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The Quest for Macroeconomic Stability under Sanctions and Weak State

Summary: The inadequate response of the state to the collapse of the monetary system of the former Yugoslavia and the introduction of UN sanctions resulted in one of the longest and largest hyperinflations in economic history. The stabilisation programme, implemented at the end of January 1994, led to an almost immediate halt to hyperinflation, which enabled the recovery of the monetary and fiscal system, the growth of economic activity, and consequently the growth of citizens' standard of living. The programme had limited economic reach because political actors failed to implement fiscal consolidation, while sanctions made it more difficult to implement economic reforms. After the signing of the Dayton Agreement and the lifting of trade sanctions, Programme II was proposed, containing key measures for the transition from a socialist to a market economy. A coalition of influential interest groups gathered around the ruling parties rejected Programme II, although some ideas from the Programme were implemented in the following years.

Keywords: Sanctions, Weak state, Hyperinflation, Macroeconomic stability.

JEL: E5, E63, K4, P16.

During the last decade of the last century, Serbia[1] has gone through periods of significant macroeconomic instability, including hyperinflation between April 1992 and January 1994. Macroeconomic instability was partly generated by events that are exogenous in relation to the economic system and economic policy of Serbia, such as the breakup of the Yugoslav federation, UN sanctions, the Albanian uprising in Kosovo province, and NATO aggression. For the second part, macroeconomic instability was a consequence of inadequate fiscal and monetary policy and the lack of reforms. The relative importance of these two sources of macroeconomic instability varied over the years, but hyperinflation was predominantly the result of inadequate economic policy. Instead of taking measures to eliminate fiscal and quasi-fiscal deficits after the introduction of sanctions, the government opted for deficits finance by primary emissions, causing hyperinflation, which further lowered production, employment, and the citizens' standard of living.

[1] From 1992 to 2006, Serbia, together with Montenegro, was part of the Federal Republic of Yugoslavia. Considering that Serbia participated economically, demographically, etc. with over 90% in the common state and that it had a key influence on the creation of its policy, the analysis is focused on Serbia.

Comprehensive economic sanctions, which had been rigorously applied, had led to a shortage of goods and worsening terms of trade for Serbia, which had directly accelerated inflation. Sanctions increased price level by several tens of percent in the first few months after their introduction, while ensuing hyperinflation was the result of mistakes in economic policy. The paper argues that a weak state was the main cause of hyperinflation, and subsequent high inflation in the 1995-2000 period. Such a government had a low ability to create adequate economic policy and adopt high-quality laws, and then to implement adopted policies and to enact laws.

The state administration, formed under socialism, was incapable of creating policies appropriate to the emerging market economy. The aggravating circumstance was strict international sanctions, which excluded the possibility of obtaining foreign financial and advisory assistance in the creation and implementation of policies and reforms. At the same time, adequate legal solutions were not respected, as was the case with the Law on the National Bank, modelled on the German Central Bank Law. An additional reason for choosing the wrong policies, which led to hyperinflation, was the short-term political interests of the ruling parties, which had left the country to hyperinflation rather than take responsibility for unpopular measures to prevent it. Finally, the weak state was not ready to oppose interest groups that used hyperinflation as an instrument for redistribution of income and wealth, and important economic functions were left to the grey economy and organised crime. The political decision to implement Avramović's programme of macroeconomic stabilisation (monetary reconstruction) was made at the end of 1993 when hyperinflation jeopardised the performance of basic government functions and caused an additional decline in economic activity and citizen incomes. The result was the spread of poverty, which threatened a mass rebellion of citizens against the government.

Avramović's programme to combat hyperinflation was a relatively original combination of measures, which were adjusted to the conditions of a country that, not only could not count on foreign aid but was under sanctions as well. Credibility of measures, such as the introduction of the new dinar, which in the first months of the Programme was printed only on the basis of foreign exchange coverage, as well as the personal charisma and benevolence of Prof. Avramović led to an almost instantaneous halt to hyperinflation, which stimulated the growth of production, real incomes and consumption. However, political and economic interests that led to hyperinflation also led to fiscal deficit in the first half of 1994 being financed by the primary issue of new dinars based on foreign exchange coverage, instead of implementation of fiscal consolidation. Therefore, already in the second half of 1994, macroeconomic stability was disrupted, first in the form of dinar depreciation, and then through the re-emergence of high inflation.

During 1994 and 1995, it became clear that macroeconomic stability, as well as a more lasting economic recovery, were not possible without the lifting of sanctions and fundamental reforms in Serbia's economy. Therefore, at the end of 1995, Governor Avramović proposed Programme II, which contained the basic directions of reforms for the transition from a socialist to a market economy, and which would be implemented after the lifting of external sanctions. However, the same interest groups responsible for hyperinflation, which failed to implement fiscal consolidation in 1994, opposed the proposed reforms, followed by the removal of Governor Avramović.

At the end of the 1990s, it became increasingly obvious that the establishment of macroeconomic stability and long-term sustainable growth of the Serbian economy required normalisation of relations with the world, but also fundamental economic reforms, and that the then government was an obstacle to both. At the beginning of 2000, Avramović initiated the development of a programme of comprehensive economic reforms and economic policies that would be implemented after the change of government and the establishment of a democratic system. The measures contained in the mentioned programme helped to implement fiscal consolidation and implementation of other reforms in a relatively short period after the formation of Đinđić's democratic government.

The paper is organized as follows. After the introduction Section 1 analyses the ways in which sanctions, directly and indirectly, affected the acceleration of inflation and assesses the order of magnitude of that impact. Section 2 identifies and analyses the political factors that caused the reaction of fiscal and monetary policy to the introduction of sanctions to be inappropriate. Section 3 analyses the content and results of Avramović's programme to stop hyperinflation, as well as the reasons for the recurrence of inflation at the end of 1994. Section 4 analyses Programme II, as well as the reasons for its rejection by the then authorities. Section 5 analyses the Economic Recovery and Transition Programme and assesses its impact on post-2000 reforms. Finally, Section 6 concludes the paper.

1. The Effects of Sanctions on Inflation

High inflation in the Federal Republic of Yugoslavia (FRY) began as early as 1991, and in April 1992, two months before the imposition of sanctions, it exceeded 50% per month, which is commonly used as the limit above which inflation is considered to have escalated into hyperinflation. The main driver of inflation before the introduction of UN sanctions was the collapse of the monetary and fiscal system of the former SFRY, which was accompanied by uncontrolled printing of money by both the National Bank FRY (Central bank) and the republics.

The sanctions imposed on the FRY in May 1992 were among the most comprehensive and powerful sanctions in recent economic history (Steve H. Hanke and Nicholas Krus 2013). All countries in the world took part in the sanctions, unlike most other sanctions applied only by a group of countries, while the rigor in the application of sanctions was provided by the military blocking of borders. In addition to trade, sanctions were imposed on all financial transactions, which prohibited the granting of loans, as well as direct and portfolio investments, while the FRY's assets abroad were blocked.

Sanctions had affected inflation in various direct and indirect ways. The direct impact of sanctions on the growth of inflation was manifested through the decline in the supply of goods (shortages) and the deterioration terms of trade. The indirect effect of sanctions on inflation was achieved through a decline in economic activity, rising unemployment, and an increase in the grey economy, which all resulted in a sharp increase in fiscal and quasi-fiscal deficit.

Sanctions caused a drop in supply (production and imports) and a shortage of goods, as a result of which the prices of goods increased in order to establish a balance between supply and demand. The decline in supply was particularly strong for goods of imported origin and domestic products, for the production of which import inputs played a significant role and could not be replaced by domestic ones. The negative impact of sanctions was very strong because all countries participated in them, they included (almost) all products, and Serbia, as a small open economy, was strongly dependent on imports.

Although trade sanctions prohibit trade with any country, it is never completely stopped, so the impact of sanctions on the volume of foreign trade depends on their severity. In some cases, even formally very severe sanctions, such as the UN sanctions against Rhodesia, were not respected, so Rhodesia achieved growth in foreign trade and GDP even under sanctions (Alois S. Mlambo 2008). However, in the case of the FRY, comprehensive UN sanctions were accompanied by a military blockade, thus ensuring their relatively strict application. In such circumstances, the volume of foreign trade dropped drastically, which directly affected the decline in the supply of goods and the growth of their prices. Sanctions, on the other hand, disabled exports, and thus triggered the decline in demand for domestic products. In the case of industry that had been significant net exporter before the introduction of sanctions and whose production was not much dependent on imported components, as was the case with agriculture, there was an excess of supply over demand after the introduction of sanctions. This resulted in the decline in relative prices of agricultural products. This fall on the one hand mitigated the decline in the standard of living of Serbian citizens, but on the other hand, it affected the devastation of production capacities in agriculture.

Moreover, sanctions pushed inflation through markedly worsening terms of trade, which was manifested in rising prices of imported goods and falling prices of domestic products exported, measured in USD or some other hard currency. In order for some goods to be imported under sanctions and military blockade, it was necessary to pay an additional risk premium to companies that did business with the FRY, because that business was illegal. In the case of renowned foreign companies, direct trade with them was not possible, but it was done through a number of intermediaries, which raised the price of imported goods. Bypassing customs and military barriers required bribery, which further raised the price of imported products. Finally, the trade margins of domestic entrepreneurs and smugglers were high, due to high risk but also low competition. A similar mechanism existed in the case of exports, where foreign entrepreneurs demanded lower prices for products from Serbia as compensation for the risk of violating sanctions, and exports were often done through a number of intermediaries.

Sanctions also affected inflation through a shortage of foreign currency and the depreciation of the national currency that follows. Under sanctions, there was a drastic reduction in foreign trade, but also in the foreign trade deficit. Due to the impossibility of using foreign loans or investments, the financing of the foreign deficit was predominantly achieved through the purchase of foreign currency from citizens, which largely originated from remittances. Balance of payments data were not published for the period of sanctions, but it can be estimated with great certainty that remittances were sufficient to finance a relatively small foreign trade deficit. It follows that the strong depreciation of the dinar during 1993 was not driven by external deficit, but by enormous printing of money, in order to finance fiscal and quasi-fiscal deficits, and to a lesser extent, to grant loans to privileged social and private companies. Therefore, it follows that the direct impact of sanctions on the depreciation of the national currency was not particularly strong. Based on the above, it can be concluded that the direct impact of sanctions on inflation growth was inevitable, but this impact was short-lived and quantitatively moderate.

The sanctions affected the decline in tax revenues in two ways. The first way is a drastic decline in tax revenues due to the decline in the real value of tax bases (production, employment, income and consumption), and the second, a decline in tax revenues due to the transition of economic activity from legal to grey economy. In the period of several months after the introduction of sanctions, production fell by 50%, and other macroeconomic aggregates, such as real employment[2], real wages and consumer spending, had a similar real decline. In the period of only a few months after the introduction of sanctions, the decline in the real value of all important tax bases had led to a decline in the real level of tax revenues by about 50%. In addition, the sanctions affected the decline in tax revenues through the growth of the grey economy, which occurred because, after the introduction of sanctions, almost all of Serbia's trade with the world, from the standpoint of international law, became illegal. Legal trade with the world, which involved the payment of customs duties, sales taxes, and excise duties on imports, was replaced by smuggling, which meant the absence of tax payments. With the introduction of sanctions, hundreds of thousands of workers were left without a regular income, and in the absence of an appropriate social assistance programme, they were encouraged to various forms of coping, which often meant getting involved in jobs in the grey zone.

While tax revenues automatically fell with declining production, public spending remained at the same level or even increased slightly. The number of employees in the general government sector remained approximately unchanged, as educational and health institutions, public administration, and the security sector continued to provide a similar or slightly higher level of services than in the previous period. Moreover, it is possible that there was a temporary increase in the number of employees in the public sector due to the takeover of employees from the Federal Administration and the relocation of Yugoslav Army from the former Yugoslav republics to Serbia. The policy of mass early retirement, which was applied as a social valve for resolving redundancies in socially-owned enterprises during the 1980s, was accelerated with the disintegration of the SFRY and the introduction of sanctions - from 1990 to 1994, the number of pensioners in the Pension and Disability Insurance Fund increased by 13%. Nominal wages of public sector employees, as well as pensions, were constantly being increased, and this increase was largely financed by printing money. However, inflation grew faster due to the printing of money, so the real value of income declined. The war in Croatia and Bosnia and Herzegovina had resulted in an increase in public

[2] Actual employment is measured by the number of hours of effective work, and formal employment by the number of formally employed workers, regardless of whether and how much they work and whether they receive wages.

spending on refugee care, the treatment of the wounded, but also on direct assistance to the Serb entities in Bosnia and Herzegovina, and Croatia.

In addition to the fiscal deficit, sanctions indirectly accelerated inflation by generating a high quasi-fiscal deficit, which was also financed by primary emissions. Due to the decline in production, 40-50% of the total number of employees in the economy (600-700 thousand workers) could not be engaged productively. They stopped working in 1992, their companies did not generate income, but they were still formally employed. The existence of a large number of people who lost their source of income was a potential source of social unrest, especially in large social enterprises. Since the Serbian budget does not provide funds for social assistance, the problem of financing "wages" in large socially-owned enterprises was solved by "loans" from socially-owned banks to socially-owned enterprises, while banks refinanced such loans with the Central Bank's primary issue loans. It was already quite certain at the time that socially-owned enterprises could not repay such "loans" because funds were almost completely used to pay "wages". Therefore, the classic fiscal function of the government, such as social welfare, was transferred to enterprises, and then to commercial banks and the Central Bank, creating a high quasi-fiscal deficit. Quasi-fiscal spending refers to various activities, such as social welfare or subsidising social enterprises, which by nature belong to the state, and which the then state transferred to enterprises, commercial banks, and the NBY.

Financing a large part of the fiscal and quasi-fiscal deficit by money printing was the main driver of accelerating inflation, which in April 1992 turned into hyperinflation. The direct impact of sanctions on accelerating inflation, through shortages of goods and deteriorating terms of trade, occurred but it was quantitatively moderate and relatively short-lived. The indirect impact of sanctions on accelerating inflation, which was realised through fiscal and quasi-fiscal deficits, depended on fiscal and monetary policy, i.e. on the size of fiscal and quasi-fiscal deficits and the extent to which they were financed by primary emissions.

2. Political Causes of Hyperinflation

The FRY, formed in April 1992, had many of the characteristics of a weak state (Daron Acemoglu and James A. Robinson 2017). Such a state failed to adopt high-quality laws or to implement the adopted laws effectively, while its ability to create economic policy was low. Interest groups close to the government managed to impose policies that suited them and were contrary to the interests of most citizens. As a result of the interaction of a weak state and sanctions, the grey economy, corruption and organised crime flourished. One of the characteristics of a weak state is that it does not have a monopoly of power over its entire territory. FRY/Serbia met this characteristic of a weak state, because on the territory of the Autonomous Province of Kosovo and Metohija there were parallel forms of state power, formed by Albanians.

The ability of the new state to adopt laws and create economic policies, appropriate to extremely unfavourable international circumstances, as well as to implement them effectively, was low. Informal decision-making channels were more important than those defined by the Constitution and laws. The governments of Serbia and Montenegro were often taking powers of the Federal government, while the Federal and

Republican governments often taking the jurisdictions of the formally independent Central Bank. The extent to which economic policy was conducted contrary to the laws in force at the time can be illustrated on the example of monetary policy. The law on the National Bank of Yugoslavia (NBY), which was adopted in 1992, was modelled on the law on the German Central Bank, which was a symbol of an independent central bank that had successfully maintained low and stable inflation for decades. According to the law, the NBY was independent in creating monetary policy, and its main goal was to keep inflation low and stable. According to the law, other federal and republican institutions could not influence the National Bank, nor perform the primary issue, and the NBY could only approve short-term loans to the state, in order to overcome seasonal illiquidity. All these legal provisions were violated, and no one in the NBY or the then governments protested in public because of it, nor did anyone resign or respond for it.

There was a high tolerance for non-compliance with contracts and laws in the country, and financial discipline was low. According to the then Constitution, federal and republican parliaments and governments played a key role in policy-making. However, in reality, the policies were created in the place where Slobodan Milošević was, although he, as the president of Serbia and the later on the FRY, did not have much authority under the Constitution. Slobodan Milošević had a key influence on policy-making that led to hyperinflation, but he also played a key role in accepting Avramović's monetary reconstruction programme, and then rejecting Programme II and removing Governor Avramović.

The flourishing of the grey economy, corruption, and organised crime was a visible symptom of a weak state in the 1990s. The grey economy was a kind of social valve for taking care of workers whose companies stopped operating due to sanctions, but also a source of enrichment for businessmen and criminals connected with the government. Organised crime played an important role in the import (smuggling) of products whose trade was banned by sanctions, which somewhat alleviated the shortage of goods, but encouraged corruption and influenced the formation of a wealthy class that grew out of smuggling and crime, not entrepreneurship.

During the 1990s, the state had a low capacity to create and implement laws and economic policy, because almost in parallel with the sanctions, the previous system of the socialist self-governing economy collapsed and the former federal state collapsed. Building a market economy and pursuing appropriate economic policies required a lot of new knowledge that did not exist in the country. Therefore, it is not surprising that the key ideas for combating hyperinflation came from Avramović, who spent his working life in international financial organisations. In addition, in some areas, such as monetary policy, Serbia, like other republics, relied on federal institutions, which were significantly weakened by the withdrawal of experts to their home republics. Other republics of former Yugoslavia addressed this problem by receiving help from other countries and international financial organisations, which was not available to Serbia due to sanctions. Dragoslav Avramović (2007) gives a compelling testimony to the extent to which the NBY and the governments had low professional capacities in their attempts to create and implement anti-inflation programmes during 1992 and 1993. For example, in the then government there was a misconception that inflation at the level of 40-50% per month can be stable, which the government considered acceptable

(Avramović 2007). However, there is theoretical argument and empirical evidence to suggest that 40-50% inflation per month is volatile, tends to accelerate and further devalue tax revenues, and this increases the fiscal deficit and implies increased money printing, so that over time inflation becomes self-generating (Avramović 2007). When inflation got out of control, there was a defeatist attitude in the part of the government that nothing could be done to suppress the inflation (Avramović 2007). Similar miscalculations have existed in other areas, such as foreign policy. The administration at the time spread expectations that the sanctions would not last long, from which it followed that it was not necessary to take extraordinary measures, which would adjust the economic policy to the sanctions. Such an expectation was completely unfounded, because it was quite certain that the balance of power in the world would not change in the short-term, while the time of reaching a peace agreement in Bosnia and Herzegovina was extremely unpredictable.

An additional problem was that even modest domestic human resources for policy creation and implementation were not used in the best way, because the selection of staff in state institutions was based on the loyalty to governing structures, while competence was pushed into the background. The efficiency of the state in performing basic functions, such as adopting and implementing laws and creating economic and other policies, was low, partly because a large part of state resources was put toward preserving the ruling government, i.e. the state was largely in the service of the ruling party.

The then government was not ready to take measures to eliminate the causes of hyperinflation, because such measures were unpopular and they would be directly related to the government. The economic policy pursued in Serbia/FRY during the 1990s had many characteristics of a populist economy (Rudiger Dornbusch and Sebastian Edwards 1990). The government was not ready to freeze or reduce wages in the public sector and state enterprises, nor to reduce other rights and spending of the state (pensions, etc.) to a level that would be consistent with reduced production and tax revenues. The government was not ready to impose a state of emergency that would facilitate the application of restrictive measures, such as the introduction of emergency taxes and loans, rationing of important products (petroleum products, medicines, raw materials, etc.). Instead, it allowed wages, pensions, etc. to be adjusted downwards through inflation. Hyperinflation was presented by the authorities and the media under its control as an almost natural phenomenon under sanctions and war in the neighbouring countries, for which foreign countries were responsible, and not the governments of FRY/Serbia. In general, the government behaved similarly to most people in the famous thought experiment in which people generally choose to do nothing to prevent a bigger tragedy, instead of taking responsibility for a smaller tragedy (Phillipa Foot 1967). This behaviour can be explained by the fact that the then government gave priority to their political interests, over social interests.

One of the reasons for the occurrence, acceleration and longevity of hyperinflation was the influence of interest groups[3] to whom hyperinflation provided an opportunity to get enormously rich. These interest groups included significant parts of

[3] Incentives for the formation of interest groups, the factors on which their formation depends, the mechanisms of action, survival, as well as the factors on which the chances of achieving the goals for which they were formed are analysed in detail in Masur Olson (1982).

government, businessmen, employees of large social enterprises, and organised smuggling and crime networks. Interest groups close to the government had access to loans from the primary issue, bought foreign currency at a rate many times lower than the official one, obtained permits for imports and smuggling in the country, and used various ways to extract resources from socially-owned and public enterprises and pour it into their own private companies.

Directors and employees of socially-owned enterprises that stopped working after the imposition of sanctions viewed bank “loans” as the only possible source for the occasional payment of “wages”. In addition to the payment of wages, loans from the Central Bank’s primary issue were approved to finance production and investments in privileged social and private enterprises, at interest rates that were many times lower than inflation, so that the principal of the debt was completely devalued in a short period. “Loans” granted to the state-owned enterprises and the socially-owned enterprises represented a kind of subsidy, while loans to private companies represented a kind of transfer that increased private wealth. In the case of socially-owned enterprises, funds were often transferred to the private accounts of their directors, i.e. to the accounts of companies owned by them. However, with the acceleration of hyperinflation, the benefits of the Central Bank’s loans declined as dinar depreciation and inflation reduced the real value of inflation gains on loans. The functioning of the state in the conditions of sanctions was hampered by the dominance of socially-owned enterprises in the economy, whose directors did not have incentives to cope in such circumstances as would be the case with private business owners. Instead of taking adjustment measures themselves, such as providing raw materials and funds, they turned to the government, the National Bank, and socially-owned banks to provide them with funds for the payment of wages and the operation of enterprises. The state provided those funds by printing money.

The level of inflation in the period of sanctions depended crucially on the response of fiscal and monetary policy to significantly worsened economic conditions. One possibility was to reduce public spending by about the same percentage as taxes, resulting in a low fiscal deficit, so there would be no strong pressure to print money. A low fiscal deficit could be mostly financed from real sources, such as ordinary and extraordinary taxes or crisis loans, while printing money would be very moderate. The adequate response of fiscal policy to the fall in GDP and tax revenues by about 50% was to reduce government spending by approximately the same percentage. Reducing the fiscal deficit to a level that would be possible to finance with real sources implied a significant reduction in real wages, pensions, and other spending, as well as the introduction of extraordinary taxes and loans. The reduction in the real value of wages and pensions in the public sector would be large, but still less than the one that occurred due to hyperinflation. Pensions and wages during 1992 and 1993 could have been at the level of 1994-1995, i.e. they would have been about 50% lower than in 1991, but not 80 or 90% lower as they were at the height of hyperinflation, in the second half of 1993. Such a budget would also include a social assistance programme for workers whose companies had ceased operations after the introduction of sanctions, as well as refugee care funds. Otherwise a large part of the refugee care funds was provided by international organisations such as the UN, the Red Cross, foreign private organisations, etc., as well as from the diaspora, so that budget spending for this purpose was relatively small. Sustainable social policy would probably include a rationing programme of strategic and basic subsistence products, which most countries apply in a state of emergency or war.

Public spending in Serbia during sanctions did not adjust to reduced tax revenues resulting in a very high fiscal deficit. Under sanctions, it is unlikely that the high fiscal deficit can be financed by government borrowing from citizens and the economy, so it is likely that it would be mainly financed by loans from the Central Bank's primary issue. Financing the fiscal deficit with primary emissions results in a significant increase in inflation, with a high probability that it will turn into hyperinflation, the amount of which can be measured in the millions on a monthly basis.

The previous analysis offers arguments that after the introduction of sanctions, a jump in prices by several tens of percent was obligatory, but that emergence of hyperinflation was not compulsory. Hyperinflation was a consequence of the inadequate response of fiscal and monetary policy to the decline in economic activity and tax revenues. In the conditions of a weak state, the inappropriate reaction of fiscal and monetary policy to the disintegration of the SFRY and the imposed sanctions was not surprising. Inflation data in European countries during the First and Second World Wars indicate that some acceleration of inflation is necessary but that hyperinflation occurs only in countries where fiscal and monetary policy responses are inadequate (see Table 1 in the Appendix of the paper Jose A. Lopez and Kris James Mitchener 2021).

3. Avramović's Monetary Reconstruction Programme

The political decision to accept Avramović's monetary reconstruction programme was made in December 1993, when monthly inflation reached 178.9 thousand percent. This decision was influenced by an additional decline in economic activity during 1993, the spread of extreme poverty, but also the inability to further finance the basic functions of the state, which led to widespread discontent and hopelessness that could escalate into a mass uprising against the government. Finally, the damage from inflation outweighed the benefits even for those interest groups which received loans from the primary issue. At the end of 1993, the total dinar money supply, which is the basis for the inflation tax, dropped to around 50 million DEM. It follows from the above that the real value of inflation revenues, which were generated by printing money, had dropped drastically (Željko Bogetić, Diana Dragutinović, and Pavle Petrović 1994, 2022; Petrović and Zorica Mladenović 2000).

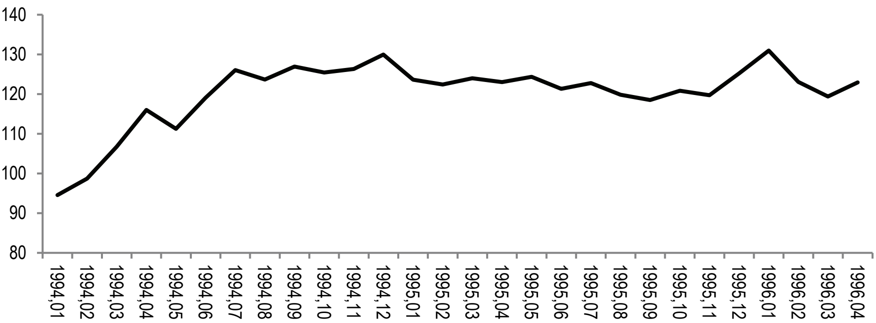
The monetary reconstruction programme was implemented in non-standard circumstances and in a relatively original way. The most important non-standard circumstance, which distinguished this programme from other programmes to combat hyperinflation in recent history (for example, the suppression of inflation in Bolivia, Israel, Poland and Yugoslavia during the 1980s), was that it was realised not only without the help of the IMF and other international organisations, but was applied in the conditions of strict trade and financial sanctions against the FRY. According to the international circumstances in which the programme was implemented, the conditions were closest to those that existed in the early 1920s in Soviet Russia. Avramović recognised the similarity of international circumstances, so he applied some solutions from the Soviet programme, such as the introduction of new currencies while retaining the old ones. Another unfavourable circumstance for the implementation of the anti-inflation programme refers to the characteristics of the Serbian economy, which at that time was still dominated by socially-owned enterprises and banks, which even in normal circumstances are less efficient and have less ability to adapt to the environment than private companies. The third unfavourable circumstance was the weak state administration.

Although hyperinflation itself had a devastating effect on the economy and society, it still created some favourable circumstances for its suppression. One of the consequences of hyperinflation was a drastic decline in the real value of public spending, as a result of which the value of the necessary initial resources for the implementation of the programme was reduced. Average wages in the public sector and pensions were so low in real terms at the end of 1993 and the beginning of 1994, that few resources were needed to finance them in the first months of the programme - at the end of 1993 and in January 2004, the average wage was only a few DEM. The originality of Avramović's program was in financing the state in the first months by issuing a new convertible dinar based on the coverage of foreign exchange reserves of the NBY. The superiority of this solution was that during the first few months of the programme, the state was able to finance part of public spending by issuing a new convertible dinar, while the dinar exchange rate was fixed, inflation was low, and foreign exchange reserves were growing. The successful implementation of this solution during the first half of 1994 raised the misconception in some governing structures that it is possible to finance the budget from the primary issue for a longer period of time and after the foreign exchange coverage has been exhausted. The NBY's foreign currency reserves, which served as the basis for printing the money used to finance the fiscal deficit during the first half of 1994, were a substitute for foreign loans usually used in the implementation of stabilisation programmes.

Another favourable circumstance, spotted by Avramović, was that companies in the final phase of hyperinflation (second half of 1993) withdrew part of the stock of raw materials and finished products from the market, in order to prevent their value from being completely devalued through hyperinflation. Withdrawal of goods from the market was prohibited by the regulations of the time, but most companies withdrew goods in order to prevent bankruptcy. These stocks represented an important, albeit relatively modest, capital reserve for the initial start-up of the economy following the implementation of the stabilisation programme.

The results of Avramović's programme during the first half of 1994 were spectacular. Hyperinflation was brought down in a few days, the dinar exchange rate was stable, economic activity increased significantly, and the real income of citizens grew. The possibility of a sudden drop in hyperinflation was a consequence of losing inertia in its movement, which means that hyperinflation in some period t does not depend on hyperinflation in the previous period t-1, but on the expected printing of money in the coming period t+1. If the state credibly commits not to print money without coverage in the future, e.g. by introducing a new currency and fixing its value against a hard currency, with the declaration of convertibility, there is an almost instantaneous cessation of hyperinflation (Thomas J. Sargent 1983). The skill in communication with the public, the directness and benevolence of Governor Avramović convinced the citizens that the policy of printing dinars without coverage was abandoned.

In the first months of the implementation of the monetary reconstruction programme, great, but unrealistic, expectations were formed that the growth of the real value of income will continue under sanctions and without reforms. Such expectations were fuelled by the statements of the government, although it was clear that in the conditions of sanctions there will be no long-term high growth of production, and that faster growth of income from the growth of production will trigger inflation again.

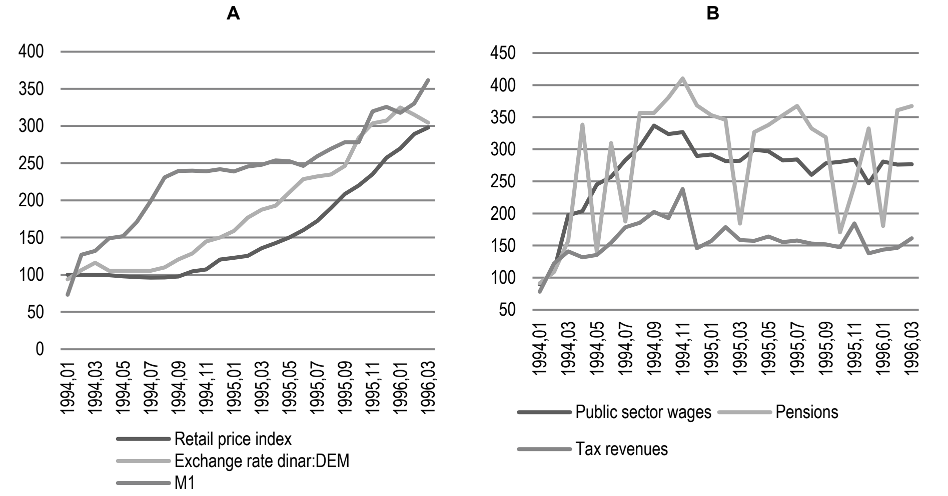


Source: Author's calculation based on data from the Institute for Statistics of the FRY.

Figure 1 Industrial Production - Seasonally Adjusted, Jan-Mar 1994=100

The recovery in production during 1994 and 1995 was largely due to the suppression of hyperinflation. During 1994 and 1995, the gross domestic product of Serbia increased cumulatively by about 10%, while industrial production in the last quarter of 1994 was 23% higher than in the last quarter of 1993. Most of this growth can be attributed to the implementation of Avramović's programme, because UN trade and financial sanctions against the FRY were applied until the end of 1995. During 1994, average wages increased from around DEM 50 in the first quarter to DEM 174 in the fourth quarter, while pensions increased from DEM 37 in the first quarter to DEM 117 in the fourth quarter. Observed in constant prices, the growth of wages and pensions during 1994 was even higher, because inflation rate lagged behind currency depreciation rate.

Tax revenues, measured in DEM, were about 45% higher in the fourth quarter than in the first quarter of 1994, both due to the growth of economic activity and due to the cessation of their depreciation by hyperinflation (depreciation of tax revenues in hyperinflation was analysed in the papers Julio H. G. Olivera 1967 and Vito Tanzi 1977). Although the growth of tax revenues throughout 1994, and especially in the first half of the year, was spectacular, it was significantly slower than the growth of public sector wages and pensions. During the first year of the programme, there was a strong growth of the dinar money supply, which stimulated the growth of economic activity, through the growth of loans to the economy. The dinar money supply M2 increased from only DEM 180 million at the end of January 1994 to over DEM 1.8 billion at the end of December of the same year.



Source: Author's calculation based on data from the Statistical Office and National Bank of the FRY/Serbia.

Figure 2A The Level of Prices, Exchange Rate and Money Supply, Feb-Mar 1994=100
Figure 2B The Level of Wages, Pensions and Public Revenue, Feb-Mar 1994=100

A more detailed analysis of the programme results shows that most of the improvements were achieved in the first few months of its implementation. In that period, production, citizen incomes, tax revenues, and dinar money supply grew strongly, while the exchange rate and prices were stable. Most of the effects of combating hyperinflation were exhausted in a relatively short period, after which the growth of production and income faced restrictions resulting from sanctions and the economic and political system that existed in Serbia at the time. However, moderate growth in production continued during 1995.

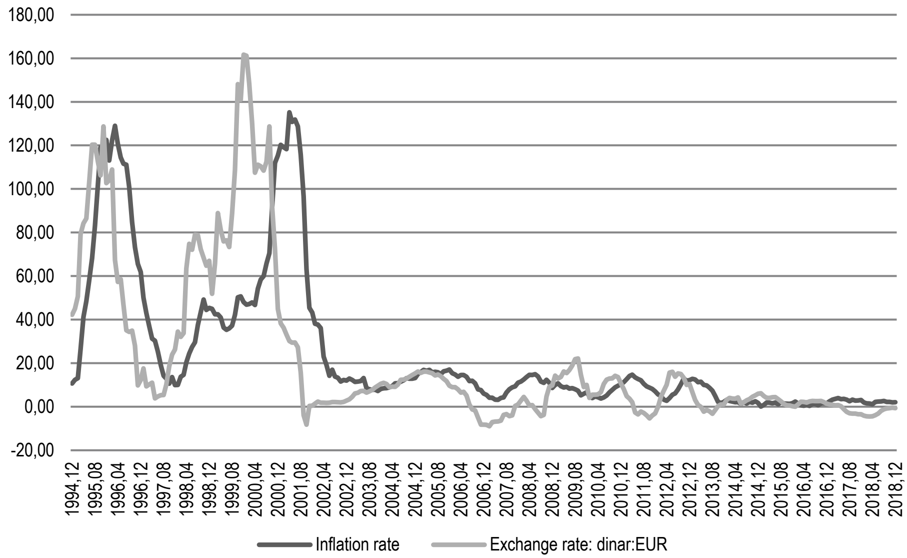
Already during the first half of 1994, imbalances began to form, which during the third quarter led to the emergence of an informal foreign exchange market in which the exchange rate was about 20% higher than the official, and at the end of the year, prices began to rise. The black market also existed during the first half of 1994, and the dinar was worth 10-20% less than the legal one, but in this part of the year, most of the turnover was done on the legal market, at the official exchange rate. In the second half of 1994, most of the foreign currency turnover moved to the black market. The underlying macroeconomic imbalance manifested itself through faster wage growth than output and productivity growth. Such economically unsustainable growth in wages was accompanied by an increase in pensions and other incomes, which resulted in domestic consumption and aggregate demand growing faster than production. In the conditions of an almost closed economy, this imbalance could not be transferred to the growth of the foreign deficit, but was completely transferred to the growth of the black exchange rate, and then to the growth of inflation. Strong growth in public sector wages and pensions, which accounted for more than 50% of total public spending, had directly affected the state still having a fiscal deficit. The growth of inflation and the black exchange rate brought back the real citizen income and government spending to a level that was in line with output under sanctions.

Another fiscal consequence of economically unsustainable wage and pension growth was the squeezing out of other spending items in the state budget, such as social safety net for workers who lost their jobs after the imposition of sanctions. Given that the budget did not provide funds for the social care of workers in these enterprises, the transfer of fiscal functions to the banks that approved "loans" to large social enterprises, which were mainly used to pay "wages", continued. So, apart from the fiscal deficit, there was still a quasi-fiscal deficit, the financing of which was transferred to commercial banks, and to a certain extent to the National Bank. The consequence of this way of financing the quasi-fiscal deficit was relatively high inflation in the period 1995-2000, but also the re-accumulation of non-performing loans both in social banks and in mutual relations between enterprises.

Fiscal and quasi-fiscal deficits were partly financed by loans from the primary issue while creating delays in settling government liabilities. However, since mid-1994, loans from the primary issue no longer had foreign exchange coverage, which meant that the National Bank no longer operated on the principle of a currency board. The explanation that the primary issue that financed fiscal and quasi-fiscal deficits since mid-1994 had coverage in goods (in grain, etc.) had no economic basis, nor was it accepted by citizens and the economy.

The extremely negative experience with hyperinflation influenced the state to avoid higher primary emissions, which caused a delay in settling the state's obligations to suppliers, pensioners, social aid beneficiaries, etc. - these state obligations were settled only after 2000. The state transferred its obligations not only to socially-owned banks, but also to public enterprises, by keeping their prices below their cost level, and at the same time tolerated non-payment of liabilities to public companies by social enterprises and citizens. This policy towards public companies resulted in them not settling their obligations to their suppliers and banks, creating illiquidity chains in the economy. Some of the debts of public companies to foreign suppliers that arose in that period were converted into public debt after 2000. The consequence of such a policy was the devastation of national utility infrastructure and the decline in the quality of services offered by public companies.

During 1995, due to unresolved problems in public finances and the existence of a large quasi-budget deficit, inflation increased significantly while the dinar lost value in the foreign exchange market. In December 1995, year-on-year inflation was 122.5%, while the value of DEM in 1995 increased by 103% compared to December of the previous year. Therefore, the question arises whether Avramović's anti-inflation programme can be assessed as successful, given that only 5-6 months after its implementation, the value of DEM on the black market began to grow, and inflation and depreciation of the dinar in the following year amounted to over 100%. The positive assessment of the monetary reconstruction programme stems from the fact that it enabled the growth of production and citizen incomes in 1994 and 1995 when rigorous sanctions against the FRY/Serbia were still in force.



Source: Author's calculation based on data from the National Bank of the FRY/Serbia.

Figure 3 Inflation and Exchange Rate after Hyperinflation, Year-on-Year Growth in %

4. Avramović's Programme II

One of the criticisms of Avramović's monetary reconstruction programme during the first half of 1994, was that it focused, almost entirely, on macroeconomic stabilisation, while putting structural reforms in the background. Most of the papers published in mid-1994 in the Proceedings of the Association of Yugoslav Economists (1994) contain such criticisms. It is estimated that at least during the first six months of 1994, there were no conditions to initiate any significant reforms, but it was certainly desirable that such reforms be prepared for the period after the lifting of sanctions. In the conditions of sanctions, the space for the implementation of fundamental reforms towards a market economy was very limited. As a reminder, even the economies that can be characterised as market economies in periods of war and sanctions suspend many market mechanisms, introduce more or less extensive price control and rationalisation in the supply of basic products, wage control, and the states directly affect directing private resources to the activities that are a priority for war efforts. Some reforms, such as the liberalisation of the prices of most products, were implemented at the very beginning of Avramović's programme, while the liberalisation of interest rates was implemented in 1995. However, the conditions for the implementation of other reforms were extremely unfavourable, while some reforms, such as the liberalisation of external economic relations, were by definition not possible under sanctions. In the conditions of sanctions, it was difficult to carry out more comprehensive privatisation of socially-owned enterprises, except for some model of insider or voucher privatisation. More thorough restructuring of public and utility companies was difficult to achieve, because the market prices of their services and strict collection of receivables, in conditions of low incomes, would result in the unavailability of these services to a significant part of the population. Combating the grey economy was also difficult because smuggling was a way to secure important resources from abroad. In addition, tolerating the grey economy was also a kind of social valve for taking care of a large number of workers whose companies suspended production due to sanctions, and who were not included in the state social care programme. Summarizing the first year of the programme, it could be assessed that the biggest omission was that public sector wages and pensions increased above the economy's capabilities and that public finances were not sufficiently consolidated.

In November 1995, the Dayton Peace Agreement was signed and trade sanctions against Serbia were lifted, which created more favourable conditions for accelerating economic reforms. However, the international circumstances were still not quite favourable because, until the end of 2000, there was still a so-called external wall of sanctions, which included financial sanctions against Serbia. In such circumstances, at the end of 1995, Governor Avramović proposed Programme II, containing relatively comprehensive reforms of the Serbian economy, which would result in establishing a functioning market economy. Programme II was supposed to ensure the transition from the socialist economy to a market-based capitalist economy. The main elements of the programme were the restoration of dinar convertibility, the liberalisation of foreign trade, the liberalisation of prices and interest rates, the privatisation of socially-owned enterprises, and the establishment of financial discipline. The content of the reforms in Programme II was largely based on the reforms carried out by the Central European countries at the time, within the first phase of transition, which began to yield positive results as early as 1994 and 1995.

One of the key parts of the reforms in Programme II was the establishment of a hard budget constraint, i.e. financial discipline. Programme II implied that bank loans were approved according to market criteria, and that interest rates were formed on the basis of supply and demand. In a society where companies that have not regularly settled their liabilities have survived for decades, and where bank loans have been approved on the basis of social and political criteria, the introduction of a hard budget constraint and market mechanisms for loan allocation has met with strong resistance. Executives and employees of large socially-owned enterprises, who benefited most from the non-market allocation of loans and who accumulated liabilities to other creditors, which were then periodically written off or devalued through inflation, offered strong resistance to financial discipline and market loan allocation. The authorities also postponed the introduction of financial discipline in order not to lose the political support of a large number of workers who were employed in large socially-owned enterprises that were losing money. Moreover, the occasional granting of privileged loans and periodic write-offs of loans or their depreciation through negative interest rates in real terms, strengthened the dependence of employees in large socially-owned enterprises on the government.

Discussions about Programme II showed that in addition to restrictions in the form of an external wall of sanctions, there were serious internal political obstacles to implementing the reforms. There was still strong resistance in some ruling circles against leaving the socialist economic system, which manifested itself in open opposition to the privatisation of socially-owned enterprises by President Milošević's wife, who was the president of a small left-wing party. In an effort to alleviate ideological resistance, Governor Avramović presented privatisation as a "democratisation of property relations". Resistance to the reforms also came from business circles that had a privileged position within that system, and whose prospects in the market economy were extremely uncertain.

It follows from the above that at the time when Programme II was proposed, there was a broad coalition of powerful interest groups, which did not favour the establishment of a market economy. The coalition included the leaders of socially-owned enterprises, who extracted resources from those enterprises into their own private companies. From the political point of view, an important part of the coalition consisted of employees in large socially-owned enterprises, who estimated that their enterprises had very little chance of surviving in a market economy, without privileged loans, subsidies, write-offs of liabilities, etc. The owners of privileged private companies were also against the reforms, as they were receiving favourable loans from socially-owned banks and from the primary issue, special licenses for foreign trade, and who were buying foreign currency at a privileged exchange rate. Also, leaders of social enterprises and owners of private companies had established various channels for extracting resources from social enterprises. All these interest groups were firmly involved in the then ruling political structures so they directly influenced the decision-making on the implementation or rejection of Programme II. The main political goal of the ruling party, to stay in power as long as possible, also favoured the system in which, instead of legal procedures and rules, discretionary decisions dominated, as the position of a large part of the economy and citizens depended on those discretionary decisions. Such a system gave the ruling circles strong political power because the fate of various interest groups directly depended on the will of the ruling circles.

The interest groups who opposed the reforms used media dominance to compromise the market economy in advance. In the second half of the 1990s, the dominant media, which were under the control of the government, published numerous content about how reforms in the countries of Central and Eastern Europe failed. In the mid-90s, Central European countries already exceeded the pre-crisis level of GDP, while the GDP of Serbia at that time was only 50% of the pre-crisis level. Instead of an impartial and objective assessment of the results of reforms in Central European countries, which were already showing positive results, the government-controlled media predominantly presented examples of failed privatisations, layoffs, and a big economic inequality. Such propaganda messages were relatively widely accepted among the citizens of Serbia, so a large part of them believed in the fatality of establishing a market economy. Propaganda deceptions found fertile ground because a significant part of the citizens of Serbia during the second half of the 20th century, in the period of socialism, did not show a strong desire to establish democracy and a market economy.

The essential disagreement between Governor Avramović and the then political leadership of the country over the content of economic policy and reforms led to his removal in mid-May 1996. The dismissal was carried out in violation of the then valid legal provisions on the independence and autonomy of the Central Bank, which was yet another proof that the personal will of politicians was above the law.

Ruling circles and interest groups were probably aware that they could not completely and permanently stop the establishment of a market economy in Serbia. Therefore, their strategy was to postpone these processes for as long as possible and then put them in the service of their own interests. However, at the beginning of 1998, there was a revolt of Albanians in Kosovo and Metohija, as a result of which reforms were frozen, and in some areas steps were taken backward, such as the establishment of broad price control, freezing of the dinar exchange rate and others. After the NATO bombing, the priority was to rebuild the country, so the reforms were delayed again. From the NATO aggression to the democratic changes in October 2000, the international position of Serbia was extremely unfavourable, because the external wall of sanctions was strengthened again, while there were strong political conflicts inside the country. In such conditions, there were no real opportunities to initiate significant economic reforms.

During 1998 and 1999, the war was fought on the territory of Serbia, which means that the situation was as difficult as in the period 1992-1993. However, the authorities avoided the temptation to rely more heavily on financing government spending through primary emissions. Therefore, during the war, Serbia had high inflation of about 55% per year, but not hyperinflation. One of the lasting positive results of Avramović's programme of monetary reconstruction was that a widespread belief was formed that hyperinflation is not necessary even in extremely unfavourable circumstances such as war.

5. The "Recovery and Transition of the Serbian Economy" Programme

After UN sanctions, hyperinflation, obstruction of reforms by the then political structures, and NATO bombing of Serbia, it was quite certain that with the then government it would not be possible to achieve economic reforms or good political and economic relations with the world, and thus Serbia's economic progress. During 1999 and 2000, this belief spread to broad parts of society, including some interest groups that had been firmly attached to the then regime for a long time.

After the formation of a broad coalition of opposition parties (DOS) in early 2000, Prof. Avramović initiated the development of the economic programme "Recovery and Transition of the Serbian Economy", which would be implemented after the democratic changes. The programme, which was completed in autumn 2000, proposed reforms in key areas such as restructuring and privatisation of socially-owned enterprises, modernisation and infrastructure construction, establishing an independent National Bank, financial sector reform, building a capital market, labour market reform, as well as key macroeconomic policy measures such as fiscal, monetary, foreign trade and social policy. To a large extent, this Programme was an elaboration of reforms and policies whose basic directions were announced in Avramović's Programme II. About 20 national economists participated in the development of the programme, while several well-known world economists were engaged as consultants.

Although the programme did not have a great media response, to which the illness, and then the death of Prof. Avramović only contributed, it nevertheless helped to implement major reforms in some areas in 2001 in a very short time. In the first half of 2001, the government successfully implemented a fiscal consolidation programme, reducing the fiscal deficit of 3% of GDP and the quasi-fiscal deficit of 5-6% of GDP to 1% of GDP. In support of fiscal consolidation in the first few months of Đinđić's government, tax reform was implemented, smuggling of excise products was suppressed, and almost a third of tax revenues that had previously gone beyond the budget were included in the budget. The proposals contained in the programme influenced the establishment of an independent National Bank, labour market reform, solving the problem of "old" foreign currency savings, solving the state's debts to retirees, solving the problem of debts between companies, creating social policy and others. The fact finding analyses in various areas carried out in detail within the programme, had been useful for policy-making and reforms since 2001.

6. Conclusion

Serbia spent the last decade of the previous century with high inflation, which grew into hyperinflation from April 1992 to January 1994. The only short period of low inflation and stability of the exchange rate lasted from February 1994 to the autumn of 1994, during the implementation of Avramović's monetary reconstruction programme. Unfavourable international and domestic political circumstances, such as the disintegration of the former Federation, the imposition of sanctions, the Albanian uprising, and NATO aggression, contributed to the inflation of several tens of percent a year, in the years when these events occurred. Inflation above that level was a direct consequence of inadequate fiscal and monetary policy and the lack of reforms.

The deeper causes of high inflation and hyperinflation were in the characteristics of the political system, which had many characteristics of a weak state. The ability of the state to create economic policy and pass good laws was small, and even when it succeeded, the adopted policies and laws were not respected. The then ruling political party preferred economic policy measures that kept it in power, even when they brought great costs to society. This meant avoiding necessary unpopular measures, such as fiscal consolidation. Some interest groups close to the government, such as directors of large socially-owned enterprises and owners of private companies, used the state for private enrichment, through loans from the primary issue, import licenses, purchase of foreign currency at a privileged exchange rate, etc. Workers in large socially-owned enterprises, which (firms) were already in poor condition in the late 1980s and further deteriorated during sanctions, were aware that the chances of these firms surviving in a market economy were minimal and therefore employees supported the system in which they occasionally firms received loans that were not repaid. Resistance to market reforms was further strengthened by the propaganda of the then regime, which deceived the public with propaganda about the collapse of reforms in Central European countries.

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