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ABSTRACT
This article questions the reflection that gave birth to Keynes' proposals for an International Clearing Union in 1941. The Keynes Plan rests on the intertwining of two intellectual advances. The first was drawn from Keynes' analysis of the international context inherited from the 1930s and the disruption of international payments. The clearing agreements first developed by Germany in 1931 were pioneering experiences in Europe that contributed to the generalisation of exchange controls and clearing offices. The second advance is related to the original Keynesian understanding of the "banking principle", which Keynes wanted to transpose at the international level. Keynes revamped the clearing agreements in force in Europe during the 1930s to set out the International Clearing Union.

KEYWORDS
Keynes plan; clearing; banking system; interwar period

JEL CLASSIFICATION
F33; N10; B31

1. Introduction

In November 1940 the British government invited John Maynard Keynes to prepare a reply to the Nazi plan for Europe released by Walther Funk—the Third Reich's Economy Minister from 1938—earlier in the year. The Funk Plan advocated the renewal of exchange controls and clearing agreements, already in operation since the early 1930s, and their multilateral generalisation with Germany's trading partners. Keynes, whilst criticising the intent of the plan, praised its content, as well as some aspects of the system of clearing agreements developed by Funk's predecessor, Hjalmar Schacht.[1] In September 1941 Keynes wrote that Schacht's policy "was able to return to the essential character and original purpose of trade whilst discarding the apparatus which had been supposed to facilitate, but was in fact strangling it" (Keynes 1980a, 23). The apparatus mentioned by Keynes was the international currency *laissez-faire*, which was "a major cause of impoverishment and social discontent" (Keynes 1980a, 21–22). Although Keynes did not support the philosophy of the German regime, he recognised in it valuable innovations deserving interest for the post-war monetary order to build up: "I have, therefore, taken the line that what we offer is the same as what Dr. Funk offers, except that we shall do it better and more honestly" (Keynes 1980a, 8).

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[1] Hjalmar Schacht was the Third Reich's Economy Minister from 1934 to 1937 and President of the Reichsbank from 1923 to 1930 and from 1933 to 1939.

Indeed, Keynes reused a few concrete principles from the German clearing policies to develop his masterpiece in autumn 1941. Why did he do that? Was it a significant step in his thought? As this paper will show, this insertion rested on the interplay of the historical context and the theoretical advances of the time. Keynes' *Proposals for an International Clearing Union* had the distinction of answering two very different questions. The first question relates to the completion of the Keynesian paradigm. Keynes' work on the Clearing Union is the reconciliation between his analysis of managed monetary economies at both the national and the international level (Cedrini and Fantacci 2018, 149–150). The plan is one of the rare attempts in economics to provide a framework for the interactions of national economies. The second question relates to the context of the deterioration of international monetary relations and the collapse of the gold exchange standard in the 1930s. The proposals for an International Clearing Union (ICU) started from the assumption that German clearing policies were relevant policies and could be a model for Britain, considering its gloomy macroeconomic prospects. This episode also reminds us of the particular—one might say, "historical-deductive"—Keynesian method of developing models and rethinking economics.

The establishment of an international clearing bank is an innovative feature of the proposals. The mechanisms and properties of multilateral clearing remain understudied in economic theory. Clearing is an essential feature of monetary systems, as it is the procedure through which an inflow of means of payment is queued and, following a matching process, finally accepted as a payment by the payee, setting the stage for final settlement (BIS 2018, 4). In this narrow sense, only a small fraction of monetary transactions bypass clearing houses—primarily the cash transactions between individuals. If monetary systems rest on clearing procedures, clearing in a broader sense refers, first, to the organisational process of exchange. The study of this organisational process is of particular interest to understand the banking system's smooth running. Nowadays, when one studies the domestic banking systems in ordinary textbooks, unity of the banking system is taken for granted: the modern reading of the banking system assumes that commercial banks—which are nevertheless competing—have undergone a unification process. Historically, unification happened for most advanced countries in the nineteenth century. Keynes thought that a similar unification process would be both possible and desirable at the international level.[2] Therefore, the core novelty of the Keynes Plan was to transpose the logic of banking systems to international trade.

The link between the historical context and the ICU model has to date not been the subject of further research. After the global financial crisis of 2007–2008, a few scholars revived the need to reform the international monetary system (Alessandrini and Fratianni 2009; Carabelli and Cedrini 2010; Hockett 2013; Amato and Fantacci 2014). The Keynes Plan was resurrected, at least by "a small group of hopeful disciples" (Clary 2017, 980). Most of the studies calling for a new Bretton Woods and in support of Keynes' proposals have not been concerned with the historical context. This article is sympathetic to the authors that revived the Keynes Plan, and argues that the ICU is still relevant today. However, the plan's contextualisation enables to improve the

[2] Faudot (2019) elaborates on the organisational issues undermining the creation of an International Clearing Union.

intelligibility of the original plan and some of the obstacles to its implementation. Faudot (2019) addressed the influence of the 1930s and the Schachtian agreements on Keynes' writing. The present article goes further in associating with the international liquidity problems specific to the 1930s the advances in monetary theory and banking analysis at the time. The contribution of the article is therefore to draw attention to the nascent concept of the banking principle in Keynes' thought and how the ICU is related to it. The article assumes that in the early 1930s and until the outbreak of war, Keynes was ahead of its time in understanding national banking system but still lacked a consistent view of international monetary issues and suggestions for improvements in line with the banking principle. We argue that the approach developed by Keynes in 1941 represents a step forward in the radically new vision of endogenous money, or even, to quote Cedrini and Fantacci (2018), an intellectual testament from the perspective of monetary theory. In this respect, the International Clearing Union appears as the crossroads of history and monetary theory.

This article addresses the historical facts and reflections that led Keynes to propose the reform of international clearing. Section 2 provides a historical account of clearing agreements in the 1930s and their supposed advantages and shortcomings. Section 3 highlights how Keynes rethought the clearing agreements and exchange controls of the 1930s by making them a pillar of Keynesian post-war reforms. The paper then shifts attention to the theoretical issues at stake. Section 4 describes how Keynes drew inspiration from his understanding of domestic banking systems to design an interstate clearing organisation at the international level.

2. The "spirit of the age" in the 1930s and the pragmatic solution of bilateral clearing agreements[3]

Keynes argued that his plan for an ICU "lays no claim to originality" since it uses "general ideas, which are born of the spirit of the age" (Keynes 1980a, 170). This section will provide a historical account of the clearing policies in force in the 1930s in Europe and highlight the main inspirations for Keynes' analysis.

What did international clearing look like in Keynes' time? All international trade transactions—regardless of the era—resort to clearing and settlement agreements, however, the arrangements in effect may not be publicised under "normal" circumstances. Exporters and importers usually ignore them: commercial banks from different monetary areas organise themselves on a private level and arrange how they deal with the domestic currencies used to settle international trade. Such private agreements have been effective for most of the twentieth century and up to the twenty-first century.[4] Even when gold was not fully demonetised, for example during the 1920s, international transactions were conducted via correspondent banking. Hence, commercial banks developed various forms of correspondent banking as well as various foreign exchange operations. In such schemes, banks need access to key currencies. Today, the US dollar

[3] This section includes pages imported from Faudot (2019, section 3) and translated from French.

[4] As Moggridge (1986, 57) underlines: "Until the 1930s, the issue of when the holder of a particular currency might sell it to acquire another was unlikely to concern the international monetary analyst or reformer, for the norm was that currencies were fully convertible for all types of transactions."

is the dominant currency of choice for international trade. Therefore, the banking systems of the rest of the world are obliged to organise their clearing procedures by dealing with the US banking system.[5]

There have been several historical exceptions to that configuration of private-led international clearing. Whilst private clearing agreements had facilitated international trade until the 1930s (LON 1935, 35), international trade collapsed during the Great Depression. Due to capital repatriation, European banking systems were severely damaged. Several countries were no longer able to honour their war debts and decided to hold onto scarce currencies by building up barriers to trade. Interstate clearing agreements were born in these harsh circumstances.

European governments organised exchange controls to limit financial and exchange rate instability, as well as to save scarce currencies, through barter-like agreements. By doing this they fixed the exchange rates and supervised trade transactions amongst the members of the agreements. Before starting to describe these clearing agreements, it is worth noting that they came in a variety of forms. Because of nations' desire to shape multilateralism to suit their own circumstances, negotiations between nations eventually led to bilateralism, which explains the great number and diversity of agreements. Agreements were based on various motives, which determined their respective forms and procedures. The first generation of agreements in the 1930s was conceived to enable liquidation of the financial burden inherited from the First World War.

First came the rationing of exchange for imports. Germany was particularly concerned, following the bank crisis in July 1931 that forced Germany to close its banks, to stop international reimbursement of various external debts and implement exchange controls (the latter starting in June 1931). German leaders (most notably Heinrich Brüning) knew that Germany could not pay its war reparations, especially after summer 1931.[6] In fact, most German leaders felt they *should* not. Returning from Germany in January 1932, Keynes confessed:

> I did not find anyone, except those in the highest and most responsible positions, who were even prepared to discuss with me the possibility of Germany paying anything whatever, in any circumstances. Any German Minister who was to make any statement inconsistent with this could not survive a week.
>
> (Keynes 1982a, 49)

Germany did not want to devalue its currency either (Heuser 1934, 211; Child 1958, 27). The instability of exchange rates and competitive devaluations also played a significant role in the decision to set up clearing agreements. Skidelsky (1998) describes the 1930s as a period in which the United States opted for punitive devaluations despite its current account surpluses; German industries suffered from the devaluation of their partners' currencies. Nevertheless, Germany rejected the devaluation of the Reichsmark for two reasons. First, such a measure was considered pro-inflationary and, with hyperinflation still fresh in their minds, German central bankers could not contemplate it. Second, the amount that Germany had to reimburse as war reparations was tied to

[5] Each time major financial crises occur, the dominance of the US dollar is daunting for the banking systems of the rest of the world, hence the above-mentioned renewed interest in the Keynes Plan.

[6] Germany faced a massive liquidity crisis: "by the end of 1931 over 6.5 billion marks had been withdrawn from Germany or sent out by German investors seeking greater security" (Overy 1996, 20).

gold (Clement 2004). Had Germany devalued its currency, the amount of domestic currency that it should have saved for war reparations would have increased by the same proportion.[7] Being unable to pay its war debt, whilst being unwilling to devalue, the solution approved at this time in Germany was the establishment of exchange controls and then clearing agreements. Germany was not in default of payment. Nevertheless, the transfers were temporarily stopped. Given that Germany could not obtain new credit from the rest of the world, several decrees strengthened the ban on exporting capital from Germany (Piatier 1937, 30).

Foreign holders of German accounts tried to liquidate their claims by selling them at a discount (Child 1958, 33–35 for a detailed account). Some countries only wanted to exploit their blocked assets as purchasing power, and entered into clearing agreements to that end.[8]

> In other words, it is the foreign bondholder who enables the foreign importer to buy German goods at a lower price than would otherwise have been possible, or rather, according to the German regulations, it is the foreign bondholder who enables the foreign importer and the German exporter to carry through the transaction at all.
>
> (Heuser 1934, 216)

Exchange controls forced a growing number of countries to accept trade with Germany. This explains why most of the western European countries—including France and Britain—progressively adopted clearing agreements. By 1938 twenty-five countries had a bilateral clearing agreement with Germany (Overy 1996, 52). About 80% of Germany's foreign transactions were conducted through clearing channels from 1935 to 1938 (Child 1958, 208).

Clearing agreements of this era refer to interstate clearing agreements as opposed to private clearing agreements, which, as mentioned, existed amongst private international banks for international trade transactions. In such interstate agreements, exporters and importers are aware that clearing agreements exist because they involve the centralisation of all external transactions, using national central banks as a clearing office. Exporters are paid by the domestic clearing office in their own currency, whilst importers foot their bills with the currency of their clearing office (Figure 1). "From the national currency received by the importers, the clearing office takes the sums necessary to pay national exporters" (Roselli 2014, 122). Domestic clearing offices are responsible for organising the netting of the transactions. Between two countries with a signed clearing agreement "there is only the relation between their two clearing offices which, if necessary, have to settle reciprocal debts and credits through their respective central banks" (Roselli 2014, 123). The main advantage of this kind of agreement—which was of particular interest for Keynes—is that exchanges of goods do not need key currency flows, "so that any transfer of currency in cross-border commercial transactions is avoided" (Roselli 2014, 123). However, it raises many issues. For instance, as

[7] Germany contested the gold clause of the Dawes Plan and the Young Plan, especially from 1933.

[8] "These techniques have been called subsidisation of exports at the expense of foreign creditors. […] The discount at which foreigners were willing to sell their claims on Germany was appropriated by the exchange control authority and directed to the specific benefit of German export trade and to the foreign importer. The extra receipts made some additional export sales profitable. But they also permitted importers abroad to purchase goods or services which they might otherwise have foregone" (Child 1958, 37).

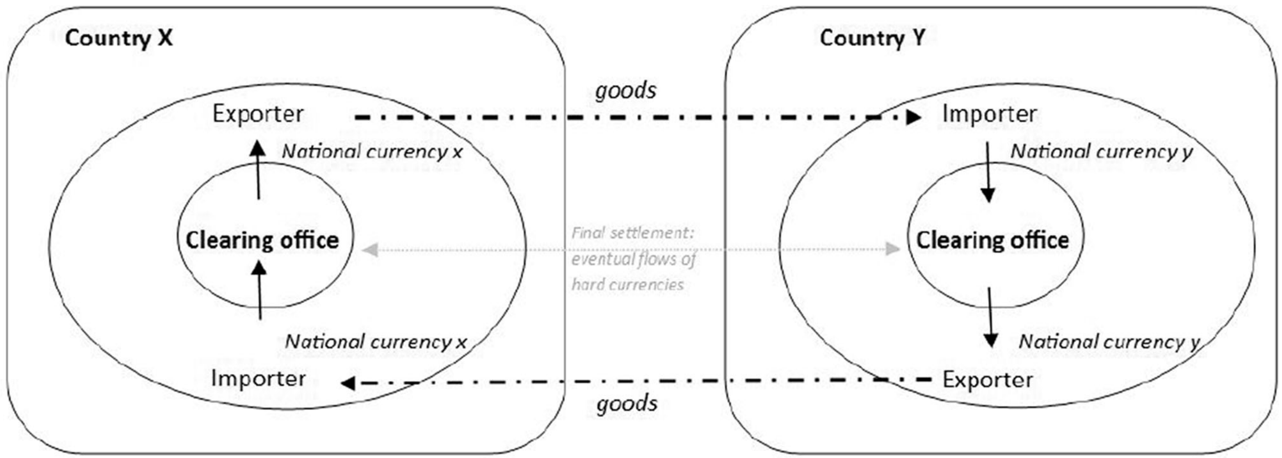

Figure 1. Bilateral trade in a clearing agreement. Source: Author's figure, adapted from LON (1935, 28). *Note*: The grey arrow is a reminder that some agreements provided the settlement in hard currencies at the end of the period. However, in many cases, the accumulated claims resulted in blocked balances to be used to import from the debtor country, without any transfer in hard (i.e., convertible to gold) currencies.

Neal (1979, 393) explains, the terms of trade are difficult to measure: "The unit of measurement is one national currency or the other, but each is kept in blocked accounts within the country issuing the currency." The appropriate information on the evolution of the terms of trade could be obtained on the black market for blocked currencies. In 1931 the Reichsbank organised clearing in Germany. When the Nazis came to power in 1933, clearing became even more complex, coordinated amongst several offices and involving more than twenty regional exchange offices (Piatier 1937, 151–152). Exchange controls were coupled with stringent controls on imports from, for example, the Commodity Control Board of 1934, which was responsible for determining that (a) the funds for payments were available, (b) the product matched the needs of the German economy and (c) the terms of sale were sufficiently favourable (Child 1958, 136).

In response to German exchange controls, many countries implemented exchange controls and trade restrictions in turn. German clearing agreements became a tool for changing the flows of European trade to fulfil the particular needs of national industry, especially as of 1934 and Schacht's New Plan (24 September). The New Plan had several objectives, including: restrict Germany's imports from Anglo-Saxon creditor countries, provide Germany with raw materials from countries more inclined to buy German products and clear an external surplus to make the rearmament policy sustainable over time. Those objectives also explain the generalised preference for bilateralism. Germany targeted Latin American countries and the Balkans in particular to obtain raw materials whilst these countries bought finished products from Germany.

These bilateral clearing agreements did not prevent the decline of German trade, which was in any case a general feature of the Western world at the time due to lower incomes and prices. As demonstrated by Child (1958, 215–217), although German trade indeed declined abruptly, Germany's share of total world trade experienced a relatively small decline (9.3% in 1929, 8.56% in 1937).

Clearing agreements were only conceived as a temporary device and a "pragmatic" policy (Roselli 2014, 120); they enabled indebted countries to clear their debt without using their liquidity. As Roselli (2014, 120) wrote: "Clearings were designed to benefit both exporting countries (which were fearful of not being paid) and importing countries (which had the opposite fear of not being able to pay)."

The League of Nations (LON) (1935) enquiry shows that most of the LON members wished to end as soon as possible the agreements that had been signed because of the circumstances. Schacht himself was not enthusiastic when he offered bilateral clearing agreements to Germany's trade partners:

> Already at the time when I introduced the bilateral trading system I made it known that I regarded it as a most inadequate and unpleasant system, and expressed the hope that it would soon be replaced by an all-round, free, multilateral trading policy.
>
> (Schacht 1967, 87)

Given the growing number of participating countries in bilateral clearing agreements, economists raised the issue at international meetings (most notably by the BIS) to establish a multilateral clearing house. Nevertheless, most of the countries did not want to implement multilateral clearing agreements. For instance, Italy strongly opposed the project of multilateral clearing (LON 1935) as did France, which wanted to exclude debtor countries. This demonstrates the unwillingness of countries at the time to share standard rules of mutual economic adjustment. The main arguments against multilateralism were the lack of confidence in the commitment of trade partners to reach equilibrium. For its part, Germany wanted to establish a position of strength with each trading partner. Therefore, despite its debtor position, Germany was interested in bilateral negotiations (Roselli 2014, 121). Some countries' inability to deal with or understand multilateral clearing was accentuated by the choice of exchange rates for such agreements being based neither on former gold parities nor on the evolution of the terms of trade as reflected in the black market for blocked currencies. As Roselli (2014, 126) emphasised, exchange rates were often manipulated by stronger countries at the expense of weaker countries.

However, most contemporary analysts considered clearing agreements a relevant policy measure, albeit for short-term goals only. Given the constraint of key currency shortages, national measures would enable governments to limit the damage of the drop in trade. Child (1958, 30) wrote that, before the Nazis came to power, the purpose of the early exchange procedures was "that of increasing trade and reestablishing the mechanism of international payments". To Bidwell (1939, 380), Schachtian clearing agreements were "clever opportunism", though "one of the most effective features of German policy". The wartime European clearing mechanism did provide for each economist a first working model for international clearing (Tribe 2007, 241–245; see also Iwamoto 1997, 29–31). On the eve of war, exchange controls and clearing agreements were generalised in the Western world, except for the United States.

In 1940 Walther Funk offered to continue the policy of clearing agreements and proposed a new economic order for Europe, promoting multilateral clearing; Berlin would host the clearing house. According to Gross (2017, 291), even for Nazi leaders "the spaghetti bowl of bilateral treaties that governed European trade proved to be a, if not the, major obstacle to reconstruction". Funk unveiled his plan for the economic reorganisation of Europe on 25 July 1940. He argued that bilateral agreements must lead to European integration, including clearing at the European level.

> Starting from the methods of bilateral trading already applied there will be a further development in the direction of multilateral trading and of the adjustment of the trade balances of individual countries, so that the various countries can engage in regulated trade relations among themselves through the medium of a clearing house.
>
> (Funk 1985, 66)

In practice, Nazi Germany set up Funk's plan in 1940 with the participation of seventeen countries in the *Verrechnungskasse*—the central clearing house headquartered in Berlin (BIS 1942, 30). However, as reported by Einzig (1944, 61), this multilateral experience was a failure due to Germany's worsening debtor position *vis-à-vis* the clearing house as a whole. All of Germany's trade partners did not know if they would be able to dispose of their credit balance. This situation rather encouraged all the creditors to restrain their exports and thereby prevented the expansion of trade in the continent.

3. How Keynes revamped the 1930s clearing agreements

Keynes never stopped following Germany's economic situation, which he rightly knew had a major impact on the rest of the world. He was well-informed of the German clearing policy led by Hjalmar Schacht, whom he considered in 1933 a skillful man[9]: "a man of strong will and probably the only member of the new regime who has a real experience and knowledge of international finance" (1982a, 247).

Schacht's first merit was that he was one of the first officials to break away from the old orthodoxy of *laissez-faire* (Gross 2017). Keynes shared the opinion that the world economy could not bear a return to the gold standard and *laissez-faire* monetary order, which had left unsolved "the problem of maintaining equilibrium in the balance of payments between countries" (Keynes 1980a, 21). Keynes was asked several times to criticise German economic policy—he was in charge of writing anti-Nazi propaganda against Funk's plan in 1940—but he was embarrassed and could not mask the positive aspects of the German clearing policy.

Keynes had already joined the ranks of proponents for government control over cross-border capital flows, not just for emergencies but as a permanent feature of economic policies (Crotty 1983). In 1933, in his famous article "National Self-Sufficiency", he claimed that

> economic internationalism embracing the free movement of capital and of loanable funds as well as of traded goods may condemn my own country for a generation to come to a much lower degree of material prosperity than could be attained under a different system.
>
> (Keynes 1933, 185)

Keynes subsequently maintained his position on capital controls (Helleiner 2015). He believed that great progress had been made during the Bretton Woods negotiations with the general recognition of the right of a sovereign country to control capital movements.[10] As a corollary to this, Keynes' objective was to disconnect domestic banking from international constraints and safeguard the central bank's capacity to set the interest rate. As he wrote to Harrod in 1942: "the whole management of the domestic economy depends upon being free to have the appropriate rate of interest without reference to the rates prevailing elsewhere in the world" (Keynes 1980a, 149).

In addition to controls on capital movements, Keynes recommended the implementation of exchange controls. Controls on foreign exchanges—meaning sterling's inconvertibility—were a more delicate question in Britain as the Treasury and British monetary authorities were fiercely opposed to them (Einzig 1944, 33). Until 1939 Keynes was undecided as to whether exchange controls should be applied in Britain (Keynes 1978b, 12). As Sayers (1956) emphasised, since the end of the 1930s *The Economist* and radical interventionist economists, such as Tomas Balogh called for the tightening of existing foreign exchange controls. Keynes rallied these voices at the beginning of 1940 in the wake of *How to Pay for the War*, as Britain was confronted with

[9] In 1928 Keynes wrote a flattering review of Schacht's book (Keynes 1978a, 293–295).

[10] In Keynes' speech to the House of Lords in May 1944, he stated: "Not merely as a feature of the transition, but as a permanent arrangement, the plan accords to every member government the explicit right to control all capital movements. What used to be a heresy is now endorsed as orthodox" (1980b, 17).

worrisome capital outflows. Loopholes in external trade enabled useful resources to escape Britain, even after the exchange restrictions of September 1939 (Keynes 1978b, 157ff.). Eventually, exchange controls were vigorously reinforced in summer 1940, and Keynes joined the newly created Exchange Control Conference in August 1940.

Exchange controls became a pivotal feature of Keynes' Clearing Union, "certainly one that greatly facilitates matters" (Keynes 1980a, 212). Such controls should involve the central bank as a centralising agent: according to Keynes, the "International Monetary Fund" discussed in Bretton Woods would only make sense if each member country's central bank was responsible for centralising external transactions. He explained this clearly in a speech in May 1944 when he was afraid that the American delegation at Bretton Woods would not share his view:

> I think the Americans were always rather confused as to whether they wanted central banks to support the private market in exchanges, or whether they wished to concentrate transactions in the hands of the respective central banks. In my view the former is mere conservatism and cuts right across the philosophy of the Fund. With the other alternative, the general structure of the Fund begins to make sense.
>
> (Keynes 1980b, 123)

Hence, ICU operations could not run properly without capital controls, foreign exchange restrictions and stable and fixed exchange rates. It is worth mentioning that both the relevance and sustainability of capital controls require the establishment of an ICU, otherwise the existence of capital controls hinders the optimal allocation of international liquidity (i.e., short-term movements of key currencies) and controls would soon be abolished for the sake of the system.

Keynes' position at Bretton Woods was facilitated by the United Kingdom's economic situation at the time. Roselli (2014, 201) draws a parallel between Britain with the sterling area and German–Balkans relations, arguing that "the whole framework of controls adopted by the United Kingdom closely resembled the features of the Reichsmark bloc and the network of bilateral clearings that Germany had stipulated". Just as Schacht had for Germany <10 years earlier, in 1941 Keynes was ready to defend "unorthodox" agreements on behalf of the UK to better deal with his country's debtor position, even if it involved temporary discrimination against uncooperative creditor countries. On 25 April 1941, in a letter for Ashton-Gwatkin that includes the first elements of the ICU (Skidelsky 1998, 23–24), Keynes suggested for the United Kingdom "a continuation of payments agreements or something of the same kind", whilst he hoped that "with experience large elements of a multilateral system could be introduced. […] But unquestionably it would involve a discrimination against the United States if she persisted in maintaining an unbalanced creditor position" (Keynes 1980a, 17).[11] In contrast, the White Plan considered foreign exchange controls as interferences in the international flows of goods and capital.[12] Therefore, the White Plan expected to reduce them over time (Robinson 1943, 164–171, see also Helleiner 2015).

[11] During the negotiation of the Lend-Lease agreement, Keynes—on behalf of the British delegation—struggled to maintain the possibility of trade discrimination associated with imperial preferences. Americans aimed to dismantle them (see Keynes 1982b).

[12] As Helleiner (2015) emphasised, exchange controls were in any case unacceptable to the US financial community.

Although the ICU provided overdraft facilities to participating countries its final objective was to reach an equilibrium in trade, and this was also a condition for its sustainability over time. The Keynes Plan implied a penalty not only against debtor countries but also against creditor countries. Keynes had drawn lessons from the bilateral 1930s clearing system: multilateralism decreases the likelihood of trade imbalances, since country A, recording a bilateral deficit with country B, can be compensated by a bilateral surplus with country C. Furthermore, since they were only conceived as temporary devices, bilateral agreements were not coupled with rules or any other objectives of harmonisation between trade partners. Instead, the discipline of the system that Keynes proposed was multilateral by nature. The Clearing Union can charge central banks with an excessive (bancor) overdraft, but it also has at its disposal a set of tools to discourage hoarding of (bancor) reserves in the creditor country's account.

Keynes made clear that the high degree of rule over discretion is an important feature of the clearing union, "perhaps the most difficult question" to determine (1980a, 116). The rule of penalties against a creditor by charging interest was supposed to prevent the creditor from remaining "entirely passive" (1980a, 117).

In 1941 Keynes did not believe in the superiority of any other proposed solutions to achieve trade equilibrium, such as the redistribution of US gold or bilateral arrangements, although these alternatives could have the effect of providing an international overdraft.

> The objection to particular arrangements of this kind is that they are likely to be influenced by extraneous, political reasons and put specific countries into a position of particular obligation toward others; and also that the distribution of the assistance between different countries may not correspond to need and to the actual requirements as they ultimately develop.
>
> (Keynes 1980a, 75)

Keynes anticipated US dominance and the fact that its creditor position would give it considerable power over debtor nations, which turned out to be true in the post-war era.

4. Drawing upon the analysis of domestic banking systems

In all likelihood, Keynes was seduced by Funk's proposal not only of multilateralisation of clearing but also divorce from gold as a standard mechanism for coordinating the currency system.[13] By contrast, he found it regrettable that Harry D. White, the American delegate at Bretton Woods, still clung to gold. In August 1942, in a letter to the Head of Treasury Mission in Washington, Sir Frederick Phillips, Keynes confessed his frustration that White "had not seen how to get round the gold standard difficulties and has forgotten all about the useful concept of bank money" (Keynes 1980a, 159).

[13] Funk stated in July 1940 that "What the Americans will eventually do with their gold, we are not in a position to say. The gold problem is first and foremost a problem for the United States of America. In future gold will cease to be the basis for European currency, because the currency will be independent of gold and will depend on the value given to it by the state, or in this case by the state-controlled economic system. The clearing system described above makes gold superfluous for currency and payment purposes within the clearing area. […] Moreover, if all the gold which lies underground in America were to be placed on an island and if this island were to be submerged as a result of a natural catastrophe, the economic life of nations would still go on" (Funk 1985, 69).

What does Keynes mean by the "concept" of bank money? Bank money is thoroughly analysed in his 1930 *Treatise on Money*. Since the beginning of the 1930s, one of Keynes' essential advances was a theory of endogenous money or, at least, its premise.[14] According to this view, money creation is demand-driven. When banks grant loans to their clients, they increase the amount of bank deposits. All deposits "are created by the banks holding them" (Keynes 1971a, p. 30). A commercial bank' creation of new deposits is not constrained *ex-ante* by its reserve of central bank money, as long as it holds bank deposits from its clients. The main constraint on commercial banks' money creation is that all banks have to "move forward in step" (Keynes 1971a, p. 26), to avoid individual bank's significant indebtedness *vis-à-vis* the banking system as a whole—as interbank settlement requires central bank money. Exogenous regulatory constraints on granting loans may apply to the banking system (e.g., reserve requirement ratio); however, they intervene only as an *ex-post* limitation. This *reversed causality* is of primary importance. It implies that the level of reserves in the banking system is not the cause but the result of commercial banks' credit policies.

According to the endogenous money view, any monetary system was born with debt-credit relations (Parguez and Seccareccia 2000). Although the endogenous money view is more obviously observable in the contemporary world, in which banks feature prominently, it is also appropriate for understanding the historical genesis of money without referring to the myth of barter. Keynes claimed that the earliest beginnings of bank money "are lost in antiquity" (1971a, 13). As this section argues, Keynes' ICU was also the logical outcome of a long process of rethinking the nature of money and the monetary economy.

4.1. The nature of money

According to Keynes, a monetary system rests primarily on money of account, which is "the title" or "the description", whilst money that is a means of payment is "the thing which answers the description" (1971a, 3). Means of payment are expressed in the unit of account and extinguish debts and deferred contracts. The means of payment exist only in their relationship to the unit of account. In a sense, money of account is, first and foremost, a numerical system. Hence, as a numerical system, it does not need to be backed by any commodity.[15] This assumption was the first step towards heterodox approaches to money. Keynesian scholars assumed a credit-based account of the emergence of money, in clear opposition to the transaction-based view, which has always been essential to the orthodoxy (Bezemer 2016, 1279). The transaction-based view considers barter as the genesis of merchant society, despite the lack of historical evidence. According to this view, barter results in the election of commodity money. As Ingham (2001, 309) wrote, mainstream economics has assumed that money of account "evolves as the natural consequence of the use of a commodity as a medium of exchange".

[14] As several post-Keynesian authors argued (e.g., Kaldor 1982), Keynes never freed himself from concepts drawn from the theory of exogenous money.

[15] However, the monetary system is associated with a symbol of national sovereignty, which does not have economic meaning *sensu stricto*.

The widespread belief that barter is at the origin of money—and predates it—is a serious obstacle to understanding the primary function of a unit of account. It also prevents the understanding of the nature of bank money.[16] Thus, Keynes endorsed an unconventional vision of money according to which monetary systems are not essentially backed by any commodity. It is a pivotal point of the Keynesian endogenous money view.

4.2. The endogenous money view and the banking system

The endogenous money view has since been refined by several post-Keynesian economists (Lavoie 2014, chapter 4). The view rejects the quantity theory of money and considers that money creation is driven by the demand for credit money. In an essay that they consider "a highly stylised version of the Keynesian banking system", Rogers and Rymes (2000, 264) emphasised that

> It is not just that 'money' is endogenous. The crux is that the banking system has evolved to the point where no exogenous 'money' is required to determine nominal magnitudes. All one observes is the debits and credits (overdrafts and deposits) offered by the banks as they supply intertemporal transaction services to firms and households. Similarly, the banks are using the intertemporal transaction services offered by the central bank. One observes positive and negative settlement balances. No deposit or positive settlement balance counts as money, any more or any less than does an overdraft or a negative settlement balance. No reserves exist. There is no base.

Rogers and Rymes summarised in a few lines what the endogenous money view means in Keynes' *Treatise on Money* and how it differs from the mainstream view of money. They also stressed the importance of the payment system's architecture to facilitate the rebalancing of the net positive and negative positions *vis-à-vis* the banking system as a whole. The payments system is conceived as "a set of contractual relationships".

> In a Keynesian banking equilibrium, no exogenous entity called money is required. All that is required is a set of contractual relationships between the central bank and the commercial banks, and between the latter and the non-bank agents using the banks for the execution of intertemporal transactions. The positive settlement balances, which those banks who hold them will be attempting to reduce, are just matched by those who hold negative settlement balance and who will also be attempting to eliminate them.
>
> (Rogers and Rymes 2000, 263)

The banking system equilibrium is realised within the payment system, ultimately overseen by the central bank. The proposal for an ICU mirrors this system at the international level. Costabile (2009, 86) wrote that "The logic of the Banking Principle implies that bank money should be created as overdraft facilities" by the International Clearing Bank in such a way that "there would be no demand for any 'key currency' as the means for international payments and as a reserve asset in central banks' portfolios".

Keynes' ICU, as well as the experience of bilateral clearing agreements of the 1930s, are often compared to barter due to an alleged absence of money. The comparison is

[16] See Hudson (2004) for an account of debt theories of money.

erroneous since such clearing arrangements still suppose accounting and bookkeeping with a defined unit of account. However, within defined periods, transactions are queued and matched, and no currency is indeed used as a means of payment to settle international transactions. Similarly, a modern and well-organised banking system has almost no need for any base money to operate effectively, thanks to the clearing process and overdraft facilities. This idea is present in Keynes' representation of the banking system in *Treatise on Money*, and is key to his plan for an ICU.

4.3. The evolution of Keynes' ideas on the regulation of the international monetary system

Acceptance of Keynes' theoretical advances took time as they implied a departure from the orthodoxy deeply rooted in British economists' understanding at the time. In the 1930s Keynes recognised that monetary economies of production would need a stable international framework to address domestic unemployment and the gold standard displayed severe shortcomings for that purpose (Moggridge 1986, 60). However, he did not always see a need for an ICU for international transactions.

Before promoting a radical reform of the system like the ICU, Keynes had long advocated a reform that aimed at improving access to international liquidity (gold or hard currencies). However, it seems that in 1930 Keynes had not considered the full implications of his endogenous money theory.

Keynes was uncertain about what the United Kingdom should do with the gold standard (Edwards 2017) and was therefore undecided on the best mechanism to recommend for the regulation of the international monetary system. In *Treatise on Money*, Keynes was a proponent of a supranational central bank issuing gold-denominated notes and responsible for clearing operations between constituent central banks, whose practical objective would have been "the management of the value of gold" (Keynes 1971b, 338). In March 1930 he thought that the BIS could, in the near future, assume the function of a clearing house for the central banks (Einzig 1932, 249–252). In 1932 he promoted a text written by Hubert Henderson, according to which the BIS should issue notes to grant liquidity free of interest to debtor countries (Moggridge 2017, 529). The following year Keynes suggested the creation of "a greater absolute amount of gold reserves by a new international authority empowered to issue gold-notes", which involved "a de facto qualified return to the gold standard" (Dyson 2010, 601).

Given that this series of plans was conceived to improve international liquidity, national restrictions on capital flows would be removed because they were logically considered as interferences in the international allocation of liquidity. Therefore, Keynes evolved from defending a reform that would have improved the supply of key currencies for countries in need of international liquidity to a more radical reform in 1941 based on the principle of an international clearing bank whose main purpose would have been to unify inconvertible national currencies into a consistent system.

During the 1930s the de facto generalised exchange controls and the inconvertibility of national currencies—which laid the foundations for developing the bilateral agreements of the 1930s—paved the way for Keynes to conceive of the end of *laissez-faire*.

The ICU is representative of the maturity of Keynesian thought, which not only distances itself from the gold standard but also wants to prevent its perverse effects (Vines 2003; Cedrini and Fantacci 2018).

4.4. Creating a consistent and efficient institution

In 1941 Keynes proposed to delegate the international clearing of national currencies to a central clearing house, using the domestic banking system as an example. Is it relevant to compare the domestic banking system and the international economy? Admittedly, the comparison must be handled with prudence. In many aspects, both levels are very different. However, as Keynes wrote, such a comparison is relevant once it is grasped through the lens of historical experience:

> Just as the domestic situation was transmogrified in the eighteenth and nineteenth centuries by the discovery and adoption of the principles of local banking, so (I believe) it is only by these same principles to the international field that we can cure the manifest evils of the international economy as it existed between the two wars.
>
> (Keynes 1980a, 99)

According to Keynes, the basic banking principles can—and should—be generalised to international monetary relations. Keynes stated in the second draft of its proposal (1941) that

> The idea underlying my proposals for a Currency Union is simple, namely to generalise the essential principle of banking, as it is exhibited within any closed system, through the establishment of an international clearing bank. This principle is the necessary equality of credits and debits, of assets and liabilities.
>
> (Keynes 1980a, 44)

The example of the "closed system" is frequently addressed by Keynes as the domestic system, in which all bank debts are expressed in the same currency. It is not the "closed" economy as economists usually understand it, that is closed to international trade. By definition, the banking system of a national economy is a closed circuit due to the principles of bank money, which has no validity—that is power of discharging debt—outside its own banking system.

The rejection of the orthodox concept of exogenous base money means that the money supply is driven by commercial banks. However, it does not dwarf the central bank's role in its task of regulating the economy. Keynes considered in the *Treatise* that "The weapon of a central bank consists in the power to alter interest rates and the terms of lending generally" (1971a, 163). As Rogers and Rymes (2000, 263) wrote:

> there is a pure Keynesian system with no anchor, no positive base money on which the system rests. The total level of overdrafts and deposits, the indication of the total flow of the intertemporal transaction services provided by the banks, will be regulated not by the non-existent base money but by the bank rate policy of the central bank.

It could seem contradictory to assert that the system does not rest on base money whilst at the same time reaffirming the relevance of the central bank rate. The central bank rate applies here on the commercial banks' balances in the central bank's account.

The rejection of the concept of base money does not mean that there is no central bank money. However, the central bank money is created endogenously—through overdraft—and not exogenously (see, e.g., Lavoie 2005). It is not an exogenous base.

The International Clearing Bank—as the central bank of central banks—would also be empowered with regulatory "weapons", mainly the penalties on the endogenously created bancor overdraft. Such weapons are devoted to the rebalancing of the system. Keynes' final objective "was to alleviate the problem of economic imbalances on an international scale, similar to his attempt to alleviate problems of imbalance in the domestic economy which he had addressed in the General Theory" (Clary 2017, 995).

Applying the concept of bank money to the international monetary system could facilitate the global recycling of balances[17]:

> In short, the analogy with a national banking system is complete. No depositor in a local bank suffers because the balances, which he leaves idle, are employed to finance the business, of someone else. Just as the development of national banking systems served to offset a deflationary pressure which would have prevented otherwise the development of modern industry, so by extending the same principle into the international field we may hope to offset the contractionist pressure which might otherwise overwhelm in social disorder and disappointment the good hopes of our modern world.
>
> (Keynes 1980a, 113)

The proposal was that national economies be connected by an international settlement institution that would follow for the international exchanges "the same principles of two-tier banking that ruled most of the national systems" (Piffaretti 2009, 18). The International Clearing Bank should assume the role of the central bank of central banks—which solves the issue of interoperability of national currencies—in such a way that "every national currency is made into a world currency" (Schumacher 1943, 154). Hence, the new clearing system would appear as a "currency union", which was the name that Keynes had chosen for the title of the first version of his plan (the exact title was *Proposals for an International Currency Union*). This goes hand in hand with the fact that the ICU would stabilise exchange rates from different monetary areas, a task similar to that performed by the central bank at the national level with commercial banks' debts.[18]

In the modern history of capitalism, the process of unifying commercial banking systems at the national level was tortuous. Such a process will be, however, more difficult to reproduce at the international level (Faudot 2019). All the members of the clearing system must accept both elasticity (overdraft facilities) and discipline (final settlement). The commitment to respect common rules raises concerns about the possible surrender of national sovereignties, which remains a significant hurdle to the Clearing Union's success.

[17] However, to do so, the Keynes Plan needs to be amended in the sense of the Schumacher (1943) proposal, which considered that the ICU must be combined with long-term lending missions.

[18] As a clearing house devoted to commercial banking, the central bank standardises and creates the unity between the balance sheets of rival commercial banks. The central bank guarantees the interoperability of commercial bank debts used by non-financial agents as a means of payment. The unit of account in which all the banks are operating is the embodiment of this unity.

5. Concluding remarks

This article discusses the combination of historical context and theoretical advances regarding Keynes' view on international clearing. The *Proposals for an International Clearing Union* represent fulfilment of Keynes' thinking, which transposed to the international economy its conceptions of endogenous money and domestic banking systems. The plan also accommodated much of the contemporary factual context—particularly the "unconventional" policies of clearing agreements, of which Germany was the leading promoter in 1931—of Continental Europe and Latin America. This external policy eventually led to the formulation of the Funk Plan by the Third Reich's Economy Minister. These events happened right in front of J.M. Keynes, who wisely observed the economic conditions of Europe and Germany in particular. This context was of crucial importance to trigger Keynes' interest in the reorganisation of international payments.

The German clearing policies and Keynes' proposals were similar in that both divorced from gold as a means to regulate currency exchange rates whilst looking for an international monetary order, and both promoted interstate clearing to overcome the shortage of hard currency. In addition, Keynes provided a multilateral discipline for the Clearing Union—a discipline that would apply equally to every country, whatever its size—which, incidentally, was its main originality.

Keynes' proposal for an ICU must be reconsidered and taken seriously; the dramatic shifts in the global economy since Bretton Woods do not make the Keynes Plan obsolete. International transactions still lack a multilateral clearing union capable of dealing with national currencies, as central bank money does with commercial bank monies at the national level. Therefore, our task has not changed, that is "to discover some orderly, yet elastic method of linking national currencies to an international currency, whatever the type of international currency may be" (Keynes 1980b, 39). Keynes' proposal provides a solution to the imbalances that an international monetary system induces when based on national key currencies and private banks' clearing agreements. It also aims to answer the international currency hierarchy issue, a tremendous source of asymmetries and imbalances. Whilst it would not cure all their economic ills, the proposal for an ICU could, arguably, be a good starting point for integrating emerging and developing countries on a new and less asymmetric basis (Kregel 2015, 302–303). More than seventy years after the Bretton Woods negotiations, the disturbing movements of international financial flows and the instability of exchange rates demonstrate how much establishment of the ICU remains topical.

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