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# VI

## Romania: from 1880 to 1947

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### I MAJOR MONETARY EVENTS

#### I.1 KEY EVENTS IN THE POLITICAL HISTORY OF ROMANIA

Modern Romania started to take shape in 1859 with the union of the Romanian Principalities, namely Moldavia and Wallachia, which had been under Ottoman suzerainty and the collective protectorate of Europe's Great Powers. The process continued with the proclamation of independence from the Ottoman Empire in 1877 and its international recognition by the Congress of Berlin one year later. From a political standpoint, the pinnacle of this process was the proclamation of the Kingdom of Romania in 1881 as the organisational structure of the Romanian state.

Romania's participation in World War I during 1916–1918 on the side of the Triple Entente brought the international recognition of the country's union with the territories inhabited by Romanians in Austria-Hungary (Bukovina and Transylvania) and Russia (Bessarabia), as stipulated in the treaties signed in Saint Germain, Neuilly, Trianon and Paris after the peace talks held at the Congress of Paris during 1919–1920.

The interwar period was a thriving period for the Romanian state overall. However, the outbreak of World War II and the sweeping changes to the balance of power in Central and Eastern Europe caused great territorial losses to Romania in 1940, as approximately one-third of its territories were incorporated into the neighbouring countries: the USSR (Bessarabia and Northern Bukovina), Bulgaria (Southern Dobrudja), and Hungary (Northern Transylvania). When the war was over, Northern Transylvania was again part of Romania, which however fell under the USSR's sphere of influence. In terms of domestic politics, this materialised into the Communist Party grabbing power after the victory of the left-wing forces in the November 1946 elections. The political changes came to an end on 30 December 1947 when the monarchy was abolished and the official name of the country became the People's Republic of Romania. The Romanian Communist Party thus turned into the most powerful political party, paving the way for the Soviet model being transposed into the Romanian society.

#### I.2 ROMANIA'S MONETARY AND FINANCIAL HISTORY (1867–1947)

The second half of the 19th century witnessed the creation/strengthening of modern Romania, along with the organisation of its institutional structures including the financial, monetary and credit

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system, against the background of the emancipation from the Ottoman Empire's domination and the switch to the models provided by Western Europe, in particular France.

On 22 April 1867, the leu became Romania's national currency (based on a bimetallic gold-silver standard). Leu 1 was the equivalent of 0.3226 grams of mint gold with a 900‰ fineness or 5 grams of mint silver with an 835‰ fineness. The monetary law did not include provisions on the free mintage of gold or silver coins, but set forth that the types and amounts of coins to be issued were established by the legislative councils at the request of the Ministry of Finance.<sup>3</sup> As a matter of fact, the currency issuance right was exercised by the Romanian government alone.

The exchange rates of the major currencies against the leu were established as follows: one French franc = 1 leu, one pound sterling = 25 lei, one German mark = 1.23 lei. The introduction of the bimetallic gold-silver standard and the equality between the leu and the French franc were aimed at adjusting the Romanian monetary system to the standards established by the member countries of the Latin Monetary Union. Nevertheless, Romania's request for membership of this international organisation was turned down.<sup>4</sup>

Although the law laid down the value of the leu in both silver and gold, the gold price on the market was soon to exceed the official silver price. What followed was the emergence of the phenomenon referred to as *agio*, namely the gold premium in relation to silver as well as to banknotes. A more accurate description of the *agio* is given by one of the contemporaries:

*'This is one of the most serious issues, as farmers, owners, retailers and industrialists are equally affected and fear that their fortune in silver or banknotes would diminish over night and that next day the worth of their money holdings would be 8 percent, 10 percent or 15 percent lower'.<sup>5</sup>*

Across the Romanian economy, the higher *agio* indicating the disruptions in the gold-silver standard caused major imbalances, such as the disappearance of gold from circulation as a result of hoarding and exports and the introduction of the gold payment clause for large-value transactions. In the absence of gold, payments were made generally in silver, to which was added the daily *agio*, although the contractual provisions stipulated that payments should be effected in gold. Another phenomenon related to the crisis of bimetalism was the price increase which included the gold premium.

The phenomenon was conducive to the hoarding of the gold currency and the depreciation of the silver coins and NBR's banknotes against gold. In this context, the Romanian authorities decided to relinquish the bimetallic gold-silver standard.<sup>6</sup>

The new Monetary Act of 1890 set forth the elimination of silver as a standard and the introduction of the monometallic gold standard, while silver coins were to become fractional coins. The silver coin ceased to be unlimited legal tender, as the coin served to make payments up to 50 lei. The government was entitled to retire from circulation 5 lei silver coins equivalent to 40,000,000 lei and replace them with gold coins. Silver coins worth 25,000,000 lei were devalued and replaced by 20 lei gold coins in the amount of 3,920,000 lei.<sup>7</sup> This process started by converting the 5 lei

<sup>3</sup> See Marinescu (1939), pp. 295–303.

<sup>4</sup> For further details on the relationship between Romania and the Latin Monetary Union, see Kirițescu (1968).

<sup>5</sup> Băicoianu (1939), volume II, part II, second volume of annexes, p. 96.

<sup>6</sup> See Băicoianu (1939), volume II, part I, pp. 199–235, as well as Stoenescu, Costache, Blejan and Iarovici Aloman (2008).

<sup>7</sup> *Anuarul statistic al României* (1912), pp. 436–437.

silver coins in the NBR metallic stock into gold. In view of the reservations expressed by the National Bank of Romania in relation with the resources of precious metal for covering its issue, the provisions of this law were included in the NBR Statute in 1892. Thus, one leu was worth 0.3226 grams of 900‰ fineness gold.<sup>8</sup>

The National Bank of Romania (*Banca Națională a României*) was established by virtue of the Law of 17 April 1880, having a capital of 30 million lei, with two thirds being subscribed by private investors and one third by the state. In 1901, the Romanian government withdrew its participating interest in the NBR's capital, which was thus subscribed exclusively by private investors (its value remaining unchanged from 1880).

According to the law, the NBR held the monopoly over banknote issuance for 20 years. On its establishment in 1880, the National Bank of Romania was bound by law to have a cover stock accounting for 33% of the amount of the issued banknotes; the gold/silver proportion was not specified.<sup>9</sup> Banknotes were converted into either silver or gold, at the option of the issuing bank.

After 1892 the banknotes became convertible into gold and gold foreign currencies at the central bank's headquarters. The NBR Act and Statute provided that notes in circulation should be covered by gold up to at least 40%, of which 30% at most could be bills of exchange denominated in British and German currencies. Starting 1901, under exceptional circumstances, the cover limit of the metallic stock could go down to 33%, while the bills of exchange included in its structure could also be expressed in both French and Belgian currencies.<sup>10</sup> The issuing privilege was renewed several times and is still in force.

World War I took a heavy toll on Romania's economy. Government institutions, the National Bank of Romania, etc., were relocated from Bucharest to Iași, which became the capital city. The Bucharest Stock Exchange ceased its activity during July 1914–October 1919.

From 1916 through 1920, the Chamber of Deputies neither debated nor adopted a general government budget, Romania's public finances being organised on the basis of the budget adopted for the 1915/1916 financial year. With a view to covering the war-related expenses, the government took several loans from the NBR, entailing an increase in currency issue. In order to ensure legal cover, the Ministry of Finance bestowed gold and foreign currencies deposited with foreign banks to the NBR. However, when these resources were depleted, they were replaced by Gold Treasury bonds, which were included in the cover stock of the issuing bank. The loss of the NBR's metallic stock in the amount of 315.2 million lei, which had been dispatched to Moscow in 1916–1917, led to the formal suspension of gold convertibility of the leu starting June 1917, given that gold exports had been banned ever since August 1914.<sup>11</sup>

The government continued to borrow from the issuing bank even after the Great War in order to cover the expenditures and the amounts required for accomplishing monetary unification – which implied the withdrawal from circulation of the Russian roubles, the Austro-Hungarian crowns and of the lei issued during 1916–1918 with the consent of the German administration in Bucharest by the Romanian General Bank.<sup>12</sup>

<sup>8</sup> Marinescu, *op. cit.*, pp. 312–317.

<sup>9</sup> *Ibid.*, pp. 1–91, 295–303.

<sup>10</sup> *Ibid.*, pp. 312–317.

<sup>11</sup> *Ibid.*, pp. 326–329, 367–370.

<sup>12</sup> *Ibid.*, pp. 321–412.

Gradually, the Romanian authorities tried to return to normalcy. Romania's first government budget for the 1920/1921 financial year was adopted in 1920. Starting 1922, the government stopped taking new loans from the issuing bank. Furthermore, during the first inter-war decade, the persons in charge of Romania's public finances succeeded, through the conclusion of arrangements with foreign holders of Romanian debt, to consolidate the external public debt and to resume debt servicing.

The agreements concluded in 1925 between the government and the NBR were yet another step towards restoring the monetary and financial equilibrium. At the same time, the NBR bank capital was increased threefold, from 30 million lei to 100 million lei, in which the government held one third of shares.<sup>13</sup>

These agreements were aimed at putting an end to the issue of the debt incurred by the government with the central bank and at adopting measures for ensuring the cover of money circulation. The government set up a fund for liquidating its debt with the NBR, to this adding the attendant withdrawal of the banknotes issued for the government and the containment of the NBR's issue at the level reached on 31 December 1924.

According to the Statute adopted in 1925, the NBR had to hold a metallic stock of at least 40% of the banknotes issued; only under exceptional circumstances, could the metallic stock be reduced to 33%. A proportion of 30% of the metallic stock could be accounted for by gold bills of exchange on the markets in France, Belgium, Germany, the United Kingdom and the USA. This percentage could be raised to 50% of the cover stock, including Romanians' rents, the payment of which was actually made in foreign currency.<sup>14</sup>

This set of measures was adopted and implemented against the background of a relative stabilisation of the Romanian economy. During 1923–1927, the government budget reported constant surpluses. Romania's trade balance saw a similar evolution during this period, except for 1925. The leu exchange rate on foreign markets started to go up in 1927 and stabilised one year later, after reaching historical lows in 1925–1926.<sup>15</sup>

Starting 1928, with a view to restoring monetary equilibrium, a decision was adopted to stabilise the national currency at the current value. A new agreement was signed with the Romanian government, by which the NBR was authorised to: conclude agreements with foreign issuing banks for opening credit lines in order to legally stabilise the leu; buy an unlimited amount of gold-based foreign exchange; increase the issuance of banknotes based on the gold or gold-based foreign exchange cover only. In addition, a credit agreement was concluded with 14 issuing banks, which were committed to obtaining a USD 25 million worth of stabilisation loan available with the NBR.<sup>16</sup>

Against the background of a poor harvest, in 1928, the trade balance recorded a worrisome 4.6 billion lei deficit, whereas the deficit reported by the government budget amounted to approximately 2.5 billion lei.

The new Monetary Act adopted as of 7 February 1929 provided for the resumption of the leu's convertibility and its devaluation from the pre-war parity. In line with the legal definition, leu 1 was the equivalent of 10 milligrams of mint gold 9/10. The NBR had to ensure for its sight commitments a cover

<sup>13</sup> *Ibid.*, pp. 7–8.

<sup>14</sup> *Ibid.*, pp. 31–32, 474–485.

<sup>15</sup> For details on the relationships between the government and the NBR, see Ionescu (1935).

<sup>16</sup> See Marinescu, *op. cit.*, pp. 485–492.

of at least 25% in gold, plus the remaining 10% to 35% in gold-convertible foreign currencies. From the NBR's cover stock the following were removed: the gold deposit in Moscow and the Gold Treasury bonds issued for the government debt. The leu convertibility was particularly manifest in the possibility to exchange into foreign currency at least 100,000 lei in a single transaction. The aforementioned changes in the cover stock were embedded in the bank's new statute that took effect on 7 February 1929. The newly-enacted law also provided for a capital increase to 600 million lei and a reduction in the state's participation from 33% to 10%, the remaining 90% being accounted for by private underwriters.<sup>17</sup>

The monetary reform was only a part of the Stabilisation Plan adopted in early 1929, which was also aimed at ensuring a durable equilibrium of the country's budget by repaying the overdue government debt, including that resulting from the loans extended by the NBR. The necessary resources were obtained by a foreign loan, namely the 7% 1929 Stabilisation Loan, taken by the Autonomous Monopolies Institute.<sup>18</sup>

Nevertheless, the equilibrium thus obtained could not be preserved, given that the outbreak of the Great Depression<sup>19</sup> brought to the fore all the weaknesses of the domestic financial and banking system in the interwar period. Concurrently, the Romanian economy faced the necessity to repay the external debt service, massive capital outflows, a fall in foreign exchange inflows owing to the disruptions in world trade, as well as a decline in budget revenue. The government and the NBR obtained repeatedly new loans from foreign markets in order to service the external debt and maintain the national currency's stability. Moreover, the resources obtained in 1931 following the 7½% Development Loan were earmarked for such purposes, after changing the initial purpose.

The depletion of foreign reserves brought about the *de facto* suspension of the leu's convertibility, starting 17 May 1932, by concentrating all trade operations in foreign currencies at the NBR and having their purchasing and selling rates set by the issuing bank.<sup>20</sup> In spite of the efforts made by the government to ensure the necessary means to repay the external debt, in the latter half of 1932, this proved to be too heavy a burden. Against this background, on 15 August 1933, the government in Bucharest suspended payments on its external debt. Payments were resumed after the completion of negotiations in mid-1934.<sup>21</sup>

The pressures on the national economy and the consequences of the economic crisis led to a lower exchange rate of the leu, in spite of the measures adopted by the NBR and the Romanian government. In this context, on 7 November 1936, a decision was adopted in order to revalue the NBR's gold reserve by adding a 38% premium to the stabilisation price (111,111.1 lei per kilogramme), which drove the price of gold to 153,333.33 lei per kilogramme and caused a devaluation of the leu from the exchange rate set in 1929.<sup>22</sup>

The territorial losses in the summer of 1940 and the entry into World War II in 1941 on the side of the Axis Powers weighed heavily on the financial and monetary balance of Romania. The war caused Romania's isolation in both political and financial terms. On 3 April 1941, a press release of the Romanian government stated that, due to the international context, external public debt servicing was suspended and was no longer included in the public budget starting with that date.<sup>23</sup>

<sup>17</sup> *Ibid.*, pp. 9–10.

<sup>18</sup> *Ibid.*, pp. 498–531.

<sup>19</sup> See Stoenescu, Costache, Blejan and Iarovici Aloman (2009).

<sup>20</sup> Marinescu, *op. cit.*, pp. 558–572, and Stoenescu, Costache, Blejan and Iarovici Aloman (2009).

<sup>21</sup> See Dobrovici (1934, 1944).

<sup>22</sup> See Marinescu, *op. cit.*, pp. 632–638.

<sup>23</sup> See Dobrovici (1934, 1944), p. 330 and p. 380.

The decline in budget revenues and the rise in public expenditures, due to the preparation and conduct of military operations, generated significant deficits covered with government loans from the NBR. The increase in banknote issue entailed a change in the price of gold, which was tantamount to a new devaluation of the national currency. On 19 May 1940, the NBR's gold reserve was revalued at 229,999.99 lei/kg and about one year later, on 1 April 1941, the gold price was of 211,111.1 lei/kg.<sup>24</sup>

It seemed that this operation was not enough to cover the banknote issue necessary for covering war expenses. For that reason, on 10 December 1941, the NBR was authorised, based on a decree-law, to include in its cover the Treasury bonds used by the Ministry of Finance when making public debt repayments. On 23 August 1944, Romania joined the Allied Powers, in an attempt to diminish territorial losses as much as possible. The armistice convention Romania signed with the Allied Powers on 12 September 1944 put additional pressure on the Romanian economy. The financial burden on the Romanian government rose substantially due to the obligations assumed to cover the expenses of the Soviet Army both via direct payments and the replacement by lei of roubles and other currencies (Soviet lei, Soviet pengö in Northern Transylvania) put into circulation by the Soviet troops. Adding to these were the expenses arising from other economic and military obligations assumed under the armistice convention, including the payment of war damages in the amount of USD 300 million.

At the same time, the fundamental structures of the Romanian economy underwent sweeping changes, reflecting Romania's entry under the control of the Soviets and the Communist Party seizing power. On 1 January 1947, the State became the sole shareholder of the National Bank of Romania, whose currency-issuing privilege was renewed for an unlimited period. In addition, the NBR, in its capacity as government agent, ensured credit management and control in Romania.<sup>25</sup>

After taking control over the central bank, the State regulated the situation of domestic public debt. On 1 May 1947, the law stipulated the repayment of all domestic loans of the Romanian State, the public debt being thus paid off.<sup>26</sup> The repayment of external debt was further suspended. Subsequently, Romania concluded agreements with the countries whose residents held Romanian debt securities in order to pay compensation to creditors.

The inflation recorded in the first post-war years required a new monetary system reform on 16 August 1947. All currency denominations and payment means in circulation were replaced by new banknotes and fractional coins. The official exchange rate was of 20,000 old lei for 1 new leu, whereas the amounts accepted for exchange were limited in terms of social category. The enterprises carrying out activity in industry and agriculture could exchange only an amount equal to the salaries paid in June 1947, whereas trading companies were not allowed to exchange their holdings. The amounts that were not exchanged as well as those held with public or private credit institutions were blocked and then sterilised.

The law also established the new gold content of the leu, namely 0.60 mg gold with 9/10 fineness, which did not however mark the return to convertibility. The exchange rates of foreign currencies were to be determined subsequently. Nevertheless, according to another law, gold and for-

<sup>24</sup> *Journal of the Council of Ministers* No. 1645 in *Official Gazette* No. 115/1940, Decree-Law No. 897 in *Official Gazette* No. 78 bis/1941.

<sup>25</sup> Law No. 1056 on the nationalisation and organisation of the National Bank of Romania published in *Official Gazette* No. 298/28 December 1946.

<sup>26</sup> Law No. 142 on the amortisation of domestic public debt published in *Official Gazette* No. 99/1 May 1947.

eign exchange owners were bound to surrender their holdings to the NBR within 15 days and accept the official price calculated by the NBR.<sup>27</sup>

The law concerning the change in ownership and structures in the Romanian economy was supplemented on 11 June 1948, as industrial, insurance and transport companies, as well as banking institutions and mining concerns came under state control. Only the National Society of Industrial Credit was subject to the above-mentioned law.<sup>28</sup> The other banks and credit institutions were dissolved and forced into bankruptcy as of 13 August 1948. The exceptions were the National Bank of Romania, the National Society of Industrial Credit, the Savings and Postal Cheques Bank, the Savings Bank, the Soviet-Romanian Bank. Those institutions would make up the banking system under the communist regime.<sup>29</sup> The following years saw the formation of the centrally planned economic structure, apart from the political structure specific to communist regimes, which governed Romania for more than four decades.

**TABLE I Timeline of major monetary and political events**

*continue*

Date	Major monetary/political events
1859	The Danubian Principalities of Wallachia and Moldavia unite to form a new country: Romania.
1864	Romania passes its first unified budget.
1867	Law on the establishment of a new monetary system and the manufacturing of the national currency, the gold and silver standard.
1878	Congress of Berlin recognises the independence of Romania, as proclaimed in 1877.
1880	The National Bank of Romania is set up.
1882	The Bucharest Stock Exchange starts operations.
1890	Law introducing the monometallic monetary system. The Government of Romania starts preparations to replace the silver coins with gold coins equivalent to 40,000,000 lei.
1892	The NBR Statute is amended; the gold standard is implemented.
1901	The NBR's note issuing privilege is renewed; the State relinquishes its issuing-bank shareholder status.
1916–1918	Romania fights in World War I on the side of the Triple Entente.
1916	The NBR's gold reserve is sent to Russia.
1917	The leu is no longer a convertible currency.
1919	Romania shifts to the Gregorian calendar.
1919–1920	At the Conference of Paris, the peace treaties signed in Saint Germain, Trianon, Neuilly and Paris recognise the unification of Romania with Bukovina, Transylvania and Bessarabia.
1920	Monetary unification and adoption of the first unified budget of Greater Romania.
1925	The Government of Romania and the NBR agree on restoring monetary and financial equilibrium. The NBR adopts a new Statute, its issuing privilege is renewed and the State is again a shareholder.
1929	The Government of Romania implements a monetary stabilisation and economic development programme. It enjoyed financial support from the 7% Stabilisation Loan mediated by the Banque de France, under the supervision of French advisors being seconded to the Romanian central bank.  The Monetary Law. The leu becomes convertible again after being devalued and the gold foreign exchange standard is adopted. The NBR's issuing privilege is reaffirmed.
1932	Leu convertibility is suspended <i>de facto</i> and the NBR's monopoly on foreign exchange transactions is enacted.
1933	Public debt repayment is suspended.

<sup>27</sup> Law No. 287 on monetary reform published in *Official Gazette* No. 187/16 August 1947; Law No. 284 published in *Official Gazette* No. 186/15 August 1947.

<sup>28</sup> Law No. 119 on the nationalisation of main production means published in *Official Gazette* No. 133 bis/11 June 1948.

<sup>29</sup> Decree No. 197 published in *Official Gazette* No. 186/13 August 1948.

TABLE I Timeline of major monetary and political events

Date	Major monetary/political events
1934	Public debt repayment is resumed in part. The Banking Law is enacted, the Higher Banking Council is established, and oversight on the banking system is introduced.
1936	The NBR gold reserve is revalued.
1940	Romania faces sizeable territorial losses: North-Western Transylvania, Northern Bukovina and Bessarabia. Romania joins the Tripartite Pact signed by Germany, Italy and Japan. The NBR gold reserve is revalued.
1941	The NBR gold reserve is revalued.
1941–1944	Romania fights in World War II on the side of the Axis Powers.
1944	Romania signs an armistice convention with the Allied Powers and declares war against Germany.
1946	The election is won by the left-wing forces subordinate to the Communist Party. Law on the nationalisation of the National Bank of Romania was published in the Official Gazette on 28 December 1946 and came into force starting 1 January 1947.
1947	Law on monetary reform.
1948	Industrial, mining, insurance and transportation companies are nationalised. Banks are wound up.

Source: Authors' compilation.

### 1.3 ROMANIAN BIBLIOGRAPHIC REFERENCES ON THE NATIONAL BANK OF ROMANIA

The National Bank of Romania (established 1880) has been the subject of many research works focusing on the central bank activity and economic developments in Romania. Following is only part of the plethora of such studies.

Many Romanian authors deemed it necessary to look at central bank historical issues in the context of developments in the monetary and credit system in Romania. In this vein, highly relevant books published are: U.T. Mihaiu, *Politica monetară și a băncilor României* in 1907, C.I. Băicoianu, *Istoria politicii noastre monetare și a Băncii Naționale* (1932–1939), Kirițescu, Costin C., *Sistemul bănesc al leului și precursorii lui* (1964–1970), second edition in 1997, Mugur Isărescu, *Reflecții economice*, Volume 1, in 2001, George Virgil Stoenescu, *Aspecte de doctrină monetară în gândirea economică românească din a doua jumătate a secolului al XIX-lea*, in the book entitled *130 de ani de la crearea sistemului monetar românesc modern* in 1997. Among the monographs on central bank issues are: Victor Slăvescu, *Istoricul Băncii Naționale a României 1880–1924* in 1925, second edition in 2014, Lazăr Ionescu, *Relațiunile dintre Banca Națională a României și Stat, 1880–1935 in 1935*, the compendium of pieces of legislation compiled by G. C. Marinescu, *Banca Națională a României - Legi, statute, dispozițiuni monetare, convențiuni financiare etc.* in 1939, as well as the collective paper published in the period 2006–2009, *Istoria Băncii Naționale a României în date, 1880–1918*, by Cristian Păunescu, Mihaela Tone and Nadia Manea. Moreover, useful information on developments in central bank activity and the monetary system in Romania are gathered in books on broader issues penned by Virgil Madgearu, *Evoluția economiei românești după Războiul Mondial* (1940) second edition in 1995; Gheorghe Zane, *Economia de schimb în Principatele Române in 1930* as well as Gh. M. Dobrovici, *Istoricul dezvoltării economice și financiare a României și împrumuturile contractate 1823–1933* in 1934 and *Evoluția economică și financiară a României în perioada 1934–1943*, Victor Axenciuc, *Evoluția economică a României Cercetări statistico-istorice 1859–1947*, (1992–2000).

## 2 DEFINITION AND DESCRIPTION OF VARIABLES

The database included in this presentation covers the 1880–1947 period, the records being stored on hard copy (annual data) and CDs (monthly data), where possible. The database comprises the statistical and historical data series presented below and provides key information on the monetary and financial history of Romania.

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List of Variables	Time Span	Data Frequency	Unit of account	Series Code
<b>1. MONETARY VARIABLES</b>				
				<b>Table ROI</b>
<i>Metallic stock</i>	1881–1947	annual	in national currency (thous.),	ROI1_A
	Jan. 1881–Dec. 1914	monthly	end-of-period	ROI1_M
<i>Mortgage notes</i>	1881–1888	annual	in national currency (thous.),	ROI1B_A
	March 1881–June 1889	monthly	end-of-period	ROI1B_M
<i>Gold bills of exchange and gold foreign exchange on cover stock</i>	1892–1946	annual	in national currency (thous.),	ROI1C_A
	Sept. 1892–Dec. 1914	monthly	end-of-period	ROI1C_M
<i>Gold foreign currencies out of the stock</i>	1929–1947	annual	in national currency (thous.),	ROI1D_A
	Dec. 1929–Dec. 1947	monthly	end-of-period	ROI1D_M
<i>Commercial bills denominated in foreign currency in the NBR portfolio</i>	1881–1932	annual	in national currency (thous.),	ROI1E_A
	March 1881–March 1884	monthly	in national currency (thous.),	ROI1E_M
<i>Foreign exchange provision for the Autonomous Monopolies Institute</i>	1929–1933	annual	in national currency (thous.),	ROI1F_A
	Dec. 1929–Dec. 1933	monthly	end-of-period	ROI1F_M
<i>Foreign exchange provision for exceptional circumstances</i>	1937–1944	annual	in national currency (thous.),	ROI1G_A
	June 1937–June 1947	monthly	end-of-period	ROI1G_M
<i>International reserves of the NBR</i>	1881–1947	annual	in national currency (thous.),	ROI1H_A
	Jan. 1881–Dec. 1914	monthly	end-of-period	ROI1H_M
<i>of which: Gold Treasury bonds in the NBR's metallic stock</i>	1920–1928; 1942–1946	annual	in national currency (thous.),	ROI1I_A
	Dec. 1920–Dec. 1928; June 1942–Dec. 1946	monthly	end-of-period	ROI1I_M
<i>Banknotes in circulation</i>	1881–1947	annual	in national currency (thous.),	ROI1J_A
	Jan. 1881–Aug. 1947	monthly	end-of-period	ROI1J_M
<i>Metallic and fractional coins</i>	1881–1946	annual	in national currency (thous.),	ROI1K_A
<i>Paper money</i>	1917–1920, 1941–1946	annual	in national currency (thous.),	ROI1L_A
<i>Notes issued by Romanian General Bank</i>	1917–1919	annual	in national currency (thous.),	ROI1M_A
<i>Narrow money (Monetary base)</i>	1881–1946	annual	in national currency (thous.),	ROI1N_A
<i>Broad money (Money supply)</i>	1882–1946	annual	in national currency (thous.),	ROI1O_A
<b>2. INTEREST RATES</b>				
				<b>Table RO2</b>
<i>Discount rate</i>	1880–1947	date of change	per cent	RO2A_D
	Dec. 1880–Aug. 1947	monthly	per cent, end-of-period	RO2A_M
<i>Lombard rate</i>	1880–1947	date of change	per cent	RO2B_D
	Dec. 1880–Aug. 1947	monthly	per cent, end-of-period	RO2B_M
<i>Price for 5% 1875 Perpetual Bond</i>	May 1883–June 1898	monthly	in national currency	RO2C_M
<i>Price for 4% 1898 Redeemable Bond</i>	July 1898–Oct. 1928	monthly	in national currency	RO2D_M
<i>Price for 7% 1929 Stabilisation Loan, American tranche</i>	Nov. 1929–March 1942	monthly	in national currency	RO2E_M

## INDEX TABLE - Country: ROMANIA

List of Variables	Time Span	Data Frequency	Unit of account	Series Code
<b>3. EXCHANGE RATES</b>				<b>Table RO3</b>
<i>French franc.</i>				
<i>without premium</i>	1882–1947	annual	in national currency, period average	RO3A_A
	July 1882–Aug. 1947	monthly		RO3A_M
<i>with premium</i>	1936–1947	annual	in national currency, period average	RO3B_A
	Dec. 1935–Aug. 1947	monthly		RO3B_M
<i>Pound sterling</i>				
<i>without premium</i>	1882–1947	annual	in national currency, period average	RO3C_A
	July 1882–Aug. 1947	monthly		RO3C_M
<i>with premium</i>	1936–1947	annual	in national currency, period average	RO3D_A
	Dec. 1935–Aug. 1947	monthly		RO3D_M
<i>Mark/Reichsmark</i>				
<i>without premium</i>	1882–1944	annual	in national currency, period average	RO3E_A
	July 1882–Aug. 1944	monthly		RO3E_M
<i>US dollar</i>				
<i>without premium</i>	1920–1947	annual	in national currency, period average	RO3F_A
	Jan. 1920–Aug. 1947	monthly		RO3F_M
<i>with premium</i>	1936–1947	annual	in national currency, period average	RO3G_A
	Dec. 1935–Aug. 1947	monthly		RO3G_M
<i>Swiss franc</i>				
<i>without premium</i>	1920–1947	annual	in national currency, period average	RO3H_A
	Jan. 1920–Aug. 1947	monthly		RO3H_M
<i>with premium</i>	1936–1947	annual	in national currency, period average	RO3I_A
	Dec. 1935–Aug. 1947	monthly		RO3I_M
<i>Agio</i>	1880–1890	annual	per cent, period average	RO3J_A
	Jan. 1880–Dec. 1890	monthly		RO3J_M
<b>4. GOVERNMENT FINANCES</b>				<b>Table RO4</b>
<i>Ordinary budget revenue</i>	1880–1946	annual	in national currency (thous.)	RO4A_A
<i>Direct taxes</i>	1880–1943	annual	in national currency (thous.)	RO4B_A
<i>Indirect taxes</i>	1880–1943	annual	in national currency (thous.)	RO4C_A
<i>Extraordinary budget revenue</i>	1932–1943	annual	in national currency (thous.)	RO4D_A
<i>Ordinary budget expenditure</i>	1880–1946	annual	in national currency (thous.)	RO4E_A
<i>Extraordinary budget expenditure</i>	1921–1942	annual	in national currency (thous.)	RO4F_A
<i>Public debt service</i>	1880–1946	annual	in national currency (thous.)	RO4G_A
<i>Domestic and public foreign debt</i>	1888–1947	annual	in national currency (thous.)	RO4H_A
<i>Domestic public debt</i>	1916–1947	annual	in national currency (thous.)	RO4I_A
<i>Foreign public debt</i>	1916–1947	annual	in national currency (thous.)	RO4J_A
<b>5. PRICES, PRODUCTION AND LABOUR</b>				<b>Table RO5</b>
<i>Retail price index (1929=100)</i>	1921–1940	annual	index number	RO5A_A
	Jan. 1921–Dec. 1940	monthly	index number	RO5A_M
<i>Industrial production general index (1929=100)</i>	1919–1947	annual	index number	RO5B_A
<i>Unemployment</i>	1928–1938	annual	number of people	RO5C_A
	Jan. 1928–Dec. 1938	monthly	number of people	RO5C_M
<b>6. NATIONAL ACCOUNTS AND POPULATION</b>				<b>Table RO6</b>
<i>GDP, at current prices</i>	1880–1947	annual	in national currency (millions)	RO6A_A
<i>Imports</i>	1880–1947	annual	in national currency (thous.)	RO6B_A
	1880–1947	annual	in tons	RO6C_A
<i>Exports</i>	1880–1947	annual	in national currency (thous.)	RO6D_A
	1880–1947	annual	in tons	RO6E_A
<i>Population</i>	1880–1946	annual	in million inhabitants	RO6F_A

Note: Entries of value terms are denominated in lei. The code of each variable consists of a country prefix (RO), a number of the variable group (1, 2,...) and a letter identifying the respective time series within the group (A, B, C,...); at the end, A stands for annual and M for monthly time series. Monthly time series are in the volume's CD. Correction on CD: GDP at current prices unit of account in national currency (mill.)

## 2.1 MONETARY VARIABLES

### 2.1.1 *International reserves*

The international reserves of the NBR (*rezerva internațională a BNR*) during 1881–1947 disclose data recorded in the NBR's balance sheets. The data are recorded on an annual basis, (RO1H\_A); for the period 1881–1914 they are recorded on a monthly basis (RO1H\_M), but starting with 1915 they are recorded on a half-yearly basis. The day of valuation is the end of period day. It comprises the metallic stock (RO1A\_A, RO1A\_M), gold bills of exchange and gold foreign exchange included in the cover stock in compliance with legal provisions (RO1C\_A, RO1C\_M), the gold foreign currencies out of the stock (RO1D\_A, RO1D\_M), commercial bills denominated in foreign currencies in the NBR portfolio (RO1E\_A, RO1E\_M) and others: mortgage notes (RO1B\_A, RO1B\_M) as well as the provisions on foreign currency the NBR held for the Autonomous Monopolies Institute and for exceptional circumstances (RO1F\_A, RO1F\_M, RO1G\_A, RO1G\_M). In addition, we highlighted, where appropriate (RO1I\_A, RO1I\_M), the Gold Treasury bonds (*bonuri de tezaur aur*) in the NBR's metallic stock throughout different time periods.

The metallic stock (*stocul metalic*), (RO1A\_A) is the pivotal item in the National Bank of Romania's international reserves. In 1881–1891, the metallic stock consisted of both gold and silver, yet the proportion of the two metals could not be determined. Starting 1890, after the new monetary law had come into force, the Romanian government was granted the right to retire from circulation 5 lei silver coins equivalent to 40,000,000 lei and replace them with gold coins. This process started therefore by converting into gold all the 5 lei silver coins in the NBR's metallic stock. As from 1892, when the new provisions were inserted into the NBR Statute, the metallic stock comprised gold only. During World War I, Romania incurred heavy losses, including the NBR's gold stock sent to Moscow in 1916 and subsequently seized by the Soviet authorities. By 1929, the issuing bank included the gold stock sent to Moscow in its metal reserve. Thus, the currency issue was fictitiously covered, which prevented, among other things, the return to the leu convertibility.

The monetary system law of 1929 provided for the replacement of the gold standard by the gold-foreign exchange standard, the fixing of the new gold content of the national currency (one leu = 10 mg 900‰ gold) and the return to convertibility. The domestic currency was convertible until May 1932, when the NBR took over the monopoly on trading in gold and foreign exchange. Consequently, the gold stock would be revalued several times in 1936, 1940 and 1941 by adding some premiums to the official gold price. The aforementioned changes revealed the devaluation of the leu and materialised into the increase in the value of gold in stock.

Concurrently, the authorities in Bucharest relied on the gold stock build-up the more so as the Great Depression had questioned the convertibility of many gold foreign exchanges. That trend, which became manifest ever since the second interwar decade, grew stronger during World War II, when the government in Bucharest made unceasing efforts to increase the gold stock via purchases from both domestic and foreign markets.

The NBR metallic stock was assessed pursuant to the definition of the gold-leu provided for in the monetary regulations in force at the time.

The foreign exchange convertible into gold are the second most important item of the reserves. Depending upon their being used as a means to cover the NBR currency issue, they were included in the following categories: gold bills of exchange and gold foreign exchange on cover stock (*trate*

TABLE 2 Gold-leu valuation in the monetary regulations

Date	Gold price	Piece of legislation
1890	One leu = 0.3226 gold with fineness 900‰ Lei 3,100.0 = 1 kg with fineness 900‰	Law of 17 March 1890 amending the law of 22 April 1867 on the establishment of a new monetary system and the manufacturing of the national currency. The provisions of this law were inserted into the NBR Statute in 1892, whereupon the NBR's metallic stock comprised gold only, <i>Official Gazette</i> No. 275/1890.
1929	One leu = 10 mg gold with fineness 900‰ Lei 111,111.10 = 1 kg fine gold	The Monetary Law, <i>Official Gazette</i> No. 30 bis of 7 February 1929.
1936	Lei 153,333.33 = 1 kg fine gold	Royal Decree No. 2504 of 6 November 1936 on the revaluation of the NBR's metallic stock by adding a 38% premium to the 1929 gold price, <i>Official Gazette</i> No. 260 of 7 November 1936.
1940	Lei 229,999.99 = 1 kg fine gold	Decree No. 1645 on the revaluation of the NBR's metallic stock by adding a 50% premium to the 1936 gold price. As a result, the premium relating to the 1929 gold price stood at 107%, <i>Official Gazette</i> No. 115 of 19 May 1940.
1941	Lei 211,111.10 = 1 kg fine gold	Decree Law No. 897 on the revaluation of the NBR's metallic stock by adding a 90% premium to the 1929 gold price, <i>Official Gazette</i> No. 78 bis of 1 April 1941.

Source: Authors' compilation.

și devize aur în stocul de acoperire) (RO1C\_A), gold foreign currencies outside the stock (*devize aur în afara stocului*), (RO1D\_A) and commercial bills denominated in foreign currency in the NBR portfolio (*efecte de comerț în valută în portofoliul BNR*), (RO1E\_A), outside the stock.

Gold bills of exchange and gold foreign exchange on cover stock (RO1C\_A), were included in the international reserves starting in 1892. Subsequently, according to the new monetary system law, the cover stock could also include bills of exchange denominated in foreign currencies (30%), first British and German currencies and later French and Belgian currencies.

During World War I, the National Bank of Romania granted several loans to the Romanian State for the purpose of covering defence spending. In order to ensure the legal coverage of banknote issue, the NBR received from the Romanian State gold and foreign currencies held with foreign banks. When such resources were exhausted, they were replaced by Gold Treasury bonds (RO1I\_A), included in the NBR cover stock.<sup>30</sup> That situation remained unchanged in the first inter-war decade, the agreements concluded by the NBR and the State in 1925 authorising the issuing bank to also include in the stock for economic purposes gold drafts and remittances, apart from gold and bonds, whereas the banknotes issued for government loans were covered by Gold Treasury bonds.

In 1929, by way of the Stabilisation Loan, gold foreign exchange reserves were replenished, with Gold Treasury bonds being removed from the NBR's cover stock. Following the major currency devaluations in the period 1931–1936, the National Bank of Romania gradually relinquished the idea of including foreign currencies in its cover stock, along with increasing the gold amount underlying the banknote issue. This process ended in 1936, and at year-end the NBR announced that the metallic stock ensuring its issue cover comprised gold alone, which meant that the central bank gave up the gold-exchange standard.

<sup>30</sup> See Tone, Manea and Păunescu (2009), volume II, pp. 21–89.

Considering the expenses necessary for waging war, the Romanian State had to obtain several loans from the National Bank of Romania since 1942. Once more, the additional banknote issue was covered with Gold Treasury bonds included in the cover stock.<sup>31</sup> Their amount saw considerable increases and, at end-1946, they accounted for about 45% of the NBR's cover stock. As of 30 June 1947, Treasury bonds were eliminated from the NBR's balance sheet.

The second category (RO1D\_A), that can subsume foreign currencies convertible into gold encompasses those currencies convertible into gold, but not included in the stock for covering banknote issue and demand commitments. We were able to collect data, consistent with existing information, on gold foreign currencies not included in the stock for the period 1929–1947.

A series of methodological notes need to be formulated in this context. For the period 1929–1936, RO1D\_A also covered all gold foreign currencies owned by the Romanian central bank, without being part of its cover stock, given that such currencies could not account for more than 10% of the bank's total demand commitments. 1936 saw the completion of the process that had started in 1931, resulting in the removal of all gold foreign currencies from the cover stock, but this change was never embedded in a piece of legislation. Starting in 1936, RO1D\_A covers all foreign currencies that could be traded on the international markets on a free basis as part of the NBR's international reserves, thus eliminating the foreign currencies from the clearing accounts.

The outbreak of World War II brought about additional restrictions on determining the liquidity of the NBR's reserves. The issuing house gradually lowered the number of free convertible currencies. As of 12 March 1940, this category also included currencies such as the pound sterling, the US dollar and the Swiss franc, whereas starting 1 April 1941 it comprised solely the US dollar and the Swiss franc.<sup>32</sup> In 1941, due to the war between Romania, on the one hand, and the USA and the United Kingdom, on the other hand, the enemy nations blocked Romania's holdings.

The NBR's international reserves comprised holdings in Swiss francs, US dollars and pounds sterling held with banks in neutral countries or states under German occupation, apart from the gold holdings in the cover stock and those deposited abroad in free deposits. Commercial bills denominated in foreign currencies in the NBR's portfolio (RO1E\_A) were another component of the NBR reserves. Commercial paper was not part of the issue cover stock, but was included in the bank's international reserves in the form of foreign currency holdings. Available sources provide information for the periods 1881–1893, 1900–1912 and 1929–1932. The reasons why these funds were not included in the NBR's cover stock differ from time to time. For the period 1881–1892, it should be reiterated that the cover stock was in fact the metallic stock. From 1900 to 1912, the above-mentioned funds were not included in the cover stock considering that the NBR Statute provided for commercial bills denominated in foreign currencies to be no more than 30% of the cover stock. The same holds true for the period 1929–1932, when only 10% of the cover stock consists of gold foreign currencies.

Other assets included in the international reserves are mortgage notes and the gold foreign currency provisions set up to secure the free Treasury service of the State. The mortgage notes (biletele ipotecare), (RO1B\_A) were added to the cover stock and, implicitly, the international reserves in 1881–1889. The Romanian government put mortgage notes into circulation via the Savings House. The notes were backed by the real estate of the State and were to be gradually removed

<sup>31</sup> Decree-Law No. 3366 published in *Official Gazette* No. 293/10 December 1941.

<sup>32</sup> See Dobrovici (1944), p. 330 and p. 378.

from circulation through the sale of the above-mentioned property. On its establishment, in line with an agreement signed with the Romanian government, the National Bank of Romania committed to withdraw the mortgage notes from circulation and replace them with its own banknotes. Subsequently, the government had to redeem the mortgage notes. In the meantime, mortgage notes were included in the issuing bank's cover stock to back the banknotes that replaced them.

Romania's external public debt and the need to cover interest and amortisation from the NBR's reserves, owing to the fact that the bank was entitled by law to ensure the Treasury service of the State, require additional clarification. The state of affairs assumed the allocation of provisions in convertible foreign currencies for the public debt in the bank's balance sheets. Similarly, such amounts were considered to be part of the bank's international reserves (RO1F\_A and RO1G\_A).

### 2.1.2 Monetary base

The monetary base (*baza monetară*), (RO1N\_A), was reconstructed by considering the currency in circulation, namely: banknotes in circulation (*bancnotele în circulație*), (RO1J\_A), metallic and fractional coins (*moneda metalică și divizionară*), (RO1K\_A), paper money (*moneda de hârtie*), (RO1L\_A) and notes issued by the Romanian General Bank (*bilete Banca Generală Română*), (RO1M\_A).

Regarding another possible component of the monetary base – the reserve requirements – the sources available proved insufficient for identifying commercial banks' deposits with the NBR. The information is not registered in detail under the NBR's liabilities, given the absence of a reserve requirements regime in Romania back then, as note issuance was instrumental in keeping inflation under control and maintaining price stability. In this context, even though information on the deposits of the Savings Bank and other banks with the central bank was found, data were not enough to make a successful series of commercial banks' deposits with the central bank.

The monetary base series, (RO1N\_A), covers the period 1881–1946 with data recorded on an annual basis. The components of the monetary base are discussed in detail below.

#### *Banknotes in circulation*

Data on *banknotes in circulation* (*bancnotele în circulație*), refer to the month-end (RO1J\_M), and year-end (RO1J\_A) volume of banknotes that the National Bank of Romania put into circulation during 1881–1947. This series comprises neither the metallic and fractional coins issued by the Ministry of Finance, (RO1K\_A), nor paper money put into circulation by the aforementioned ministry during World War II, (RO1L\_A). Figures are the result of subtracting the volume of banknotes in the central bank's vaults from its note issue.

In 1880, when the National Bank of Romania was established, the country's monetary circulation comprised the coins issued in compliance with the 1867 law, 5 lei silver coins issued according to the 1879 regulatory acts and the mortgage notes launched in 1878. Notwithstanding the pieces of legislation providing for the leu coverage in gold and silver, gold coins virtually vanished from circulation as a result of hoarding or exports, and the market was flooded mostly with silver coins and various bills.

As provided for in its establishing act, the National Bank of Romania was granted the sole prerogative to issue banknotes for two decades and was compelled to retire from circulation any mortgage notes, which were to be replaced by NBR banknotes at parity. In 1885, consistent with the

convention concluded between the central bank and the Romanian government regulating the latter's redemption of mortgage notes the issuing privilege was extended until 1912. In January 1901, in the context of the Romanian government exiting the NBR shareholding, the note issuing privilege was extended until 1920, so that in June 1901, according to the convention whereby the NBR granted the government a 15 million lei loan, the note issuing privilege was extended until 1930.<sup>33</sup>

After the Great War, the NBR organisational chart underwent in-depth changes. The conventions signed in 1925 between the government and the central bank specify the extension of the note issuing privilege until 1960, and subsequently this right could be renewed automatically, in the absence of any changes, on a five-year basis.<sup>34</sup>

#### *Metallic and fractional coins and paper money*

Metallic and fractional coins as well as paper fractional notes (RO1K\_A and RO1L\_A) were issued by the Ministry of Finance. A few clarifications are needed regarding this issue. The 1867 monetary law laid down the possibility for the Romanian government to issue gold, silver and bronze coins. At that time, gold and silver coins were free legal tender, but since 1890 only gold coins could be used as free means of payment. As regards the value of coins that were to be issued, the Monetary Law of 1867 set a ceiling of less than 4 million lei for the brass fractional coins. The subsequent issues were to be launched upon Parliament approval at the recommendation of the Ministry of Finance.<sup>35</sup> Early on, only fractional bronze coins were minted. By the time World War I broke out, several 20 lei gold coin issues and silver coin issues worth between 0.50 and 5 lei were put into circulation. During 1890, following the shift to the gold standard, the silver coins became fractional coins. The Ministry of Finance retired from circulation and devalued 25 million lei worth of 5 lei silver coins. Some of the devalued silver currency was replaced that same year with gold coins in the amount of 3.9 million lei. These changes are reflected in the year-on-year decline in the volume of metallic coins in circulation in 1890.<sup>36</sup>

A fundamental change in the structure of currency issues in Romania was made following World War I. As of result of metallic coin hoarding, these coins had to be replaced in circulation by banknotes issued either by the NBR (1916) or the Ministry of Finance (1917). The paper money issued by the Government was withdrawn from circulation in 1920 and replaced by metallic coins.<sup>37</sup>

The new regulations regarding the issue of metallic fractional coins were adopted by the Monetary Law of 1929 which authorised the Government to put into circulation currency worth less than 3 billion lei.<sup>38</sup> Thereafter, this ceiling was revised several times so that the volume of fractional currency in circulation could be increased. During World War II, the issue of paper fractional coins was resumed.

#### *Notes put into circulation by the Romanian General Bank*

The two major armed conflicts of the 20th century brought in additional means of payment, some of them put into circulation by the Romanian authorities, other resulting from the currency issues

<sup>33</sup> See Marinescu, *op. cit.*, pp. 175–181.

<sup>34</sup> See Marinescu, *op. cit.*, pp. 201–211.

<sup>35</sup> See Marinescu, *op. cit.*, pp. 295–302.

<sup>36</sup> See *Anuarul Statistic al României 1912*, pp. 436–437.

<sup>37</sup> See Marinescu, *op. cit.*, pp. 357–358, 372–374, 439–440.

<sup>38</sup> See Marinescu (1934), pp. 498–499.

of foreign governments or of occupation authorities (RO1M\_A). Unfortunately, not in all cases information concerning the mentioned currency value is available, hence it cannot always be found in monetary base data. One exception is the money put into circulation by the German authorities in Bucharest through the Romanian General Bank in the period 1917–1918, which was withdrawn from circulation in 1920 at 1:1 parity. Data regard the volume of banknotes issued by the Romanian General Bank and put into circulation in the period 1917–1919 at the end of every year. This information was taken from a report drafted by the Ministry of Justice at the end of 1918, a source cited by Dobrovici (1934) in his book entitled *Istoricul dezvoltării economice și financiare a României și împrumuturile contractate, 1823–1933*.

The other means of payment put into circulation by both domestic and foreign authorities in World War I and World War II for which data are available are briefly described below in order to illustrate as accurately as possible the developments in monetary base in Romania.

During World War I, the Romanian authorities put into circulation requisition notes, whose value as of 31 December 1918 amounted to 1 billion lei. They could be used for payment of public taxes and were accepted by the Farmers' Mortgage Funds for Lombard loan purposes. Between 1918 and 1920, Austrian-Hungarian crowns and Russian roubles circulated in Romania, as they came from the territories that belonged to Russia (Bessarabia) and Austria-Hungary (Bukovina and Transylvania). The amount of those currencies is known only as to the time of the monetary unification of 1920. As of that date, 8.7 billion crowns were withdrawn from circulation to be replaced by 4.4 billion lei and 640 million Romanov rouble and 1.2 billion Lwov roubles were withdrawn and replaced by 1.2 billion lei.<sup>39</sup>

Similar facts occurred during World War II. Thus, the Romanian state issued cash receipts, payment certificates, treasury bills, army supply notes, tax notes. They were government securities for lending purposes, as well as means of payment for tax and duties, and banks were forced to accept them as cash and keep them in their liquid reserves. They were withdrawn from circulation upon the monetary reform of August 1947. Unfortunately, the data available about the amount of such payment instruments are only partial. Thus, for 1945–1946 fiscal year, the cash receipts that were put into circulation amounted to 260.8 billion lei, the Treasury bills amounted to 49.4 billion lei and the payment certificates to 19.9 billion lei, and, just prior to August 1947 monetary reform, Treasury bills in circulation alone that amounted to 3 trillion lei.<sup>40</sup> Concurrently and for short periods of time, foreign currencies also circulated on the Romanian territory: Soviet roubles (1941 and 1944), Soviet lei (1944), Soviet pengö (1945), which were withdrawn from circulation and replaced by lei before the end of the calendar year during which they circulated in Romania, therefore they cannot be identified in the monetary base, but increased the volume of the Romanian notes and coins.

### 2.1.3 Monetary aggregates

The broad money indicator, (*masa monetară in sens larg*), (something similar to M2 in our days), RO1O\_A, that we were able to reconstruct comprises end-of-year data for the period 1882–1946 on the currency in circulation (except petty cash), and all the deposits with the banking system. The latter includes deposits with the Savings Bank, Agricultural Credit Institution, Agricultural Bank, banking institutions, credit cooperatives, the National Society of Industrial Credit, etc. Tak-

<sup>39</sup> See Kirițescu (1997), p. 288.

<sup>40</sup> *Ibidem*, p. 57.

ing into account the lack of information on deposits maturity or securities held by the banks, it was not possible to reconstruct the data series for other monetary aggregates.

Several methodological specifications are needed to restore the conditions in which broad money was compiled. For most of the banks under review, data regarding the 'vault cash' account under balance sheet assets comprised current deposits with other banks as well. In the absence of any information on the actual weight of vault cash and taking into account the methodology we use to compile broad money, this information was excluded from broad money calculation. As for the Savings Bank and Agricultural Credit institution, no data on the 'vault cash' account in the reported period were found. Moreover, broad money included only deposit-taking institutions, which is why other credit institutions such as *Creditul Viticol* (Winery Credit), *Casa Rurală* (Rural Home), *Creditul Funciar Urban* (Urban Real-Estate Credit), *Creditul Funciar Rural* (Rural Real-Estate Credit), as well as other 'Credit Unions' with various specialisations, were left out of account. The first four institutions granted loans based on landed property, without taking deposits.

Special mention deserves the fact that preparing aggregate reports for the data in banks' balance sheets failed to lead to consolidation of such data. Therefore, the items included in broad money calculation were overrated because of double entry bookkeeping. At the same time, the calculations to compile broad money do not include any item in the central bank's balance sheet. This state of affairs is attributable to the fact that, in the period under review, even though the National Bank of Romania performed also commercial banking functions, whose importance declined once the banking system had expanded, its liabilities do not allow identification of the deposits of commercial banks, companies or households. Demand deposits and time deposits comprised separate registration of the accounts of the Treasury and of the Autonomous Monopolies Institute. Furthermore, for the missing information, certain annual figures were supplemented by interpolation.

In addition to the general comments, considering the territorial changes and the diversity of sources employed, clarifications about the manner in which data for the reference period are still necessary. The banking system was in an early stage in the period from 1882 through 1897, when only data concerning the Savings Bank and the Agricultural Credit Institution (starting 1883) were available. For the other banks established in the said period, namely Banca României (established 1865, Bank of Romania since 1903) and the Agricultural Bank (1894), data are available starting 1898, and for the Romanian General Bank (established 1897) as from 1899.

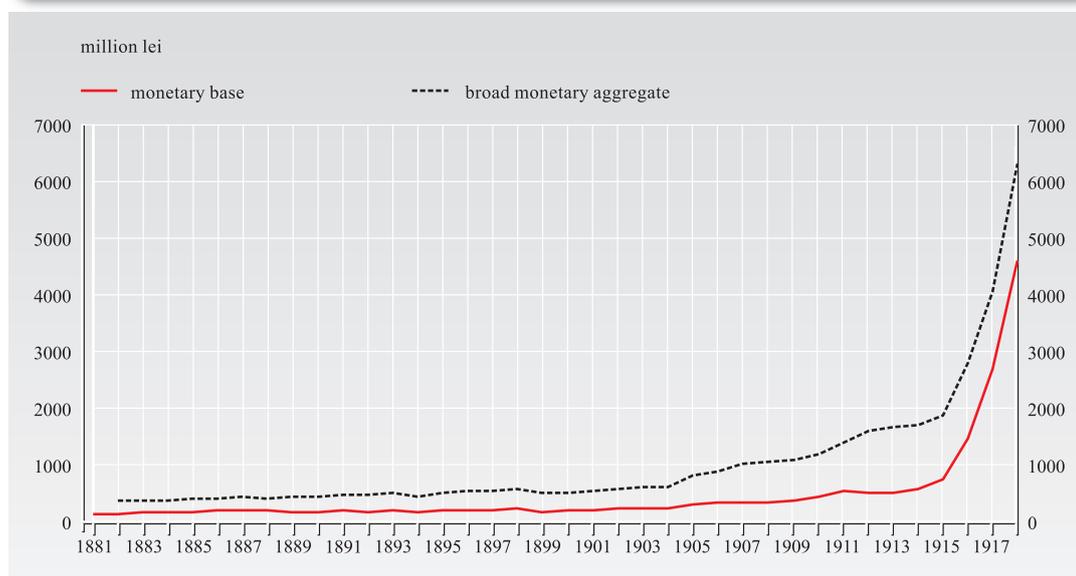
In the period 1898–1918, large banks such as the Bank of Commerce in Craiova (1898), the Romanian Bank, the Discount Bank (1910), the Romanian Commercial Bank were established. In the absence of aggregate figures, the information available was collected from the major banks, namely the Romanian Bank (starting 1911), the Agricultural Bank, the Discount Bank (for 1902, 1903 and since 1907), Craiova Bank of Commerce (since 1907), 'Marmorosch Blank' Bank (starting 1905), the Romanian Commercial Bank (starting 1907) and credit cooperatives (starting 1906). Given the absence of banking supervision and unitary rules on balance sheet preparation, account composition might well differ among banks. For example, it should be pointed out that the Romanian General Bank and the Bank of Romania recorded aggregate data on interest-bearing deposits, accounts payable and rediscounting under a single item referred to as 'accounts receivable', while the Romanian Bank recognised only interest-bearing deposits under 'accounts receivable'. Under the circumstances, the data used to compile broad money in this period contain, in part or in full, banks' deposits with the National Bank of Romania. This applies mainly to Romanian-owned banks, which were financed primarily by the central bank through

discounting, whereas foreign banks preferred external financing, at a lower interest rate than the discount rate.<sup>41</sup>

For the first part of the interwar period, namely from 1919 to 1933, data on the banks incorporated as joint-stock companies are taken from aggregate balance sheets, which are better prepared. Information on ‘vault cash’ was used, but data refer only to petty cash, interest-bearing deposits, checks and accounts payable and sundry creditors. The data in ‘accounts receivable’, ‘discounted securities’, ‘accounts of order’ and ‘miscellaneous’ were not taken into account. According to the information in *Statistica societăților anonime* (Joint-stock Companies Statistics), ‘accounts receivable’ included inter-bank deposits, which caused its being left out of account when calculating broad money. Since the data set does not include information on the Savings House, the Industrial Credit National Company (since 1924) and credit cooperatives, it was added insofar as the necessary data were identified.

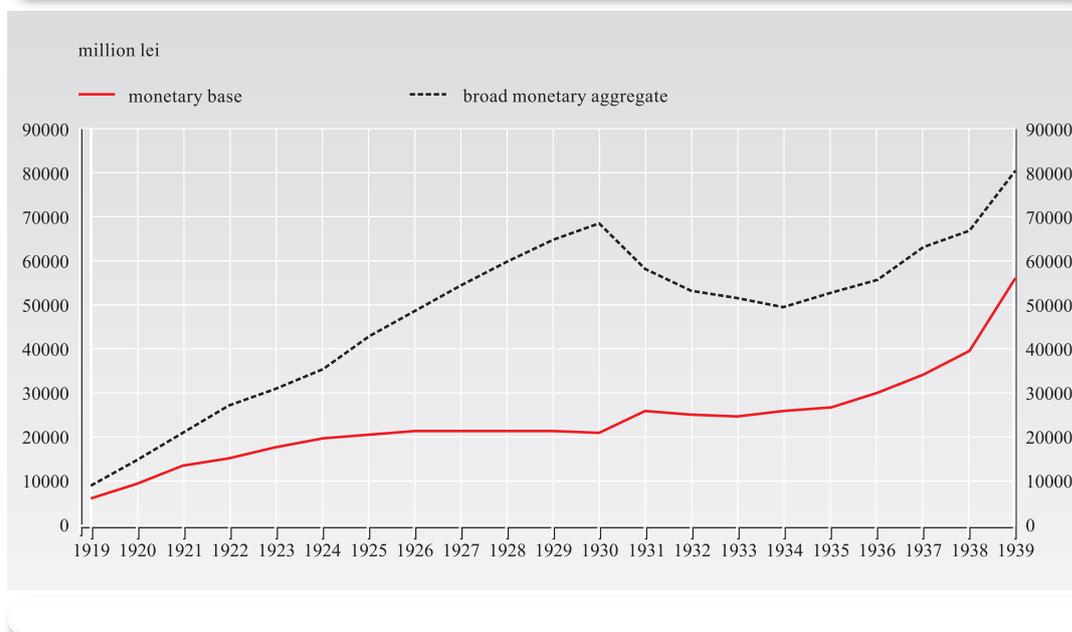
In 1934, once the Law governing banking business had been passed and the Higher Banking Council had been established, credit institutions had no other option but to comply with balance sheet standardisation, thereby ensuring smoother information collection. Even though *Statistica societăților anonime* released an aggregate balance sheet of credit institutions until 1939, the data collected by the Higher Banking Court were used for broad money compilation, as their breakdown fitted the requirements most. Similarly to the previous period, data on ‘petty cash’, ‘interest-bearing deposits’, ‘checks and accounts payable’ and ‘sundry creditors’ were included in the calculation.

**FIGURE 1 Monetary base and money supply, 1881–1918**



Prior to World War I, from 1905 in particular, base money and broad money alike saw significant rises. Against this background, the latter surged also as a result of banking system expansion, whereas the former indicator went up abruptly after the war broke out (see Figure 2).

<sup>41</sup> See Slăvescu (1915), p. 135.

**FIGURE 2 Monetary base and money supply, 1919–1939**

The broad money series shows an increase during the interwar period except for the Great Depression. For the period 1930–1934, we can notice a decrease caused by some bank bankruptcies and deposit withdrawals. For example, the banks' balance sheets in 1931 showed that total redemptions lei time deposits amounted to 17,746 million lei, to which were added more than 5,000 million lei withdrawn from current accounts.<sup>42</sup>

## 2.2 INTEREST RATES

Another historical series covering the 1880–1947 period is the discount rate (*taxa scontului*), (RO2A\_D; RO2A\_M), applied by the NBR for the advance payment of 3-month commercial paper. The discount rate was set on a weekly basis by the NBR Discount Committee but the statistical series we present reflects mainly the instances moments when the discount rate changed. It should be mentioned that the discount rate applied by the NBR remained at low levels for a long time, ranging between 4% and 6%.

The discounting of commercial paper was, along with note issuance, one the key operations conducted by the NBR and therefore strictly regulated. Eligible for performing discount operations were all the NBR customers holding a current account with a discount facility attached. Such an account could only be opened by merchants, industrial company owners, as well as commercial or industrial companies set up and incorporated according to the laws in force that had to provide proof of their creditworthiness and enjoyed wide recognition across business circles. According to the solvency and creditworthiness of the accountholder, as well as the turnover, a ceiling on the discount facility was set. In charge of approving the current account with the discount facility and setting the ceiling on the discount facility for the accountholder was the NBR Board, based on the recommendations made by bank inspectors or the branch/agency managers.

<sup>42</sup> *Ibidem*.

The application procedure for a discount loan implied several stages, starting with the submission of the application and the commercial paper to be discounted, before their being scored by loan officers at the NBR head office or discount committees in branches/agencies. Admitted to discounting was the franchised commercial paper maturing in 100 days at most, backed by three signatures of solvent persons in Bucharest or any other location where the bank opened branches/agencies. One of the signatures could be substituted, according to the customer's creditworthiness, by a pledge on government securities, solvent warrants or commercial paper that should cover one-third of the discount portfolio. The decision to grant the discount loans was taken by the Discount Committee in the bank's head office, which had to review both the applications submitted in Bucharest and those coming from the countryside. Ultimately, the account was credited with the borrowed amount, of which the bank deducted the discount rate, mailing fees, and a quarterly commission of 1–2% of the nominal value of the discount loan portfolio.<sup>43</sup>

Another issue worth mentioning relative to the NBR's discount loan portfolio is the large weight of agricultural loans in total NBR banknote circulation in the period 1883–1892. This portfolio originated in the activity of *Case de credit agricol* (agricultural lending institutions) that used to extend loans collateralised by agricultural products, tools, seeds, and livestock. The commercial paper thus issued was accepted for re-discounting by the central bank in the 1880s, with the agricultural loan portfolio exceeding the commercial loan portfolio.<sup>44</sup> Furthermore, from 1885 to 1887, these types of loans were upwards of 10% of the total amount of banknotes in circulation, thereby approaching the loans extended at Lombard rate.

Certainly, the agricultural loans granted at the discount rate were not entirely compliant with the laws in force and the NBR Statute, but since the agricultural sector accounted for a considerable share of GDP, it is easy to understand why the monetary authority could not refrain from supporting this particular sector.<sup>45</sup>

Starting in 1929, the National Bank of Romania Statute accepted as eligible commercial paper for discounting the securities maturing between 100 days and nine months, provided they were used for 'operations of an economic nature performed by farmers in the discharge of their duties'. The agricultural bills discounted by the NBR could not exceed however 25% of its portfolio.<sup>46</sup> As from 1940, the National Bank of Romania introduced a different discount rate for discounting the agricultural portfolio that was between 0.5 and 1 percentage points lower than the discount rate used in commercial transactions. In the period 1940–1947, the discount rate for agriculture-related transactions moved from 2.5 % on 12 September 1940 to 3.5% on 8 May 1944 and to 6% on 15 August 1947.

Closely related to the above-mentioned series for the said period is the Lombard rate (*taxa lombardului*), (RO2B\_D; RO2B\_M), i.e. the interest charged by the National Bank of Romania on loans collateralised by government securities, Treasury bonds and warrants. Lombard loans should not be higher than 20% of the NBR's capital. As with the discount rate, the Lombard rate was set on a weekly basis by the NBR's Discount Committee, but the data series presented herein reflects only the points in time when this rate underwent changes. Moreover, the Lombard rate was most frequently one percentage point above the discount rate, ranging between 5% and 7%, and reaching almost 9–10% in exceptional cases. The procedures governing Lombard loans unfolded in a

<sup>43</sup> See Tone, Manea and Păunescu (2009), volume II, pp. 486–517.

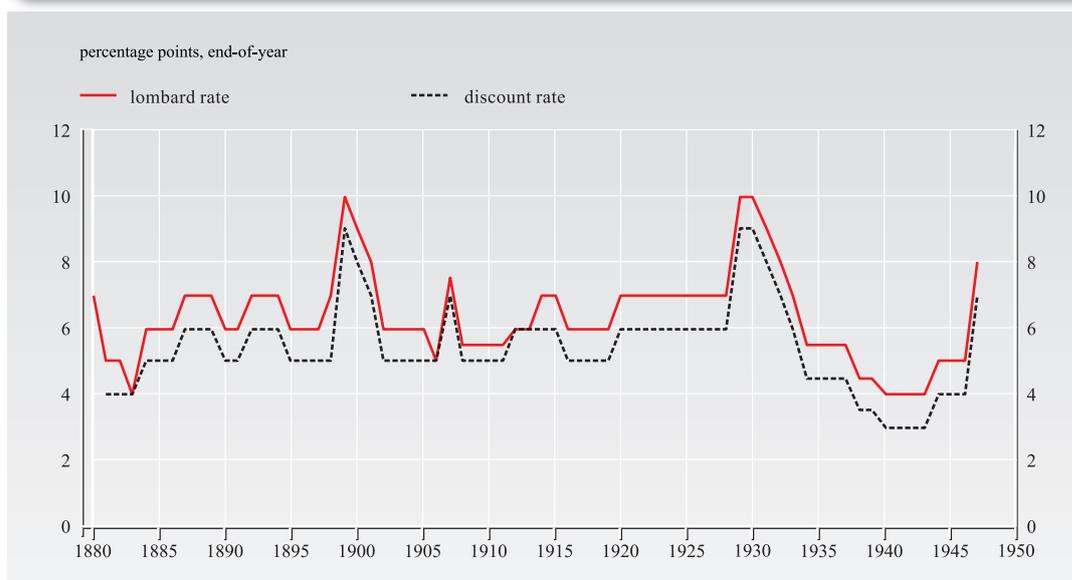
<sup>44</sup> See Slăvescu (1925), pp. 52–53.

<sup>45</sup> Ibid.

<sup>46</sup> See Marinescu (1939), *op. cit.*, p. 27.

similar manner as those governing commercial bill discounting. Figure 3 depicts the trend behaviour of the discount and the Lombard rates.

**FIGURE 3 Lombard and Discount Rate, 1880–1947**



Source: NBR, Reports of the Board of Directors to the General Shareholders' Meeting, 1882–1947.

### Return on fixed-income securities

The series on the return on fixed-income securities includes the annual averages of the current return in the period 1926–1947 for 13 loans (5% 1916 National Loan, 5% 1919 Unification Loan, 5% 1920 Restoration Loan, 5% 1922 Expropriation Loan, 7% 1929 Stabilisation Loan, 7.5% 1931 Development Loan, 4.5% 1934 Endowment Loan, 3% 1935 Consolidation Loan, 4% 1941 Unified Loan, 4.5% 1941 Unified Loan, 4.5% 1941 Reunification Loan, 4.5% 1944 National Defence Loan, 5% 1945 Restoration Loan) obtained by the Romanian government in lei or foreign currency. For 1947, data represent monthly averages for the period January–14 August. Figures were calculated based on the coupon rate and the market price of each borrowing in the *Official Quota* of the Bucharest Stock Exchange and were published in the period 1929–1947 in Banque Nationale de Roumanie, *Bulletin d'Information et de Documentation*. Key information on these loans is given in Table 3.

**TABLE 3 Key information on loans**

*continue*

Name	Year of issue	Interest (%)	Nominal capital	Currency	Amortisation period	Subscription rate (%)	Origin of underwriter	Comments
<i>Perpetual Bond</i>	1875	5	44,600,000	lei		0.65	foreign	Coupon was paid in lei and French francs in Romania, the UK and France.
<i>Redeemable Bond</i>	1898	4	180,000,000	lei	60	0.915	foreign	Coupon was paid in lei, German marks and French francs in Romania, Germany and France.

TABLE 3 Key information on loans

Name	Year of issue	Interest (%)	Nominal capital	Currency	Amortisation period	Subscription rate (%)	Origin of underwriter	Comments
<i>National Loan</i>	1916	5	400,000,000	lei	40	85	local	
<i>Unification Loan</i>	1919	5	11,431,438,000	lei	40	90	local	
<i>Restoration Loan</i>	1920	5	2,730,911,000	lei	40	87-88	local	
<i>Expropriation Loan</i>	1922	5	10,100,000,000	lei			local	
<i>Stabilisation Loan</i>	1929	7	69,000,000	US dollar	30	88-100		
			561,638,000	French franc				
			2,000,000	pound sterling			foreign	
<i>Development Loan</i>	1931	7.50	1,325,000,000	French franc	40	86.50	foreign	
<i>National Endowment Loan</i>	1934	4.50	3,738,620,000	lei	40	88	local	
<i>Consolidation Loan</i>	1935	3	8,000,000,000	lei	50	100	local	Issued to repay public debt incurred prior to 1934.
<i>Unified Loan</i>	1941	4	4,355,078,300	lei	40	100	local	Includes all redeemable domestic bonds issued by Romania up to 1920.
<i>Unified Loan</i>	1941	4.50	7,550,000,000	lei	40	100	local	Includes foreign bonds issued by Romania, which were nationalised and stamped only for payments in lei, in Romania.
<i>Reunification Loan</i>	1941	4.50	20,000,000,000	lei	30	90	local	
<i>National Defence Loan</i>	1944	4.50	13,500,000,000	lei	10	100	local	
<i>Restoration Loan</i>	1945	5	50,000,000,000	lei	6	100	local	Underwriters could purchase a gold medal ('Ardealul nostru') worth 15,000 lei for every amount of 50,000 lei. Medals represented insurance premiums in case of local currency depreciation. They marked the reintegration of Northern Transylvania within Romania's borders.

A few clarifications are needed in order to identify the determinants behind the changes illustrated by this data series. The economic conditions triggered by the Great Depression caused a sweeping change in the attitude of the authorities in Bucharest towards foreign debt repayment, which was suspended in August 1933. Following negotiations with the foreign debt holders, at mid-1934 several agreements on the resumption of payments were concluded. The lenders agreed on the suspension of government debt repayment until 31 March 1937 and a cut in the annual coupon by 25%, 35% and 45%, respectively, for the March 1934–March 1937 period. Payments overdue in the period 1 October 1933–31 March 1937 were cancelled. The agreement was extended on an annual basis in 1937, 1938 and 1939 under the same conditions. No agreement with the foreign bondholders was concluded for the fiscal year 1939/1940, yet the Romanian government was set to maintain, without their approval, the suspension of principal repayment and the cut in interest payments.

Romania's public external debt repayment was suspended in 1941 after the war broke out. When the war was over, although the authorities in Bucharest acknowledged the debt, neither principal repayment nor interest payments were resumed. From 1937 onwards, coupons on the 7% 1929 Stabilisation Loan and the 7½% 1931 Development Loan held by Romanian citizens were paid only provided that the respective securities were stamped with the mention 'payable in Romania, in lei'. In 1941, the said securities were converted into the 4.5% Unified Loan. The leu-denominated bonds and loans were eligible for payment and liquidated in 1947.

TABLE 4 Yield on fixed interest securities

Year	5% 1916 National Loan	5% 1919 Unifi- cation Loan	5% 1920 Resto- ration Loan	5% 1922 Expro- priation Loan	7% 1929 Stabilisation Loan based on the interest		7.5 % 1931 Development Loan based on the interest		4.5% 1934 Endow- ment Loan	3 % 1935 Conso- lidation Loan	4% 1941 Unified Loan	4.5% 1941 Unified Loan	4.5% 1941 Reuni- fication Loan	4.5% 1944 National Defence Loan	5% 1945 Resto- ration Loan
					accord- ing to loan agree- ment	nego- tiated with credi- tors	accord- ing to loan agree- ment	nego- tiated with credi- tors							
1926	9.3	9.4	9.4	12.3	..	..	..	..	..	..	..	..	..	..	..
1927	8.4	9.1	9.1	10.6	..	..	..	..	..	..	..	..	..	..	..
1928	6.6	7.5	7.5	8.2	..	..	..	..	..	..	..	..	..	..	..
1929	7.6	8.3	8.3	9.1	..	..	..	..	..	..	..	..	..	..	..
1930	8.1	8.3	8.6	10.4	8.3	..	..	..	..	..	..	..	..	..	..
1931	8.2	8.5	8.8	11.9	9.6	..	11.1	..	..	..	..	..	..	..	..
1932	11.3	13.5	14.0	18.0	15.7	..	16.3	..	..	..	..	..	..	..	..
1933	12.7	13.7	13.8	16.1	18.5	..	19.3	..	..	..	..	..	..	..	..
1934	10.3	10.9	11.1	12.5	17.0	8.5	20.0	10.0	..	..	..	..	..	..	..
1935	10.0	10.4	10.6	12.3	12.2	6.4	17.7	9.3	7.8	12.9	..	..	..	..	..
1936	9.5	10.1	10.4	12.2	15.2	8.3	21.3	11.7	7.7	11.7	..	..	..	..	..
1937	8.4	8.6	8.8	9.2	19.8	12.3	20.6	12.8	6.2	9.2	..	..	..	..	..
1938	7.6	7.7	7.5	8.0	13.0	8.5	14.0	9.1	5.5	7.3	..	..	..	..	..
1939	7.5	7.7	7.6	8.7	11.5	7.8	12.2	8.3	5.5	7.0	..	..	..	..	..
1940	8.8	8.9	8.9	9.9	14.0	8.1	15.1	8.7	6.2	8.4	..	..	..	..	..
1941	8.8	8.9	8.8	9.3	16.5	9.9	17.5	10.0	6.3	8.4	7.5	8.5	..	..	..
1942	..	..	..	7.1	..	..	..	..	5.8	7.0	7.5	7.8	6.8	..	..
1943	..	..	..	7.3	..	..	..	..	6.4	6.7	7.7	8.0	7.3	..	..
1944	..	..	..	8.0	..	..	..	..	7.0	7.9	8.8	9.1	8.2	..	..
1945	..	..	..	8.3	..	..	..	..	5.9	8.4	8.5	8.8	7.4	6.1	8.0
1946	..	..	..	7.4	..	..	..	..	4.9	6.2	7.3	7.2	6.3	4.7	8.2
1947	..	..	..	4.5	..	..	..	..	1.5	3.4	4.8	5.2	4.8	4.3	5.4

### *Market prices*

Since the data concerning the return on fixed-income securities is available from 1926, we found it useful, for the purpose of making an overview of the Romanian loans on the Bucharest market, to add the price series at which three of the above-mentioned loans were quoted on the Bucharest Stock Exchange: the 5% 1875 Perpetual Bond (RO2C\_M), the 4% 1898 Redeemable Bond (RO2D\_M) and the 7% 1929 Stabilisation Loan, the American tranche, (RO2E\_M). Key information on these loans is given in table 3. Data on an annual basis are given in the following text, while on CD there are available data on a monthly basis.

Data represent the average for monthly data; when a loan matures, there is a new loan quoted to continue; in some years there are data on both loans. In 1898, the 5% 1875 Perpetual Bond was converted into the 4% Redeemable Bond and the latter, together with the other foreign loans at 4%, was converted into the '4% Unified Loan' under the Paris Agreement of 1928. For the 5% 1875 Perpetual Bond and the 4% 1898 Redeemable Bond, entries are made on a monthly basis. The price is as of the last day of the month or the day nearest to the month-end on the Bucharest Stock Exchange.

The prices for the 5% 1875 Perpetual Bond cover the period 1883-1898. Since the published data do not provide the entire information flow for the reviewed period, only available data were used in calculating annual averages. For 1883 data is the average for May, June and October, for 1884 data is the average for March, July and December, for 1885 data is the average for the period April-December, for 1889 data is the April figure, for 1891 data is the average for June and December, for 1892 data is the March figure, for 1893 data is the average for January, October and December, for 1894 data is the May figure, for 1895 data is the average for January, October, November and December, for 1896 data is the average for February, March, June, July and December, for 1897 data is the average for April, July and November, and for 1898 data is the average for February, May and June.

The prices for the 4% 1898 Redeemable Bond cover the period 1898-1928. As was the case for the 5% 1875 Perpetual Bond, the available data set is incomplete, the 4% 1898 Redeemable Bond is quoted on the Stock Exchange Bulletin, starting with 21 March 1898. Between 17 July 1914 and December 1915, there are no quotations for securities, as only goods were quoted. From 1916 until 1918 the Stock Exchange was closed and for the years 1921, 1922, 1923 the Stock Exchange Bulletins are missing. Thus, annual averages were calculated on the basis of data for the following periods: for 1898 data is the average for July, October and November, for 1899 data is the average for March, April, August and December, for 1900 is the January figure, for 1901 is the average for February-June and October, for 1902 data is the average for March, May-July, and September-October, for 1903 is the average for February-April, July, September, November and December, for 1904 is the average for January, April, June, August, October and November, for 1905 is the average for January, February, May, June, September-December, for 1906 is the average for March, April, July, September and October, for 1907 is the average for February-April, June, July, September-December, for 1908 is the average for February-May, August, September and November, for 1909 is the average for February, May, August and October, for 1910 is the February figure, for 1911 is the average for February, April, July-September, for 1912 is the average for January, March, May, and June, for 1919, securities started to be quoted as from 6 May, for 1920 is the average for January and June, for 1924 January and February are quoted only goods, and for 1928 data is the October figure.

As to the 1929 Loan (the American tranche), the period covered is 1929–1942, the entries being monthly averages of the prices recorded on the Bucharest Stock Exchange. Starting with January 1937, the price was obtained according to the new exchange rate 1 French franc = 6.55 lei instead of 1 French franc = 4.6 lei and 1 US dollar = 167.18 lei, instead of 1 US dollar = 102.5 lei. For 1929, the data refer to the November figure and for 1942 the average for March.

**TABLE 5 Romanian bond market prices**

Year	1875 Perpetual Bond	4% 1898 Redeemable Bond	7% Stabilisation Loan American tranche	Year	1875 Perpetual Bond	4% 1898 Redeemable Bond	7% Stabilisation Loan American tranche
1880	..	..	..	1908	..	90.91	..
1881	..	..	..	1909	..	91.13	..
1882	..	..	..	1910	..	93.40	..
1883	92.13	..	..	1911	..	93.96	..
1884	91.67	..	..	1912	..	92.83	..
1885	88.44	..	..	1913	..	..	..
1886	93.19	..	..	1914	..	..	..
1887	91.38	..	..	1915	..	..	..
1888	92.58	..	..	1916	..	..	..
1889	98.50	..	..	1917	..	..	..
1890	..	..	..	1918	..	..	..
1891	100.32	..	..	1919	..	..	..
1892	98.75	..	..	1920	..	97.00	..
1893	100.77	..	..	1921	..	..	..
1894	100.00	..	..	1922	..	..	..
1895	100.45	..	..	1923	..	..	..
1896	101.64	..	..	1924	..	..	..
1897	102.54	..	..	1925	..	..	..
1898	101.29	92.32	..	1926	..	..	..
1899	..	90.41	..	1927	..	..	..
1900	..	87.25	..	1928	..	70.00	..
1901	..	79.28	..	1929	..	..	81.75
1902	..	85.94	..	1930	..	..	84.32
1903	..	86.90	..	1931	..	..	73.76
1904	..	88.13	..	1932	..	..	45.42
1905	..	92.24	..	1933	..	..	38.61
1906	..	92.97	..	1934	..	..	41.33
1907	..	90.37	..				

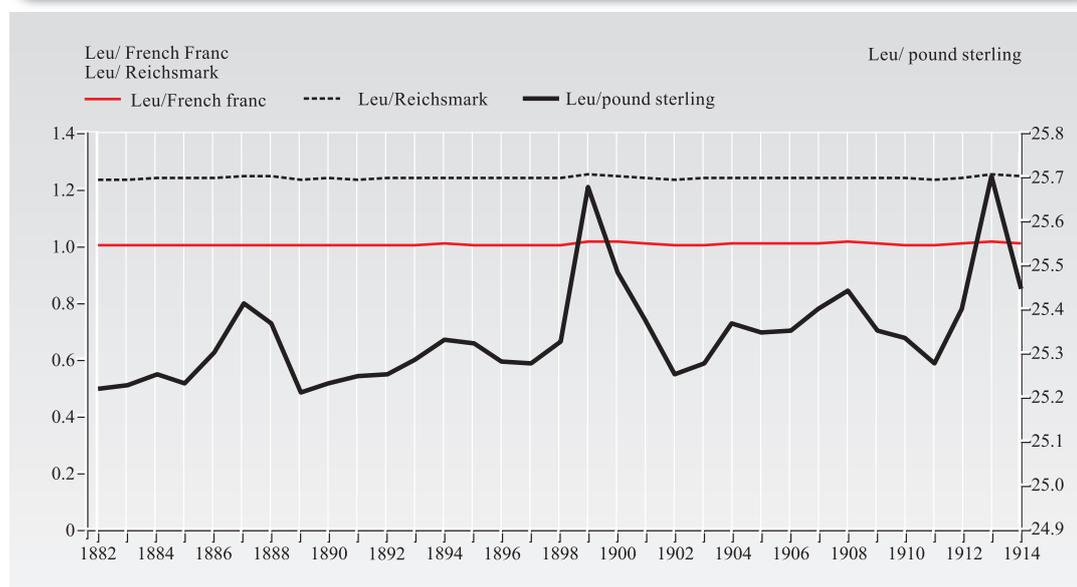
### 2.3 EXCHANGE RATES

Data on exchange rates (*cursuri de schimb*), include annual and monthly averages of the exchange rate of the leu against the main currencies quoted in Bucharest. For the 1882–1914 period, we collected data on the leu exchange rate of the French franc (RO3A\_A; RO3A\_M), with premium (RO3B\_A; RO3B\_M), pound sterling (RO3C\_A; RO3C\_M), with premium (RO3D\_A; RO3D\_M)

and the Reichsmark (RO3E\_A; RO3E\_M). Data are not available for 1915–1919. The series could not be resumed sooner than 1920, when were added the US dollar (RO3F\_A; RO3F\_M), with premium (RO3G\_A; RO3G\_M) and the Swiss franc (RO3H\_A; RO3H\_M), with premium (RO3I\_A; RO3I\_M). Figures are available until 1947, but it should be mentioned that during December 1941–April 1945, given the political and military conditions, the US dollar and the pound sterling were no longer officially quoted in Bucharest. For the exchange rate of the Romanian leu to the mark, the series was resumed in 1924 and lasted until 1944. From August 1944 onwards, once Romania declared war to the Axis Powers, the German currency was no longer quoted in Bucharest.

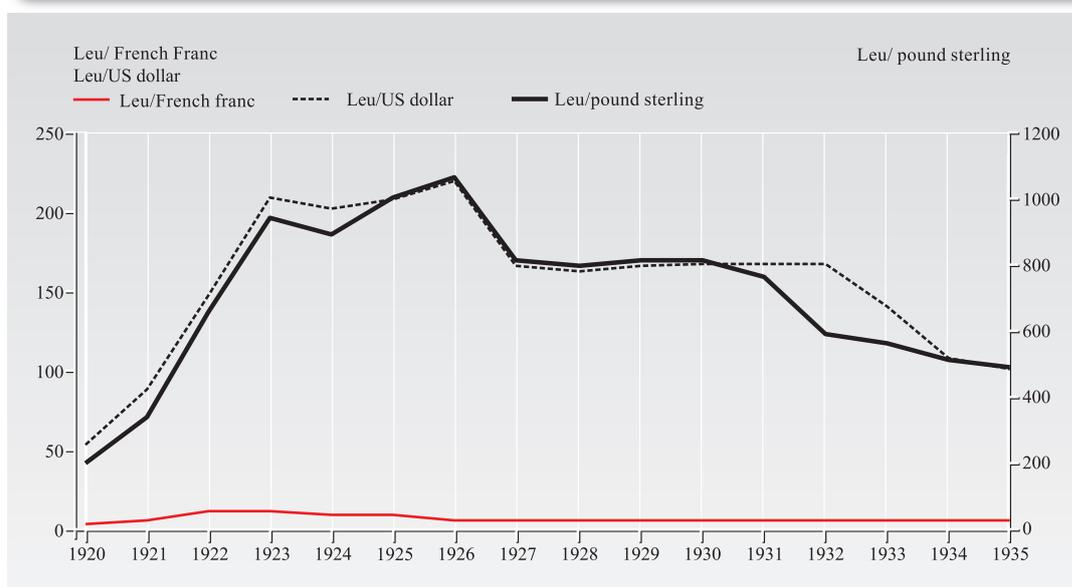
Up to and including 1928, the annual averages were calculated based on monthly averages between the minimum and maximum exchange rate levels on record. For the period 1882–1890, the information published in the *Official Quota* of the Bucharest Stock Exchange on the three-month rates on foreign currency-denominated cheques or commercial stocks were used. For the periods<sup>47</sup> in which the Official Quota Office of the BSE released no exchange rate data, the calculation base included data provided by the exchange offices in Bucharest. The stock exchange and the exchange offices worked with negotiable exchange rates expressed in gold lei, to which was added the daily *agio* whenever foreign currencies were bought in exchange for silver coins or banknotes issued by the NBR.

**FIGURE 4** The Exchange Rate of the Romanian Leu against the French Franc, the Pound Sterling and the Reichsmark, 1882–1914



The monthly average for the period 1929–1932 was calculated based on the records available in one month. Currency trading was performed on the Bucharest Stock Exchange (BSE) and was published in its daily bulletin. Starting with 1932, the NBR held the monopoly on the gold and currency trade, with the issuing bank setting the official exchange rate published on a daily basis in

<sup>47</sup> 1882 (July–November), 1884 (June–December), 1885 (January–April).

**FIGURE 5** The Exchange Rate of the Romanian Leu against the French Franc, the Pound Sterling and the US Dollar, 1920–1935

the Official Quota of the BSE. The monthly averages were calculated based on all the data released during the respective period. As from 1935, following the change in Romania's currency regime, apart from the official exchange rate we collected data on the official exchange rate premium. The way the premium is applied and its changes in time are described in Table 6.

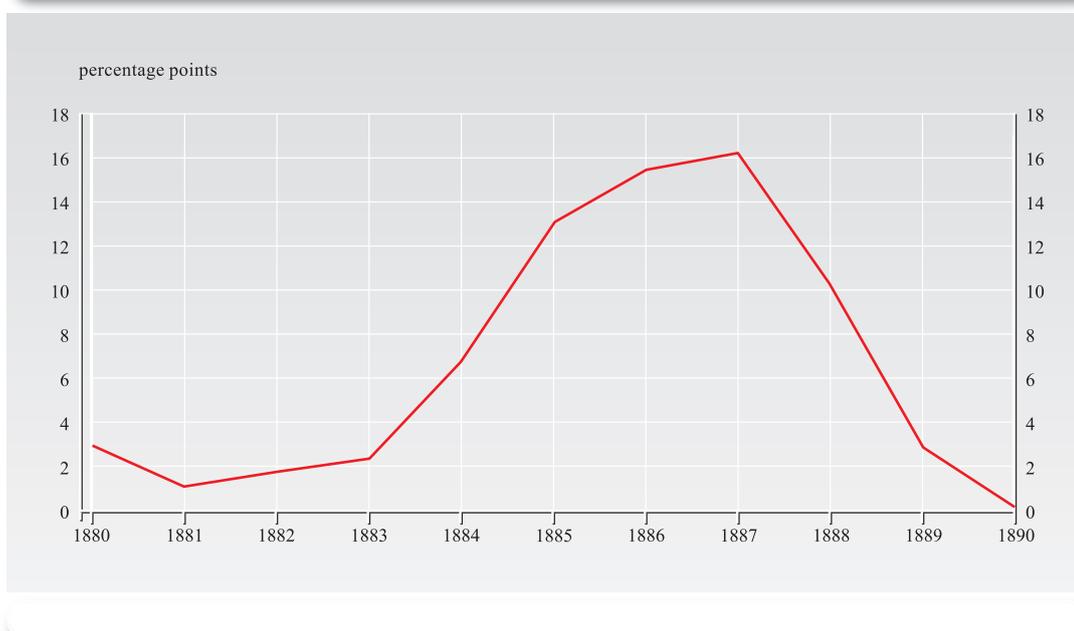
**TABLE 6** The evolution of the premium

Date	Premium (%)	Legal basis (%)
1 December 1935	38% premium charged for the sale/purchase of convertible currencies.	<i>Journal of the Council of Ministers</i> No. 2234 of 25 November 1935, <i>Official Gazette</i> No. 272 of 26 November 1935, and <i>Journal of Council of Ministers</i> No. 1173, <i>Official Gazette</i> No. 147 of 27 June 1936.
10 March 1940	Additional 50% premium charged for the exchange rate +38% premium. The total premium charged in relation to official exchange rates stood at 107%.	Decree Law No. 688 of 3 March 1940 and <i>Journal of the Council of Ministers</i> No. 554 of 3 March 1940, <i>Official Gazette</i> No. 53 of 3 March 1940.
1 April 1941	The single 90% premium charged for the official exchange rates of convertible currencies, as laid down in the 1929 monetary law.	Decree Law No 895, <i>Official Gazette</i> No 78 bis of 1 April 1941.
1945	In addition to the 90% exchange rate premium, a variable supplement was added, which was established by the Commissariat General of Foreign Trade.	Decree Law No. 1456, <i>Official Gazette</i> No. 101 of 3 May 1945.

The rise in money circulation reported as early as 1940–1944, particularly during August 1944–August 1947, when inflation saw unprecedented levels in Romania, had an impact on exchange rates as well. As a result of this state of affairs, as of 1 May 1945, apart from the already men-

tioned premiums, variable supplements were added to the official exchange rates, whose level rose several times during May 1945–August 1947.<sup>48</sup> Besides the exchange rate of the leu against the main foreign currencies, we included, for the 1880–1890 period, a series of annual and monthly averages recorded in the *agio* of gold against silver and NBR banknotes (RO3J\_A; RO3J\_M). This illustrates the shortcomings in the functioning of gold-silver standard in the context of lower market prices for silver. The differences between the official price and the market prices of the gold coin in silver and NBR banknotes is expressed in percentage terms by the *agio* of gold against silver and NBR banknotes or the *disagio* of silver and NBR banknotes against gold.

**FIGURE 6** *Agio*, 1880–1890



## 2.4 GOVERNMENT FINANCES

### 2.4.1 Revenue and expenditure

The series on the budget of Romania includes data for the period 1880–1946. Records were made on an annual basis, in lei, and reflect effective revenue and expenditure of the ordinary and extraordinary government budget at the end of the fiscal year. For most of the years, the ordinary revenue (RO4A\_A) of the public budget encompasses revenue from direct and indirect taxation (RO4B\_A; RO4C\_A). Figures are the same as those registered in the revenue and expenditure budgets released by the Romanian Ministry of Finance for those years. No other revenue categories were added; hence the data series we reconstructed are different from those published in other dedicated papers in Romania.<sup>49</sup> There is no information on revenue sources for the periods 1887–1888, 1900, 1915–1920, and 1944–1947. For the period 1932–1943, apart from the two above-mentioned sources, figures include extraordinary revenue as well (RO4D\_A).

<sup>48</sup> See Kirîțescu, *op. cit.*, pp. 366–368.

<sup>49</sup> See Axenciuc, *op. cit.*, pp. 626–628, 633–634, 640–642.

Throughout the years, the revenue and expenditure budget included various items. In the early years, the budget comprised the sources of direct and indirect taxes, as well as the income from state-owned property, chiefly farmland, but later, insofar as public assets become more diverse, new income sources and expenses emerge. Starting 1888, the railways administration budget was incorporated into the government budget, with all its revenue and expenditure items. For the other state-owned enterprises (sea and river shipping companies, administration of ports, metallurgic works, mining, explosives, tobacco, matches companies, etc.), only surpluses were recognised in the general government budget.

Besides, in the period 1884–1908 a number of special budgets of various institutions took shape, so that the end of the aforementioned time span saw 36 budgets, each recognised separately in the general government budget. In 1908, these budgets were merged into the ordinary budget, thereby leading to an increase in revenue.

From 1919 to 1926, the ordinary budget included the budgets of various state-controlled institutions and enterprises. In 1926–1927 the budgets of the latter entities were separated from the ordinary budget, with those of the Romanian Railways, the Pension House and the Romanian Post being recorded separately. In 1929, the budget was once again overhauled. State-controlled institutions and enterprises were reorganised into *régies autonomes* or self-governed institutions, with the general government budget including only their surpluses. Similarly to revenue, costs were detailed in ordinary expenditure (RO4E\_A) and extraordinary expenditure, (RO4F\_A) but only for certain periods, i.e. 1921–1929 and 1932–1942.

During 1880–1923, the fiscal year started on 1 April and ended on 31 March, while during 1924–1928, it overlapped with the calendar year, fiscal year 1923 covering only nine months. From 1929 to 1933, fiscal years varied in length, lasting between 12 and 18 months, with budget revenue posting declines that posed a threat to the country's financial stability. Starting with 1933, the fiscal year began on 1 April and ended on 31 March of the following year.

In the period prior to 1916, the drafting and the approval of government budget followed a usual pattern. Between 1916–1919, against the background of World War I and the post-war drawbacks, the general government budget draft was no longer submitted for approval to the Chamber of Deputies, the budgets in the said period representing successive repetitions of the 1915/1916 fiscal year. The 1920/1921 budget is the first budget of post-war Romania.

#### *2.4.2 Public debt*

##### *Public debt service and public debt stock*

On the expenditure side, the public debt service played a major role in the period under review. This item is presented in a separate column (RO4G\_A) for the period 1880–1946, except for the period 1915–1920. Data regarding the stock of public debt are also available (RO4H\_A) and include both the domestic public debt (RO4I\_A) and the foreign public debt (RO4J\_A).

Data on debt service are expressed in lei and show the amount of public debt payable until the end of the fiscal year. During 1915–1920, public debt repayment was suspended due to the war. The first interwar years witnessed the conclusion of several agreements with foreign lenders and the partial takeover by Romania of the public debt of Austria-Hungary. As regards the domestic loan-foreign loan difference, it should be pointed out that, in those years, this was a matter

of the currency in which public debt servicing was conducted rather than the place of residence of the creditors.

During 1871–1914, all borrowing by the Romanian government was expressed in gold lei. Principal and interest payments were calculated in gold lei and repaid also in gold lei in the case of domestic borrowing or in the currency of the lending country. At the end of 1914, Romania's foreign debt in terms of country breakdown presented the following picture: Germany (55.4%), France (29.7%), Romania (10.9%), Belgium, the Netherlands and Switzerland (4%).<sup>50</sup> During World War I and in the interwar period, Romania's foreign debt in terms of currency breakdown encompassed not only local currency, but also gold-convertible currencies such as French franc, Swiss franc, pound sterling, or US dollar. The explanation for this state of affairs lies with the steep devaluation of the country's currency unit, i.e. the leu, after it was no longer convertible into gold during World War I and due to the rampant inflation that weighed on currency circulation in Romania in the 1920s. According to the data in *Enciclopedia României* issued in 1943, the country breakdown of Romania's foreign public debt (denominated in foreign currency) was as follows: France (30.0%), the United Kingdom (16.3%), Romania (15.5%), Germany (11.1%), Switzerland (5.3%), Belgium (4.1%), and other countries such as Czechoslovakia, the Netherlands, Italy, Sweden, USA, etc., the shares of which were around 3%.<sup>51</sup>

Worth noting is the interest rate on the Romanian government's borrowings in those years. This is a good indication of Romania's creditworthiness on the international markets, along with the currency of denomination and the exchange rate. Thus, in the period 1864–1881 the Romanian government borrowed at interest rates ranging from 6% to 10%. Later, in the period 1882–1916, interest rates hovered between 4% and 5%, hinting at the stable and prosperous state of the country. After World War I, the interest rate on most sovereign borrowing was lower than 5%, but the most significant loans in that period were obtained at far higher rates: 7% on the 1929 Stabilisation Loan and 7.5% on the 1931 Development Loan.

The main instruments used in contracting debt in the period under review were primarily Treasury bonds, along with perpetual bonds, redeemable bonds, relief bonds and tax bonds. The annual financial statements released by the Romanian Ministry of Finance do not provide consistent data on the stock of public debt, so that information on this indicator could only be collected for the following years: 1888, 1891–1900, 1902–1904, 1911–1914, 1916, 1921, 1924, 1927, 1929, 1931, 1933 and 1935–1947. Furthermore, the sources do not provide consistent and separate, information regarding the stock of both domestic and foreign public debt. Such data were available only for the following years: 1916, 1921, 1924, 1927, 1929, 1931, 1933, and 1935–1947.

The developments in the data series on Romania's public debt require a brief overview of the borrowed amount destination and of the changes in public debt management by the Romanian government. Over the period 1864–1914, most of the loans obtained from foreign markets and the local market were intended for social and economic development, with just a small part being allotted for covering the budget deficits.<sup>52</sup>

During World War I and over the following years, the Romanian government obtained several loans from the National Bank of Romania. Originally, the government made available to the central bank the gold equivalent to cover the currency issue, in compliance with the agreements concluded pre-

<sup>50</sup> Tutuc (1943), p. 802.

<sup>51</sup> *Ibid.*, p. 818.

<sup>52</sup> Banu (2012), p. 82.

viously with the latter. Subsequently, gold coverage could no longer be ensured and gold Treasury bonds were issued. The borrowed money amounted to 1.6<sup>53</sup> billion lei at end-1918 and 12.363<sup>54</sup> billion lei at end-1921, being recognised in the data on public debt stock. In the 1920s, debt saw unprecedented growth. This was caused by the need to settle pre-war debts and to cover war expenses and the debt burden arising from the peace treaties, as well as to implement land reform, thereby shelving the increase in investment that could have put the economy onto the right track. The funds drawn from the two foreign loans in 1929 and 1931 were mostly channelled to restoring leu convertibility, financing state-owned credit institutions, repairing railroads and motorways, making investments in the agricultural sector, etc.

Against the background of the Great Depression, the Romanian government defaulted on its foreign debt. In September 1932, talks started to reduce the service of the external public debt. This objective was achieved in 1933, but repayment was conditional on government revenue. Since they fell short of the target, on 15 August 1933 the government could no longer ensure the coupon payment for foreign debt servicing due in August without jeopardising the functioning of the public sector and therefore defaulted. Following the negotiations held via the Financial Committee of the League of Nations, several agreements concerning the resumption of payments were signed in 1934. Accordingly, debt service payment for the period 1 August 1933–31 March 1934 was converted into new borrowing with a 15-year maturity and an interest rate of 4.5%. Amortisation was discontinued for the lifetime of the agreement (1934–1937) and annual interest rates were sizeably lowered to various proportions.<sup>55</sup> At the time of the agreement reaching maturity, it was extended on an annual basis and under the same conditions. For the fiscal year 1939–1940, an agreement with foreign holders was no longer concluded, but the government opted, without their consent, for retaining amortisation discontinuance and reducing coupon payments.

At the same time, the government sought to convert all its foreign borrowing into loans that could be repaid either in local currency or in the currency of the country where the holder resided and, if possible, bear lower interest rates. Foreign debt repayment was discontinued in 1941 after World War II broke out. When the armed conflict was over, although the communist authorities in Bucharest acknowledged the debt, neither principal repayment nor interest payments were resumed. Settlement of Romania's financial obligations arising from foreign public debt was made in the post-war years via agreements signed by the government with the governments of the countries where the holders of Romanian bonds resided. The leu-denominated loans falling under domestic public debt were repaid in 1947.

## 2.5 PRICES, PRODUCTION AND LABOUR

### 2.5.1 Consumer price index

The series includes yearly and monthly averages of the retail price index for commodities including foodstuffs items and fuel on the Bucharest market (RO5A\_A; RO5A\_M). Available figures cover the period 1921–1940, with 1929 as the base year. Considering the calculation method employed herein, it should be pointed out that this index runs higher than it would normally, since it reflects the movements in prices in Bucharest, where prices were approximately 10 to 15 per-

<sup>53</sup> Banca Națională a României (1919), *Raportul Consiliului de administrație către Adunarea generală a acționarilor din 17 februarie*, București, Imprimeria Băncii Naționale, p. 8.

<sup>54</sup> Banca Națională a României (1922), *Raportul Consiliului de administrație către Adunarea generală a acționarilor din 19 februarie*, București, Imprimeria Băncii Naționale, p. 24.

<sup>55</sup> Dobrovici (1944), pp. 80–84.

centage points higher than anywhere else in the country. Mention should also be made of the decline in this index in 1933 versus 1932. It was not the result of a decline in prices, but of a change in data collection: prices of goods were standardised, and account was taken of average quality goods, thereby disregarding higher-quality goods. The index was calculated by Romania's statistics office and published in *Buletinul prețurilor 1937–1940*.

### 2.5.2 Industrial production general index

The data concerning the industrial production general index (1919–1947, 1929=100), (RO5B\_A), were drawn from Axenciuc (1992), *Evoluția economică a României, Cercetări statistico-istorice 1859–1947*, volume 1, *Industria*, p. 585. It includes the index of industrial production in mining and quarrying, manufacturing and electricity.

### 2.5.3 Unemployment

The data series on unemployment includes annual official figures and monthly averages for the unemployed (RO5C\_A; RO5C\_M). In terms of breakdown, most of the jobless came from the mining, manufacturing and transport sub-sectors, whereas data also include out-of-work persons from forestry, construction, as well as from trade and administrative or local sub-sectors. The figures were calculated by the Ministry of Labour for the period 1928–1938, then published in the Labour Newsletter and, finally, in the Statistical Yearbooks. In his paper entitled *Evoluția economică a României Cercetări statistico-istorice*, volume I *Industria*, Axenciuc (1992) held that the series included understated data values and chose to rely on the records of job centres in Romania for the period 1922–1938 instead.

## 2.6 NATIONAL ACCOUNTS AND POPULATION

### 2.6.1 GDP

The series concerning GDP at current prices for the period 1880–1947 (RO6A\_A) was calculated using the GDP at constant prices and the GDP deflator, as published by Axenciuc (2012) in *Produsul intern brut al României 1862–2000 Serii statistice seculare și argumente metodologice*, volume I-II.

### 2.6.2 Foreign trade

The series on Romania's *foreign trade* cover the period 1880–1947. The basic information was first disclosed by the periodical titled *Statistica comerțului exterior* (1860–1944), and data were subsequently published in *Statistical Yearbook of Romania* and in *Bulletin d'information et de Documentation* released by the National Bank of Romania in the interwar period, as well as in Axenciuc (2000) *Evoluția economică a României Cercetări statistico-istorice 1859–1947*, volume III *Monedă - credit - comerț - finanțe publice*. The government had displayed a steady interest in institutionalising and regulating foreign trade by putting in place government departments, expanding and strengthening the customs system, drafting and enacting laws, norms, regulations, customs notes and tariffs. Apart from the foreign trade revenues to the public budget, the government also sought to protect the country's local market and industrial sector. To this end, starting in 1886, free trade was abandoned and subsequently Romania promoted protectionism of its locally manufactured products until the end of the period covered by the data series.

The records comprise end-of-year amounts in thousands of lei and in tonnes for imports (RO6B\_A; RO6C\_A) and exports (RO6D\_A; RO6E\_A). No statistical records are available for the World War I period. For the period 1879–1915, the value of exports and imports was calculated in gold lei, for the period 1919–1928 in paper lei, after 1929 in stabilisation lei, and for 1947 in lei stabilised on August 1947.

### 2.6.3 Population

The series referring to the households in Romania covers the 1880–1946 period, (RO6F\_A). The data figures are estimates based on household sample surveys at end-December for the 1880–1898 period and estimates at 1 July for the 1900–1946 period. Data relative to years 1899, 1912 and 1930 are census data. No statistical records are available for the World War I period and therefore no data are available on the households in Romania during 1916–1918. The twofold increase in the number of inhabitants in 1919 compared with the last pre-war record (1915) was due to the country's territorial gains in 1918. Moreover, the decline in this indicator starting 1940 can be put down on the territorial losses that same year. Authors used data from *Statistical Yearbook of Romania* and from Axenciuc (1992), *Evoluția economică a României Cercetări statistico-istorice*, volume II, *Agricultura*.

## 3 DATA SOURCES

In collecting data on the international reserves, the main sources were the NBR Board's Reports to the General Meeting of Shareholders for the period 1881–1947. Moreover, the authors resorted to the weekly press releases published by the NBR in the *Official Gazette* of Romania (1881–1947) and to *Bulletin d'Information et de Documentation* that the NBR published in the period 1929–1947. For further information on how the NBR balance sheets were prepared, the authors drew on the documents in the NBR Archives, the protocols of the NBR Boards, General Accounting, External Accounting, Secretariat, and Research Divisions.

Information on the notes in circulation were taken from the NBR Board's Reports to the General Meeting of Shareholders for the period 1881–1947 and from the weekly press releases published by the NBR in the *Official Gazette* of Romania (1881–1947).

The monetary base data series was reconstructed relying on the following: (i) the balance sheet in the NBR Board's Reports to the General Meeting of Shareholders during 1881–1947 for the currency issue and petty cash of the central bank, (ii) Banque Nationale de Roumanie, *Bulletin d'Information et de Documentation*, NBR Board's Reports to the General Meeting of Shareholders of 20 February 1938, Bucharest, 1938, p. 45, for the metallic and fractional coins, and (iii) Dobrovici (1934), *Istoricul dezvoltării economice și financiare a României și împrumuturile contractate*, 1823–1933, p. 316, for paper notes and bills of the Romanian General Bank. For the period 1882–1897, for monetary aggregates, data were collected primarily from the balance sheets disclosed by banks in the NBR Archives, as well as from the Higher Banking Council Fund. For the Savings Bank, the authors resorted to the *Statistical Yearbook* of Romania for the year 1926.

For the period 1898–1918, data were gathered chiefly from the balance sheets disclosed by banks in the NBR Archives and, in the absence of any balance sheets, from the *Bulletin d'Information et de Documentation* (1929, NBR, Economic Research Division). For the Savings Bank and credit cooperatives, the authors resorted to the *Statistical Yearbook* of Romania for the year 1926 as well as for the period 1935–1936. Furthermore, data were cross-checked with the information avail-

able in Slăvescu (1925), *Marile bănci comerciale din România* and Dobrovici (1934), *Istoricul dezvoltării economice și financiare a României și împrumuturile contractate, 1823–1933*.

For the period 1919–1933, data on banks' aggregate balance sheets were taken from *Statistica societăților anonime din România* (1937–1941), those concerning the Agricultural Bank from the balance sheet in the NBR Archives, figures regarding the Industrial Credit National Society were drawn from the *Statistical Yearbook of Romania*. For the Savings Bank and credit cooperatives, information was taken from the *Statistical Yearbook of Romania* for the year 1934 and for the period 1935–1936. For the period 1934–1945, data on banks' aggregate balance sheets were gathered from the NBR Archives, the Higher Banking Council Fund, while those on the Savings Bank originated in *Statistical Yearbook of Romania* for the year 1934.

Data series on the discount and the Lombard rates were drawn from the NBR Board's Reports to the General Meeting of Shareholders during 1881–1947.

In compiling data on the return on fixed-income securities for the period 1926–1947, the source used was: Banque Nationale de Roumanie, *Bulletin d'Information et de Documentation* Nos. 4/1929; 1/1930; 1/1931; 1/1932; 1/1933; 1/1934; 1/1935; 1/1936; 1/1937; 1/1938; 1/1939; 1/1940; 2/1941; 3/1942; 7–12/1944; 1–3/1945; 10–12/1946; 9–12/1947. For the three loans, data on bond market prices was taken from the Bucharest Stock Exchange as follows: the 5% 1875 Perpetual Bond for the period 1883–1898, the 4% 1898 Redeemable Bond for the period 1898–1928, and the 7% 1929 Stabilisation Loan (the American tranche) for the period 1929–1942.

Data on the exchange rates of the leu against the major currencies were taken from various sources, due to the peculiarities of those years. For the period 1882–1892, information was collected from the *Official Quota* of the Bucharest Stock Exchange and the figures that bankers published in newspapers. Adding to the above-mentioned data are those regarding the gold premium relative to silver. Most frequently the authors used the data in the *Official Quota*, lacking which the information inserted in the bankers' market reports published on a daily basis. The resulting figures are monthly averages of daily entries concerning the agio, which formed the basis for the yearly averages. The period 1892–1915 is covered by the information drawn from the NBR Board's Report to the General Meeting of Shareholders 1915, as well as from the *Official Quota*. The time span between the end of World War I and the year 1947 was covered from data in *Bulletin d'Information et de Documentation* disseminated by the NBR in the period 1929–1947, the *Official Quota*, the NBR Archives and the bank's Research Division.

Data on the government's actual revenue and expenditure were taken from the periodicals of the Romanian Ministry of Finance titled *Proiectul de buget general al statului, Expunere de motive and Bugetul general de venituri și cheltuieli al României* for the period 1880–1947. The resulting series were compared to those published by Axenciuc (2000) in his paper entitled *Evoluția economică a României Cercetări statistico-istorice 1859–1947, volume III Monedă - credit - comerț - finanțe publice* and Banu (2012) in *Datoria publică a României (1864–1949)*. Data on public debt service were taken from *Bugetul general de venituri și cheltuieli al României 1880–1947* published by the Romanian Ministry of Finance, Axenciuc (2000), *Evoluția economică a României Cercetări statistico-istorice 1859–1947, volume III Monedă - credit - comerț - finanțe publice*, and Banu (2012), *Datoria publică a României (1864–1949)*.

The data series on the public debt stock has drawn on several sources. For the period 1892–1913, data were taken from the publication issued by the Romanian Ministry of Finance titled *Expunerea*

*situațiunii tezaurului public*. For the period 1916–1947, data were taken from *Bugetul general de venituri și cheltuieli al României* published by the Romanian Ministry of Finance. Furthermore, the data series published by Banu (2012) in *Datoria publică a României (1864–1949)* and Dobrovici (1934) in *Istoricul dezvoltării economice și financiare a României și împrumuturile contractate 1823–1933* and in *Evoluția economică și financiară a României în perioada 1934–1943* (1944) were used as well.

The data on the retail price index were taken from *Buletinul prețurilor 1940*, published by Romania's statistics office. The data for the industrial production general index were taken from Axenciuc (1992), *Evoluția economică a României, Cercetări statistico-istorice 1859–1947*, volume 1, *Industria*, p. 585.

GDP data series was taken from Axenciuc (2012), *Produsul intern brut al României 1862–2000 Serii statistice seculare și argumente metodologice*, volume I-II.

For the period 1879–1939, data on foreign trade were collected from the *Statistical Yearbook of Romania* for 1912 and 1939–1940, as well as from Banque Nationale de Roumanie *Bulletin d'Information et de Documentation* No. 11/1932. The time span from 1940 to 1947 includes information taken from Banque Nationale de Roumanie *Bulletin d'Information et de Documentation*/1941 and Axenciuc (2000), *Evoluția economică a României Cercetări statistico-istorice 1859–1947*, volume III, *Monedă - credit - comerț - finanțe publice*.

In collecting data for population, for the period 1880–1940, the *Statistical Yearbook of Romania* was used. The information for the period 1941–1946 was drawn from Axenciuc (1992), *Evoluția economică a României Cercetări statistico-istorice*, volume II, *Agricultura*. The author also employed data published in the journal *Comunicări statistice* No. 5/1945 and the final figures of the 1948 census.

Data for unemployment were taken from the *Statistical Yearbook of Romania* for 1939–1940, which in turn reveals as a source *Buletinul Muncii* (Labour Newsletter), a periodical issued by the Ministry of Labour.

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*Note: In the following tables “..” indicates that the item did not exist; in case of reconstructed data, that the entry was not calculated for that point in time; “.” indicates a missing value. An absolute zero is coded as “-“, while “0.0” codes a rounded zero. For details on the unit of the series, see index table in section 2.*

TABLE ROI.I\_A International reserves, 1881–1947

continue

(NBR; thousands of LMU lei, end-of-year)

Year	Metallic stock	Mortgage notes	Gold bills of exchange and gold foreign exchange on cover stock	Gold foreign currencies out of the stock	Commercial bills denominated in foreign currency in the NBR portfolio	Foreign exchange provision for the Autonomous Monopolies Institute	Foreign exchange provision for exceptional circumstances	International reserves of the NBR	of which Gold Treasury bonds in the NBR's metallic stock
	ROI1A_A	ROI1B_A	ROI1C_A	ROI1D_A	ROI1E_A	ROI1F_A	ROI1G_A	ROI1H_A	ROI1I_A
1881	21336.3	14168.3	..	.	2748.8	..	..	38253.5	..
1882	23838.2	24338.9	..	.	5788.3	..	..	53965.3	..
1883	34519.9	25531.2	..	.	2754.4	..	..	62805.5	..
1884	33981.9	25812.7	..	.	2.0	..	..	59796.6	..
1885	34120.3	25902.6	..	.	15.0	..	..	60037.9	..
1886	33180.3	25956.5	..	.	65.8	..	..	59202.6	..
1887	31890.6	25877.4	..	.	139.5	..	..	57907.5	..
1888	32430.9	25744.3	..	.	.	..	..	58175.2	..
1889	39523.9	..	..	.	23192.0	..	..	62715.9	..
1890	45616.3	..	..	.	15732.7	..	..	61349.0	..
1891	60652.3	..	..	.	14482.6	..	..	75134.9	..
1892	53160.7	..	13954.3	.	315.6	..	..	67430.6	..
1893	59614.6	..	8185.4	.	.	..	..	67800.0	..
1894	44501.4	..	1610.6	.	.	..	..	46111.9	..
1895	60996.2	..	3208.3	.	.	..	..	64204.5	..
1896	62265.0	..	14110.7	.	.	..	..	76375.7	..
1897	57781.3	..	15115.6	.	.	..	..	72896.9	..
1898	59828.1	..	20942.5	.	.	..	..	80770.7	..
1899	34737.6	..	14587.6	.	.	..	..	49325.2	..
1900	39902.7	..	10182.9	.	11117.1	..	..	61202.7	..
1901	49107.4	..	20275.1	.	17924.9	..	..	87307.4	..
1902	72168.2	..	28731.2	.	36668.8	..	..	137568.2	..
1903	73462.4	..	30871.9	.	55428.1	..	..	159762.4	..
1904	53922.7	..	20183.4	.	42516.6	..	..	116622.7	..
1905	77780.9	..	31407.9	.	60892.1	..	..	170080.9	..
1906	82861.0	..	34547.2	.	54852.8	..	..	172261.0	..
1907	96222.8	..	39384.7	.	60485.3	..	..	196092.8	..
1908	90394.5	..	33688.7	.	35071.3	..	..	159154.5	..
1909	93841.6	..	38046.2	.	51483.8	..	..	183371.6	..
1910	120023.2	..	48889.2	.	74810.8	..	..	243723.2	..
1911	157799.8	..	61366.7	.	113633.3	..	..	332799.8	..
1912	155504.9	..	63430.3	.	54399.7	..	..	273334.9	..
1913	151510.8	..	56534.2	.	.	..	..	208044.9	..
1914	153956.7	..	62941.1	.	.	..	..	216897.8	..
1915	220969.6	..	80980.2	.	.	..	..	301949.8	..
1916	493268.2	..	80980.2	.	.	..	..	574248.3	..
1917	493732.7	..	196257.8	.	.	..	..	689990.5	..
1918	493736.9	..	348796.3	.	.	..	..	842533.2	..
1919	495102.7	..	915763.1	.	.	..	..	1410865.8	..
1920	495459.0	..	2704763.1	.	.	..	..	3200222.1	2263000.0
1921	495459.0	..	4086131.1	.	.	..	..	4581590.1	3676000.0
1922	533055.3	..	4637049.1	.	.	..	..	5170104.4	4069000.0
1923	555407.8	..	5456251.1	.	.	..	..	6011658.9	4679900.0
1924	562959.4	..	5936841.3	.	.	..	..	6499800.7	5107800.0
1925	566664.6	..	6333815.4	.	.	..	..	6900480.0	5679833.3
1926	572113.9	..	6454673.3	.	..	..	..	7026787.2	5679833.3
1927	578427.9	..	6454673.3	.	.	..	..	7033101.2	6123713.3
1928	570747.7	..	6627638.3	.	.	..	..	7198386.1	6623713.3

TABLE ROI.1\_A International reserves, 1881–1947

(NBR; thousands of LMU lei, end-of-year)

Year	Metallic stock	Mortgage notes	Gold bills of exchange and gold foreign exchange on cover stock	Gold foreign currencies out of the stock	Commercial bills denominated in foreign currency in the NBR portfolio	Foreign exchange provision for the Autonomous Monopolies Institute	Foreign exchange provision for exceptional circumstances	International reserves of the NBR	of which Gold Treasury bonds in the NBR's metallic stock
	ROI A	ROI B	ROI C	ROI D	ROI E	ROI F	ROI G	ROI H	ROI I
1929	9185360.3	..	6745413.7	45746.9	74302.1	988375.1	..	17039198.2	..
1930	9275434.9	..	1745517.5	1912722.1	21861.2	452470.2	..	13408005.8	..
1931	9675034.4	..	277594.0	126927.9	14839.1	229013.9	..	10323409.4	..
1932	9526877.9	..	494515.0	719199.6	3607.5	229013.9	..	10973214.0	..
1933	9895475.0	..	257435.3	184313.1	.	57219.9	..	10394443.3	..
1934	10285131.7	..	91005.4	355341.3	.	.	..	10731478.4	..
1935	10801939.4	..	91836.0	205044.8	.	.	..	11098820.3	..
1936	15568160.3	..	..	1802044.6	.	.	..	17370204.9	..
1937	16457784.3	..	..	775360.6	.	.	2425322.1	19658467.0	..
1938	18190487.5	..	..	306258.6	.	.	2639609.0	21136355.1	..
1939	20767950.3	..	..	163571.4	.	.	1017155.4	21948677.1	..
1940	32155991.5	..	..	1058307.1	.	.	4977458.9	38191757.5	..
1941	34291592.9	..	..	380726.3	.	.	.	34672319.3	..
1942	38091008.9	..	7415000.0	2730782.2	.	.	1042620.8	49279411.9	7415000.0
1943	48814004.5	..	10786000.1	165798.5	.	.	441504.9	60207308.0	10786000.1
1944	50168700.3	..	40500000.0	507095.5	.	.	1055.4	91176851.2	40500000.0
1945	50403405.4	..	40500000.0	138358.7	.	.	.	91041764.1	40500000.0
1946	50280868.9	..	40795470.9	131516.0	.	.	.	91207855.8	40795470.9
1947	32189998.9	..	..	948733.5	.	.	.	33138732.3	..

TABLE ROI.2\_A Monetary base and money supply, 1881–1947

continue

(thousands of LMU lei; end-of-period)

Year	Banknotes in circulation	Metallic and fractional coins	Paper money	Notes issued by Romanian General Bank	Monetary base	Money supply
	ROI J	ROI K	ROI L	ROI M	ROI N	ROI O
1881	58536.5	63345.0	..	..	121881.5	..
1882	84405.9	69195.0	..	..	153600.9	367777.8
1883	88546.2	83845.0	..	..	172391.2	373249.5
1884	85962.0	87970.8	..	..	173932.8	381614.7
1885	98318.6	88850.8	..	..	187169.4	402503.7
1886	104513.0	88850.8	..	..	193363.8	414535.8
1887	105029.6	88850.8	..	..	193880.4	428142.8
1888	103850.4	88850.8	..	..	192701.2	420381.7
1889	97187.2	88850.8	..	..	186038.0	434182.1
1890	108429.3	67770.8	..	..	176200.1	452289.0
1891	125872.7	67770.8	..	..	193643.5	494926.2
1892	114968.7	67770.8	..	..	182739.5	481721.0
1893	128461.0	67770.8	..	..	196231.8	510093.2
1894	103117.2	70770.8	..	..	173888.0	453416.9
1895	124348.3	70770.8	..	..	195119.1	501587.3
1896	142617.8	70770.8	..	..	213388.6	538131.8
1897	145633.2	70770.8	..	..	216404.0	544183.9
1898	162334.0	70770.8	..	..	233104.8	590660.3

TABLE ROI.2\_A Monetary base and money supply, 1881–1947

(thousands of LMU lei; end-of-period)

Year	Banknotes in circulation	Metallic and fractional coins	Paper money	Notes issued by Romanian General Bank	Monetary base	Money supply
	ROIJ_A	ROIK_A	ROIL_A	ROIM_A	ROIN_A	ROIO_A
1899	108718.9	70770.8	..	..	179489.7	496032.6
1900	120622.2	74370.8	..	..	194993.0	497396.4
1901	144965.4	74370.8	..	..	219336.2	534044.3
1902	167324.2	74370.8	..	..	241695.0	574755.3
1903	177635.7	74370.8	..	..	252006.5	615972.6
1904	167144.8	74370.8	..	..	241515.6	622552.4
1905	237614.2	76620.8	..	..	314235.0	830134.1
1906	249337.2	81799.8	..	..	331137.0	878100.6
1907	271005.8	81799.8	..	..	352805.6	1031308.9
1908	259063.7	81799.8	..	..	340863.5	1051911.3
1909	282630.2	81799.8	..	..	364430.0	1078192.4
1910	339804.3	87480.9	..	..	427285.2	1209502.9
1911	443357.9	87480.9	..	..	530838.8	1398802.8
1912	425180.7	87480.9	..	..	512661.6	1611216.0
1913	437182.4	90097.9	..	..	527280.3	1663801.2
1914	578243.6	.	..	..	578243.6	1695274.5
1915	762210.2	.	..	..	762210.2	1861449.5
1916	1451712.4	.	..	..	1451712.4	2797187.2
1917	1961322.4	.	10000.0	710119.3	2681441.7	4075550.3
1918	2489145.3	.	10000.0	2114728.0	4613873.3	6324423.0
1919	4215031.9	.	10000.0	2114728.0	6339759.8	9104113.6
1920	9485557.8	.	10000.0	..	9495557.8	14883916.4
1921	13722231.5	20000.0	..	..	13742231.5	21025458.2
1922	15162053.2	20000.0	..	..	15182053.2	27070957.2
1923	17916829.4	20000.0	..	..	17936829.4	30839776.4
1924	19356437.9	420000.0	..	..	19776437.9	35393544.2
1925	20126370.0	420000.0	..	..	20546370.0	43105161.6
1926	20950547.3	420000.0	..	..	21370547.3	48742972.7
1927	21026262.8	420000.0	..	..	21446262.8	54600840.7
1928	21211480.6	420000.0	..	..	21631480.6	59757663.6
1929	21144156.4	417800.0	..	..	21561956.4	64784456.0
1930	19604584.3	1414000.0	..	..	21018584.3	68562422.7
1931	23750390.5	2232000.0	..	..	25982390.5	58308613.3
1932	21593949.9	3682000.0	..	..	25275949.9	53394508.7
1933	21218861.0	3653000.0	..	..	24871861.0	51664778.6
1934	22306939.0	3599000.0	..	..	25905939.0	49474733.3
1935	23127215.5	3567000.0	..	..	26694215.5	52831563.6
1936	25662512.9	4475000.0	..	..	30137512.9	55613081.2
1937	29390893.6	4748000.0	..	..	34138893.6	63052270.2
1938	34901649.0	4565000.0	..	..	39466649.0	67064584.6
1939	48799991.5	7146000.0	..	..	55945991.5	80652622.7
1940	64348700.7	8434000.0	..	..	72782700.7	101326273.7
1941	96650376.6	6372000.0	2793000.0	..	105815376.6	147009482.6
1942	117351047.6	8984000.0	4249000.0	..	130584047.6	195098497.6
1943	160015607.2	14126000.0	103000.0	..	174244607.2	248274607.2
1944	356892920.5	16666000.0	117000.0	..	373675920.5	445174920.5
1945	1212924519.0	18031000.0	1491000.0	..	1232446519.0	1375820519.0
1946	6117602630.0	270875000.0	8768000.0	..	6397245630.0	6821247630.0
1947 (14 August)	48451600000.0	.	..	..	.	.

TABLE R02.1\_D Discount rate, 1880–1947

Discount rate				Discount rate			
Year	Date	Month	RO2A_D	Year	Date	Month	RO2A_D
1880	1	Dec.	5	1907	27	Oct.	8
1881	6	Feb.	4		29	Dec.	7
1884	29	Nov.	5	1908	10	Jan.	6
1887	30	Sept.	6		28	Feb.	5
1890	1	April	5	1912	19	Oct.	6
1892	25	Feb.	6	1914	1	May	5.5
1893	13	March	5		18	July	6
	20	Nov.	6		25	July	7
1894	6	Aug.	7		25	Aug.	6
	1	Oct.	6	1916	1	May	5
1895	15	April	5	1920	1	June	6
1898	8	Oct.	5	1929	3	May	8
1899	1	Jan.	5		14	May	9.5
	25	June	6		26	Nov.	9
	1	July	7	1931	1	April	8
	1	Oct.	8	1932	4	March	7
	10	Dec.	9	1933	5	April	6
1900	19	Feb.	8	1934	15	Dec.	4.5
1901	1	April	7	1938	5	May	3.5
1902	1	Feb.	6	1940	12	Sept.	3
	14	Aug.	5	1944	8	May	4
1907	30	Aug.	6	1947	15	Aug.	7
	19	Sept.	7				

TABLE R02.2\_D Lombard rate, 1880–1947

continue

Lombard rate				Lombard rate			
Year	Date	Month	RO2B_D	Year	Date	Month	RO2B_D
1880	1	Dec.	6	1899	30	June	8
	17	Dec.	7		30	Sept.	9
1881	17	Jan.	6		10	Dec.	10
	5	Feb.	5	1900	18	Feb.	9
1883	15	June	4	1901	29	March	8
1884	7	Nov.	5	1902	31	Jan.	7
	28	Nov.	6		14	Aug.	6
1887	29	Sept.	7	1906	23	March	5
	31	March	6	1907	30	Aug.	6
1890	12	Oct.	5.5		19	Sept.	7
	13	Dec.	6		27	Oct.	8.5
1892	24	Feb.	7		29	Dec.	7.5
1893	12	March	6	1908	10	Jan.	6.5
	19	Nov.	7		28	Feb.	5.5
1894	5	Aug.	8	1912	13	Jan.	5
	30	Sept.	7		19	Oct.	6
1895	14	April	6	1914	18	July	7
1898	7	Oct.	7		25	July	8
	21	Jan.	6		25	Aug.	7
1899	25	June	7	1916	30	April	6

TABLE R02.2\_D Lombard rate, 1880–1947

Lombard rate				Lombard rate			
Year	Date	Month	RO2B_D	Year	Date	Month	RO2B_D
1920	1	June	7	1934	15	Dec.	5.5
	3	May	9	1937	18	Nov.	5
1929	14	May	10.5	1938	5	May	4.5
	26	Nov.	10	1940	12	Sept.	4
1931	1	April	9	1944	8	May	5
1932	4	March	8	1947	14	Aug.	8
1933	5	April	7				

TABLE R03\_A Exchange rates, 1880–1947

continue

Year	Leu/French franc		Leu/Pound sterling		Leu/Mark (Reichsmark)	Leu/US dollar		Leu/Swiss franc		Agio RO3J_A
	without premium	with premium	without premium	with premium	without premium	without premium	with premium	without premium	with premium	
	RO3A_A	RO3B_A	RO3C_A	RO3D_A	RO3E_A	RO3F_A	RO3G_A	RO3H_A	RO3I_A	
1880	.	..	.	..	.	..	..	..	..	2.938
1881	.	..	.	..	.	..	..	..	..	1.063
1882	1.000	..	25.218	..	1.234	..	..	..	..	1.767
1883	1.000	..	25.227	..	1.233	..	..	..	..	2.348
1884	1.002	..	25.251	..	1.237	..	..	..	..	6.783
1885	1.004	..	25.228	..	1.240	..	..	..	..	13.095
1886	1.002	..	25.302	..	1.239	..	..	..	..	15.483
1887	1.004	..	25.413	..	1.246	..	..	..	..	16.208
1888	1.002	..	25.368	..	1.243	..	..	..	..	10.350
1889	1.000	..	25.211	..	1.233	..	..	..	..	2.908
1890	1.001	..	25.230	..	1.237	..	..	..	..	0.178
1891	1.001	..	25.249	..	1.235	..	..	..	..	..
1892	1.003	..	25.251	..	1.238	..	..	..	..	..
1893	1.003	..	25.284	..	1.239	..	..	..	..	..
1894	1.007	..	25.331	..	1.241	..	..	..	..	..
1895	1.004	..	25.323	..	1.238	..	..	..	..	..
1896	1.003	..	25.280	..	1.238	..	..	..	..	..
1897	1.004	..	25.277	..	1.240	..	..	..	..	..
1898	1.002	..	25.327	..	1.239	..	..	..	..	..
1899	1.018	..	25.677	..	1.255	..	..	..	..	..
1900	1.013	..	25.483	..	1.245	..	..	..	..	..
1901	1.009	..	25.373	..	1.243	..	..	..	..	..
1902	1.004	..	25.251	..	1.235	..	..	..	..	..
1903	1.005	..	25.274	..	1.237	..	..	..	..	..
1904	1.008	..	25.367	..	1.242	..	..	..	..	..
1905	1.007	..	25.347	..	1.239	..	..	..	..	..
1906	1.007	..	25.350	..	1.238	..	..	..	..	..
1907	1.008	..	25.400	..	1.239	..	..	..	..	..
1908	1.013	..	25.442	..	1.242	..	..	..	..	..
1909	1.007	..	25.351	..	1.239	..	..	..	..	..
1910	1.004	..	25.335	..	1.238	..	..	..	..	..
1911	1.001	..	25.274	..	1.236	..	..	..	..	..
1912	1.006	..	25.402	..	1.240	..	..	..	..	..

TABLE RO3\_A Exchange rates, 1880–1947

Year	Leu/French franc		Leu/Pound sterling		Leu/Mark (Reichsmark)	Leu/US dollar		Leu/Swiss franc		Agio
	without premium	with premium	without premium	with premium	without premium	without premium	with premium	without premium	with premium	
	RO3A_A	RO3B_A	RO3C_A	RO3D_A	RO3E_A	RO3F_A	RO3G_A	RO3H_A	RO3I_A	
1913	1.017	..	25.703	..	1.255	..	..	..	..	..
1914	1.010	..	25.446	..	1.244	..	..	..	..	..
1915	..	..	..	..	..	..	..	..	..	..
1916	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..
1918	..	..	..	..	..	..	..	..	..	..
1919	..	..	..	..	..	..	..	..	..	..
1920	4.168	..	203.497	..	..	54.810	..	9.690	..	..
1921	6.623	..	342.498	..	..	88.908	..	15.584	..	..
1922	12.218	..	660.987	..	..	148.095	..	28.564	..	..
1923	12.535	..	944.021	..	..	209.567	..	37.967	..	..
1924	10.666	..	897.103	..	47.084	203.118	..	37.136	..	..
1925	9.993	..	1007.020	..	49.515	208.380	..	40.423	..	..
1926	7.122	..	1065.789	..	52.342	220.079	..	42.604	..	..
1927	6.607	..	816.897	..	39.204	167.179	..	32.397	..	..
1928	6.440	..	797.786	..	39.126	163.741	..	31.616	..	..
1929	6.580	..	815.563	..	40.015	166.771	..	32.397	..	..
1930	6.631	..	817.152	..	40.145	168.053	..	32.621	..	..
1931	6.596	..	768.783	..	39.968	168.016	..	32.599	..	..
1932	6.590	..	592.952	..	40.014	167.781	..	32.684	..	..
1933	6.590	..	564.105	..	40.554	141.177	..	32.800	..	..
1934	6.628	..	514.006	..	40.686	109.212	..	32.817	..	..
1935	6.638	..	492.985	..	41.170	102.387	..	32.773	..	..
1936	6.164	8.508	501.843	692.538	40.565	102.360	141.258	30.445	41.998	..
1937	4.143	5.719	502.427	693.376	39.274	102.017	140.776	23.085	31.856	..
1938	2.964	4.093	496.518	685.195	39.115	101.540	140.123	23.227	32.067	..
1939	2.653	3.658	466.840	643.739	41.500	103.978	143.491	23.483	32.406	..
1940	2.394	3.303	422.243	826.268	50.000	104.911	205.288	23.735	45.345	..
1941	2.380	3.283	416.941	813.803	57.500	103.365	201.265	23.564	45.992	..
1942	2.895	3.270	..	..	60.000	..	..	23.463	44.570	..
1943	3.000	..	..	..	60.000	..	..	23.460	44.570	..
1944	3.000	..	..	..	60.000	..	..	23.460	44.570	..
1945	3.000	..	423.573	14683.710	..	102.640	3643.600	23.910	570.693	..
1946	3.000	137.063	423.850	61103.694	..	102.640	16314.206	23.910	3730.836	..
1947	3.000	1705.954	423.850	818450.830	..	108.935	203089.535	27.411	46443.817	..

TABLE RO4\_A Government finances, 1880–1947

continue

(thousands of LMU lei; end-of-year)

Year	Ordinary budget revenue	Direct taxes	Indirect taxes	Extra- ordinary budget revenue	Ordinary budget expenditure	Extra- ordinary budget expenditure	Public debt service	Domestic and foreign public debt	Domestic public debt	Foreign public debt
	RO4A_A	RO4B_A	RO4C_A	RO4D_A	RO4E_A	RO4F_A	RO4G_A	RO4H_A	RO4I_A	RO4J_A
1880	145045.0	23439.1	44267.5	..	149560.0	..	43575.0	..	..	..
1881	123182.0	28153.3	51343.9	..	135974.9	..	44516.0	..	..	..

TABLE RO4\_A Government finances, 1880–1947

continue

(thousands of LMU lei; end-of-year)

Year	Ordinary budget revenue	Direct taxes	Indirect taxes	Extra- ordinary budget revenue	Ordinary budget expenditure	Extra- ordinary budget expenditure	Public debt service	Domestic and foreign public debt	Domestic public debt	Foreign public debt
	RO4A_A	RO4B_A	RO4C_A	RO4D_A	RO4E_A	RO4F_A	RO4G_A	RO4H_A	RO4I_A	RO4J_A
1882	141815.9	27077.6	53170.7	..	136854.2	..	42238.0	.	.	.
1883	134696.0	24532.8	57274.8	..	135557.9	..	45800.0	.	.	.
1884	115243.4	24621.1	51267.8	..	130364.0	..	48564.0	.	.	.
1885	124478.4	24692.1	55226.9	..	129971.6	..	50521.0	.	.	.
1886	136769.6	27620.8	60924.5	..	129418.9	..	54330.0	.	.	.
1887	139569.6	.	.	..	140093.0	..	61411.0	.	.	.
1888	161802.2	.	.	..	161173.5	..	66015.0	765890.0	.	.
1889	159849.9	27989.0	38521.3	..	158770.9	..	62780.0	.	.	.
1890	170353.8	28936.4	43306.2	..	162116.9	..	61578.0	.	.	.
1891	180147.1	29467.0	51317.5	..	168404.9	..	61441.0	968804.7	.	.
1892	182095.6	29363.9	52827.5	..	178532.0	..	65330.0	1043779.7	.	.
1893	207071.2	29991.3	65219.0	..	186735.0	..	68135.0	1032119.1	.	.
1894	192721.7	32408.1	56064.9	..	203087.2	..	70263.0	1069640.8	.	.
1895	194750.8	32813.4	55624.6	..	211406.0	..	73975.0	1275569.0	.	.
1896	211828.4	33576.2	57718.8	..	208610.4	..	76477.0	1164532.5	.	.
1897	210591.4	33591.1	63928.9	..	217088.1	..	79215.0	1238230.2	.	.
1898	236339.6	33568.2	79444.3	..	224773.4	..	81807.0	1222123.5	.	.
1899	193957.9	34039.2	55663.7	..	229362.8	..	85757.0	1469369.0	.	.
1900	209549.3	.	.	..	236793.4	..	92772.0	1448941.3	.	.
1901	237242.5	45307.6	63555.1	..	216025.3	..	86240.0	.	.	.
1902	248469.8	47882.6	52942.5	..	216140.0	..	86441.0	1413339.4	.	.
1903	246759.3	44534.2	46994.2	..	218090.5	..	86411.0	1403839.6	.	.
1904	231504.0	42402.1	42358.6	..	225028.3	..	86732.0	1382734.1	.	.
1905	278727.5	44326.6	60590.5	..	233281.1	..	87235.0	.	.	.
1906	292356.2	47271.1	66125.7	..	239435.8	..	83350.0	.	.	.
1907	331517.1	44412.0	79931.4	..	269180.2	..	84950.0	.	.	.
1908	446317.4	39164.4	78767.5	..	394779.8	..	84950.0	.	.	.
1909	458886.9	39958.6	77868.5	..	417966.1	..	87953.0	.	.	.
1910	506656.0	47347.5	83865.3	..	448007.0	..	97758.0	.	.	.
1911	575056.5	48305.9	110730.7	..	464664.9	..	99419.0	1576616.9	.	.
1912	587071.4	47487.1	108952.3	..	487591.0	..	99405.0	1585684.5	.	.
1913	608502.9	48197.0	114987.8	..	512253.7	..	106288.0	1630592.2	.	.
1914	567798.0	52616.5	83758.1	..	539703.3	..	116369.0	1866523.0	.	.
1915	662437.0	.	.	..	542558.0	..	.	.	.	.
1916	363556.5	.	.	..	831063.0	..	.	2698950.3	814477.7	1884472.6
1917	104928.3	.	.	..	820519.0	..	.	.	.	.
1918	421038.7	.	.	..	1694210.0	..	.	.	.	.
1919	2002784.2	.	.	..	5205000.0	..	.	.	.	.
1920	4099570.0	.	.	..	7406000.0	..	.	.	.	.
1921	6678100.2	689975.4	2973023.2	..	6818271.4	2301387.6	.	20451808.0	15924408.0	4527399.9
1922	14194000.0	1163887.9	6247728.2	..	10468108.2	3813366.7	408100.0	.	.	.
1923	17767754.1	2235512.0	8192932.6	..	13639002.5	6688580.4	2659900.0	.	.	.
1924	27426439.5	3206926.1	11240648.1	..	21403638.9	7912646.3	3365600.0	31485626.1	31453252.7	32373.3
1925	33978447.4	4223923.5	10667680.4	..	29439951.4	13045953.1	3674400.0	.	.	.
1926	31224228.5	4900940.5	12907449.9	..	28499342.8	6539589.2	4654500.0	.	.	.
1927	36007521.5	7499758.6	14887795.5	..	33136742.9	2952358.0	5955500.0	126068147.2	26488244.8	99579902.4

TABLE RO4\_A Government finances, 1880–1947

(thousands of LMU lei; end-of-year)

Year	Ordinary budget revenue	Direct taxes	Indirect taxes	Extra-ordinary budget revenue	Ordinary budget expenditure	Extra-ordinary budget expenditure	Public debt service	Domestic and foreign public debt	Domestic public debt	Foreign public debt
	RO4A_A	RO4B_A	RO4C_A	RO4D_A	RO4E_A	RO4F_A	RO4G_A	RO4H_A	RO4I_A	RO4J_A
1928	32767839.8	7553612.2	10973911.1	..	35223580.4	2100000.0	5816000.0	.	.	.
1929	36018491.3	8885013.2	10855843.7	..	34607024.8	400000.0	6403200.0	160221278.3	21677783.3	138543495.0
1930	31155000.0	8661000.0	9409000.0	..	31578538.2	.	6851600.0	.	.	.
1931	27713132.4	8418232.5	7156732.1	..	34702492.1	.	6447000.0	185526481.3	12978613.2	172547868.1
1932	23007621.8	5454945.4	8051230.4	1854615.4	24891097.4	1038628.0	6863000.0	.	.	.
1933	18364335.1	3456641.0	7516654.9	1441298.7	20741147.4	1207387.1	4540000.0	97000000.0	13500000.0	83500000.0
1934	18801614.3	3610494.3	7206219.7	3541686.5	19863780.6	4227083.5	2248700.0	.	.	.
1935	21167770.3	3939520.6	6959977.0	8760274.5	20699200.0	6189657.2	2954000.0	99390760.0	19005037.6	80385722.5
1936	24503768.5	4266382.5	9071794.9	2679244.7	23059900.0	3452205.4	3509900.0	108042535.0	28653308.6	79389226.3
1937	27387045.2	4992915.2	10371807.6	3061323.4	26762400.0	4059204.7	3702000.0	108449171.1	29970783.6	78478387.5
1938	31648651.9	7520047.2	12269593.1	3794494.6	30287000.0	4502965.6	3931000.0	112267290.1	33869211.2	78398079.0
1939	35109343.3	7060224.9	13960262.4	9438618.9	31649928.8	8389661.2	4025000.0	104127428.1	35228147.8	68899280.2
1940	40977050.3	7642736.0	15318576.0	63937906.5	36310610.2	59581017.5	7123000.0	97772168.5	34441457.7	63330710.8
1941	66762591.4	11051711.3	26359758.0	90687433.8	42318803.1	74042988.0	2260300.0	94600162.2	31442665.7	63157496.5
1942	112819920.9	16726983.6	46261571.0	158360013.7	68872886.7	131171113.2	4779000.0	91170928.5	36734438.2	54436490.3
1943	214448160.6	32124015.9	76825724.2	41432000.0	166938098.4	.	4287700.0	99769399.8	54135892.4	45633507.4
1944	222501000.0	.	.	.	191297000.0	.	4528500.0	100009462.3	54694160.1	45315302.2
1945	1060769000.0	.	.	.	1423269000.0	.	14932000.0	98936752.5	53640721.0	45296031.5
1946	6359890000.0	.	.	.	7782866000.0	.	19700000.0	129013246.4	83785652.5	45227593.9
1947	.	.	.	.	.	.	.	124960495.5	79734196.3	45226299.2

TABLE RO5\_A Prices, production and unemployment, 1919–1947

Year	Retail price index (1929=100)	Industrial production general index (1929=100)	Unemployment (number of people)	Year	Retail price index (1929=100)	Industrial production general index (1929=100)	Unemployment (number of people)
	RO5A_A	RO5B_A	RO5C_A		RO5A_A	RO5B_A	RO5C_A
1919	.	27.90	.	1934	52.79	123.30	17253.0
1920	.	33.30	.	1935	56.86	128.90	13778.0
1921	31.14	43.20	.	1936	61.12	133.50	13549.0
1922	39.60	58.00	.	1937	67.22	138.80	10851.0
1923	62.42	64.40	.	1938	74.58	141.20	7268.0
1924	75.28	70.40	.	1939	77.85	138.90	.
1925	83.47	74.50	.	1940	110.51	112.60	.
1926	94.22	83.50	.	1941	.	107.50	.
1927	100.20	88.70	.	1942	.	110.20	.
1928	99.86	97.40	10535.0	1943	.	119.90	.
1929	99.98	100.00	7449.0	1944	.	80.90	.
1930	88.36	98.10	23367.0	1945	.	89.70	.
1931	72.70	90.90	35737.0	1946	.	89.90	.
1932	62.20	96.90	38958.0	1947	.	89.50	.
1933	56.10	110.40	29060.0				

TABLE RO6\_A GDP, foreign trade and population 1880–1947

continue

Year	GDP at current prices (millions)	Imports		Exports		Population
	RO6A_A	value	in tons	value	in tons	
	RO6A_A	RO6B_A	RO6C_A	RO6D_A	RO6E_A	RO6F_A
1880	1779.9	255336	310975	218919	1324090	4.55
1881	1328.7	274758	398839	206518	1556226	4.62
1882	1730.3	268852	407703	244730	1809542	4.69
1883	1562.6	359907	592919	220650	1603481	4.78
1884	1273.8	294986	575386	184116	1323783	4.86
1885	1503.8	268539	571183	247968	1797170	4.96
1886	1658.8	296497	571664	255547	1704930	5.05
1887	1529.3	314681	414243	265727	1805216	5.11
1888	1614.3	310378	453243	256789	1951905	5.18
1889	1654.9	367944	485439	274167	2236943	5.26
1890	1692.2	362791	553938	275958	2220944	5.32
1891	1711.2	436683	702604	274663	2054606	5.39
1892	1727.0	380747	653370	285384	1959301	5.42
1893	1577.3	430490	727125	370652	2895490	5.49
1894	1633.0	422142	718272	294198	2071161	5.54
1895	1605.6	304575	617229	265048	2040729	5.64
1896	1720.2	337923	656077	324057	2660467	5.71
1897	1539.4	355783	693819	224180	2082245	5.80
1898	1936.3	389908	882902	283182	2644192	5.86
1899	1397.0	333268	789789	149120	1300864	5.96
1900	1879.9	216986	412105	280000	2047223	6.05
1901	1956.0	292436	484368	353831	2984859	6.13
1902	1958.3	283345	462333	374819	3318260	6.19
1903	2076.6	269924	470075	355630	3238186	6.29
1904	1653.5	311372	525294	261872	2269108	6.49
1905	2392.5	337538	731039	457101	3463945	6.48
1906	2689.1	422114	734352	491360	4213331	6.58
1907	2241.4	430509	934792	554019	4199963	6.68
1908	2514.3	414058	871190	379431	2822725	6.77
1909	2548.6	368300	716020	465057	3297254	6.86
1910	3265.9	409716	771516	616505	4488628	6.97
1911	3236.6	569745	986300	691720	5390280	7.09
1912	3353.7	637906	1213957	642104	4326735	7.16
1913	3508.0	590013	1374116	670705	4569076	7.35
1914	3085.7	504241	1145298	451891	3127449	7.77
1915	.	332942	290607	570182	1412683	7.90
1916	.	.	.	.	.	.
1917	.	.	.	.	.	.
1918	.	.	.	.	.	.
1919	.	3762300	413939	104385	109140	14.67
1920	4864.3	6980290	304485	3447848	1467118	15.54
1921	70140.6	12145405	615451	8263009	2713138	15.73
1922	108935.5	12325366	583668	14039296	4069963	15.97
1923	169830.2	19516026	699124	24594129	4900734	16.21
1924	198341.9	26264582	825754	28361044	4833419	16.45
1925	234955.4	29912645	899925	29126824	4663892	16.69
1926	265749.7	37195415	924442	38264805	6117781	16.93
1927	272816.3	33852131	1008069	38110810	7337087	17.15
1928	272082.2	31640956	952808	27029728	5886405	17.39
1929	284466.8	29628038	1101992	28960005	7064619	17.64
1930	286823.5	23044163	805233	28522028	9214754	18.06

TABLE RO6\_A GDP, foreign trade and population 1880–1947

Year	GDP at current prices (millions)	Imports		Exports		Population
	RO6A_A	value	in tons	value	in tons	
	RO6A_A	RO6B_A	RO6C_A	RO6D_A	RO6E_A	RO6F_A
1931	232170.5	15754569	560366	22196914	10047003	18.17
1932	173778.5	12011325	449980	16721593	9056959	18.43
1933	164242.9	11741850	466962	14170828	8777730	18.65
1934	163880.3	13208543	635868	13655734	8854096	18.91
1935	188626.0	10847530	533268	16756223	9276009	19.09
1936	213202.7	12637698	630443	21703391	10548913	19.32
1937	254973.7	20284748	709415	31568357	9637497	19.54
1938	255073.2	18767830	820603	21532580	7409084	19.75
1939	295972.5	22890474	739040	26809349	7564146	19.93
1940	259134.7	27410762	522035	36779900	5374348	15.91
1941	470854.4	30576100	392000	41286400	4821000	.
1942	715028.0	44906600	911000	52816300	3975000	.
1943	1100452.9	94883600	1259000	71132400	3652000	.
1944	1311893.2	42337200	694000	53040100	2204000	.
1945	6972992.0	4325600	831000	2917300	222000	.
1946	39933440.8	117852800	3099000	74566400	846000	15.79
1947	492409114.8	408800	723000	228600	751000	.

