Looking for Stability: Repercussions of the Russian Revolution in the Work of John Maynard Keynes

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The paper analyses and proposes an answer to the question of how the Russian revolution is reflected in the work of John Maynard Keynes. The starting point of the analysis is an interesting yet not very well known episode of the economist's life: a period when Keynes, then a British Treasury official, was entrusted with the task of creating a currency for Northern Russia. The ensuing design and architecture of the North Russian rouble virtually became an opportunity for Keynes to put into practice some of his general currency-related ideas, and the entire project influenced Keynes's economic thought in two specific ways. First, the Russian experience can be traced in the economist's reflections on two fundamentally different financial policies: the inflationary approach adopted by the Bolsheviks, and the anti-inflationary strategy of the British government. Keynes made use of his experience with the Russian hyperinflation in a multitude of his works, especially in the papers on inflation and its consequences. Second, certain elements of the project influenced the actual formation of Keynes's view on the function and balancing of the international monetary markets. This part is based on monitoring the continuity of thoughts and actions, starting from India Currency and Finance and ending with the North Russian rouble and the design of the bancor.

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The aim of the paper is to propose an answer to the question of how the Russian revolution is reflected in the work of John Maynard Keynes. The starting point lies in the interesting and rather little known fact that Keynes, as an executive officer of the British government, was charged with the task to set up a new currency for the region of Northern Russia. After the Bolshevik revolution, British troops were sent to the Murmansk and Arkhangelsk regions, entrusted with the responsibility for both protecting the supplies sent by the Allies to support the tzarist army and eliminating the chance that these provisions could fall in the Bolsheviks' hands. Apart from securing the safety of the region, they also participated in the administration of the occupied land. To achieve this purpose, the deployed British forces needed a stable currency guaranteed by the Treasury, especially by its employees John Maynard Keynes, Dudley Ward, and Dominick Spring-Rice.

This short episode of Keynes's life is not very well known: it is mentioned by neither Minsky (Minsky 2008) nor Davidson (Davidson 2007), and even Austin Robinson, a close colleague, ignored it in his, otherwise very detailed, biography (Robinson 1947). There is no mention of the period in *The Collected Writings of John Maynard Keynes*, the publicly accessible corpus of Keynes's texts, or in *A Short View of Russia*, Keynes's short paper from 1925, in which he comments on his later journey to Russia.

Only two sources refer to Keynes's active participation in the currency creation. The first one is a selection from his correspondence; in a letter to his mother of September 21, 1918, he says: "My most amusing job just lately has been to invent a new currency for Russia. Dudley Ward and I have been spending a great deal of time on the details, as we have had to design the notes, get them printed, choose the personnel, answer conundrums and do the whole thing from top to toe. We hope to have the plan launched on the world in two or three weeks' time" (Harrod 1951, p. 266).

The second source is an article by Dominick Spring Rice published in 1919 in *The Economic Journal* (Spring Rice 1919), which served as a starting point for the two follow-up papers dealing with this subject in more detail (Schuler, Hanke 1991; Ponsot 2002). Both of these comment on the subject from a rather historical point of view, providing extensive archive material, mostly documents from the Foreign Office. However, their authors omit the significance of the episode for the later development of Keynes's ideas. The whole Russian experience left two imprints on his economic thinking related to internal and external monetary stability. The former one is connected to the reflection on two fundamentally different economic policies: the Bolshevik inflationism and the British anti-inflationism; the latter imprint then concerns the shaping of Keynes's opinions on the working and balancing of international monetary markets. It is these two aspects that the present article deals with, aiming to propose an answer to the question of how the Russian revolution experience and the issue of the North Russian rouble influenced Keynes's work.

In the first part of the paper, Keynes's career and professional interest in currency issues are outlined. In the second one, currency rupture in the revolutionary Russia and the scheme of a new currency issue designed by Keynes are described, together with Keynes's reflection on Russian inflation and other references to Russian

events. The last section of the study then discusses the actual concept of the North Russian rouble in relation to the economist's views on the expedience of short-term fixed exchange rates. Importantly, Keynes's solution is put in context of his later recommendations concerning the organization of the international monetary system. Although the scope of Keynes's interest gradually expanded to progress from the prewar monetarism towards a dynamic analysis of fiscal policy and its combination with monetary policy, the idea of short-term fixed rates as the elementary mechanism to stabilize the international monetary system remained a constant of the economist's thought.

John Maynard Keynes and the origins of his interest in currency-related problems

John Maynard Keynes was a son of John Neville Keynes, a professor of logic and political economy at Cambridge University, and he inherited his father's interest in economics and its social dimension. For the formation of his theories, the underlying element consisted in not only education but also a position with the British administration which he held and that enabled him to experience the operation of several economic mechanisms in practice.

After completing his studies at Eaton and Cambridge, he spent two years in civil service, namely in the India Office, though he would have preferred the Treasury. Although Keynes's memoirs inform us that the economist spent his mornings reading *The Times* and his afternoons working on his dissertation, it was actually this tenure that inspired his first economic treatise, *Indian Currency and Finance* – despite the fact that the work was published only in 1913, namely when Keynes had been lecturing for five years at Cambridge University as a specialist focused on the issues of currency, interest, and monetary values (Robinson 1947).

In the book *Indian Currency and Finance*, his inclination towards analyzing the topics which later turned out to be fundamental for his theories, including his interest in uneven economy fluctuations, their impact on markets, and the possibilities of preventing such phenomena, is evident. However, these basic topics still remain in the background of this monograph; the whole work is more specific and focuses rather on contemporary problems of British colonial administration in India, mainly on the issue of currency and the banking industry across this subcontinent.

Keynes poses the question of how to secure a sufficient amount of quality coinage for India. He is against the plan to start striking gold coins in the Mumbai mint; instead, he recommends introducing the gold exchange standard and supporting the trust of the Indians in paper money. According to him, the gold in circulation should not be in the form of coin gold but bank reserves, because golden coins can never satisfy the (foreign) demand for gold, this metal being "an international, not national, currency." (See Keynes 1913, p. 29; cf. Kemmerer 1914). For this reason, then, it is appropriate, in countries like India, to promote banknotes, which can secure not only a sufficient amount of currency but also adequate and seasonally flexible money supply (Keynes 1913a, pp. 96-97). This is related to another part of the book

dealing with the Indian banking system; Keynes considers risky the decentralization of banks and intensive seasonal demand for money unless they are supported by a properly elastic monetary system to work as a buffer against these demand-side shocks.

Here, Keynes uses the word *buffer* (or rather *buffer stock*), which is to be frequently employed in his other texts, for the first time. This *buffer* is supposed to absorb the recurrent fluctuations of the money market, which are generated either because of seasonal reasons, as he emphasizes in *Indian Currency and Finance*, or due to uneven progress of the capitalist market economy, which is then reflected in, for example, sudden and unpredictable changes in the real income of households, as is mentioned in *A Tract on Monetary Reform* (1924) as well as within papers released several years later. Keynes refers to the everyday fluctuation on the international monetary market resulting from seasonal or other circumstances repeatedly (Keynes 1924, p. 177, 184, 189, etc.). The interest in this volatility foreshadows Keynes's lifelong work.

The economist further asserts that India should introduce the gold exchange standard, and instead of golden and silver coins, banknotes should be issued by a newly founded central bank to guarantee such issues and to administer governmental finance (thus keeping the money in circulation).

These suggestions and recommendations were all made use of five years later in the design of the monetary architecture of the North Russian rouble, which was supposed to secure a stable and accessible currency in the British intervention area during the civil war of 1918 and 1919. The issue scheme turned out to be an impressive success story, especially if compared with the inflation chaos in the regions controlled by the Bolsheviks; moreover, the project virtually became a preliminary model for Keynes's later efforts to conceive a new structure of the international monetary system.

Keynes and inflation: Russian and British monetary policies in the 1918 - 1919 Russia

When Keynes discusses inflation in the chapter *Europe after Treaty* of his book *The Economic Consequences of the Peace*, he quotes Lenin's idea about destroying capitalism by eliminating currency, i.e., a phenomenon he had been well-acquainted with since his working on the establishment of the North Russian rouble. "Lenin is said to have declared that the best way to destroy the Capitalist System was to debauch the currency. ... Lenin was certainly right. There is no subtler, no surer means of overturning the existing basis of society than to debauch the currency." (Keynes 1920, p. 120).

The enormous inflation started by the Bolsheviks combined two goals – to raise funds for waging the civil war and to disrupt the existing elements of market economy.

The first steps directed towards eliminating the old order and establishing a new one were taken soon after the Bolsheviks had taken control of the Russian government. The reform was to concern both the social and the economic spheres. In

this period of time, non-monetary economy, centrally controlled and redistributive, was considered ideal.

Right after the seizure of power, the Russian Bolsheviks started to consistently destroy everything they considered old and obsolete, and they were progressively paving the way to establish a newly structured society. In the economic sphere, the plan was to achieve the given purpose using several tools, three of the most important – apart from intentional inflation – being nationalization, inclusion of enterprises in public budgets, and centralization of the economic system. Fundamental changes of industrial relations were combined with non-economic instruments, mostly repression, which had been proclaimed already in the first months of the Council of People's Commissars' reign (see, e.g., Lenin 1987, Otázky hospodářské politiky [Problems of economic policy], p. 150; Jak organizovat soutěžení [How to organize competition], p. 223, ibid.; the article Kdo se zalekl krachu starého a kdo bojuje za nové [Who is afraid of the collapse of the old and who fights for the new], p. 219, ibid.)

After the October Revolution, several items were quickly removed from the state budget; most of these had been related to war expenses and repayment of the foreign debt.

The new government did not recognize the debts of the previous administration, which divested Russia of the obligation to cover the repayments and interests but also severed the country's ties with international financial markets; thus, the government had to seek funds solely within the limits of the state. This step was of far-reaching consequences and, as a matter of fact, embodied one of the most important acts performed by the nascent power, which, through this simple refusal to recognize the debts, determined the direction of its practical and theoretical policies for years to come. Whenever the new state needed money in the following period, the means had to be sought exclusively on the internal market. The foreign investors' reluctance can be well illustrated by the fact that in 1924, three years after the NEP had been put into effect, British bankers were still unwilling to grant loans to Russia; the actual granting was conditioned by the restoration of the private ownership exerted by foreign companies and by recognition of both public and private debts (see Bankers' Memorandum to British Prime Minister, The Barrier, April 15, 1924). The Americans were cautious too, so the only loan of some significance in the 1920s was provided to Russia by Germany in 1926 (Williams 1992, pp. 44-45).

The first steps of the Bolshevik government were focused on collecting financial resources and spending them solely on retaining power. In the years 1917-1921, the state budget was based on two grounds: the issue of paper money and forced agricultural in-kind contributions (in early 1921, tax collection was put to an end by the finance commissariat due to its inefficiency).

In the first months of 1918, the mass of the money in circulation multiplied both quantitatively and qualitatively as a result of the previous years' development. Spring Rice points to the availability of various banknote issues: the tzarist banknotes, the thousand-rouble and two-hundred-and-fifty-rouble banknotes issued by the Duma just after the downfall of the Tzar, Kerensky's twenty-rouble and forty-rouble banknotes, several exchequer bills issues not recognized by the Bolsheviks, the tzarist postage-stamps (recognized as currency by the Bolsheviks), the local paper money of

distinctive character, some peculiar coupons of local authorities, and, in autonomous areas such as Arkhangelsk, a Treasury bill issue guaranteed by the local authorities. The emissions backed up by the Duma were called *dumkas*, those initiated by Kerensky's government came to be nicknamed *beer-labels*, and the Arkhangelsk currency was recognized as *walruses* because of its appearance (for more about the money chaos, see Spring Rice 1919, p. 281). The discipline and centralization of new banknote issues disintegrated entirely.

According to ordinary Russians, the gold, silver, and tzarist banknotes kept safe in people's homes and used as little as possible in exchange proved to be the most valuable instruments of payment. Gresham's law – bad money drives out good – held true regarding not only the economic but also the political situation. People did not believe that the new regime would last, and they expected at least a partial restoration of the Tzar, whose reign was generally considered peaceful. Various exchange rates began to form on the markets. An external exchange rate found application in trading with Russian currencies on foreign markets, where the rouble was experiencing a steady fall. The decline of its value was influenced by not only the increasing amount of money and new types of banknotes but also the civil war and other factors (in London, for example, the rouble rose momentarily in February 1918 thanks to certain rumours about Russia not having material for more printing). However, as proposed by Šrom, "the printing was arranged again very soon", so the exchange rate returned to the falling trend (Šrom 1924, p. 343).

One of the new government's first steps was to nationalize the general industry and banks through the decree of December 14, 1917, and this action also involved confiscating all money in excess of 10,000 roubles from private accounts. With respect to the nationalization of banks by the Bolshevik government, which did not enjoy a wider public support, it appears as no surprise that cash at hand was divided between the peasants and the Bolsheviks; the latter, however, needed to possess all of it. The amount of money that could be withdrawn was limited, but, at the same time, the government wanted the citizens to deposit their money in national banks.

In 1918, the Soviet rouble was introduced, the highest value banknote being 10,000 roubles. Three years later, the swiftly rising inflation necessitated the release of 25,000, 50,000, and 100,000 rouble banknotes; at the end of 1921, exchequer bills in the values of one, five, and ten million roubles were issued. The amount of money in the economy was rising exponentially, as shown in Tab. 1 below.

Tab. 1: The estimated amount of money in circulation (billions of roubles).

June, 1914	1.6
June, 1916	6.6
March 10, 1917	10.9
June, 1917	13
June, 1918	40
1919	225
1920	1,169
1921	17,544
1922	1,584,232

Source: Šrom, J. Sovětské Rusko [Soviet Russia].

The increased volume of the new currency corresponded to the then internal exchange rates; these were created for the needs of the black market, using the regular market mechanism, and they reflected the subjective value that the people of a country assigned to individual issues of individual nominal values of individual governments. The fact that the highest subjective value was readily attributed to the tzarist banknotes illustrates better than anything the citizens' regard of the previous regime and their distrust of the current one. However, the rising inflation gradually eliminated the banknotes of lower nominal values, and their trading became the subject of speculation only.

To exemplify this condition, let us note that, in the early 1922, 1,000 tzarist roubles in hundred-rouble bills were sold for 380,000-400,000 Soviet roubles, whereas in five-hundred-rouble bills they equalled 100,000-200,000 Soviet roubles, and in low value coins the price amounted to 135,000-150,000 Soviet roubles. A thousand-dumka bill was available for 17,000-20,000 Soviet roubles. Further, 1,000 roubles in Kerensky's twenty-rouble bills were offered for 60,000-65,000 Soviet roubles, and in forty-rouble bills for 20,000-25,000 (data adopted from Šrom 1924, p. 344; similarly in Spring Rice 1919, p. 281, or Nove 1992, p. 49).

This monetary chaos was entered into by the Allied troops actively participating in the Russian civil war. During World War I, military aid provided by the Allies was concentrated in the Northern Russian ports of Murmansk and Arkhangelsk. After the deal between the Bolsheviks and the Germans regarding Russian withdrawal from the war, the Allies decided to protect this military aid from being used in the civil war or against them (see, e.g., White 1994, p. 623).

On June 23, 1918, the Allied forces under British command seized Murmansk; on August 2, they took Arkhangelsk and drove the Bolsheviks 100 miles off south. The Allied troops comprised around 10,000 soldiers, and there soon appeared the need to solve the problem of what money should be used in exchange for the locals' goods and services (such as those provided by the dock or railroad workers). But the process of handling this task also involved resolving the conundrum of how such currency was to be obtained and its value retained; because of the banking collapse and the Bolshevik government's ban on foreign currency trade, it became difficult for the troops to acquire a larger amount of valid roubles. The cash required for the expenses related to the contingent maintenance could only be

purchased on the black market, which was, however, not capable of providing a sufficient amount of banknotes, not speaking of their declining value. Therefore, in the memorandum of July 9, the British command in Murmansk recommended printing special money to satisfy the needs of the troops (see Hanke, Schuller 1991). In September, *Department A* of the British Treasury, which played a key role in negotiating relevant economic questions with the Allies and which had been led, at that time for more than one year, by J. M. Keynes, was charged with this task. Together with his colleague Dudley Ward, the expert began to devise the whole mechanism to the minutest detail.

Considering the fact that, in both of the occupied ports, local provisional governments viewed the interventionist forces with favour, the selected solution was profitable for the municipal authorities too.

An *Emission Caisse*, presided by Ernest M. Harvey, a major British banker, was established in Arkhangelsk. The institution supported the Northern Russian government and was able to distribute cash to other governing bodies in Russia as well, if these had been recognized by the Allies. It could also issue banknotes in certain specific cases, but only up to 25% of the money reserve, and was entitled to buy local provisional government bonds. The new banknotes were covered by pounds from the reserves of the Bank of England, which secured at least 75% of the new rouble money reserve (this was rather uncommon; for previous currencies pegging to the pound, such coverage was usually 105-110%, as proposed within Hanke, Schuller 1991). The British government agreed to purchase 100 million new roubles and allocate them to the British military administration; 2.5 million pounds sterling came to be deposited with the Bank of England, and the profit from the interests (together with that potentially obtained from the provisional government bonds) was intended for transfer to the *Emission Caisse*.

The key problem consisted in setting up the convenient exchange rate to support this monetary system. For the new banknotes to be put into circulation at an exchange rate following up with the existing market trends, the rate was set to 40 roubles per pound. This ratio had been determined with regard to the exchange status of the old rouble in Arkhangelsk (oscillating between 45 and 48 roubles per pound), and when the new rouble was used to pay salaries for the first time, the workers received approximately the same amount of roubles as previously.

The British government guaranteed that the reserves of the Bank of England constitute an inalienable and exclusive property of the *Emission Caisse*, leaving the Russian government devoid of any access to the funds; in other words, the reserves were thus a property of the banknote holders. The *Emission Caisse* pledged to exchange these banknotes at the rate of 40 roubles per pound, and this declaration was printed on all the banknotes. By the rouble being tied to the pound, by setting a fixed exchange rate modeled on the real value of the former rouble, by regular payment of salaries in the novel currency, and by its necessity in the exchange process, the impact of Gresham's law was neutralized. These North Russian roubles - or English roubles, as they were also called (see Hanke, Schuller 1991, p. 662) - could be exchanged for dollars or francs respecting the exchange rate of these currencies to the pound. Again, the principle of a local currency pegged by a fixed rate to a currency board was

applied, as it had been in India and West Africa (the West African currency board) before. Its actual creation anticipates some of Keynes's reflections connected with the bancor.

The first ship carrying the banknotes arrived in Arkhangelsk on November 3, 1918. Unfortunately, the considerable speed of issue led to the new currency being very similar to the old tzarist roubles, the tzarist insignia included; this, under the given circumstances, could eventually have discredited the whole project. For that reason, the *Emission Caisse* staff spent several days taping up these insignia on each of the banknotes, which were then put into circulation on November 28, 1918.

The roubles were used to cover the cost of the intervention and the administration expenses, thus financially backing necessary activities that otherwise would have been normally covered by relevant British military authorities. In the indicated manner, the new currency began to circulate among the citizens, who used it to buy the imported food and other supplies. This money then returned to the British government by means of the traders and banks concerned. Unlike other currencies, the North Russian rouble was a reliable measure of value and, thanks to the guaranteed convertibility to the pound, it safely retained its value.

The volume of currency in circulation among the people of Northern Russia reached over 100 million, the trade with Northern Russia remained solid, and the Allies were rid of the problems related to the cost of maintaining their military mission. However, the system, which satisfied all the parties involved, depended heavily on the presence of the Allies in a region that, after the end of World War I, was becoming increasingly more indefensible. The Allies, who did not really intend to find themselves dragged in the bloody Russian civil war, decided to progressively withdraw their soldiers. The last Allied troops left Russia on September 27, 1919, and the army of the provisional Northern Russian government was not strong enough to resist the Red army, which entered Arkhangelsk in February 1920. The inflation and low-quality currency accompanying the newcomers began to gain momentum.

Already during World War I, Keynes had suspected that the existing relative currency stability with alternating periods of moderate inflation and deflation was coming to an end. Inflation kept rising in all states involved in the war because other resources to finance the war efforts – tax increase and loans – had already been exhausted. In Russia during the Great War, the cycle manifested itself similarly as in the West, gradually gaining speed after the revolution of 1917. And Keynes was well aware of the impact of a rapid growth in the amount of money in circulation while designing the North Russian rouble as a stable antipole of the rouble that was being devalued by the Bolsheviks. When the inflation in Russia rose by several orders of magnitude, the economist observed that Lenin had been right when he said that the best way to destroy capitalism is by destroying the currency (Keynes 1920, p. 120).

Keynes and the architecture of an international monetary scheme: the reserves and the exchange rates

In spite of the fact that echoes of the functioning North Russian rouble system are significantly weaker in Keynes's reflections on the international monetary structure than in his treatises related to inflation, they can still be regarded as truly mirroring the economist's views on exchange rates and external currency stability. The North Russian rouble marks only the beginning of the road which ends with the supranational currency of the bancor; however, even this early and simple architecture bears certain constants of Keynes's thought. The economist created for Russia a monetary system based on short-term exchange rate fixation and the dismantling of reserves as idling, non-productive capital that can find viable application in economy. In practice, the concept was successfully verified through the Emission Caise, and later Keynes described its theoretical features in A tract on monetary reform and A treatise on money to reuse the relevant basic elements when proposing an International Currency Union. Although - as already pointed out in the introductory chapter -Keynes progressively modified a number of his opinions and, especially in the 1930s, moved towards interconnecting his monetary policy ideas with fiscal policy notions, his outlook concerning the two above-mentioned principles of the international monetary system remained surprisingly stable.

The currency designing experience from World War I affected Keynes's thought in two ways. One arose from the fact that the whole world was entering into an era of inflation money, and the time of relatively stable currencies pegged to gold was at an end; the other consisted in that, for the stability of international markets, a new functional system had to be created.

The growing threat of inflation was being more and more reflected during the war; it influenced Keynes's personnel policy at Department A of the British Treasury, to which he recruited O. T. Falk, a graduate of Balliol College of the University of Oxford, who had made a favourable impression with his knowledge of finance (Keynes invited the graduate to join him, disregarding the fact that Falk had probably not received any formal economic education and, before starting his career with Division A, he worked as an actuary and a businessman on the London stock market; see Harrod 1951 or Millmow 2002 for further details). Inflation was rising both in Britain and abroad, and it soon became clear that, after the war, it would affect the actual solution of the elementary question of whether to revert to the gold standard or not. For this reason, O. T. Falk began to hold dinner parties during 1917 for people who, like him, were interested in currency and finance. These dinner parties were made formal in the course of time and transformed themselves into *The Tuesday Club*, the most powerful association of economists in the 1920s, which has persisted to this day. At these soirees, new organization of the international monetary system was being planned, predominantly because the old framework had ceased to be regarded as satisfactory. Unlike Keynes, however, Falk did not promote fixed courses, which change spontaneously from time to time: he rather advocated a floating exchange rate that would better reflect the varying situation on the markets (Millmow 2002, p. 400). Despite his close colleague's different opinion, Keynes continued following the idea he had set up in his book *Indian currency and finance* and tested on the model of the North Russian rouble, i.e., the idea of fixed exchange rates.

The currency chaos caused by the banknotes of various issues circulating in Russia at the time of the Bolshevik revolution resulted in, among other difficulties, the lasting devaluation of the rouble in relation to other currencies and the ensuing foreign trade obstacles. In January 1917, the rate at the London stock exchange was 16.5 roubles for a pound. At the end of 1917, it dropped to 36.5 roubles per pound; there was no difference between the tzarist, Duma, or Kerensky roubles. In January 1919, the rate in London corresponded to 36 tzarist roubles or 58 dumkas for a pound, and the Soviet roubles and those of Kerensky's government were not traded at all. In December 1919, the rate was 200 tzarist roubles or 510 dumkas for a pound. In October 1920, the rate fell to 340 tzarist roubles or 1,350 dumkas per pound; in December 1920, the indicator reached 650 tzarist roubles or 3,500 dumkas per pound (for more, see Šrom 1924, p. 344).

Even this problem was nevertheless eliminated to a certain extent by the North Russian rouble, which became accepted also in international trade. The traders who wanted to buy goods in Northern Russia could obtain their cash in roubles needed in Arkhangelsk by paying an equivalent amount of money in pounds to the Bank of England; after the deal was finalized, they could exchange the roubles for pounds at the same place. In the case of payment using the new roubles through the *Emission Caisse*, those of the traders that sold goods to Russia were sure to be delivered the amount with no rate loss worries. Owing to this, international trade began to develop in the northern regions again. Keynes's emission of the North Russian roubles and its impact on the international trade is a factor that could definitely support his opinions on the profitability of fixed exchange rates in the short run. As a matter of fact, it is the short-term fixation of the exchange rates that his general reflections on the architecture of exchange rate systems are based on.

Another major purpose of the North Russian rouble was to redefine the role of reserves in the international monetary system. In the given rouble scheme, the British government deposited 2.5 million pounds with the Bank of England to obtain 100 million North Russian roubles having a fixed exchange rate and allocated not only to circulate around the occupied territory but also to help develop the foreign trade. Moreover, the said deposit could be used by the Bank of England in other banking operations too. Thus, the discussed emission structure actually constituted a precursor of the system where the role of reserves is diminished, meaning that they (gold or foreign currency reserves) can be turned into effective demand.

The time of the North Russian rouble, however, was too short to enable further development of this monetary instrument, and Keynes therefore did not need to analyze or solve either the problem of long-term disequilibrium in the balance of payments or the related question of long-term exchange rate changes. These topics were then considered more profoundly only within *A tract on monetary reform*, where the economist searched for applicable methods to join the stability of prices over long periods with the stability of exchanges over short periods (Keynes 1924, p. 189). Keynes recognized the function of gold in suppressing short-term exchange rate fluctuations as one of the procedures to secure the related rate fixation, but he was also

aware of the problems arising from such use of the precious metal. In the international monetary system, gold had assumed the role of a double agent: it simultaneously constituted the store of value and a commodity. Thus, when introducing the equilibrium of exchange rates within the gold standard scheme, the central bank was made to discriminate between the tendency of the pound sterling to change value in terms of commodities and the tendency of gold to change value in terms of commodities (Keynes 1924, p. 191). Keynes realized that "the instability of money [is] compounded ... of two elements: the failure of the national currencies to remain stable in terms of what was supposed to be standard of value, namely gold; and the failure of gold itself to remain stable in terms of purchasing powers" (Keynes 1924, p. 140). For this reason, the final sections of Tract on Monetary reform propose that the gold reserves should be separated entirely from the note issue and left to act only as an "...the store of value to be held as a war-chest against international currency: emergencies and as a means of rapidly correcting the influence of a temporarily adverse balance of international payments and thus maintaining a day-to-day stability (of the sterling - dollar) exchange (Keynes 1924, p. 195). ... The whole of the reserves should be under the control... of the Bank of England, the volume of the paper money would be consequential ... on the state of trade and employment, bank-rate policy and Treasury Bill policy" (Keynes 1924, p. 196).

If we thus abandon the dependence of banknotes on gold and separate the problems of external and internal currency stability, only a minor step will take us towards the idea of removing the necessity of reserves and understanding the role of the central bank as a mere clearing centre of trade with a supranational currency that observes a fixed exchange rate (such a currency serves as a measure of value only, not as a value holder). If this clearing currency is provided merely as a credit, we can arrive at an outline of the future bancor system.

It was the credit currency together with short-term fixed exchange rate that later became the basis for Keynes's design of a new international finance architecture based on a supranational currency, namely the bancor, which would play the role of a world reserve currency. The name *bancor* was derived from the French word for gold; it refers to bank gold. The administration and issue of this supranational currency was to be under the patronage of the International Clearing Union. A major shift from the previous systems consisted in a different concept of the reserve currency. Bancors were supposed to be a tool for exchange solely; they were not expected to store the value. Every country was to set its exchange rate to the bancor and to gold. Gold could be exchanged for the bancor but not the other way round. Without the consent of the Council, these pegged rates were allowed to change only in the range of 5%; greater exchange rate variations needed to be authorized by the Council. A quota for their available bancor account balance equalling to the average value of export and import in the last three years was assigned to each of the countries. This quota could be changed every year in accordance with the current situation. The amount of the supranational currency was thus freed from expansionary and contract pressures.

To prevent an accumulation of excessive deficits or surpluses on the accounts of individual countries, penalties for amounts exceeding the quota by one-fourth (a penalty of 1% of the quota a year) or one-half (a penalty of 2% of the quota a year)

were established. For countries with deficits, there was an option to acquire a loan from the surplus countries: both parties would thus avoid a penalty. If the deficit of one country showed the tendency to repeatedly reach more than one-quarter of the quota, all the countries would be allowed to devalue up to 5%, or even more in the case of a higher deficit; alternatively, with the consent of the Council, other measures could be taken.

The International Currency Union constitutes a scheme significantly more sophisticated than its predecessor, the North Russian rouble. However, both these systems – multilateral and bilateral – are conceived upon similar principles.

First of all, the bancor preserved what Keynes perceived as the main benefit of the gold standard: the ability to attenuate the sensitivity of exchange rates to short-term influences and thus secure the exchange rate stability in the short run. In the long-term perspective, exchange rates depend on the levels of value, and the bancor was exactly the instrument to simultaneously maintain this merit and avoid immense fluctuations of the value of gold (Keynes 1924, pp. 189-190).

Then, let us note that the strength of both systems lies mostly in the possibility of reducing the gold and foreign currency reserves, which facilitates restriction of the deflationary tendencies caused by retention of the reserves that could not, for the given reason, reflect in effective demand (see Meltzer 1989 (a) or Klaffenböch 2008). And it is reducing the reserves identified by Keynes as capital lying idle that constitutes a significant shift in his reflections on the international monetary system (Meltzer 1989(b)). For the first time, Keynes could examine the benefits of the full involvement of all assets in an economy during the North Russian rouble experiment. Through the deposition of 2.5 million pounds with the Bank of England, the British government obtained 100 million North Russian roubles, or 100 million currency units with a fixed exchange rate designated to be put into circulation abroad and for foreign trade; the central bank was thus enabled to use the reserve of 2.5 million pound in other transactions.

Conclusion

The repercussions of the Russian revolution in the reflections of John Maynard Keynes on currency-related problems is a small but important piece in the mosaic of his economic and political thought; the experience with the economic destruction and monetary collapse of Soviet Russia led to his continuing interest in this country. Keynes came into contact with the Russian environment thanks to his steady attention to problems of monetary policy. For this reason, he was entrusted with the task of creating a new, internally and externally stable currency intended to circulate in regions occupied by the British armed forces. During the Russian revolution, Keynes developed this currency system into a tool that would resist inflation, defy Gresham's law, and facilitate foreign trade payments. These activities in the service of the British Treasury enabled Keynes to practise the principles he had, before commencing the project, described and structured only theoretically. The formation and introduction of the North Russian rouble constitutes one of the few

periods in Keynes's life when the economist ceased to be a mere theorist or advisor in favor of becoming an agile creator; importantly, this involvement was then abundantly reflected in the economist's subsequent works. As regards the inflation problem. Keynes repeatedly utilized the example of revolutionary Russia to illustrate the negative consequences of rapid currency devaluation. He made use of his Russian inflation experience not only in his book The Economic Consequences of the Peace but also in the treatise A Tract on Monetary Reform, where he points to the massive and overwhelming character of inflation in Soviet Russia (higher by several orders of magnitude than that plaguing Germany and Austria). In this context, he also implies that the Soviet government was perhaps the only one to carry out inflationism intentionally in order to devalue its obligations to third parties (Keynes 1924, p. 63). By analyzing the Russian inflation, the economist demonstrated that a government can live rather long on money printing, which is another form of taxation (Keynes 1924, p. 41). Even in the Treatise of 1930, after more than five years of deflation and unemployment in Britain, Keynes continued to be concerned with the dangers of inflation. His warnings contained in Economic Consequences of the Peace were then presented again within Essays in Persuasion (1931), including the above-cited statement made by Lenin.

Using the example of Russia, Keynes could prove for the first time that his monetary system design was a working concept, thus being assured that the short-term fixation of exchange rates is profitable – a view he had already outlined in *Indian Currency and Finance* (Keynes 1913a), carried out in Russia successfully, kept promoting within *A Tract on Monetary Reform* (Keynes, 1924), and exploited anew in the proposal of the bancor. In the long-term perspective, the disequilibrium in the balance of payments was to be solved by currency appreciation, depreciation, or other tools. In cases of a surplus balance of payments, these instruments could include, for example, expansion of domestic credit and demand, tariff reductions, and international loans.

If we examine this particular segment of Keynes's work, we can observe certain continuity in his opinions on the function of international monetary systems, whose stability should be, according to Keynes, secured by short-term fixed exchange rates. These rates could be either tied to the reserves, which he considered natural in the first years of his public activity, or defined administratively under the terms of the International Currency Union and within the limits set through the volume of the international trade of the individual countries, as the economist suggested in his final years. The idea of international money was conceived by Keynes in the 1920s and then developed during the following two decades. A system where gold and foreign currency reserves are fully integrable into economic life and where the (international) currency is a unit of account provided to individual states as credit then logically completes Keynes's reflections on an international monetary system in which the bond between national currencies and the international one should be stable, capable of absorbing partial imbalances, and heading towards long-term equilibrium.

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