Inflation and Stabilisation in Central and Eastern Europe after World War II: The Case of Hungary

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The Central and Eastern European countries were hit by severe devastation and destruction caused by World War II. Besides war damages, Eastern Europe also suffered from a general shortage of basic foodstuffs and commodities. Economic recovery in the defeated countries of the region (Hungary, Bulgaria, East Germany, and Romania) was hindered by war reparations. The Soviets used reparation payments as a political tool to destroy the economic pillars of the independence of Central and Eastern Europe. After World War II, most industrial equipment and machinery were dismantled and shipped to the USSR as war booty.

The paper's objective is to analyse the background of financial reconstruction in Central and Eastern Europe after 1945 by considering the burdens of war reparations and the financial obligations of the defeated countries in the region.

Besides war costs, a significant part of the national resources and income were destroyed. The collapse of production, the shortage of goods, and at the same time, the increase in money in circulation have served as a favourable situation for accelerating inflation.

Reparations diverted substantial resources from the financial reconstruction after the initial postwar period. The assumption of the essay is that both excessive reparation burdens and arbitrary deliveries to the Soviet Union contributed to the rising level of inflation and the paralysis of economic activity in many countries, including the Soviet occupation zone of Germany, Hungary, and Romania. Inflation accelerated everywhere, but there were significant differences. Various attempts were made in each country to roll back inflation and financial stabilisation.

In parallel with the introduction of financial reconstruction in the countries of the region, the main reasons for hyperinflation in Hungary will be analysed based on the data

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from archives and relevant literature overview. In the spring and summer of 1946, one of the most ferocious inflations in the world raged in Hungary. Solving the hyperinflation process contained numerous elements, so people recognised the significance of inflation events in Hungarian money history from the aspect of money theory. So, not only was the extent of the Hungarian depreciation regarded and is regarded now to be unique in the world, but economic experts also mentioned the prepared stabilisation beyond inflationary circumstances and the executed stabilisation from ordinary resources, the establishment of a stable currency, the forint, as a "miracle".

[Economic History; Inflation; Postwar Period; Central and Eastern Europe; Financial Stabilisation; War Reparations; Hungary]

Introduction

The Second World War had a devastating impact on the Central and Eastern European countries. As a result of military operations and allied bombardment, the scale of the losses and destruction was much greater than during the First World War. As Aldcroft and Morewood rightly note, Eastern Europe suffered more than the West after the postwar years. Between 1939 and 1945, millions of people died, were killed, tortured, displaced, or reported missing. Besides severe losses in human lives, there was widespread destruction of property and equipment. Most agricultural lands were devastated, while transport and financial systems were utterly disorganised. By the end of the war, economic life came to a standstill in many areas, and output levels in both industry and agriculture were severely depressed, in some cases to less than half of their prewar levels.[3]

As far as war damages were concerned, according to Berend and Ránki, Poland, Yugoslavia and Hungary had been the most seriously afflicted countries. The events of the war hit the former two from the very beginning, and Hungary also became a battlefield due to heavy frontal fighting and allied bombing from September 1944 to April 1945. The immediate war losses were substantially smaller in Czechoslovakia (especially in the Czech areas) and even less in Bulgaria and Romania. Due to the bombing of the oil fields, Romania suffered the greatest losses in the transportation system and its livestock, and the situation was much the same in Bulgaria.[4]

3 D. H. ALDCROFT – S. MOREWOOD, War and the emergence of new regimes, in: D. H. ALDCROFT – S. MOREWOOD (eds.), *Economic change in Eastern Europe since 1918*, Aldershot Hants 1995, pp. 86–105.

4 I. T. BEREND – Gy. RÁNKI, *East Central Europe in the 19th and 20th Centuries*, Budapest 1977, pp. 159–160.

As a result of severe bottlenecks caused by demolition in industrial and agricultural production, the scarcity of a skilled workforce and the shortage of basic commodities further exacerbated the economic difficulties in the Central and Eastern European countries after the postwar period. Bulgaria, Hungary, and Romania were also compelled to pay substantial reparations to the USSR. According to calculations, reparation deliveries and payments obligations accounted for 17–20 per cent of national incomes, which meant an additional burden on the economies of these countries. Borhi points out that the Soviet leadership extracted machinery, basic foodstuffs, finished goods and raw materials that far exceeded the amounts set by the armistice agreements and peace treaties.[5]

In the last three decades, economic historians have mainly focused on describing the impacts of war damages and the difficulties of postwar recovery. However, inflation and currency disorders were not among the key objectives of research activities in Central and Eastern Europe after the initial period of 1945. Although there were several sources for the sharp rise in prices in the first two years after the war, most countries in the region had to implement overarching monetary and currency reform. Aldcroft and Morewood stress that Hungary and Romania were characterised by an upward price spiral, which later turned into hyperinflation. The Hungarian experience was the worst in all recorded history because prices increased by 12 per cent per hour in the late Spring of 1946, before inflation was brought under control by the introduction of a new currency on August 1, 1946. Poland was also hit by a sharp rise in prices from 1945–1947, but unlike Poland, Czechoslovakia and Bulgaria took early steps to curb inflation and stabilise their finances. By 1948, when the German currency reform was completed, most countries managed to achieve stabilisation of their monetary and currency systems.[6]

The objective of the paper is to analyse the background of financial reconstruction in Central and Eastern Europe after 1945 by considering the main factors that determined the monetary stabilisation of the countries in the region after World War II. By analysing the economic recovery in East Central Europe, it must be stressed that Czechoslovakia, Poland, and Yugoslavia received substantial amounts of relief supplies from the United Nations Relief and Rehabilitation Administration (UNRRA)

5 L. G. BORHI, The Merchant of the Kremlin: The Economic Roots of Soviet Expansion in Hungary, in: *Working Paper*, 28, 2000, pp. 1–57.

6 ALDCROFT – MOREWOOD, p. 102.

between 1945 and 1948, which made it possible to mitigate the scarcity of consumer goods and raw materials. Moreover, Western credits from commercial sources granted to Czechoslovakia and Poland contributed to the postwar reconstruction. In contrast, in Bulgaria, Hungary, Romania and East Germany, reparations diverted substantial resources from reorganising economic activity after the initial postwar years.

The paper draws on both secondary literature and archival research. The country-specific analysis provides a strong foundation for comparing the similarities and differences. During the examination of the Hungarian events, the authors deemed it crucial to look at the perspectives, written documents and archived documents of economists who participated in the effort to combat hyperinflation and stabilisation measures.

Financial reorganisation schemes

Bulgaria

The postwar reconstruction of Bulgaria was hindered by war reparations of USD 65 million, which had to be paid to Greece and Yugoslavia.[7] According to the peace treaty signed in Paris in July 1947, no reparations were owed to the Western allies. Yugoslavia's Communist government forgave Bulgaria the payment of 50 million leva (USD 25 million) for war damages. Due to Soviet pressure, the Greek government was forced to cut a claim twice as large down to USD 50 million. Whereas in the interwar period, Bulgaria's economy and monetary system were stabilised by granting the Settlement Loan of the League of Nations in 1926–1928, Western leverage over the Bulgarian state budget and the central bank never materialised after 1945. As Lampe rightly notes, Western loans to the Bulgarian government were out of the question, and not just for political reasons. Bulgaria's payment on its prewar loans was suspended in 1940, although negotiations started with French representatives to arrange a partial agreement until 1947, which ended without tangible results. A broader agreement with other Western bondholders was also negotiated, but the parties failed to agree on the Bulgarian payment obligations; therefore, economic, and financial reorganisation relied exclusively on domestic resources.[8]

7 I. T. BEREND – Gy. RÁNKI, *Közép- és Kelet-Európa gazdasági fejlődése a 19–20. században*, Budapest 1976, p. 611.

8 J. R. LAMPE, *The Bulgarian Economy in the Twentieth Century*, London, Sydney 1986, p. 131.

Because of the scarcity of basic foodstuffs and raw materials after the initial postwar years, the Communist-led government kept the state-owned Cereal Export Agency, Hranoiznos, in place to continue the wartime practice of calculating and collecting delivery orders in the form of annual contracts.[9] Price controls were also applied to suppress inflation and avoid the widespread penetration of black marketeering.

Table 1. Indices of inflation in Bulgaria, 1945–1947 (1939 = 100)

Year	Currency in circulation	Cost of living
1945	109	149
1946	102	168
1947	113	186

Source: J. R. LAMPE – M. R. JACKSON, *Balkan Economic History, from 1550–1950: From Imperial Borderlands to Developing Nations,* Bloomington 1982, p. 552.

Table 1 summarises currency in circulation and the cost of living in Bulgaria. The Bulgarian cost of living index in the table includes the official index reflecting legal prices, and the 100 bases for 1939 are taken as the average level of prices in that year. The main deficiency of the data is that they do not involve an unofficial index using estimated black-market prices in the immediate postwar years.

The Communist-led regime used monetary and fiscal policy tools to absorb domestic funds, which were privately owned for financial reconstruction. As a result of high public deficits accumulated in 1945 and 1946, the central bank (Narodna Banka) had to restrict new note emissions severely. Inflation was kept under control, as reflected by the fact that emissions rose only by 13 per cent between 1944 and 1947. The cost of living increased by 86 per cent over the same period. Credit in the Bulgarian economy was still in private hands and had to be restricted, while the remaining part of private funds was also used for the monetary reform, carried out on 7 March 1947. First, all private accounts, including those in state banks, over 20,000 leva were blocked, and a one-time tax was imposed on the remainder. These measures served to cut the Bulgarian money supply by two-thirds in a single stroke. At the same

9 J. R. LAMPE – M. R. JACKSON, *Balkan Economic History, from 1550–1950: From Imperial Borderlands to Developing Nations*, Bloomington 1982, p. 543.

time, progressive taxes on individual income and excess profits soaked up potential new deposits, which increased from 8 per cent to 27 per cent of state budget revenues in the years 1944–1947.[10] As a result of the currency reform, the special 3 per cent bonds were completely withdrawn from circulation. The old leva was replaced by the new leva at a ratio of 1:1. Additionally, around 44.4 billion leva in notes and 31.5 billion leva in bonds were replaced by 30–35 billion new leva.[11] Thanks to these provisions, hyperinflation did not occur in postwar Bulgaria, but by the end of 1947, the Communist government acquired full control over the country's financial resources.

Czechoslovakia

Despite the significant distortions caused by the Second World War, the economic recovery of postwar Czechoslovakia progressed faster than after 1918. The extent of war damages was smaller in the Czech lands except for Slovakia, compared to the other countries in the region, for example, Poland, Hungary, and Yugoslavia. Immediate war losses amounted to 350–430 billion prewar Czech crowns (Kčs), equivalent to the national income between 1932 and 1937. During the National Socialist regime, hundreds of thousands were annihilated or deported to concentration camps. Czechoslovakia received very little in the way of reparations because no peace treaty was signed with Germany and its allies. Certain sums were made available by the Inter-Allied Reparation Administration, which amounted to 500 million Kčs, but payments ceased in 1948.[12]

To mitigate the shortage of essential goods and raw materials, the Košice government, formed in April 1945, retained the instruments of the centralised war economy. Teichová points out that there was a continuation of the rationing of vital products, the control of raw materials and fuels, and the compulsory sale of agricultural produce. Further tools of the centralised economy were widely applied, including the control of prices, wages, and the labour market; foreign currency controls; and a centralised credit system; and foreign trade restrictions.[13]

10 LAMPE, p. 131.
11 LAMPE – JACKSON, p. 543.
12 A. TEICHOVÁ, Die Tschechoslowakei, 1918–1980, in: F. WOLFRAM – J. A. VAN HOUTTE – H. KELLENBENZ et al. (eds.), *Handbuch der Europäischen Wirtschafts- und Sozialgeschichte*, Bd. 6, Stuttgart 1987, p. 632.
13 A. TEICHOVÁ, *The Czechoslovak Economy, 1918–1980*, London, New York 1988, pp. 117–118.

Between 1945 and 1948, particular problems were caused by the large imbalances in the Czechoslovak economy that were partly inherited from the Second World War and partly triggered by the system of finances in complete disarray. As Chalupecký rightly notes that monetary reform has become an increasingly urgent task. It occurred in October and November 1945. The main aim of the measures was to block prewar and war deposits and restrict the amount of money in circulation. Blocked deposits had to be exhausted partly by special taxes, and the rest had to be released according to the growing supply of consumer goods. During 1945–1948, monetary policy had an expansive character, and its main aim was to ease postwar recovery. The assumption was to set monetary stock at a low level, around 16–20 billion Czech crowns (Kčs). The most important tool for managing credits were credit purpose-built facilities. Due to excess liquidity caused by the release of blocked deposits, the control of the central bank over the money market weakened.[14]

As a part of the monetary reform, the government set the exchange rate at Kčs to USD 1. This step allowed Czechoslovakia to join the International Monetary Fund (IMF) and served as a base for its exports. To stabilise the new exchange rate of the Czech crown, currency in circulation was restricted by 85 per cent, and access to cash was limited to 500 Kč per person. In parallel with these measures, in October 1947, a special tax was levied on the upper classes of society, which generated 1.1 billion Kčs of public revenues together with the inflation tax and reparations.[15]

According to Teichová, the UNRRA assistance positively impacted state finances in the first phase of financial reconstruction. In 1946, deliveries of goods accounted for five per cent of the Czechoslovak gross national product and 36 per cent of total imports. Relief supplies from the Agency of the United Nations (UN) were free of charge and comprised mainly of foodstuffs, clothing, and essential commodities, which could be sold on the domestic market. They also contributed to budgetary equilibrium and a more favourable balance of trade. By 1949, Czechoslovakia had received UNRRA goods, which amounted to 15.5 billion Czech crowns (USD 310 million). The importance of these supplies was shown by the fact that they

14 P. CHALUPECKÝ, Open and repressed inflation in Czechoslovakia in 1945–1953, Praha, Vysoká škola ekonomická v Praze, Národohospodářská fakulta Working Paper, 2015, pp. 1–27. https://bankinghistory.org/wp-content/uploads/Petr-Chalupecky-Repressed-and-open-Inflation-in-Czechoslovakia.pdf (visited 2022–06–19).

15 TEICHOVÁ, Die Tschechoslowakei, 1918–1980, p. 625.

covered 28 per cent of the government's expenditures on public health and social services, as well as repatriation and reconstruction costs.[16]

As far as the inflation rate in Czechoslovakia was concerned, Berend and Ránki emphasise that it was held in check because the currency in circulation increased by about three and a half times between 1945 and 1948.[17] It is difficult to estimate the consumer price index in the country from 1945 to 1948. When he analyses the inflation rate after the Second World War in Czechoslovakia, Chalupecký considers the combined index for the black market and direct sales of small farmers to consumers. He stresses that the official cost of living index gives the least exact information of price developments in the country. Due to scattered and incomplete data, net personal disposable income and personal consumption are used to estimate inflation in the consumer market.[18]

Table 2. National income and Personal disposable income in prices of 1937 in 1946–1948

	1946	1947		1948	
	Level (billions of Kčs)	Level (billions of Kčs)	Year-to-year change (%)	Level (billions of Kčs)	Year-to-year change (%)
Net personal disposable income	53.02	58.03	10.70%	59.70	1.30%
Personal consumption	48.69	53.66	10.20%	53.15	-0.90%

Source: V. NACHTIGAL, *Národní důchod Československa. Dokumentační shrnutí podkladů z období 1913–1966 a analýza období 1946–1955*, Praha 1969, pp. 57–59.

Fast recovery of the Czechoslovak economy occurred in 1946–1947 as most blocked deposits were released, and wages and salaries proliferated. As a part of the monetary reform, changes were made in the relative structure of prices and wages, which rose three times compared to the prewar period, although wage relations were levelled. Inflation

16 TEICHOVÁ, *The Czechoslovak Economy, 1918–1980*, p. 118.
17 BEREND – RÁNKI, *Közép- és Kelet-Európa*, p. 615.
18 CHALUPECKÝ, pp. 1–27.

pressure remained, which could be explained by a higher propensity of low-earning employees in the consumer market. In the summer of 1947, black market prices decreased while official ones did not. However, it was difficult to estimate the extent of black market and its changes.[19] According to Michal, the share of the black market in the whole retail turnover was 30 per cent in 1947.[20] Statistical data showed that the situation in the consumer market worsened because the proportion between black and official prices doubled within a year from September 1947 to September 1948.[21]

Table 3. Indices of price developments in Czechoslovakia between 1945 and 1948

Year	Cost living index	Index of retail prices	Rural and black food price index
	1937=100	1937=100	1939=100
1945	187.50	N/A	N/A
1946	340.60	N/A	N/A
1947	325.70	N/A	875.00
1948	322.10	N/A	1360.00

Source: CHALUPECKÝ, p. 19.

Official indices published by the Statistical Office do not include the index of retail prices from 1945–1948. Additionally, data for black market prices are also missing from the statistics; therefore, based on the cost-of-living index, it can be assumed that Czechoslovakia was not hit by the wave of hyperinflation after the Second World War.

Although UNRRA assistance contributed to postwar economic stabilisation, Czechoslovakia did not receive loans for the reconstruction. Trade credits, provided by the USA and Great Britain (USD 168 million) from 1945 to 1947, remained largely unused as negotiations to obtain new commercial credits were broken off in June 1947. Due to Soviet pressure, Czechoslovakia rejected the Marshall Plan; therefore, financial

19 Ibid.

20 J. M. MICHAL, *Central Planning in Czechoslovakia. Organization for Growth in a Mature Economy*, Stanford 1960, p. 161.

21 CHALUPECKÝ, pp. 1–27.

reorganisation relied on domestic sources. The nationalisation of private property, including domestic industry and banks, provided the necessary capital to implement the economic consolidation measures. Because foreign holdings were also affected and the compensation negotiations were long and complicated, it became challenging for Czechoslovakia to obtain any loans in the West.[22]

Due to its export-oriented economy and developed industrial capacities, Czechoslovakia was an exception among the Central and Eastern European countries. Between May 1945 and March 1948, Czechoslovakia was closely linked with the world market within the framework of the international division of labour.[23] Průcha rightly notes that a controlled economy, taken over during the occupation period, successively changed into a system of national economic planning, which combined the tools of the market mechanism and the methods of planned economic growth. The continuity of development was disrupted at the end of the 1940s, when Communists rose to power in February 1948 and officially declared the "general line of the construction of socialism" in spring of 1949.[24]

Poland

Postwar reconstruction of Poland was the most challenging task of any of the countries in the region. As a result of German occupation and continuous fighting at the end of the Second World War, around six million people perished, half of them Jewish. According to Aldcroft and Morewood, property and equipment also suffered extensive damage because one-third of the housing stock, two-thirds of the industrial capacity, one-third of the railway lines, and 80 per cent of the railway stock were destroyed. Losses in the agrarian sector were colossal: around 60 per cent of the livestock, 25 per cent of the forests and 15 per cent of the agricultural buildings were annihilated.[25] It is worth mentioning that some sources estimate the industrial losses of Poland between 1939 and 1945 to have been as high as USD 11.5 billion, more than a tenth of the total national assets.[26]

22 TEICHOVÁ, *The Czechoslovak Economy, 1918–1980*, p. 119.
23 TEICHOVÁ, Die Tschechoslowakei, 1918–1980, pp. 632–633.
24 V. PRŮCHA, Continuity and Discontinuity in the Economic Development of Czechoslovakia, 1918–91, in: A. TEICHOVÁ (ed.), *Central Europe in the Twentieth Century. An Economic History Perspective*, Ashgate 1997, pp. 29–30.
25 ALDCROFT – MOREWOOD, p. 92.
26 BEREND – RÁNKI, *East Central Europe*, p. 160.

The reorganisation of economic life was hindered by several factors. First, there was a general scarcity of basic foodstuffs, raw materials, and a skilled workforce. Second, it became increasingly difficult to integrate the regained territories of former German areas in the north and west into other Polish lands. Third, it had to overcome the financial chaos caused by the war and German occupation.

Postwar economic difficulties were mitigated by UNRRA deliveries. Reinisch stresses the importance of the UNRRA's assistance in recovering the Polish economy after the Second World War. She estimates that the sale of UNRRA goods totalled 24,500 million zlotys. In dollar value, the UNRRA's programme for Poland proved to be successful because the administration spent roughly USD 478 million over the period 1945–1948 and shipped close to 2.3 million tons of food and supplies, including heavy machinery, tools, tractors, spare parts, livestock, seeds, and fertilisers. If shipping costs and administrative services are added together, the total value of the UNRRA aid amounted to USD 610 million.[27] Aldcroft and Morewood state that Poland was the main beneficiary of the UNRRA supplies between 1946 and 1948, which accounted for ten per cent of the total supply of goods and services available to that country and as much as 16 per cent at its peak in the second quarter of 1946.[28]

Particular problems were caused by the country's financial situation, as the new Polish state inherited a monetary system in disarray. In the second half of 1944, it became an increasingly urgent task of the Polish Committee of National Liberation to implement the currency reform. Therefore, the new People's Authority had to curb inflation caused by the former Occupation zloty of the "General Gouvernment". Afterwards, it was necessary to withdraw German marks and Soviet rubles from circulation. Finally, a new monetary unit had to be put into circulation to achieve price stability. The first new zloty banknotes arrived from a Moscow printing house, but they were not put into circulation because of their poor quality. In January 1945, new banknotes were printed in Moscow for a nominal account of around 8.5 billion zlotys. At first, it was the task of the Treasury Office to issue currency notes. Then,

27 J. REINISCH, 'We Shall Rebuild Anew a Powerful Nation': UNRRA, Internationalism and National Reconstruction in Poland, in: *Journal of Contemporary History*, 43, 3, 2008, pp. 451–476. https://journals.sagepub.com/doi/abs/10.1177/0022009408091835 (visited 2022–06–20).

28 ALCDCROFT – MOREWOOD, p. 101.

in January 1945, the National Bank of Poland was created as a central issuing bank.[29]

A gradual changeover to the new zloty banknotes started at the end of October 1944. Strict limitations were applied to exchanging old currency for the new notes with the "National Bank of Poland" inscription to reduce money circulation.[30] According to the decree, issued on 6 January 1945, the Occupation zloty was completely withdrawn from circulation, and the exchange in the former "General Gouvernment" was limited to 500 zloty per person. The Soviet rubles ceased to be a circulatory currency in the Polish state in compliance with a decree of 13 January 1945. The new zloty replaced German marks in parallel with these provisions. As Jastrzębski emphasises, the implemented monetary reform was typically deflationary because there was a reduction in the cash flow by around 60 per cent. The total number of tickets issued by the National Bank of Poland was 4 billion zlotys, whilst the circulation of banknotes amounted to ten billion zlotys. Measures which were introduced by the Polish authorities had three important consequences. First, an emission margin made it possible for the government to make payments for the economic reconstruction of the country and to finance the activities of the state administration due to the lack of necessary tax revenues in the state budget. Second, the population's purchasing power was reduced to avoid the sharp increase in commodity prices. Third, people who accumulated a large amount of cash during their occupation were deprived of cash.[31]

The Polish monetary reform of 1945 did not cause a rise in commodity prices. The issuance of money grew three times, from 8.7 billion zlotys at the end of April 1945 to 26.3 billion zlotys at the end of 1945.[32]

The financial reorganisation was coupled with the restoration of budgetary equilibrium. Immediately after the war, in 1945 and 1946, the state budget expenditures could not be covered by normal tax revenues,

29 R. JASTRZĘBSKI, Currency reforms in the Polish state after 1945, in: *Legal Economic Issues*, 35, 2017, pp. 97–111. https://sciendo.com/abstract/journals/sho/35/1/article-p97.xml (visited 2022–06–20).

30 G. WÓJTOWICZ, The Origin and History of the Polish money. Part II, Bank / Kredit, 1, 2007, pp. 5–14. https://yadda.icm.edu.pl/yadda/element/bwmeta1.element.ekon-element-2509dc11-21c8-3561-837c-4c61cf34dc2a?q=bwmeta1.element.ekon-element-7c415b2c-b6df-368a-ac43-5c9afc005ef6;9&qt=CHILDREN-STATELESS (visited 2022–06–21).

31 JASTRZĘBSKI, pp. 102–103.

32 Ibid., p. 104.

which resulted in significant increases in the deficit. In the last quarter of 1944, it was expected that the budget deficit would amount to 97 per cent of expenditures; however, it was successfully reduced to 67 per cent between 22 July 1944 and 31 December 1944. Despite the government's efforts, the following year also brought a deficit due to the growing indebtedness of the Treasury to the National Bank of Poland. The situation slightly improved in 1946, but Treasury debts still increased. The budget had surplus sums in 1947 and 1948; therefore, it was possible to discharge these debts. The debt problem was solved by the Reconstruction loan, which was issued in 1946.[33]

Although Poland was the main beneficiary of UNRRA aid from 1945 to 1945, financial stabilisation relied mainly on domestic sources. Western credits from commercial resources (USD 251 million) were later ceased because the Polish government rejected the Marshall Plan in June 1947 to rebuild Europe's war-shattered economy. On 28 January 1948, a bilateral agreement was signed between the Soviet Union and Poland aimed at increasing the volume of foreign trade by two billion zlotys within four years.[34]

The deficiency of the monetary reform in Poland was that the zloty was not accepted as a convertible currency in the international money markets. Unlike the economic reconstruction of 1927, when Poland was granted a stabilisation loan of USD 62 million by an international consortium of banks, after World War II, the government did not draw on external aid. Therefore, postwar financial reorganisation relied entirely on domestic sources.

Romania

During 1945–1947, economic recovery in Romania was hindered by the general scarcity of basic foodstuffs and raw materials. Agriculture was hit by drought and a subsequent failure of the corn crop in 1946, which caused a severe famine in the following winter and spring. Massive deliveries of agricultural products and animals to the Soviet Union and reparation payments impeded the revival of the economy in 1945 and 1946. Industry and the transportation system were in equally grim conditions. Because of allied bombing, both the oil and metallurgical industries

33 LANDAU – TOMASZEWSKI, pp. 202–203.

34 N. DAVIES, *Lengyelország története*, Budapest 2006, p. 863.

suffered enormously. The light industry and food processing also faced an increasing shortage of raw materials after the Second World War.[35]

Besides supply bottlenecks, reparation burdens further complicated the economic difficulties in the immediate postwar years. According to the armistice agreement, signed on 12 September 1944, Romania was obliged to pay war reparations to the Soviet Union to a total value of USD 300 million, which had to be fulfilled not entirely, but partially within six years through deliveries of goods, including oil products, cereals, wooden articles, and river or sea vessels.[36] Brus emphasised that in the case of Romania, reparation charges accounted for 14–15 per cent of the national income in 1947–1948, and half of them were fulfilled by oil deliveries.[37] Turnock estimates Romania's burden of repairs at a total value of USD 1.8 billion during 1944–1948.[38] The one-sided dismantlement of industrial plants as war booty and food supplies to the occupying Red Army weighed heavily on the national economy. At the same time, the Soviet government strived to monopolise Romanian production and foreign trade in the postwar years through a series of long-term bilateral economic treaties. The agreement on economic cooperation, signed in May 1945 between Romania and the USSR, served to incorporate the country into the Soviet sphere of interest.[39]

At the end of the Second World War, the monetary system of Romania was in utter disarray because the inflation rate in the Balkan country was much greater than in Bulgaria. Between 1944 and 1947, the issuance of currency and the cost of living increased significantly. Table 5 indicates the basic data for money supply and the cost of living in Romania from 1945–1947.

The note circulation amounted to 39 billion lei in 1939, whereas it was 560 billion in May 1945. Inflation peaked in August 1947, when the money supply stood at 48.451 billion lei.[40] It can be stated that Romania

35 K. HITCHINS, *Rumania 1866–1947*, Oxford 1994, pp. 535–536.
36 L. BALOGH, *Románia története*, Budapest 2001, pp. 105–106.
37 B. WŁODZIMIERZ, Postwar reconstruction and socio-economic transformation, in: M. C. KASER – E. A. RADICE (eds.), *The Economic History of Eastern Europe 1919–1975. Interwar Policy. The War and Reconstruction*, Vol. II, Oxford 1986, p. 573.
38 D. TURNOCK, *The economy of East Central Europe, 1815–1989. Stages of transformation in a peripheral region*, London, New York 2006, p. 291.
39 HITCHINS, p. 536.
40 BEREND – RÁNKI, *Közép- és Kelet-Európa*, p. 615.

Table 4. Indices of inflation in Romania, 1945–1947 (1939 = 100)

Year	Currency in circulation	Cost of living
1945	340	592
1946	1,715	3,647
1947	12,989	46,718

Source: LAMPE – JACKSON, p. 552.

was hit by a wave of hyperinflation, fuelled by reparation payments to the Soviet Union. Finally, the Red Army issued unsecured banknotes to compensate for its requisitions. According to Lampe and Jackson, from August 1944 to June 1945, the Romanian government could not cover more than 35 per cent of its budgetary expenditures with regular tax revenues. Military spending comprised about one-third of those expenses. An additional burden for the Romanian economy was to meet the obligations under the armistice agreement with the Soviet Union. They were half reparations; the rest supported for the Soviet troops in Romania and the conversion of all Red Army script into lei. All of these resulted in an increasing budget deficit, which had to be covered by issuing money.[41]

By mid-1947, the wave of hyperinflation paralyzed the economic activity of the country, therefore, it became an urgent task to implement monetary reform. On 15 August 1947, old lei were converted to new lei at a ratio of 20.000:1. Around 48,451 billion old lei were replaced by 1.3 billion new lei. Another 550 million new lei were issued in exchange for gold and foreign currencies.[42] As a part of the financial reorganisation, the amount of currency in circulation was reduced by 60 per cent. At the same time, steps were made to restore budgetary equilibrium by cutting expenditures and increasing tax revenues.

Like other Central and Eastern European countries, Romania also stabilised its economy on domestic sources and did not draw any commercial credit or reconstruction loans after the Second World War.

The Soviet Occupation Zone of Germany

As a result of continuous fighting and allied bombing in the last five months of the Second World War, parts of East Germany suffered severe

41 LAMPE – JACKSON, p. 555.
42 Ibid.

losses in human lives and physical infrastructure. The authorities of the Third Reich ordered the evacuation of East German territories in January 1945, as Soviet troops moved westward. The retreating German Army carried away railway carriages and locomotives (Wehrmacht). Particularly acute was the loss of the rail bridges because around 1000 of them had been blown up.[43] The transportation and telecommunication systems were also destroyed. Most buildings were also annihilated as the eastern territories of Germany became a vast theatre of military operations at the end of 1944 and the beginning of 1945.

Postwar economic recovery was hindered by reparations to be paid to the Soviet Union. Reparation liabilities and contributions to the provisions of the Red Army amounted to 34.7 billion Reichsmark (RM) based on RM prices in 1944. Additionally, the dismantling of industrial plants and equipment and the seizure of German assets were estimated at 31.4 billion RM. If reparation liabilities were calculated on a rate of exchange fixed at 1 USD = 4.2 RM, then Soviet takings and impositions reached USD 15.8 billion between 1945 and 1953, far exceeding the amount of USD ten billion set by the Soviet Union at the Yalta Conference. German citizens had to bear occupation costs and requisitions for the Soviet troops.[44] Borhi points out that requisition brigades were set up, which dismantled complete factories, scientific laboratories, and telecommunication equipment from the Soviet occupation zone of Germany as war booty. Until August 1945, around 1.3 tons of raw materials and 3.6 tons of machinery were taken by the occupying Red Army to the USSR.[45] Cairncross stresses that the German Democratic Republic had the double burden of reparation payments and meeting much of the cost of Soviet troops stationed in its territory. At its peak in 1950–51, Soviet takings accounted for 17 per cent of the GDR's national income, and the impositions continued, though at a declining rate, until 1953, when the Soviet government modified its claims and eased the burden of repairs.[46]

43 F. W. HENNING, Deutschland von 1914 bis zur Gegenwart. Die Deutsche Demokratische Republik, in: F. WOLFRAM – J. A. VAN HOUTTE – H. KELLENBENZ et al. (eds.), *Handbuch der Europäischen Wirtschafts- und Sozialgeschichte*, Bd. 6, Stuttgart 1987, p. 477.

44 I. NÉMETH, *Németország története. Egységtől az egységig (1871–1990)*, Budapest 2002, p. 487.

45 L. BORHI, A kremli kalmárok. A magyarországi szovjet gazdasági terjeszkedés okai, in: *A vasfüggöny mögött. Magyarország a nagyhatalmi erőtérben 1945–1968,* Budapest 2000, pp. 9–10.

46 A. K. CAIRNCROSS, *The price of war: British policy on German reparations* 1941–1949, Oxford 1986, pp. 211–218.

Once the Second World was over, East German territories were hit by the collapse of the money market, which could be explained, on the one hand, by falling labour productivity (by about 50 per cent compared to the prewar period), and on the other hand, by the acute shortage of consumer goods. Price and wage controls were introduced in the Third Reich in 1939–1945, but after the war, a gap started to grow between the still-frozen prices of the means of production and the rapidly rising costs of output. Although the system of administrative distribution was maintained for all basic foodstuffs and raw materials, it could not meet the daily needs of German citizens, therefore, consumers were forced to turn to black markets.[47] According to Dornbusch and Wolf, in the immediate postwar years, exchange activity took place on black markets at prices that frequently exceeded official prices by a factor of 100 and more. It is worth mentioning that companies also shifted to payment in kind. The authors stress that the military authorities tolerated the widespread penetration of black marketeering. The Red Army also issued unsecured banknotes to pay for the rising occupation costs. All these factors resulted in accelerating inflation.[48]

By early 1948, the RM had become worthless and lost its monetary value. Speculation and bartering had harmful impacts on all economic entities. Therefore, stabilisation of the financial system has become a crucial task for the official authorities. Around 70 billion RM were pulled out of circulation to reduce the money supply. Despite this measure, demand for the RM did not increase. On 21 June 1948, an overarching currency reform was carried out in the Western occupation zones by introducing the Deutschemark (DM) as a legal tender. As a result of this decision, all Reichsmark banknotes and coins became invalid.[49]

The United States and Great Britain did not inform the USSR of their plans to reorganise the German economy. This move forced the Soviets to implement their own monetary reforms on 23 June 1948; first they

47 J. MARIUS, Economic and Political Reconstruction and Development of FRG in the Period after World War II, in: *Historia i Polityka*, 36, 43, 2021, pp. 139–151; https://apcz.umk.pl/HiP/article/view/36123/30346 (visited 2022–06–22).

48 R. DORNBUSCH – H. WOLF, Monetary overhang and reforms in the 1940s, in: *Working Paper* 10, 1990, pp. 1–52. https://www.nber.org/papers/w3456 (visited 2022–06–26).

49 K. TRIBE, *The 1948 Currency Reform: Structure and Purpose, 2020*, pp. 1–33. https://www.academia.edu/43083159/The_1948_Currency_Reform_Structure_and_Purpose?bulkDownload=thisPaper-topRelated-sameAuthor-citingThis-citedByThis-secondOrderCitations&from=cover_page (visited 2022–06–27).

reduced the cash flow, and then a new currency, the Ostmark, was put into circulation. The official exchange rate between the Ostmark and the Deutschemark (DM) was set at one-to-one, and saving deposits were converted at a rate of 1:10. In the case of private individuals, deposits over 5000 Ostmark required an income certificate.[50] The Ostmark was not accepted as convertible currency in the international money markets, and it became an internal currency.

Yugoslavia

Besides Poland and Hungary, Yugoslavia had been severely hit by the Second World War. As a result of partisan fighting and military operations from 1941 to 1945, there were severe losses in assets and human lives; about one-tenth of its 1941 population (1.1 million people) perished, and around half of the country's equipment, including roads and railway networks, were destroyed. Along with the destruction of physical infrastructure, losses were like those in agriculture; more than half of the livestock and between 40 and 50 per cent of the agricultural machinery were devastated.[51] Around one-third of industrial capacity and 25 per cent of the buildings were annihilated.[52]

As Aldcroft and Morewood rightly note, that postwar Yugoslavia experienced the worst falls in standards of living in Europe because, from 1945–1946 a large part of the population was on the verge of starvation.[53]

The lack of basic raw materials, fuel and foodstuffs and the workforce shortage represented a serious challenge for the government in the early postwar period.[54] To mitigate economic difficulties in the years 1945–1946, Yugoslavia received USD 428 million worth of UNRRA aid. From January to September 1945, the country exported barely 16,000 tons of goods. It imported 121,000, or USD 12.7 million, without counting food shipments from UNRRA that were twice the latter amount. Thanks to regular UNRRA supplies, around 490,000 tons of goods were delivered to Yugoslavia in 1946. It is worth mentioning that bad harvests and postwar dislocations were responsible for the underperformance of

50 HENNING, p. 480.
51 BEREND – RÁNKI, *East Central Europe*, p. 159.
52 J. JUHÁSZ, *Volt egyszer egy Jugoszlávia*, Budapest 1999, pp. 119–120.
53 ALDCROFT – MOREWOOD, p. 92.
54 D. MARJANAC, Economic aspects of breakup of Yugoslavia, 11, 2015, pp. 1–10. https://www.researchgate.net/publication/307708192_Economic_Aspects_of_Breakup_of_Yugoslavia (visited 2022–06–29).

foreign trade. Merchandise exports accounted for 21 per cent of imported value in 1946 before rising to 60 per cent in 1947 and 85 per cent in 1948.[55]

The Communist government retained the instruments of the centralised war economy. There was a continuation of price and wage controls and the compulsory sale of agricultural products. The authorities widely applied rationing of consumer goods and raw materials. The state's prewar agency (PRIZAD), responsible for grain collection and sale, was used as a tool by the League of Communists of Yugoslavia to nationalise wholesale trade in early 1945.[56]

In the spring of 1945, Yugoslavia was hit by financial chaos inherited from 1941–1945. The heavy cost of occupation led to a high rate of inflation in Serbia. By 1943, the note's circulation had risen to 25.5 billion dinars. Food prices in the Banat region increased about 10–12 times between 1939 and 1945. The situation was even worse in the German puppet state of Croatia, where cash stocks amounted to nearly 184 billion kunas in February 1945. During the last months of the war, hyperinflation occurred, which had devastating effects on the national economy.[57]

Besides economic recovery, one of the main tasks of the Communist government was to halt excessive money supply. According to a decree issued on 5 April 1945, all banknotes and coins which were in circulation during the prewar period were exchanged for a new dinar. At the same time, attempts were made to stabilise the currency; the parity of the dinar was set at a rate of 10:1. According to the new legal parity, one USD was worth 50 dinars or 17.73 milligrams of pure gold.[58]

Thanks to the UNRRA supplies and efforts of the League of Communists of Yugoslavia, the reconstruction of the country proved to be successful. Inflation came to a halt, whereas the dinar's value was preserved. In 1946, the volume of economic activity regained its prewar level. However, the Communist government was the first in the region to switch to a centrally planned economy in the second half of 1945.

55 LAMPE – JACKSON, p. 547.

56 Ibid.

57 E. A. RADICE: Changes in Property Relationships and Financial Arrangements, in: M. C. KASER – E. A. RADICE (eds.), *The Economic History of Eastern Europe 1919–1975. Interwar Policy. The War and Reconstruction*, Vol. II, Oxford 1986, pp. 329–365.

58 H. SUNDHAUSSEN, Jugoslawien von 1914 bis zur Gegenwart, in: F. WOLFRAM – J. A. VAN HOUTTE – H. KELLENBENZ et al. (eds.), *Handbuch der Europäischen Wirtschafts- und Sozialgeschichte*, Bd. 6, Stuttgart 1987, pp. 900–902.

Taking into account both external and internal factors, the Central and Eastern European countries were able to carry out the postwar monetary reform by relying on domestic sources. Although Czechoslovakia, Poland and Yugoslavia received substantial amounts of relief supplies from the UNRRA, which mitigated the permanent shortage of basic foodstuffs and commodities, the defeated countries (Bulgaria, Hungary, Romania and the Soviet occupation zone of Germany) were compelled to pay war reparations to the Soviet Union.

In the years 1945–1946, Hungary was hit severely by the wave of hyperinflation, which further complicated the economic recovery of the country. The objective of the next chapter is to evaluate the main reasons of postwar inflation and the achievements of financial stabilisation in Hungary based on money theory approach.

The Case of Hungary

Hungary had been seriously afflicted by the Second World War. As the country became the theatre of military operations from September 1944 to April 1945, more than five times its 1938 national income and 40 per cent of its national wealth were destroyed. Human losses were even more shocking. According to Romsics, approximately 900,000 out of a population of 14.5 million perished during World War II.[59]

In compliance with the armistice agreement, signed on 20 January 1945 between Hungary and the Soviet Union, war reparations to be paid to the USSR amounted to USD 300 million. Additionally, reparation deliveries, the Red Army's supply, the Inter-Allied Control Commission members generated the paralysis of economic activity and created a permanent shortage of goods. All these factors contributed to postwar hyperinflation in the country.[60]

Inflation had already begun in 1938 when the Hungarian government proclaimed the so-called "programme of Győr", thus quickening Hungarian armament. However, the budget could not discharge the account of one billion pengő of the programme, so the government drew open credits from the Hungarian National Bank.

In the statute on the "programme of Győr", the Hungarian government got the authority to invest one billion pengő within five years for war purposes. They intended to invest 200 million pengős per year exclusively

59 I. ROMSICS, *Hungary in the Twentieth Century*, Budapest 1999, p. 216.
60 BORHI, pp. 1–16.

from state resources. They appropriated 60 per cent of the invested one billion pengős directly for military purposes, 21 per cent for developing transport convenient for military purposes, one per cent for mining and metallurgy, 7.5 per cent for agricultural and 10.5 per cent for other purposes.[61]

The increasing circulation of banknotes was significantly caused by exporting goods and other services fulfilled to Germany without a return. On 21 December 1942, the mark-claim of Hungary was 540 million, while this sum increased to 978 million marks for December 1943. On 19 March 1944, Germany invaded Hungary. From this time, the country was sacked not only by the Hungarian-German turnover, but the Germans also set up an intrinsically German ministry in Hungary, and the Hungarian Ministry of Finance created military funds, which were sustained till September 1944 by 200 million pengős a month, and after this period by 300 million pengős a month. According to the German commission, Hungary covered the costs of military lease work fulfilled to Germany and the costs of installing German military devices in Hungary from these funds. In 1944, they paid 2028 million pengős in that way. In addition, a mark obligation adequate for 890 million pengős had arisen, so after 19 March 1944, the resultant German debt was 2918 million pengős.

The inflation of pengő

Despite this, the depreciation of the pengő remained moderate till the end of World War II and began to gather speed only in the beginning of 1945. The price level multiplied by 15 times in the first half of 1945, and by 85 times in the second half of 1945.

Besides, war costs a significant part of the resources of national income was destroyed. Because of the military events of 1944 and 1945, the state barely had an income for eight months. To cover the expenditures, it drew on the banknote press ceaselessly. Some 90 per cent of the industrial capacity of the country was damaged, and more than half of it was destroyed. In addition to the destruction of roads, railways and bridges, transport vehicles became the booty of the withdrawn German or the forging ahead Soviet troops. Unsuccessful harvesting in 1945 also worsened the situation; it managed to gather only one-third of the corn production of the last pre-war year, and a significant part of it had to be

61 S. AUSCH, A háború finanszírozása és az 1938–1944. évi infláció Magyarországon, in: *Közgazdasági Szemle*, 10, 1955, p. 1195.

set aside for seed corn. In 1946, famine was a threat again. In the financial year of 1945–46 (as the budget year at that time lasted from July to June), the produced national income meant one-third of the national income in the last pre-war year, 1938.

Economic liabilities issued from the instructions of the armistice agreement amounted in the second half of 1945 to 60 per cent and in the first half of 1946 to 40 per cent of the state expenditures. The only solution was to start a banknote press, which caused rampageous inflation to get out of control, completely disarranging the remaining Hungarian economy. However, right before the first wagon burdened with reparation goods left the country, the burden weighing on the war-torn Hungarian economy had significantly increased as the Soviet Union countered the food, fodder, and coal supply of the Red Army to Hungary.[62] Food and supplies for the invading troops cost around two billion pengős. The Hungarian government was also obligated to honour the so-called Red Army Pengő issued by the Soviet High Command in Hungarian territory with conditions dictated by the Soviets and without return. Kiting the Soviet money issue speeded up inflation.

The expenditures of the state budget were tenfold the income. The financial coverage could only be carried out by issuing more and more paper money. The equilibrium between the circulating money supply and goods collapsed. The quantity of circulating goods decreased, and the kiting purchasing power caused uncontrollable inflation. as a secondary product of financial stabilisation, this phenomenon, also allowed the communist party to eliminate the market economy and introduce Soviet-type economic system under the headword of state intervention.

In the raided country, the rapid loss of value of the pengő started. In July 1945 Average price increase was only one per cent per day, but in October of the same year, it was already 18 per cent; and in May 1946, hell broke loose with a price increase of 1,012 per cent per day, which went up to 45,900 for the first week of July, and up to 53 thousand per cent in the second week. In the last days of the dying currency, i.e. in the fourth week of July, the daily index showed a price increase of 158,486 per cent. The Streets were covered with a sea of paper money.

62 J. HONVÁRI, Magyarország gazdasági fejlődése a II. világháború után (1945–1958), in: J. HONVÁRI (ed.), *Magyarország gazdaságtörténete a honfoglalástól a 20. század közepéig*, Budapest 2003, pp. 435–436.

Attempts in order to roll back Inflation

Numerous attempts were made to roll back inflation. On 19 December 1945, the Hungarian government introduced a banknote levy. From this time pengős could be used as legal tender only if a small stamp was stuck on the right upper field of the banknote. The stamp price was three times of the fair price of the banknote. With this act the nominal value of the circulating money was reduced. The state was able to get income from selling the stamps, so in the short run, it could cover its expenditures. Because of this step, the government did not have to get loans and use banknote presses for a while. The banknote levy initially resulted in significant disinvestment; however, inflation was not stopped. The relief lasted only for eleven days.[63]

The new unit of account, the so-called "tax pengő", introduced on 1 January 1946, did not prove to be more successful. It was another unique attempt to stop inflation without any precedent. The Hungarian Institute for Economic Research determined the Tax pengő index each day in so-called ordinary pengő. As the so-called "humour of Pest" formulated: *"Ordinary pengő was that paper, which did not have value, and tax pengő was that with which the value of ordinary pengő could have been measured."* From this time, bank deposits, credits and tax revenues meant tax pengő, while retail prices and wages went for ordinary pengő without valorisation. The effective money transfers were transacted in ordinary pengő. By introducing tax pengő it was thought that valorising bank deposits promoted savings, thereby urging the population not to expend a greater part of their earnings.[64]

Tax pengő was an index number till the beginning of July and served for the depreciating banknote as a crutch so that it could become more convenient to activate the function of a means of payment, which later became real money. However, as soon as tax pengő began to circulate in greater amounts, tax pengő denominated prices also rose. A new, now the third period started in the development of the pengő on 23 June, from which time state expenditures and earnings disbursements were also fulfilled in tax pengő. From this time, tax pengő supplanted ordinary pengő. However, tax pengő notes in the proportion of their circulation depreciated as fast as ordinary pengő did previously. Because ordinary

63 I. VARGA, *Az újabb magyar pénztörténet és egyes elméleti tanulságai*, Budapest 1964, pp. 103–104.

64 Ibid., p. 106.

pengő was no longer put into circulation, the whole circulating pengő mass was depreciated almost totally beyond some days because of the increasing prices.[65]

Until the summer of 1946, depreciation of pengő accelerated that way, so wages were paid daily. After this, everybody ran to invest it in tax pengő or USD or expend it because the next day, new money was circulated with a higher denomination. Barter and its form, the so-called bag trade, grew out of proportion. The financial part of the wages became almost nominal, so payment in commodities was introduced. The banknote with the greatest denomination was the 100 million bilpengő piece, which would have meant 20 zeroes if it had been written. In 1939, a USD was worth 3.38 pengő, while in July 1946, the same dollar was equal to 500 sextillions (500 000 000 000 000 000 000) pengő.

Table 5. Depreciation of the pengő

	Price index (26 August 1939 = 1)	**The exchange rate of USD in pengős**
July 1945	105	1,320
November 1945	12,979	108,000
January 1946	72,330	795,000
March 1946	1,872,913	17,750,000
May 1946	11,267 million	59,000 million
31 July 1946	399,623 septillion	4,600,000 septillion

Source: I. VARGA, *A magyar valutacsoda*, Budapest 1946, p. 3.

On 28 February 1946, the banknote of 1,000,000; on 2 April 10,000,000; on 30 April 100,000,000; on 13 May 1,000,000,000 pengő was put into circulation. Issuing the milpengő (one milpengő = 1,000,000 pengő) began on 27 May with the banknote of 10,000 milpengő, soon followed by that of 1,000,000 on 12 June, the 10,000,000 on 18 June, the 100,000,000 on 24 June, and the 1,000,000,000 milpengő on 27 June. The effect of the racing inflation was also shown by the fact that on 18 May 1946, banknotes of 5, 10, 20, 50, 100, 500, and 1 000 pengő were withdrawn from circulation for good.[66]

65 S. AUSCH, *Az 1945–1946. évi infláció és stabilizáció*, Budapest 1958, pp. 118–119.
66 J. BOTOS, *A korona, pengő és forint inflációja (1900–2006)*, Budapest 2007, p. 182.

The issue of the banknotes having greater and greater denominations tried to satiate the claim for cash of the racing inflation. At the same time, paper money with greater value also urged, fed and accelerated inflation psychologically and induced inflation anticipation beginning from the summer of 1945. The best example for this is the case of the rapid inflation of B-pengő (one B-pengő = 1,000,000,000,000, one trillion pengő). The first denomination of the bank, the banknote of 10,000 B-pengő appeared on 1 July 1946. The other denominations, 100,000, 1,000,000, 10,000,000 and 100,000,000 B-pengő were issued in the next ten days. The banknote of 1,000,000,000 B-pengő also reached completion. Meanwhile, on 9 July 1946. the tax pengő, tax note, became legal money, so issuing the greatest denomination became superfluous, and the career of B-pengő was finished in ten days.[67]

Inflation forced the population to mobilise its marketable values to survive. Jewels, noble metal objects and currencies owned by the bourgeois changed hands in the black market. The real beneficiary of this illegal circulation – besides the black marketeers – was mainly the government, with the help of half-legal state enterprises.

By inflating pengő by a measure countable only by maths, the state treasury got rid of its internal debts previously accumulated and its obligation of conversion by making new money. These refer to the fact that invigorating inflation from the spring of 1946 became part of the struggle for political power, and no coalition party was interested in forestalling inflation.

It became apparent that the parties whose stabilisation programme could be carried out gained significant preference in the struggle to gain power.

The preparation of stabilisation

Hungary had also been stabilised after World War I; however, under much more favourable economic circumstances at that time, because the country's economic resources were not destroyed to such an extent, foreign trade relations existed, transportation facilities functioned, moreover they drew on foreign loans to stabilise. Now they had to carry out stabilisation without foreign loans. There was an example of stabilisation without foreign loans. Following World War I, the vanquished Germany was stabilised without foreign loans in 1923. However, at that time, the

67 J. BÜKY, *A pengőtől a forintig*, Budapest 1946, pp. 4–5.

economic facilities of Germany were not smashed, its foreign trade was highly developed, there was a stockpile in the country, and its production equipment was unharmed. The Germans had a further advantage: they ended the greatest inflation in world history only years after the world war. After 25 years, in 1945–1946, Hungary overthrew this world record – and has held it up till now. Consequently, Hungarian stabilisation was executed under more unfavourable circumstances from an economic point of view.

The work of stabilisation was already outlined in May 1946. As the Economic Supreme Council, having communist influence and determining economic policy, did not have the appropriate expert advisory panel for rolling back inflation and preparing for stabilisation, they requested experts familiar with the state budget and finances from the Ministry of Finance. The Ministry of Finance could only send so-called "mottled" persons, as the communist jargon called the politically unreliable people. However, because of the critical situation, cooperation was necessary among economists representing different political directions and having different antecedents. In the works of stabilisation, participated among others, István Antos, an expert on state and company finances; István Varga and Béla Csikós-Nagy, pricing experts; Béla Rényi, an expert on the state budget; Ferenc Jeszenszky, an expert on banking transactions; Zoltán Vas, an expert on the pragmatic economy; István Vásáry and Ferenc Gordon, the first Ministers of Finance. But they also consulted with Jenő Varga, a well-known economist living in the Soviet Union and other, e.g. British experts.[68]

The catastrophic public supply situation, the difficulties of reconstruction and the inflation make it evident, that powerful state intervention is needed. Parallel to the stabilisation, national and unified rationing were also introduced. A controlled economy prevailed in the fields of industry and finance. The experts started by creating new prices for wheat per quintal. The price of all agricultural products was proportioned to

68 According to smallholder politics, Béla Imrédy, Prime Minister of the last prewar government, having international fame, had an outstanding and not stock role in working out stabilisation. In 1946, he was imprisoned in cell 10 in Markó Street, where his solicitor told him that the government had decided to circulate new money. He would take decisive steps towards a clemency plea with a draft on stabilisation. Two weeks later, Imrédy handed a work of 60 pages to his solicitor. After remitting his financial draft, on 28 February 1946, however, he was executed.

it according to the price relations of 1938. They settled the prices of industrial products correlated to agricultural prices. Calculations on the standard of living were based on the hope that till the beginning of stabilisation, industrial production would reach some 50–55 per cent of the last pre-war year, while the output performance would reach 75 per cent and the level of agriculture 60 per cent of the year 1938.[69]

Obviously, that the new currency could remain stable only if there is goods coverage besides the money, which means if people are able to buy goods in forint. It was not an accident that currency reform was timed after harvesting on 1 August. In 1946, crop prospects were relatively good, and the agricultural products provided adequate commodity reserves for the period after harvesting. It seemed that they also managed to concentrate the adequate industrial type of stock for that time. The West-Orient State Foreign Trade Company, established by an edict of the Economic Supreme Council, had a significant role. This company was tasked with taking the best part of foreign trade transacted by private vendors or in smuggler way for the state. They were transporting tobacco to the West and putting them on account meant the most significant income for the company. Tobacco companies bought up tobacco production in 1944 and 1945 for inflationary pengő; however, they could not process it because of the coal shortage. As tobacco was in short supply in the West, the West-Orient carried the tobacco processed by the tobacco producers in 1946 to the West, supported by the instructed customs police, and bought mainly textile goods for a large amount of currency. These were deposited by great textile merchants of the counties and bigger cities as commodity reserves of the new money.[70]

From the aspect of stabilisation, it was significant that it was able to reschedule Soviet reparation transportation. In August 1946, the so-called gold train arrived, accompanied by the American Army, which brought back some 28 tons of noble metal supply from the National Bank, previously hauled to the West. With cutting the expenditures and increasing the incomes, the deficit of the budgetary year of 1946–1947 was appropriated at 120 million forints.[71]

69 Z. VAS, *30 éves a forint*, Budapest 1977.
70 Ibid., p. 23.
71 HONVÁRI, p. 451.

Introduction of forint

The conversion of the completely depreciated pengő to forint did not happen, as on 1 August 1946, one forint was formally equal to 400,000 octillions (that is 4 × 10 to the 29th power of) ordinary pengő, while the paper money circulating in large amounts was "only" 47.4 octillion pengő. The total circulating ordinary pengős were namely worth only 0.01 fillér.

The entry of new forint prices antedated the introduction of the new money. Here they started with the pengő prices of the years 1938–1939. With the new prices, a multiplier of 3.6 was finally used. The dispersion was great beyond the average. Agricultural prices were settled at a low level and industrial prices at a higher level. The prices of wheat-growing were determined to be lower than those of live-stock farming, but both substantially lagged behind the price level of industrial products. By corn, the multiplier was 2.1; by products of animal origin, 4.2; by industrial prices, it was 4.97. By establishing a price system in that way and opening agricultural price scissors – per the preferences of communist economic policy, prevailing through the Economic Supreme Council – they wanted to extract capital from agriculture to assist industry during reconstruction. The forint's exchange rate was settled by ministerial decree No. 8700 in 1946. According to this, one kilogram of refined gold was worth 13200 forints, so one forint was worth 0.0757575 grams of refined gold. They determined the exchange rate of USD as related to the Hungarian currency at 11.74 forints.[72]

The Hungarian Institute for Economic Research's calculations on the national income meant the basis for establishing the rate of wages, which was important from the aspect of prices and income relations. According to these calculations, national income in the years of 1946–1947 would be 60 % of that before World War II.

Choosing the name of the new currency was not without debate. There was an agreement that it should have a typically Hungarian name but not have bad memories. Among the names occurred the "máriás", referring to the imagery of traditional Hungarian motive Patrona Hungariae[73] and

72 T. BÁCSKAI – E. HUSZTI – P. SIMON, *A pénz. A kaori kagylótól az euróig,* Budapest 2003.

73 So-called Madonna-type coins (denarius) with imagery of Patrona Hungariae on their reverse side had been minted by the Hungarian rulers from King Mathias to Maria Therese.

the "libertas", referring to the copper piece of Ferenc Rákóczi II.[74] In the end, the choice fell on forint, referring to the gold forint minted by Róbert Károly, Hungarian King (1308–1342), which was also accepted abroad, and preserved its stability very well.[75]

By the first issue of the forint, the greatest denominations were that of ten forints, and the issue of 100- or 20-forint pieces happened only later. In the beginning, denominations greater than ten were not needed because the National Bank of Hungary put only a small amount of money into circulation. At the end of August 1946, the only money value of 356 million forints participated in money circulation; and it remained under one thousand million even at the end of the same year. This was the consequence of a conscious governmental policy creating monetary stringency. The central bank of issue let the channels of money circulation fill with banknotes and coins only gradually. Circulation of the new money happened mainly through three channels: *"Through buying up foreign currencies circulating during inflation and broken gold; Through banknote circulation of the National Bank of Hungary serving for coverage for state budget deficit; Through the credit supply of the private economy."*[76]

The consciously created monetary stringency forced entrepreneurs and black marketeers to convert one part of their currency and noble metal supply to forint. The state managed to provide the stability of the forint.

According to the issuing plan, the new money could only have banknotes of 10, 20 and 100 forints initially. Because of paper failure in 1946, the largest denomination was that of ten forints. From 1948 20-forint pieces, from 1953, 50-forint pieces and in 1970, 500-forint pieces were put into circulation.

A good example of the extraordinary situation is that the first issued forint coins were made of the aluminium wires of the transmission line of Mátravidéki Centrálé that was damaged and collapsed in the war, and the part stock of the Weiss Manfréd Factory. The forint is created by melting these. Later they ordered to mint – although in small quantity – silver 5-forint pieces from the silver brought back from the West to support

74 "Libertas" was the name for Ferenc Rákóczi II's copper coins with the inscription PRO LIBERTATE on their reverse side. This emergency currency was minted from 1705 till 1707 in Nagybánya and Munkács.

75 The first Hungarian forints were coined on the model of "fiorino d'oro", the gold piece of Florence in the 13th century, from where the name of Hungarian forint was derived.

76 AUSCH, p. 157.

the stable value of the forint.[77] However, only a fraction of this went into circulation because the price of silver significantly increased in the world market, and the value of the 5-forint piece soon became around eight forints.[78]

By introducing forint, only the domestic circulation of the national money was restored; but its convertibility was not carried out despite the anticipation of the population and governmental intentions. Foreign exchange restrictions and strict regulation remained unchanged for decades.

Conclusion

The scale of the losses and destruction in the Second World was generally greater in Central and Eastern Europe than during the First World War. Due to military operations at the end of 1944 and the beginning of 1945, there was widespread devastation both in assets and human lives. Industrial capacities and agricultural land were also devastated. Transportation and telecommunication systems were paralysed. Most Central and Eastern European countries inherited a system of finances from the Second World War in disarray.

Postwar economic difficulties were exacerbated by reparation liabilities and shipments demanded by the Soviet Union from the ex-enemy countries (Bulgaria, East Germany, Hungary and Romania). According to estimations, reparation payments and deliveries to the USSR amounted to USD 14 billion between 1945 and 1953. Requisitions made by Soviet troops and regular supplies to the occupying Red Army weighed heavily on the national economies of the Central and Eastern European countries and contributed to the rising level of inflation. Yugoslavia meant an exception because its territory had not been occupied by the Soviet Union.

The UNRRA aid contributed to the economic recovery from 1945–1948 since most of the assistance was free. Relief supplies in the form of food, clothing and medicine eased the general shortage of consumer goods in the early postwar years. The chief beneficiary of the UNRRA programme was Poland, followed by Yugoslavia and Czechoslovakia. Western credits from commercial sources granted to Poland (USD 251 million) and Czechoslovakia (USD 168 million) by Great Britain and the United States

77 This was the certain "Kossuth-money", decorated with an inscription "Working is the basis of national welfare" on the verge.
78 *Pénzkibocsátás Magyarországon*, National Bank of Hungary, Budapest 1978, p. 18.

remained largely unused, and negotiations to obtain further loans broke off in mid-1947, as the emergence of the Cold War precluded Eastern Europe from participating in the Marshall Plan.

Whereas the majority of the countries in the region succeeded in stabilising their national economies by obtaining reconstruction loans from the League of Nations during the interwar period, they did not draw on external aid after the Second World War. Therefore, the financial reorganisation relied on domestic sources. Once the war was over, it became an increasingly urgent task to implement monetary reform in Central and Eastern Europe. Based on relevant statistical data, especially in Hungary, Romania and Yugoslavia, the upward price spiral was allowed to assume hyperinflationary dimensions. The Soviet occupation zone of Germany was also hit by excessive money supply, as well as Poland, which also suffered a very sharp rise in prices in the first two years after the war. At the end of 1947, Bulgaria and Czechoslovakia were able to suppress inflation and stabilise their finances successfully. By 1948, when the German monetary reform was carried out, most countries succeeded in restructuring their financial and monetary systems. However, the lack of convertibility of their currencies meant a severe drawback in the world economy.

In June 1947, Stalin ordered to speed up Sovietisation in the region. In economic terms, the final goal was to construct the socialist system in Central and Eastern Europe. This encompassed a general switch to a centrally planned economy and a wider nationalisation of privately owned assets. By early 1949, with the abolition of private property ownership, the essential elements of a market economy had ceased to exist, and the countries in the region were hermetically isolated from world markets.

Postwar reconstruction in Hungary was hindered by several factors. First, because of the devastation and destruction caused by the Second World War, normal economic life came to a standstill in many sectors, including industry, agriculture, and trade. Second, reparations to be paid to the Soviet Union diverted substantial resources from the recovery period of the national economy. Third, the maintenance of the Soviet troops and the members of the Inter-Allied Control Commission contributed to the general shortage of basic goods. Hungary was hit by a wave of hyperinflation, the highest rate recorded in postwar world history. An overarching monetary reform was carried out on 1 August 1946 by introducing the new legal tender, the forint, to curb rampant inflation and ease the catastrophic public supply situation. Unlike in 1924, when

Hungary's economy was stabilised by the International Loan of the League of Nations, after World War II, financial reorganisation relied entirely on domestic resources.

Although the inflation of 1946 was built in public and professional thinking as a generational memory, its effect on economic policy did not remain permanent, contrary to Germany, where following the hyperinflation of 1923 till now, it is an axiom of economic thinking that the primary goal is to preserve the stability of the money.

The novelty of the stabilisation programme also caused a sensation in international terms. For example, Nicholas Kaldor emphasised the irregular method they dealt with the question, especially in his essay written on the Hungarian inflation and stabilisation process in October 1946.[79] He stressed that fixing the prices and wages system totally in the new money before introducing the new money can be regarded as a novel mode. Later more international studies were issued, whose authors emphasised the unique features and success of the Hungarian stabilisation programme.[80]

The significantly accelerating inflation also piqued the attention of theoretical economists, and later numerous inflation researchers used Hungarian inflation data for their calculations. So, did Philip Cagan, who investigated mainly Hungarian data and found basic evidence for the following: if money demand becomes a function of probable inflation, then the given periodic price level is influenced not only by the given periodic pace of money issue but also by the probable future value of the growth rate of the money supply. Such a mechanism evolves, according to which expectations concerning high future money issuing pace also increase present inflation level. This mechanism decreases the capacity of monetary policy to reduce inflation level temporarily by restricting the growth pace of money.[81]

The implementers of stabilization have already warned of the inherent risks in inflationary expectations. Dr. Péter Harsány spoke about this at a meeting of the Public Supply Council on August 10, 1946, immediately after the introduction of the forint: *„After the madness of inflation, we have to*

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79 N. KALDOR, Inflation in Hungary, in: *The Economic Journal*, 10, 1946.

80 For example: W. A. BOMBERGER – G. E. MAKINEN (June 1980), (1983); T. J. SARGENT (1982).

81 T. J. SARGENT, *Infláció és a racionális várakozások*, Budapest 2005, p. 184; P. CAGAN, *The monetary dynamics of hyperinflation*, in: M. FRIEDMAN (ed.), *Studies in the Quantity Theory of Money*, Chicago 1956.

get used to the allocation of our money, we have to get used to the fact that tomorrow's value will be the same as today's, and by the end of the month, our money will retain its value. If we spend recklessly today, we will face difficulties later. Impulsive and unwise purchases can contribute to price increases once again."[82]

To sum up, Hungarian money change is said to be successful as a monetary operation. However, conditions were not given for creating a permanently stable currency. Financial institutional system was eliminated within some months following the communist takeover. The uniform role of the forint as the standard of value disappeared with becoming a simple unit account.

With currency stabilisation, a tendency since 1945 was institutionalised and finalised, which made private capital accumulation impossible as a part of a conscious economic policy.[83] Finally, this policy was a prelude to the liquidation of foreign – and Hungarian – firms. The state machinery hindered capital formation and the recovery of private companies through more and more effective controlling and security activities. Replacement of the depreciated pengő made establishing the completely new price and earnings proportions possible, which set off significant social and economic changes.

The restriction also hindered bank deposit formation. On the one hand, the financial policy of stabilisation abandoned the traditional banking facilities of private banks, creating a state credit monopoly. On the other hand, private companies of industry and commerce got into a one-sided dependence on the state. While private companies suffered from a shortage of capital, state companies could get enough credit, moreover support.

82 Speech of Péter Harsány (Counsel of Public Supply), *The forint and public supply*, Public Supply Council, August 10, 1946. (manuscript) Public Supply Ministry (1945–1947), National Archives of Hungary. HU-MNL-OL-XIX-K-4 parcel 68, item 2.

83 I. PETŐ – S. SZAKÁCS, *A hazai gazdaság négy évtizedének története 1945–1985*, Vol. I., Budapest 1985, p. 74.