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Dinar Exchange Rate in the Kingdom of Serbia 1882–1914[1]

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1. Introduction

After winning political independence in 1878 and proclaiming the Kingdom in 1882, Serbia was faced with a number of economic challenges, primarily with regard to the choice of an applicable exchange rate standard. The majority of countries in the world had by that time already switched from silver and bimetal to the gold standard, which as a strong nominal anchor, called for implementation of responsible monetary and fiscal policies. Countries could abandon the gold parity only at times of war and during financial crises, but had to restore it as soon as the adverse circumstances were over.

As opposed to core countries, periphery countries pursued the gold standard regime with less success. Then, as now, this was essentially an issue of credibility. In some of the periphery countries, periods of suspension lasted longer than periods of observing the principle of convertibility into gold, whereas in other countries convertibility into gold remained an unattainable objective altogether.

Although the original intention was to introduce the gold standard, Serbia, much like other periphery countries of the time, had no developed fiscal and monetary institutions that would enable such a move. During the 1880s, Serbia was an economically undeveloped country mainly engaged in agricultural production. Trade and industry were still in their early stages of development, and agricultural production was the only developed activity[2]. Almost all industrial products were imported from the neighbouring Austro-Hungarian Empire, which at the same time

[1] Reviewer: Branko Hinic. Acknowledgements to Sanja Borkovic and Olivera Jovanovic from the Economic Analyses and Research Department for their contribution in preparation of this paper and processing of the voluminous statistics and archive material.

[2] According to 1884 census, out of a total of 1.90 million inhabitants, 84.11% engaged in agricultural activity, 6.56% in industry, 2.36% in trade and transport, while the remaining percentage engaged in other activities; Pantic, M. Dusan (1910), p. 161.

imported most of Serbia's exports, primarily cattle and agricultural products. Although Serbia had run a foreign trade surplus since 1888, its overall balance of payments was negative in almost all years until 1903 as a result of rising obligations in respect of repayment of external government debt and negligible foreign capital investments.

Although the Law on Money enacted in 1878 set out the procedure for minting gold coins, it at the same time permitted minting of silver coins to the prejudice of the gold-based monetary system that was to be introduced. The first gold-backed 100-dinar banknotes were issued immediately after the establishment of the National Bank in 1884. However, as these banknotes could not be retained in circulation, silver-backed 10-dinar banknotes were issued in 1885, marking the introduction of bimetallism. This remained the basis of Serbia's monetary system all the way through to the end of the First World War.

Although its price was somewhat lower in international money markets than at home, the dinar was a relatively stable currency during this period. Its exchange rate against the French franc and the Balkan currencies remained unchanged, while its price compared to other currencies declined somewhat: 1 koruna = 1.05 dinars in gold, 1 German mark = 1.234 dinars, 1 pound sterling = 25.252 dinars. In spite of numerous difficulties, such as poor productive capacity of the country, widening budget deficit, rising external debt and internal political disputes, this was a period of relative financial stability. The obligation to convert paper money into gold or silver money was continually met, except in two instances – at the outbreak of the Balkan Wars and the First World War.

2. Minting of Domestic Coins and Introduction of the National Currency

After successful political liberation, Serbia took the first steps towards establishing its own monetary system.

Serbian copper coins from 1868. While still formally under Ottoman rule, Serbia resumed minting of its national currency in 1868 after more than four centuries[3] with the aim of withdrawing foreign copper coins from circulation. All copper Austrian kreuzer coins were replaced in only 15 days.

[3] Before 1868, as many as 43 currencies were in use in Serbia: 10 types of gold, 28 types of silver and 5 types of copper coins. Such large number of foreign currencies and frequent variations in their exchange rates created many problems, in that each business transaction had to contain a special clause on the type of money to be used. Exchange transactions were performed by money changers as of 1812. Except for the first exchange rate list, the exchange rates of foreign copper money in circulation in Serbia until 1868 were not prescribed. It was left to the market to form the exchange rates for foreign copper coins, Austrian in particular, against foreign silver and gold coins.

Serbian silver coins from 1873 and the adoption of rules of the Latin Monetary Union. Minting of Serbian silver coins in conformity with the rules of the Latin Monetary Union was planned even before Serbia was fully liberated. The Law on Minting Silver Coins in 1873 set out the dinar as the national monetary unit which should stand in the ratio of 1:1 with the French franc. The Law also prescribed that the dinar coin should be minted of silver with the fineness of 835/1000 and have the weight of 10, 5 and 2.5 grams, in the denominations of 2, 1 and 0.50 dinars, respectively. The year 1875 was imprinted on the coins as the year of issue. The government held the exclusive right to mint money.

Serbian gold coins from 1878 – towards the introduction of the gold standard. The law on minting of Serbian gold coins was enacted after Serbia proclaimed its independence in 1878. The law prescribed minting of 20- and 10-dinar gold coins, as well as minting of small silver and copper coins, which went to the prejudice of the gold-based monetary system that was to be introduced.

In difference to the Latin Monetary Union, it was planned that the government alone should have the right to mint not only silver and copper, but gold money as well[4]. This brought the government a seniorage of 1.25 million dinars, as the nominal value of money was 14.80 million dinars and minting costs equalled 13.55 million.

The mismatch between the quantity of gold coins in circulation, as the currency base, and money made from other metals, which was to serve as small change only, gave rise to agio on gold and further complicated the exchange rate system. Further, in addition to Serbian coins, there were still a substantial number of Austrian ducats, forints, talers and other foreign coins in circulation. This money would enter Serbia during autumn season, as payment for Serbian exports.

[4] In member countries of the Latin Monetary Union, the right to mint silver and copper coins was reserved for the government only, while the right to mint gold coins was not reserved for the government only, but was also open to private individuals, subject to payment of a special tax.

Table 1: Serbian Money in Circulation before Establishment of the National Bank in 1884 (in Dinars)

1868 and 1869	Pursuant to 1868 Law	in copper	734,737
1875	Pursuant to 1873 Law	in silver	6,000,000
1879 and 1882	Pursuant to 1878 Law	in gold	10,000,000
1880	Pursuant to 1878 Law	in silver	3,600,000
1880	Pursuant to 1878 Law	in copper	1,200,000
1883 and 1884	Pursuant to 1883 Law	in nickel	3,200,000
		Total:	**24,734,737**

Source: NBS Archive.

Such currency situation urgently called for establishment of an issuing bank that would resolve issues relating to currency and "upgrade trade and economic activity by means of inexpensive credits"[5]. Based on available quantities of gold, the National Bank of Serbia would issue paper banknotes with metal backing. A proportionate increase in the quantity of paper banknotes compared to the value of metal backing would increase domestic capital two to three times, thereby making it profitable for the National Bank of Serbia to extend loans at lower interest rates and, in the process, topple the cost of borrowing in the country.

3. Issuing of Banknotes

The main feature of money issue by the National Bank of Serbia before the First World War was bimetallism – parallel circulation of banknotes redeemable in either gold or silver. The bank issued banknotes against both gold and silver backing, but the amount of gold-backed banknotes in circulation was negligible compared to the silver-backed ones which grew from year to year. Immediately after being put into circulation, the silver-backed banknotes became the main and the most frequently used instrument of payment, so when we talk about banknotes in circulation, we are referring mainly to the silver-backed ones.

[5] Due to difficulties relating to credit availability, the quantity of metal coins in circulation could not fully meet the demand. Credits were hard to get, and the lending rate charged by money bureaus in Belgrade was between 11 and 12% p.a., and much higher in provincial Serbia. The majority of households were unable to borrow from money bureaus, and usurers at times charged interest of as much as 50%.

100-dinar gold-backed banknote from 1884. The National Bank was founded in 1884 and was authorized to issue the first 100-dinar gold-backed banknotes, and later also 50, 500 and 1,000-dinar gold-backed banknotes[6].

The Law read as follows: "All banknotes placed into circulation shall have backing in gold and other securities, both trade-related and financial, that can easily and safely be converted into gold. … The bank shall never place more banknotes into circulation than 2.5 times the amount of gold it holds in its vaults. Not more than one quarter of gold can be replaced with silver"[7].

At the same time, the first interest rate at which the Bank was to discount bills was set at 5.5%, while the rate on deposits was set at 6.5%.

However, the banknote was not overly well received and did not remain in circulation for long, but was, rather, immediately converted into gold. Such non-acceptance was due to the fact that banknotes had been practically nonexistent in the national trade until then, that their denomination was too high and that there was agio on gold.

50-dinar gold-backed banknote from 1885. As the denomination of the 100-dinar banknote was too high, it was expected that the 50-dinar banknote would manage to remain in circulation. However, this banknote, placed into circulation in February 1885, was not received any better. It frequently happened that these two banknotes were exchanged for coins even before leaving the bank.

Abandoning the gold standard regime. When it became apparent that neither of the two banknotes managed to remain in circulation, not even in Belgrade, the National Bank requested permission from the minister of finance to print 10-dinar gold-backed banknotes. This met with more opposition than was expected, because the government had intended to issue the same denomination banknote in its own name. It is for this reason that the minister of finance opposed decisively the Bank's intention to issue gold-backed 10-dinar banknotes.

For almost a year, the Bank operated but without making much headway. Its income was barely sufficient to cover its costs, while projections for 1885 envisaged a balance of payments deficit. All issued banknotes were immediately exchanged for metal and returned to the Bank. It was clear that nothing could be done without a 10-dinar banknote but it was equally clear that the Government would not allow the issuing of smaller gold-backed banknotes. In view of this, the Bank accepted to issue a silver-backed 10-dinar banknote rather than to remain without a 10-dinar banknote altogether. This marked the beginning of bimetallism that continued to be the basis of Serbia's monetary system all the way through to the end of the First World War.

[6] On the eve of the First Serbian-Turkish War, the state coffers were empty and there was an initiative to issue national paper money. In January 1876 a decision was even enacted to issue paper money. This money was printed in July 1876, but was never placed into circulation.

[7] Law on the National Bank, 1883.

Silver-backed 10-dinar banknote from 1885. The 1885 Law introduced a silver-backed 10-dinar banknote, prescribing that "the National Bank shall exchange each of its 10-dinar banknotes against silver, and its 50, 100, 500 and 1,000-dinar banknotes against gold, at full nominal value without any deductions, as soon as the banknote is presented for redemption at its main cash vault. The bank shall never place more banknotes into circulation than 2.5 times the amount of gold it holds in its vaults. Not more than one quarter of gold can be replaced with silver"[8].

As the circulation of the silver-backed 10-dinar banknote kept rising, this banknote came to account for an average of 95% of the money supply in the subsequent years. The silver-backed banknote was only very rarely exchanged for silver and usually when small cash was in short supply. This gave it a notable advantage over gold-backed banknotes. The share of gold-backed banknotes in total circulation throughout the pre-war period stood at around 5%, although the government tried to promote their use in different ways.

A rise in circulation of silver-backed banknotes boosted all other operations of the National Bank: lending to the economic sector and government, interventions in the gold market and strengthening of the metal base. The quantity of silver-backed banknotes in circulation rose by approximately 4 million annually. The rate of circulation was highest in autumn, at the peak of the agricultural season.

Therefore, demand for currency in the national system was mainly satisfied with the silver-backed banknote and silver coins (for small change only), while gold coins, of which only a small quantity was in circulation, were used in international payments.

However, demand for currency kept growing, driven not only by activities in trade and crafts, but also by the government which needed to finance the budget deficit. Despite the fact that the entire amount of silver coins that was in circulation at the time could not even remotely satisfy the demand for liquid assets, the activities of the National Bank and the large quantity of silver-backed banknotes in circulation were frequent targets of criticism.

Namely, in early 1890s, there was a rise in agio on gold, following a surge in circulation of silver-backed banknotes. The two phenomena became linked in the minds of the general public, although agio increased not because of a rise in circulation but as a consequence of a downfall in agricultural output during a number of years, disordered public finances, substantial foreign borrowing and an unfavourable political situation.

The emergence of agio gave rise to a wave of debates on how to proceed. Among other things, it was proposed that a *gold-backed 20-dinar banknote* be introduced, as an efficient way to suppress agio. Although the National Bank was allowed to issue this banknote in 1896, it was not issued until 1907 as the Bank believed that the failure of the gold-backed banknote was not due to its high

[8] Law on the National Bank, 1885.

denomination only. When the gold-backed 20-dinar banknote was issued, it became evident that it could not be maintained in circulation long enough. It entered into circulation only once the limit on the quantity of silver-backed banknotes used in export-related activities was reached. There was no agio at that time, and the gold-backed banknote circulated along the silver-backed one. Its circulation during the exports season would thus reach close to 12 million dinars, but as the exports season neared its end, the quantity of gold-backed banknotes in circulation would dwindle. The belief that 20-dinar gold-backed banknote would contribute to suppressing agio turned out to be ill-founded, as it proved impossible to maintain any significant quantity of these banknotes in circulation.

4. Agio

Due to Serbia's poor production capacities and increasingly widening budget deficit and government foreign debt, gold reserves could no longer sustain the convertibility of domestic currency in gold at fixed parity. Currency exchange was performed against an additional payment of agio. As a difference between domestic money (silver-backed 10-dinar banknotes) and gold which was used for the settlement of international obligations, agio was actually an indicator of depreciation of the dinar against gold.

Gold came into the country as payment for its exports. However, as industrial production was underdeveloped, nearly all industrial products had to be obtained from abroad, which is why gold never remained for long in the country. Serbia traded the most with Austro-Hungarian Monarchy, and through it, with other European countries[9]. Foreign trade deficit registered in early 1880s was mainly attributable to a huge deficit arising from trade with this country[10]. Such a situation persisted until 1888 due to the fact that imports from the Dual Monarchy grew at a faster pace than Serbian exports into it. After that, Serbia began to receive an inflow of gold arising from trade. Note should also be taken of a significant inflow arising from the transit of foreign goods through Serbia, which picked up in the second half of 1880s when the new railway system was built. However, ever lager repayments of the government external debt resulted in the balance of payments deficit and outflow of gold which reflected on agio.

[9] By the Trade Agreement from 1881, the Austro-Hungarian Monarchy protected its imports of Serbian agricultural products from foreign competition, and at the same time its exports of industrial products in the Serbian market. Formally, these were cross-border trade benefits. For instance, customs duty on oxen from Serbia was 4 forints, whereas on oxen from Germany, it was 12.75 forints.

[10] The trade deficit also stemmed from a precipitous drop in exports to Bosnia (which fell under the economic sway of Austro-Hungarian Monarchy after signing a secret convention), and later on from a drop in exports to Turkey and Bulgaria.

The level of agio varied in the course of the year – during the export season gold was brought into country, its supply was larger and agio in consequence declined. As exports weakened, gold became more and more expensive, and agio rose.

Following the establishment of the National Bank and release of silver-backed banknotes, agio began increasing. It came close to 4 dinars per napoleon d'or. Adverse economic conditions, weak exports of cattle and agricultural products, on the one hand, and robust imports of industrial products and problematic financing of mounting budget deficit, on the other, induced an increase in agio.

During the 1880s, agio equaled 3–4%, which was somewhat lower than in the preceding period[11]. It peaked between 1893 and 1903 when the silver-backed 10-dinar banknote dominated circulation. In 1894, agio hit record high of 18%. As the issuing institution, the National Bank of Serbia was responsible for the circulation and stability of national money, and a large number of its critics held it responsible for the agio hike.

Interest rates of the National Bank. The use of interest rate by the National Bank of Serbia for stepping up the mechanism of adjustment to changes in the balance of payments was not efficient. Upward revision of interest rate on loans redeemable in gold did not reduce downward pressures on gold reserves, since interest rates of the National Bank were by around 5% lower than the market interest rates.

During application of the gold standard regime, the central bank practice very often clashed with theory[12]. Discount rates were not always revised in the appropriate direction or to a sufficient degree. Instead, central banks resorted to interest rate smoothing. This is confirmed by the fact that changes in lending were often negatively correlated with changes in gold reserves[13].

Data on the National Bank's interest rate movements attest to stability. Namely, from the founding of the National Bank until the end of the First World War, changes in interest rates on all loans extended by the Bank ranged from 2% to 3% p.p. Such interest rate policy was in line with the National Bank's strategic goals: to supply the economy with money and to lower the market interest rate.

The first discount rate of the National Bank was 5.5% and interest rate on Lombard loans 6.5%. After less than six months, both rates were raised by 1.5 percentage points with a view to preserving metal backing. Shortly thereafter, metal backing strengthened and interest rates declined to 6%. In the course of the

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[11] During 1860s and 1870s, agio reached 6% and 5%, respectively.

[12] In theory, if a country faces a balance of payments deficit and hence, outflow of gold, gold reserves of the central bank tend to plummet. In such cases, the central bank is likely to raise the discount rate so as to reduce the volume of lending. Due to this, money supply dwindles and the level of prices drops. The adjustment process would be supported by higher shorter-term interest rates that would attract capital from abroad.

[13] Goodfriend, Marvin (1988).

next seven years, discount rate ranged from 5.5% to 6.5%, while the Lombard rate moved between 5% and 8.5%. After this period, in 1893, discount rate was set at the level of 6% and remained unchanged for 38 years, while the Lombard rate experienced minor fluctuations and hovered between 7% and 8.5%.

A more drastic measure – total discontinuation of gold-backed lending – was implemented only in 1908, during the Annexation crisis, when Serbia witnessed major outflow of gold prompted by fears of the outbreak of war.

Direct interventions of the National Bank through sale of gold. The National Bank could not eliminate agio by trading in gold, but could ease its fluctuations. The Bank purchased gold during the autumn season when there was enough of it in circulation, and sold gold usually in March when it was scarce and when the agio went up.

Direct interventions of the National Bank through sale of gold got into the limelight in the the early 1890s when they provoked heavy criticism by the government and the public. Namely, in 1890, agio began edging up and the National Bank decided to sell 10,000 napoleons d'or to traders at an exchange rate lower than the market rate – with an agio of 0.48 dinars. As agio did not decline but rose instead, the National Bank intervened by selling additional 5,000 napoleondors with a 0.95 dinar agio. Nearly 50,000 napoleons d'or were sold to the government in the same year and that is how the Bank managed to contain agio in 1891 below 1 dinar.

Nevertheless, in early 1892 agio started spiraling higher. As early as in April, exchange rate of napoleon d'or stood at 212.90 dinars. The Bank decided to sell 20,000 napoleons d'or at a price lower by 0.10 dinars than the market price. The aim was to resume the sale at a price lower than the market rate by 0.05 dinars once the prices declined.

In autumn that year, agio plummeted to 0.80 dinars, but shortly thereafter started edging up only to reach 3.00 dinars on the back of smaller inflow of gold occasioned by weaker export performance. Met by sharp criticism and accusations that it creates agio, by the end of October, the Bank had to discontinue its activities aimed at suppressing agio. The government decided to take control and resolve the problem of agio by limiting the amount of silver-backed 10-dinar banknotes in circulation.

Limited circulation of silver-backed banknotes. Since agio was additionally paid for gold purchased by silver-backed banknotes, large amount of silver-backed banknotes in circulation was thought to have been the main reason behind agio. Consequently, the bank was asked to reduce the amount of silver-backed banknotes in circulation and to increase the amount of gold-backed ones.

The Bank opposed such request in vain explaining that the conditions for sustainability of gold-backed banknotes in circulation were not yet met. The Bank argued that gold-backed banknotes would be repeatedly exchanged for gold, which would eventually result in stripping off the Bank of its gold-backing. The Bank stressed that "agio was not as much affected by the silver-backed banknotes, as by the negative international balance and bad public finance; it would take an improvement of the overall economic environment for the agio to disappear and the currency to stabilize"[14]. Analysis of movements in agio and total value of silver-backed banknotes in circulation shows that agio was at its lowest when circulating banknotes were at their highest, and vice versa.

In the debate on limiting the circulation of silver-backed banknotes, the Bank and the government differed in their interpretation of legal provisions pertaining to metallic backing of the monetary issue. Namely, the Bank's understanding of these legal provisions allowed for the use of gold for backing silver banknotes, which led to a situation where metallic backing and monetary circulation were in a completely inverse proportion: gold prevailed in the structure of backing, while silver banknotes accounted for around 95% of circulating banknotes.

The government was, by contrast, of the opinion that gold backing could represent a base only for the issue of banknotes redeemable in gold, and that the issue of banknotes redeemable in silver depended exclusively on silver backing. This meant that 20 million dinars in silver-backed 10-dinar banknotes were in excess of the permitted level. At the time, in 1893, around 30 million dinars were in circulation in the form of silver-backed 10-dinar banknotes, and the silver backing amounted to 4 million dinars, implying that only 10 million dinars could have been issued in silver-backed banknotes. The government insisted that the withdrawal of silver-backed banknotes be performed in the course of five years which called for a 20% cut in the volume of lending p.a.

Deflationary policy implemented at the time took its toll on the lending by monetary bureaus and the economy practically came to a standstill. The agio hit its peak of 18% in 1894 in the face of the ongoing sales of gold.

The government came to realize its mistake and resumed its earlier practice in 1896 according to which the metal backing for banknotes redeemable in silver could be in silver or gold, or both metals. At the same time, however, the maximum amount of banknotes redeemable in silver was set at 25 million dinars, irrespective of the level of backing. Limiting the overall circulation of banknotes redeemable in silver proved to be a bad decision, and its consequences manifested the following year when the extension of credit for autumn farming activities was halted at the height of the season. For this reason, the limit was raised to 30 million dinars in 1898, and remained unchanged until 1908, when a Law was issued to extend the National Bank's privilege for another 25 years and to make the quantity of total circulating banknotes redeemable in silver dependent upon total amount of paid-in capital in proportion 1 to 5. That year, the National Bank's paid-in capital equaled 7.5 million dinars in gold, implying that the amount of circulating

[14] Monograph of the Privileged National Bank of the Kingdom of Serbia 1884–1909, pp. 155–161.

banknotes redeemable in silver could have reached 37.5 million dinars, or ultimately, 41.25 million dinars if an additional 10% increase was approved by the government, which was possible in extraordinary or emergency circumstances. As the same Law envisaged that the whole capital in the amount of 10 million dinars had to be paid in until 1913, circulating banknotes redeemable in silver could have reached 50, that is, 55 million dinars that year.

Extension of the privilege to the National Bank in 1908 proved to be of paramount significance since reserves of the monetary bureaus were depleted and the discount terminated amid the Annexation Crisis and fears of the outbreak of war. Increase in the issue of silver-backed money in 1908 had immediate positive effects and helped Serbia to overcome the crisis.

In vindication of its position, the National Bank repeatedly insisted on debating which type of backing was better for the issuing of banknotes, instead of offering an explanation for the amount of banknotes in circulation in excess of the amount needed[15]. Owing to its predominantly agrarian character, economic activity in Serbia picked up in the second half of the year. It was the time when attempts were made to strike balance between the requisite and actual amount of currency in circulation, and agio declined. As opposed to this, in the first half of the year, economic activity slowed down, and as money supply was not reduced, banknotes redeemable in silver squeezed out banknotes redeemable in gold and agio went up.

Attempts to curtail agio by limiting the amount of silver-backed banknotes induced not only a slowdown in economic activity, but also a disagio of 0.5% in the course of 1905. Disagio, i.e. additional charge on gold had to be paid from time to time all the way until 1908. Such a phenomenon has never been registered ever since the introduction of gold-backed currency in international payments!

6. The Rationale behind Growth in Agio

The National Bank refused to take the blame for bolstering agio and strongly opposed limiting of the amount of silver-backed banknotes in circulation arguing that agio reached its peak at a time when restrictions on monetary circulation were at their height. The National Bank kept underlining that the main reasons behind the growth in agio in this period were:

1. government borrowing abroad, i.e. external debt repayment;
2. government borrowing from the National Bank, as well as
3. unstable political circumstances.

The state of public finances was largely shaped by agio movements. Budget expenditures outstripped the revenues and the government was forced to look for additional funds so as cover the deficit either by borrowing abroad or by finding sources of finance in the country, primarily by borrowing from the National Bank.

[15] Dugalic, Veroljub et al. (2004), p. 38.

This had a negative effect on the level of gold reserves and indirectly, on the stability of the domestic currency. Once the public finances were put in order, the agio fell back.

Government borrowing broad. After borrowing relatively small amounts abroad during the 1860s and 1870s for the purpose of financing war for the national liberation from the Turks[16], the first somewhat larger foreign loan that Serbia took in 1881 was intended for construction of the railroad network. A 10 million French franc loan (with the issue rate of 74.5%) was taken from the Union Generale, Paris. Repayment term was 50 years, and annual annuities equaled 5.4 million dinars redeemable in gold.

Another loan agreement was concluded with the Union Generale in the same year – the so-called Lottery Loan (or Bontu Loan). The loan was intended for the regulation of government finance, but the overall effect of cooperation with the French joint stock company after its bankruptcy was calamitous for Serbia

After the Railroad and Lottery Loans, government finances deteriorated: old loans were not repaid, and the new ones, for their major part, were not disbursed in full. This continued to negatively affect the terms under which Serbia borrowed abroad for some time after the downfall of the Union Generale.

External debt servicing was a significant burden on a country of the Serbian overall economic capacities at the time. Purchase of gold for the repayment of external debt raised its price and agio went up. In the period from 1880 to 1887, budget revenue and expenditure stood at 202.1 million dinars and 302.5 million dinars, respectively. Government permanent debt to creditors equaled 254.1 million dinars, whereas temporary debt stood at 32.1 million dinars[17].

By the end of the 1880s, it became clear that government finance could be put in order only by finding new sources of income that could cover growing government expenditure and the piled up temporary debt. Tax reform of 1884 failed to produce the expected results. The structure of budget expenditure was such that its reduction could not be counted on. Debt repayment and expenses of the Ministry of Military Affairs accounted for two thirds of government expenditures. As more significant sources of government revenues were pledged as

[16] Serbia addressed foreign creditors for the first time in 1862. Against a guarantee issued by Russia, Serbia was granted a loan worth 150,000 ducats in London, at 6% interest rate and 2% in respect of repayment. After early repayment of that loan, two more were taken: one in London and the other one in Russia. When it gained independence at the Berlin Congress in 1878, Serbia's external and internal debt stood at 39.5 million dinars and 24.7 million dinars, respectively.

[17] During the 1880s, budget deficit was financed by the so-called temporary, i.e. short-term loans. Obligations under these loans were recorded within a separate, extraordinary budget, and there were no sources of revenue for their coverage. As all other expenditures posted in the so-called regular budget, this short-term government debt had to be settled immediately.

guarantee under external loans, the pledge first had to be repurchased from foreigners (repurchase of monopoly on tobacco, railroad exploitation, and salt).

Owing to the repurchase of monopoly on salt, tobacco and railroad exploitation, government revenues considerably picked up in the early 1890s. Apart from this, in 1895 the government signed an agreement on debt conversion with representatives of the three creditor banks: Ottoman Bank from Paris, Berlin Trade Company and Lenderbank from Vienna. At the time, Serbia paid annually 20.8 million dinars redeemable in gold for the purpose of servicing 15 external loans concluded between 1876 and 1894; total remaining debt equaled 370 million dinars. Debt conversion, which enabled the lowering of interest rate and extension of repayment term, significantly facilitated the servicing of government debt at annual level. On the one hand, annual annuities declined by 4.9 million dinars, and on the other, total amount of debt rose by 44.7 million dinars.

The Serbian government revenues gradually picked up by the end of the 19th century. This is mainly attributable to a more timely tax collection and state monopolies, and the revenue increased on account of both the rise in the prices of salt and tobacco and the introduction of new monopolies. Nevertheless, increased government revenue was not sufficient to cover expenditures, which made a radical turnabout in the management of public finance inevitable.

*Turnabout in the public finance management in 1902***.** A radical turnabout in the management of public finance took place in 1902, when, on the insistence of Dr Laza Pacu, the Law on Budget was adopted. Pursuant to this Law it was not permitted to post any unrealistic items on the revenue side. A budget deficit was recorded again in the following year, but after that the budget was either in balance or in surplus. Serbia received an inflow of gold which was retained in the country owing to the 60 million dinar external loan (Monopoly Loan, 1902), used almost in full for the settlement of government domestic debt, as well as owing to a number of bumper years, favorable prices of exported products and the fact that the government did not have to set aside any substantial amounts for procurement from abroad. Agio was cut down to below 1 dinar and after 1903 never came close to its earlier levels.

During the years from 1906 to 1910, with no exception at all, Serbia recorded a budget surplus. Agio almost disappeared and the stability of prices was restored. Economic growth continued into 1911, which saw a surplus on the foreign trade balance and an unprecedented budget surplus of 14.7 million dinars. Similar results were achieved in the following year. However, economic growth was halted by the onset of the Balkan War. Due to large-value procurements of military equipment, agio went up and began fluctuating.

As domestic resources did not suffice, in September 1913, the Serbian government entered with a consortium of French banks into a loan agreement in the amount of 250 million dinars redeemable in gold, at a 5% interest rate and with a 50-year repayment term. The loan was disbursed in 1914 and helped to keep a balanced budget even in the year the First World War broke out.

Government borrowing from the National Bank. Government borrowing from the National Bank before the First World War can be divided into two distinct periods:

1. from the establishment of the Bank until 1903, and
2. from 1904 through to the outbreak of the war.

Borrowing until 1903. Since the budget constantly ran a deficit for 25 years (1878–1903), the government frequently resorted to borrowing from the National Bank. Government borrowing was conditional upon circulation of silver-backed banknotes. In 1884, government debt accounted for 38.9% of the money in circulation, only to reach 50.9% two years later. In the subsequent period, the share of government debt in the money in circulation declined somewhat, owing to accelerated increase in the quantity of issued banknotes.

The quantity of silver-backed banknotes in circulation rose from 40,240 dinars in 1885 to 26.96 million dinars in 1892. Agio on gold increased as well, and the National Bank was accused that its interventions in the gold market were the main contributor to this rise. In 1896 it was resolved to limit the quantity of silver-backed banknotes in circulation, but this seriously affected economic flows. As a consequence, in 1898 the government was allowed to borrow from the National Bank 10 million dinars above the limit set for the quantity of money in circulation. Government debt with the National Bank already accounted for a significant share of the quantity of money in circulation, and in 1898 it doubled on a year earlier to 15.9 million dinars, almost threefold the amount of borrowing by all money bureaus from the issuing bank.

In 1890, the government was extended another loan of 2 million dinars, subject to same terms as those approved in the case of the earlier 10-million dinar loan. This loan also exceeded the limit on the quantity of money in circulation and was extended against provision of metal backing.

> It is important to note that the National Bank did not only lend to the government but also extended credits to municipalities, counties and regions, for financing utility works.

Definition of relations between the National Bank and the government in 1904. The 1904 law established a range of principles to be applied in the National Bank's relation with the government. From this time through to the start of the First World War, government borrowing from the National Bank was temporary and short-term in character. The law set up the principle of full observance of contractual relations with the Bank. This enabled the National Bank to be more successful in implementing measures aimed at stabilization of the dinar and the agio was soon suppressed.

The operations of the National Bank in this period had a decisive effect on striking a fiscal balance. Lending to government became temporary and short-term in character, as can be seen from data on government obligations in respect of the disbursed 10-million dinar credit: in 1904 the government owed 4.1 million dinars in this respect, in 1905 its debt was 3.4 million dinars, while in the subsequent two years, 1906 and 1907, it ran no debt with the central bank at all.

In 1908, the National Bank granted another borrowing option to the government – the right to use temporary, quarterly advances in respect of extraordinary coupons in the amount of 10 million dinars, but the government did not resort to this form of borrowing until the outbreak of the Balkan War in 1913. Moreover, the so-called temporary exchange was introduced as another special form of lending to the government. In this way, the government could exchange gold in the National Bank in return for a corresponding amount of silver-backed banknotes, subject to no restrictions, and, vice versa – it could obtain gold in return for silver-backed banknotes, without any deductions whatsoever. Issuance of banknotes in respect of temporary exchange was exempted from the 40% backing requirement. This allowed the government to exchange gold for silver-backed banknotes without sustaining loss on account of agio and, at the same time, helped balance the supply of gold in the market and strengthen the metal base for banknote issuance. This solution, as it later turned out, enabled a simple and efficient financing of budget expenses in times of emergency.

Strong economic upswing in the 1909–1911 period led to full stabilization of economic circumstances and state finances. Not even the first Balkan War of 1912 managed to disrupt this upward trend. During 1911, agio ranged between the negligible 0.05 and 0.15 dinars per napoleon d'or and disappeared altogether in January and February of the subsequent year. After the army was mobilized, agio rose to 0.85 dinars per napoleon d'or and leveled off at 0.75 dinars in late 1912.

This economic expansion ended in 1913, in the aftermath of the war and low yields in agricultural production. As fiscal revenue declined, the government increased its borrowing from the National Bank.

On the eve of the First World War, government debt with the National Bank equaled around 10 million dinars. Temporary exchange account stood at 47.8 million, while government claims in silver amounted to 25.3 million. Pre-war net government obligations amounted to 32.5 million. During the war they rose substantially, as large fiscal expenditures during World War I were partly financed from the National Bank asset holdings.

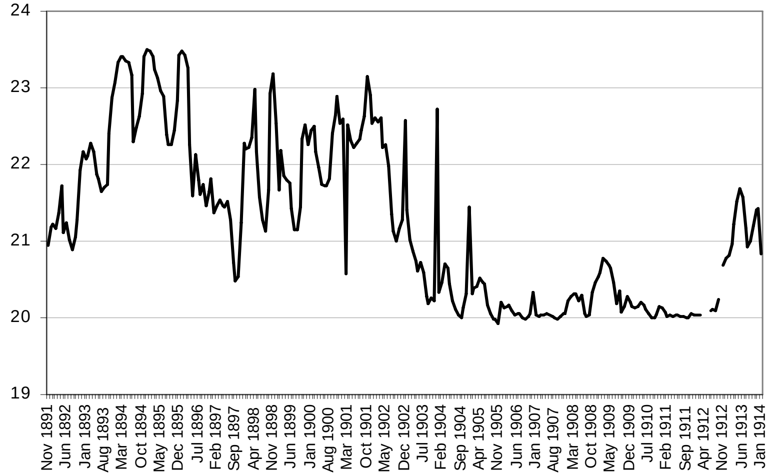
* * *

"...Economic science and practice have both proven that currency issues are the result of economic and fiscal circumstances particular to a specific country and that they get resolved on their own, not as a result of implementation of any laws

but as a result of the increase in economic welfare. If a country has small foreign debt, if it runs a positive external account balance and its state finances are in good shape, currency issues are easily resolved. However, if the state budget is constantly in deficit and more is owed than received, the currency gets disrupted and impossible to regulate, and then no laws will be of any avail. If we centre all our efforts on eliminating the factors causing and sustaining currency disruption, then the currency itself will reach its equilibrium level"[18].

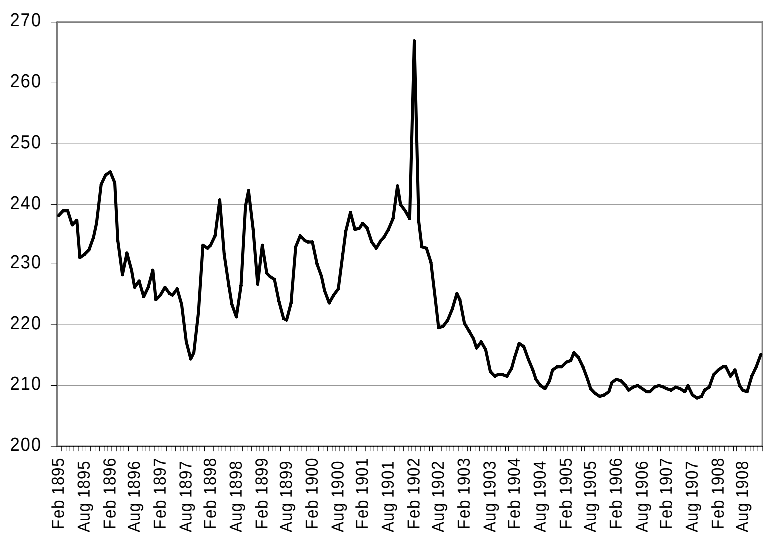
[18] Monograph of the Privileged National Bank of the Kingdom of Serbia 1884–1908, p. 100.

Chart 1: Exchange Rate for 20-Dinar Gold Coins (Nov. 1891–Jan. 1914)



Source: Calculated based on daily data published in "Serbian Newspapers" – for the period before 1899 and after 1908; Statistical Yearbook of the Kingdom of Serbia (1913) – for the period 1899–1908.

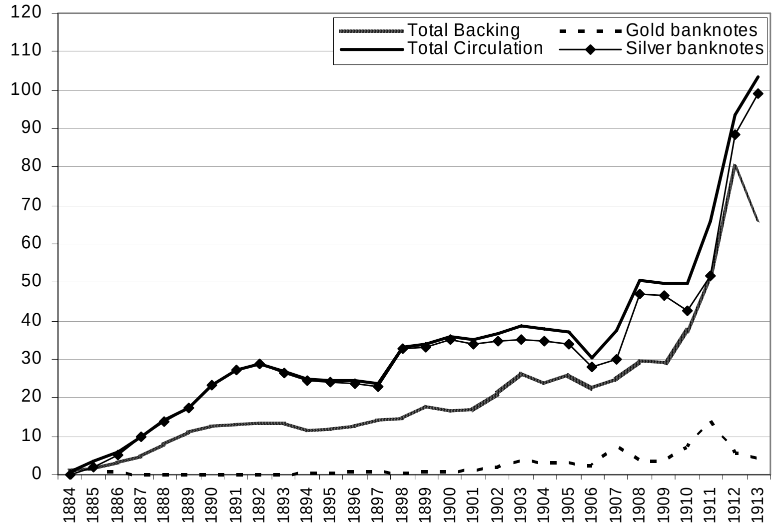
Chart 2: 100 Austrian Forints in Dinars, Feb. 1895–Dec. 1908



Source: Based on daily data published in "Serbian Newspapers" – for the period before 1899; Statistical Yearbook of the Kingdom of Serbia (1913) – for the period after 1899.

Chart 3: Backing and Circulation (1884–1913)

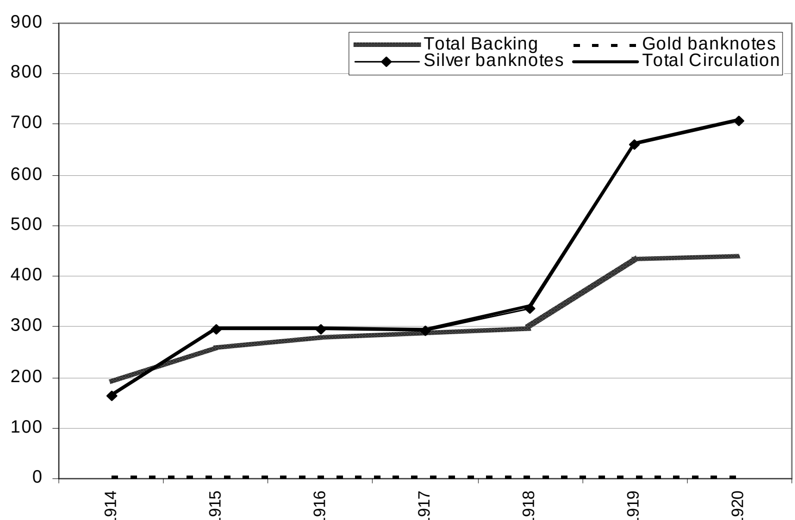
in million dinars



Source: NBS Archive.

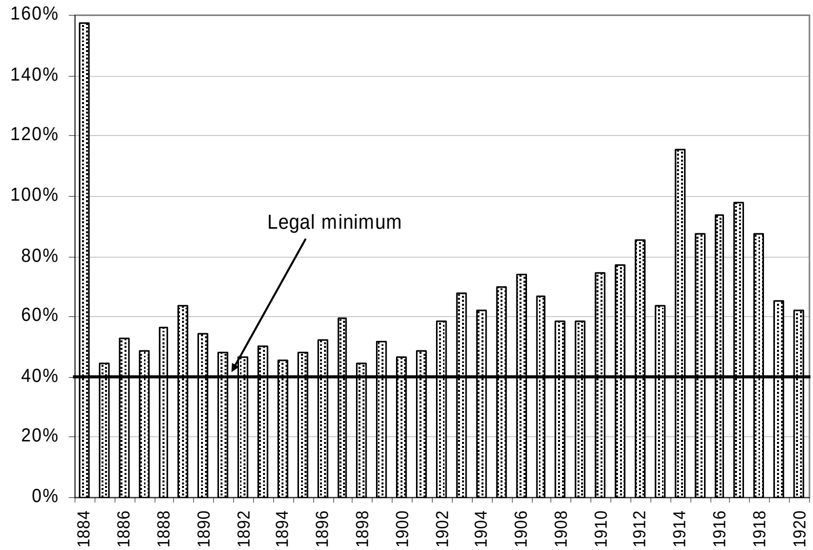
Chart 4: Backing and Circulation (1914–1920)

in million dinars



Source: NBS Archive.

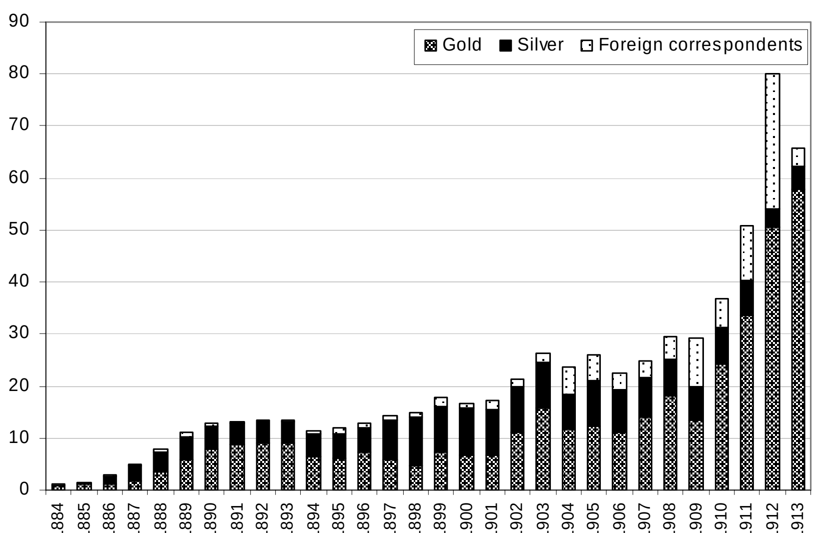
Chart 5: Percentage of Gold and Silver Backing for Banknotes, 1884–1920



Source: NBS Archive.

Chart 6: Banknote Backing, 1884–1913

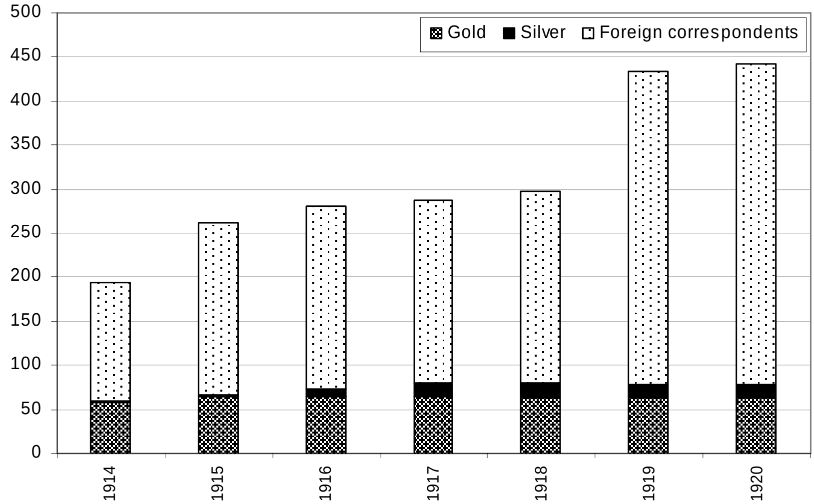
in million dinars



Source: NBS Archive.

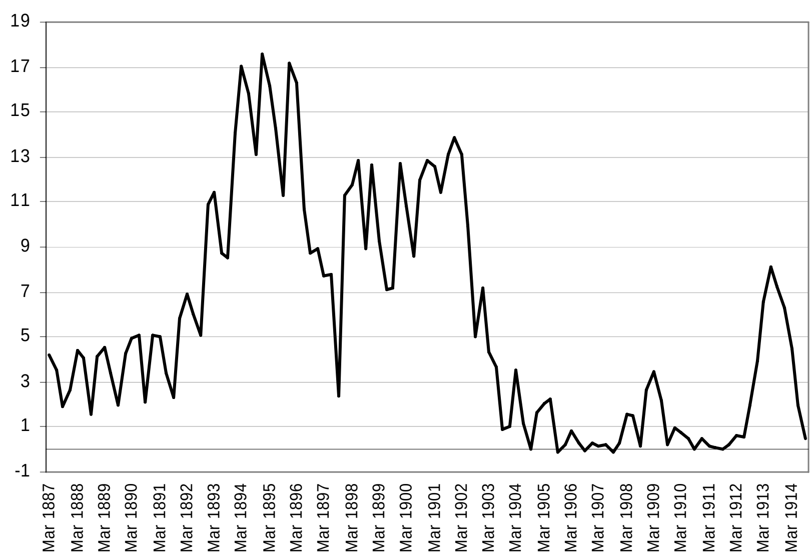
Chart 7: Banknote Backing, 1914–1920

in million dinars



Source: NBS Archive.

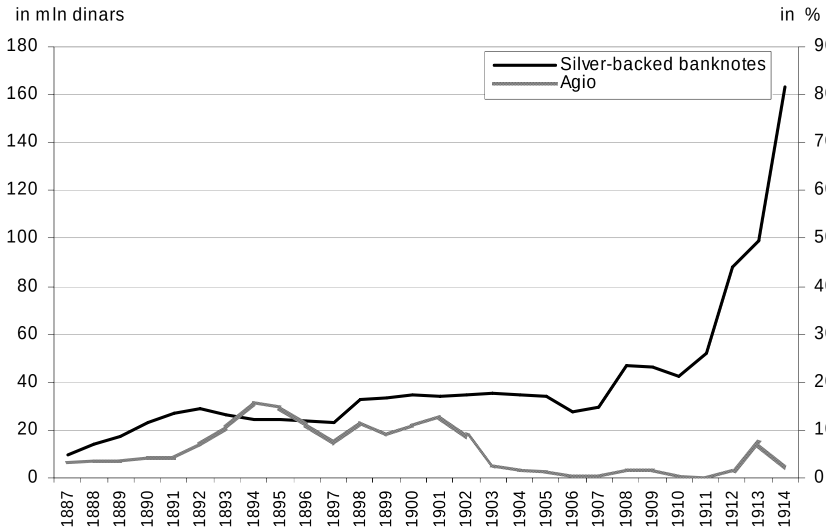
Chart 8: Agio Movements, in %, 1887–1914



Note: Based on napoleon d'or movements.

Source: NBS Archive.

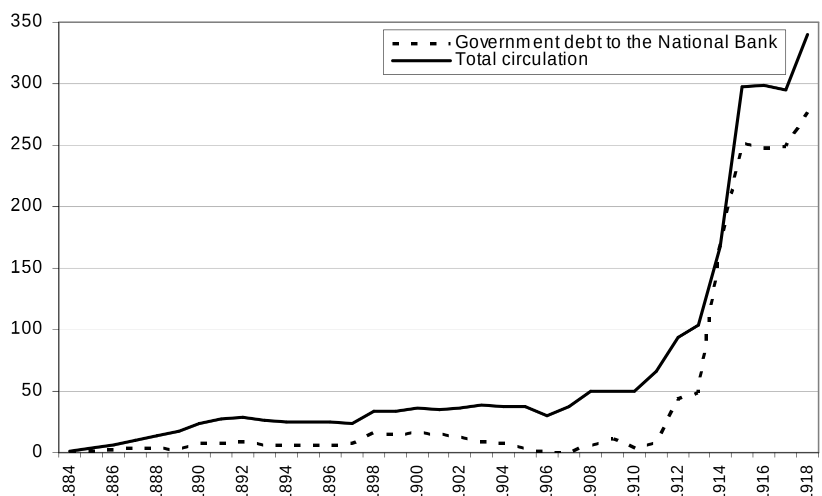
Chart 9: Circulation of Silver-Backed Banknotes and Average Agio, 1887–1914



Source: NBS Archive.

Chart 10: Government Debt to the Privileged National Bank of the Kingdom of Serbia and Total Circulation

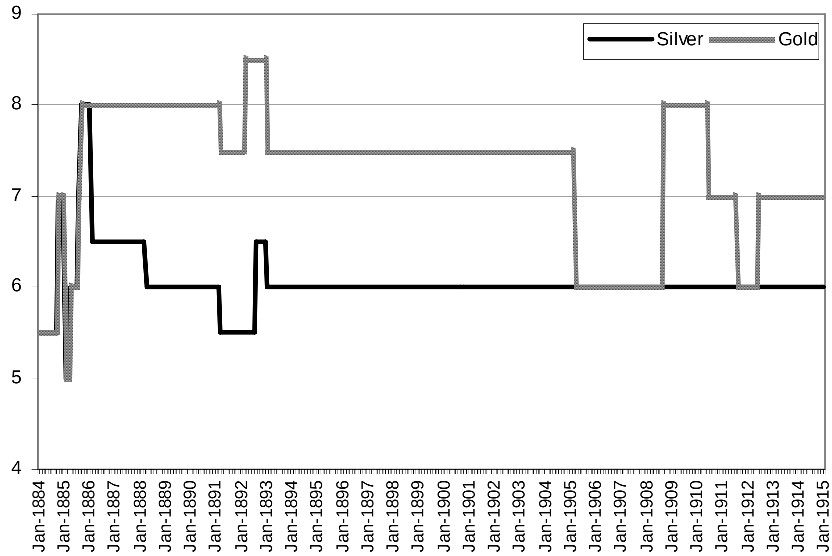
in million dinars (1884–1918)



Source: NBS Archive.

Chart 11: Discount Rate, Annual Level, 1884–1915

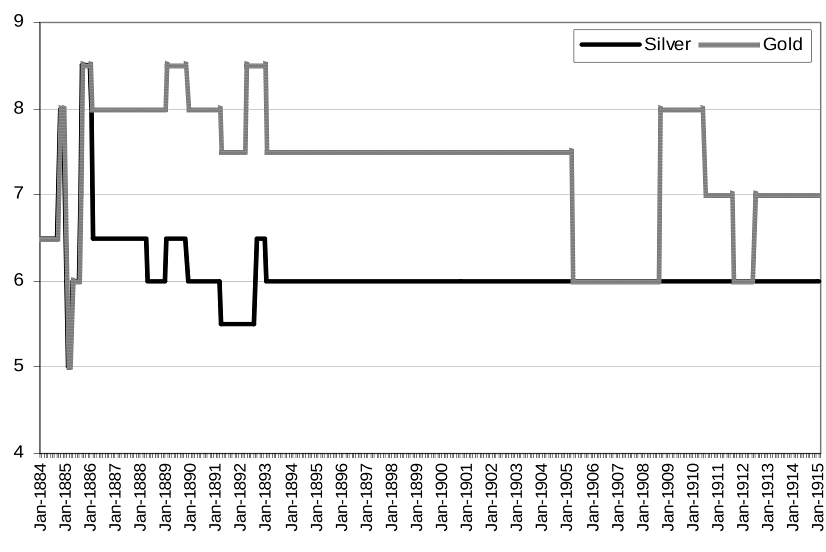
in %



Source: NBS Archive.

Chart 12: Lombard Rate, Annual Level, 1884–1915

in %



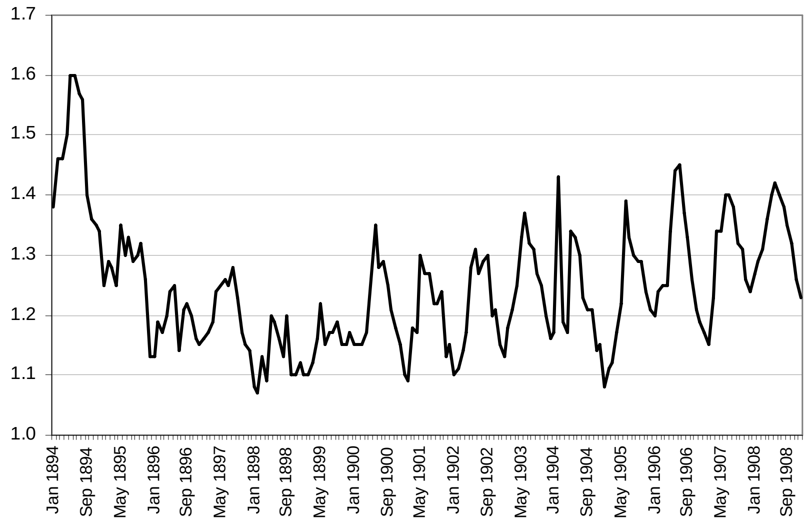
Source: NBS Archive.

Table 2: Prices of the Main Foodstuffs, in Dinars, 1869–1908

Year	100 kilos						1 litre			1 kilo				
	Wheat	Corn	Rye	Beans	Wheat flour	Corn flour	Wine	Plum brandy	Grape brandy	Bread	Beef	Mutton	Pork	Grease
1869	11.25	7.05	6.23	13.77	13.63	8.05	0.19	0.25	0.31	0.16	0.45	0.41	0.52	1.12
1870	12.81	9.26	7.29	14.05	16.01	10.55	0.22	0.31	0.37	0.18	0.48	0.45	0.52	1.09
1871	16.53	12.77	9.16	16.91	20.30	14.79	0.20	0.26	0.34	0.22	0.46	0.41	0.52	1.17
1872	22.15	15.86	11.91	21.48	25.87	18.53	0.23	0.26	0.35	0.27	0.47	0.43	0.59	1.50
1873	21.65	15.19	11.66	24.94	25.56	17.54	0.33	0.29	0.40	0.27	0.50	0.47	0.66	1.57
1874	17.30	14.84	11.59	25.50	20.84	16.09	0.24	0.34	0.42	0.23	0.50	0.48	0.66	1.64
1875	13.88	10.69	10.26	25.41	16.70	12.18	0.27	0.37	0.47	0.19	0.50	0.48	0.67	1.43
1876	15.32	9.45	9.98	16.54	18.63	11.18	0.21	0.22	0.35	0.21	0.48	0.46	0.60	1.39
1877	18.52	12.52	11.90	19.99	21.87	14.42	0.31	0.32	0.43	0.24	0.48	0.47	0.62	1.39
1878	17.59	12.95	12.13	21.13	20.39	14.70	0.33	0.25	0.48	0.23	0.46	0.43	0.59	1.39
1879	16.72	11.98	11.68	20.65	19.85	13.72	0.20	0.24	0.37	0.21	0.50	0.45	0.52	1.11
1880	19.53	16.27	15.11	26.36	22.95	18.42	0.18	0.25	0.33	0.24	0.49	0.45	0.60	1.34
1881	17.73	11.17	12.37	24.52	20.66	13.09	0.22	0.30	0.41	0.23	0.51	0.47	0.59	1.18
1882	15.95	12.29	11.31	27.26	18.87	14.11	0.23	0.34	0.48	0.22	0.60	0.52	0.69	1.41
1883	13.59	9.53	9.02	17.34	15.80	10.84	0.23	0.36	0.52	0.18	0.63	0.56	0.70	1.25
1884	14.76	11.18	10.14	20.02	18.54	13.08	0.28	0.34	0.57	0.23	0.78	0.70	0.86	1.44
1885	12.88	9.63	9.30	13.29	16.51	11.67	0.25	0.28	0.49	0.19	0.62	0.54	0.65	1.09
1886	15.20	10.19	9.89	14.41	18.34	12.01	0.24	0.24	0.43	0.20	0.53	0.46	0.57	1.03
1887	13.88	9.93	9.46	17.84	17.20	12.93	0.25	0.23	0.41	0.19	0.54	0.47	0.63	1.23
1888	10.70	9.25	7.41	24.97	13.68	11.26	0.18	0.22	0.35	0.16	0.53	0.50	0.65	1.30
1889	11.58	9.13	8.38	24.14	14.29	10.92	0.23	0.34	0.46	0.17	0.51	0.47	0.62	1.29
1890	13.37	9.97	9.75	21.33	16.19	11.75	0.26	0.42	0.58	0.19	0.51	0.45	0.60	1.18
1891	15.94	11.45	12.47	25.21	19.31	13.70	0.39	0.61	0.80	0.22	0.63	0.54	0.69	1.26
1892	12.44	8.62	10.39	18.15	16.12	10.65	0.40	0.55	0.77	0.20	0.70	0.58	0.72	1.17
1893	10.35	7.45	7.97	10.83	13.39	9.20	0.50	0.51	0.83	0.17	0.74	0.59	0.70	1.12
1894	10.14	9.23	7.45	10.59	13.37	10.95	0.65	0.41	0.82	0.17	0.70	0.55	0.68	1.10
1895	11.02	11.32	8.28	14.88	14.02	13.16	0.61	0.40	0.75	0.18	0.64	0.50	0.65	1.17
1896	10.42	7.21	7.17	15.65	13.13	8.97	0.48	0.41	0.70	0.17	0.55	0.45	0.56	0.94
1897	15.85	9.95	9.69	17.35	20.29	12.10	0.44	0.39	0.67	0.23	0.58	0.47	0.66	1.17
1898	17.69	11.37	10.76	17.17	22.66	13.41	0.59	0.38	0.76	0.25	0.59	0.50	0.72	1.51
1899	13.87	7.98	9.18	11.39	18.38	9.70	0.58	0.39	0.82	0.21	0.62	0.51	0.70	1.26
1900	11.23	8.80	8.45	11.74	14.29	10.14	0.57	0.43	0.87	0.20	0.63	0.53	0.69	1.19
1901	12.63	9.71	9.25	12.90	15.84	11.34	0.66	0.56	1.02	0.21	0.63	0.51	0.67	1.17
1902	13.60	11.31	9.99	15.23	17.48	13.11	0.68	0.54	1.03	0.22	0.63	0.51	0.71	1.44
1903	12.32	11.82	9.76	18.14	15.89	13.35	0.66	0.52	0.94	0.21	0.66	0.55	0.81	1.73
1904	13.83	13.17	10.25	22.07	17.30	15.45	0.72	0.54	0.94	0.19	0.70	0.58	0.82	1.65
1905	13.86	14.11	10.99	29.43	17.98	16.26	0.66	0.45	0.90	0.19	0.73	0.62	0.90	1.77
1906	11.77	9.61	9.27	23.80	21.52	11.57	0.59	0.45	0.85	0.21	0.75	0.64	0.80	1.47
1907	15.44	10.93	11.65	19.06	24.47	12.80	0.62	0.49	0.83	0.25	0.66	0.58	0.73	1.16
1908	17.04	12.42	12.66	18.21	29.27	14.63	0.60	0.50	0.85	0.28	0.64	0.57	0.79	1.38

Source: Statistical Yearbooks of the Kingdom of Serbia.

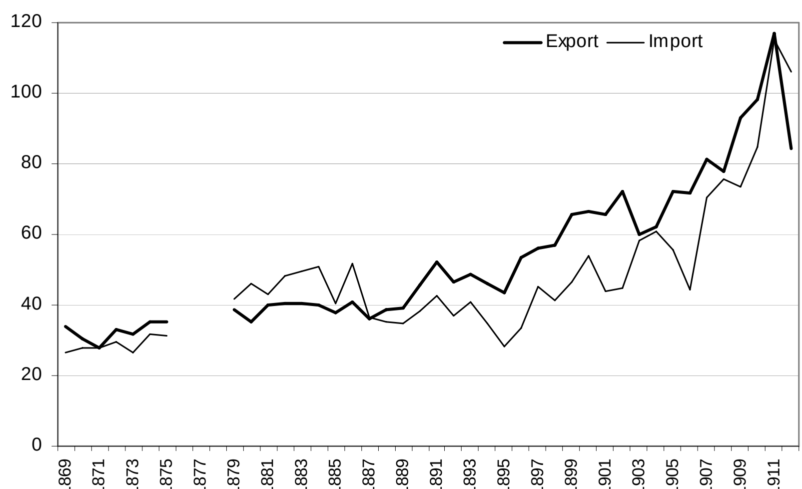
Chart 13: Average Daily Wages, in Dinars (1894–1908)



Source: Statistical Yearbooks of the Kingdom of Serbia.

Chart 14: Export and Import, 1869–1912

in million dinars

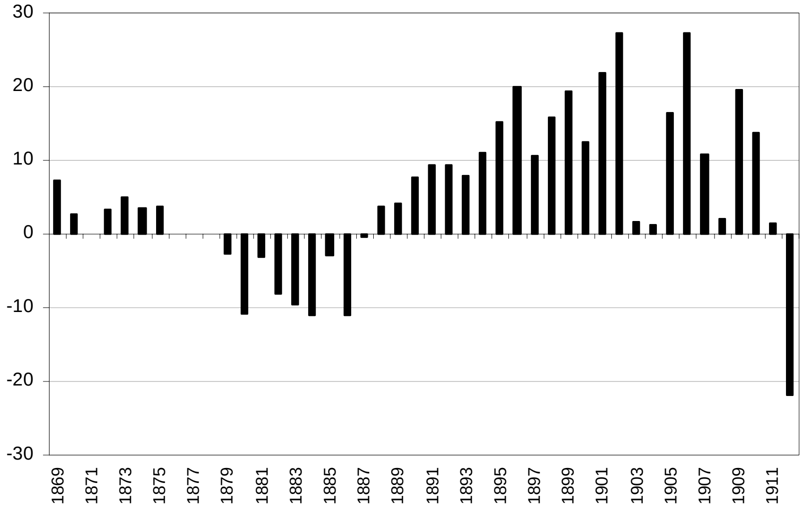


Note: Statistics on foreign trade was not kept during the wars for national liberation (1876–1878).

Source: Statistical Yearbooks of the Kingdom of Serbia.

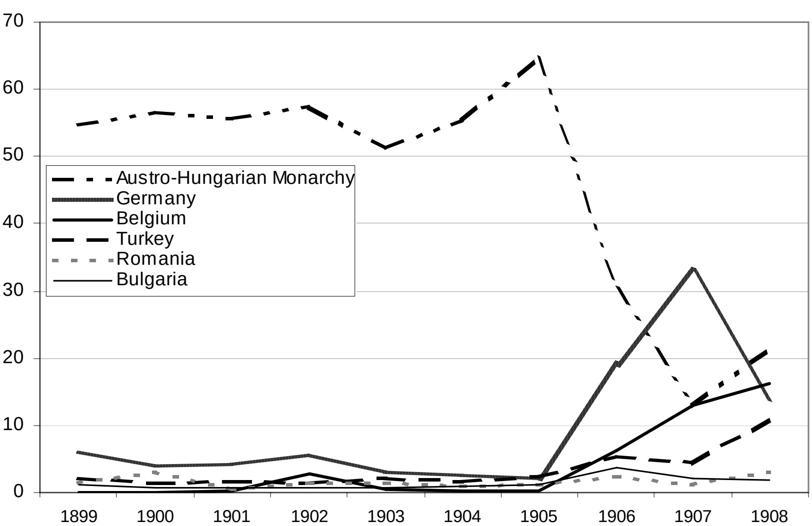
Chart 15: Trade Balance 1869–1912

in million dinars



Note: Statistics on foreign trade was not kept during the wars for national liberation (1876–1878).
Source: Statistical Yearbooks of the Kingdom of Serbia.

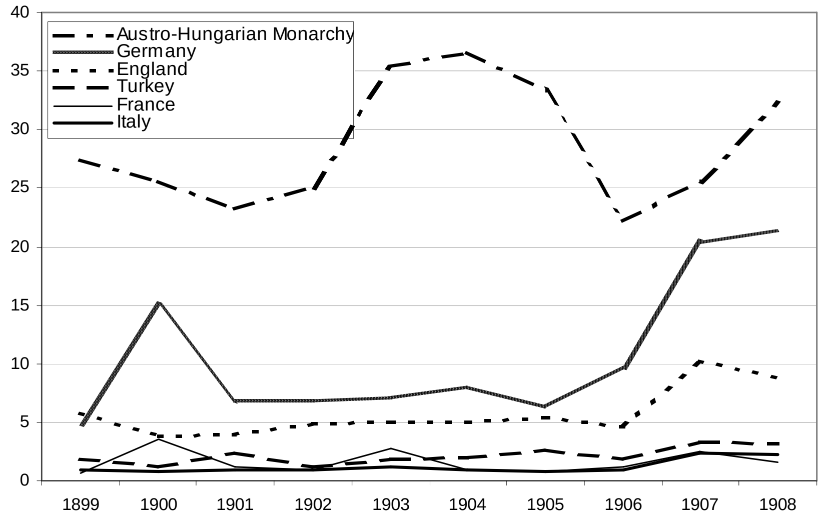
Chart 16: Leading Countries in Terms of Serbian Exports, in million dinars, 1899–1908



Source: Statistical Yearbooks of the Kingdom of Serbia.

Chart 17: Leading Countries in Terms of Serbian Imports, 1899–1908

in million dinars



Source: Statistical Yearbooks of the Kingdom of Serbia.

References

Bordo, D. Michael (2003), Exchange Rate Regime Choice in Historical Perspective, NBER, WP No. 9654; http://papers.nber.org/papers/w9654.pdf.

Dugalić, Veroljub et al. (2004), National Bank 1884–2004, Yugoslav Review, Belgrade.

Gnjatović, Dragana (1998), Introduction of Limping Gold Standard in the Principality of Serbia, Monetary and Fiscal Policies in South-East Europe, Historical and Comparative Perspective, First General Meeting of the SEEMHN, Conference Proceedings, Sofia.

Gnjatović, Dragana (1991), Old Government Debt, Contribution to the Economic and Political History of Serbia and Yugoslavia, 1862–1941, Economic Institute and Yugoslav Review, Belgrade.

Goodfriend, Marvin (1988), Central Banking under the Gold Standard, University of Rochester and Federal Reserve Bank of Richmond, WP No. 88–5; http://www.richmondfed.org/publications/economic_research/working_papers/pdfs/wp88-5.pdf.

Law on the National Bank of Serbia 1883 and 1885.

Monograph of the Privileged National Bank of the Kingdom of Serbia 1884–1909, (1909), Davidovic Printing Works, Belgrade.

Monograph of the National Bank 1884–1934 (1935), Institute for Manufacturing Banknotes and Coins Topčider, Belgrade.
Palairet, R. Michael (1998), The Balkan Economies c.1800–1914, Cambridge Studies in Modern Economic History (No.6).
Pantić, M. Dušan (1910), Foreign Trade and Trade Policy of Independent Serbia, First Period 1878–1892, doctoral thesis defended in 1908, Sava Radenković&Brother Printing Works, Belgrade.
Unknown Author (1885), Monometallism and Bimetallism and their Impact on Determining of our Monetary Unit, Printing Works of the Cooperative of Printing Workers, Belgrade.
Statistical Yearbooks of the Kingdom of Serbia, National Statistics Administration, Belgrade.
Todorović Milan (1925), Our Economic Policy, part I: Economic Problems of Pre-War Serbia, Geca Kon Publishing House, Belgrade.