account the public needs for reconstruction and economic growth after the Second World War. One could argue, in this sense, that his international monetary scheme proposed in Bretton Woods was a feeling for the times as his *General Theory* had been, in the context of a decade of unemployment and monetary instability in Britain in the 1920s and the Great Depression in the 1930s.

In conclusion, Keynes (p. 429) justifies his position for four reasons. First, the immediate task is "to discover some orderly, yet elastic method of linking national currencies to an international currency, whatever the type of international currency may be. So long as national currencies change their values out of step with one another, I doubt if this task is made easier by substituting a tabular standard for gold. Indeed the task of getting an *elastic* procedure may be made more difficult, since a tabular standard might make rigidity seem more plausible. Perhaps unjustly, I was suspecting Prof. Hayek of seeking a new way to satisfy a propensity towards a rigid system."

The second is on the political wisdom of an international monetary system that puts some pressure on national price levels. Keynes is skeptical of this external pressure on national wage levels because of the
numerous political possible negative ramifications of such schemes. This, of course, is not to deny that he condemns any national policy destined to make "money wages forever soaring upward to a level to which real wages cannot follow." As it is well known, Keynes is also personally allergic to inflation, as his writings from *The Economic Consequences of Peace* (1919) to *How to Pay for the War* (1940) demonstrated. For Keynes (1944, p. 430), "it is one of the chief tasks ahead of our statesmanship to find a way to prevent" this indiscriminate persistent inflationary pressure, but the proper realm of this

task is within the domestic national level. The third reason is a purely practical, pragmatic, and political one. "Why waste one's breath on what the Governments of the United States, Russia, Western Europe and the British Commonwealth are bound to reject?"

The fourth and last point is concerned with the timing of the proposal. In his view, the right way to adopt the tabular standard is to develop a technique for such and gradually "accustom men's minds to the idea through international buffer stocks." When the technique is politically matured, and opposition and prejudices to the model are overcome, only then "it will be time enough to think again." Concerning the buffer stocks, Keynes says that he can "enthusiastically join forces with Professor Frank Graham and Mr. Benjamin Graham," although he felt a reserve about the timing of the implementation of this in his days, i.e., December 1944, when many materials and raw commodities were scarce. In conclusion, Keynes (1944, p. 430) reiterates the practical discussion. "All this, I agree, is very low-level talk; for which I apologise. But it was in fact from a low level that I was, in the first instance, addressing Professor Hayek on his dolomite."

TOWARD RECONCILIATION: FIGHTING WARS IN CAMBRIDGE

On September 7, 1940, Nazi Germany started its bombing campaign against the United Kingdom. From this day on, for 56 of the next 57 following days and nights, the German *Luftwaffe* air fleets systematically bombarded London. With the *Blitz* targeting London, the London School of Economics (LSE) evacuated to the University of Cambridge, with the plan of semi-merging the two faculties. The LSE evacuation started in September 1939, when the war exploded. While he did not move to Cambridge, until the early autumn of 1940, Hayek traveled weekly to Cambridge. Feeling hesitant about the difficulty and expense of moving an entire household, Hayek was one of the last to move to Cambridge and therefore found it very difficult to find accommodation.

In this process, Keynes helped Hayek to found rooms in his own college, the King's College, Cambridge. As Hayek (1994, p. 97) recollected, "I could at first not get suitable accommodation at Cambridge, the Robbins, who had then a cottage in the Chilterns, took my family for a year, while Keynes, with whom by that time I had become very friendly, got me rooms at King's College." In

October 1940, Keynes arranged with the Vice-Provost of the King's College and wrote to Hayek to manage the rooms. In August 1941, the King's Council elected Hayek to be a member of the High Table until the end of the LSE evacuation. In 1945, in addition, Keynes crucially supported Hayek in his election as a new fellow of the British Academy.

Since Hayek spent the war years in Cambridge, he and Keynes could share much time during the weekends or whenever Keynes stayed in Cambridge for his university duties. The time and space sharing permitted the development of a close personal and intellectual relationship between both men. Their personal relationship improved dramatically in the 1940s. As Hayek (1994, p. 91) recollects,

> "We had become very friendly, because we shared so many other interests, historical and outside economics. On the whole, when we met, we stopped talking economics. I used to meet him fairly frequently during the war, although he was of course working in London, but during the weekends he came back to Cambridge, and I was of course at King's College. So we became personally very great friends, including [his wife] Lydia Lopokova."

This reconciliation did not only occur in a personal sphere. In the 1940s, Hayek and Keynes were allies in the fight against inflation as a mechanism to finance the war effort. During the war, as Hayek (1994, p. 91) recollects, "I was fighting on Keynes' side against his critics, because Keynes was very much afraid of inflation. I actually had published one or two essays, one reviewing his wartime pamphlet ["Review of *How to Pay for the War*, by J. M. Keynes," 1940] and another one on the problem of combating inflation ["Mr. Keynes and War Costs," 1939e], which he had already approved. During the war years, the great danger had become inflation, no longer deflation; so we were up against inflation." In his "Mr. Keynes and the War Costs" (1939e, p. 740), an article that appeared in the "Middles" on 24 November 1939 in *The Spectator*, Hayek supported Keynes' plan to afford the war effort drafted in two previous articles entitled "Paying for the War" in *The Times* on November 14 and 15. Divergences of the past turned into convergences to the war policies' necessities. "As Mr. J. M. Keynes in the past has often expressed views which were peculiarly his own, it may be said at once that the main features of his present proposal […] will probably be accepted by most economists - certainly by some which in other respects have been regarded as his scientific antipodes."

With his fear of post-war inflation, completely opposed to Keynes' fear of a post-war slump, Hayek added his suggestion of a capital levy to Keynes' plan - which Keynes incorporated in his enlarged and

revised pamphlet version published on 27 February 1940. Hayek (1939e, p. 741) argued for "a post-war capital levy on old wealth, payable partly in shares of the industrial capital of the country, to create a trust fund, a kind of giant holding company, which would give the holders of the war savings, instead of a claim against the government, an equity in the industrial capital of the country."

As Keynes (1940, p. 88) acknowledged in *How to Pay for the War*, "[t]he proposal to meet deferred pay out of a post-war capital levy was first made by Prof. von Hayek in an article published in the *Spectator* on November 24, 1939." Keynes wanted to use the capital levy to finance the cash repayment after the war, while Hayek favored using the capital levy as equity titles in the productive capital. Nevertheless, writing to Keynes on 3 March 1940, on receiving Keynes' scheme revised version, Hayek was eager to emphasize that "I have now read it carefully and still find myself in practically complete agreement in so far as policy during the war is concerned. It is reassuring to know that we agree so completely on the economics of scarcity, even if we differ when it applies" (Keynes, 1978, p. 106).

Keynes' convergence with Hayek in the matter of anti-inflation and price stabilization is deep. In his endorsing review of Keynes' 1940 pamphlet, Hayek (1940, pp. 321-2) himself stressed this fact. "After Mr. Keynes had acknowledged that 'in war we move back from the Age of Plenty to the Age of Scarcity' and that 'the Age of Scarcity has arrived before the whole available labour has been employed,' the difference which had so long separated him from the more 'orthodox' economists had disappeared and any contribution to the burning problem coming from him was certain of the closest attention."

Hayek even pressed to issue a public letter bringing different well-known economists of all traditions and schools to support Keynes' plan for the war. He wanted to make it clear that there economists were unanimous on the policy for the war. Unfortunately, with the majority of the British economists in government service, the project never materialized (see also Moggridge, 1992, p. 631ff). Nevertheless, Hayek (1940, p. 322) wrote a public statement himself on this professional practical unanimity in his review of *How to Pay for the War* for the *Economic Journal*:

> "[t]he unanimity with which his proposal was approved by economists and the fact that neither serious criticism of the basic idea nor a real alternative was offered are a remarkable tribute paid to the author by his colleagues. It is unfortunate that in the existing conditions this practical unanimity of the experts could not

> find adequate expression. With so large a proportion of the economists of the country in Govemment service, and thus prevented from publicly expressing opinions on questions of policy, it may not be out of place for the reviewer here to record his personal impression that, so far as the- main outline of Mr. Keynes' proposal is concerned, this unanimity was almost complete."

Indeed, this is great convergence between both men. As well as his anti-deflationism, Keynes' anti inflationism is a common constant in his writings, evidenced from *The Economic Consequences of the Peace* (1919) to *A Tract on Monetary Reform* ([1923] 1978) to his proposal for *How to Pay for the War* (1940). In his 1919 book, his critical notes on inflation eroding the pillars of Western civilization and the market institutions are beautifully written and illustrated.

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