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Yugoslav Hyperinflations and Our Saviors

Summary: This paper overviews hyperinflation episodes in Yugoslavia and elucidates the roles of Prime Minister Ante Marković and Governor Dragoslav Avramović, credited with their successful conclusion. The first part of the paper provides a comparative review of the highest hyperinflations in modern history. The next two parts are dedicated to the role of Ante Marković, in the first, and the role of Dragoslav Avramović during second hyperinflation. The last part of the paper describes the unfavorable final outcome of both hyperinflationary episodes, reveals the causes and indicates the opportunities that were missed at key moments.

Keywords: Hyperinflation, Stabilization policies, Restructuring, Central bank independence.

JEL: E31, E58, E65.

This text was made in honor of two great men and politicians in SFR Yugoslavia and Serbia by the end of the last century. Both accepted the task of saving SFRY and Serbia from hyperinflation. They both succeeded in that, but only in a short-run. Long-term success required reforms, for which these countries were not ready.

1. The Hyperinflation Episodes in Economic History

Economic history officially has recorded 57 hyperinflation episodes, each of them being the most devastating economic and social episodes in the countries where they emerged. In addition to economic chaos, the most important consequence of hyperinflation is that the social fabric immediately begins to collapse. Lenin's (alleged) statement was heard: "The best way to destroy the capitalist system (is) to debauch the currency" (Michael W. White and Kurt Schuler 2009).

Prior to the general acceptance of Philip Cagan's definition of hyperinflation as a monthly increase in prices of at least 50% (Philip D. Cagan 1956)¹, researchers used their own definition, methodology and terminology, which further aggravated the analysis, especially concerning the estimates of the efficiency of any of the applied anti-inflationary measures.

¹ According to Cagan, hyperinflation ends when the rise in prices falls below a monthly rate of 50% and remains so for at least a year.

The first hyperinflation was recorded in the Roman Empire, between the 3rd and 4th century CE. During the reign of Marcus Aurelius (2nd century CE), the share of silver coins in the circulation was 75%. But during the Diocletian era (4th century) the share of silver fell below 0.5%. The prices in Rome increased by more than 1000% in a single year (Jeff Desjardins 2016). Traces of this hyperinflation episode remain even to the present. Huge amounts of worthless copper coins from the 3rd and 4th centuries AD commonly emerge during archaeological (on any other) excavations on the territory of the Roman Empire.

Table 1 The Hanke-Krus World Hyperinflation Table

Location	Start date	End date	Month with highest inflation rate	Highest monthly inflation rate	Equivalent daily inflation rate	Time required for prices to double	Currency	Type of price index
Hungary	Aug. 1945	Jul. 1946	Jul. 1946	$4.19 \times 10^{16}\%$	207%	15.0 hours	Pengő	Consumer
Zimbabwe	Mar. 2007	Mid-Nov. 2008	Mid-Nov. 2008	$7.96 \times 10^{10}\%$	98.0%	24.7 hours	Dollar	Implied Exchange Rate
Yugoslavia	Apr. 1992	Jan. 1994	Jan. 1994	313,000,000%	64.6%	1.41 days	Dinar	Consumer
Republika Srpska	Apr. 1992	Jan. 1994	Jan. 1994	297,000,000%	64.3%	1.41 days	Dinar	Consumer
Germany	Aug. 1922	Dec. 1923	Oct. 1923	29,500%	20.9%	3.70 days	Papiermark	Wholesale
Greece	May. 1941	Dec. 1945	Oct. 1944	13,800%	17.9%	4.27 days	Drachma	Exchange Rate
China	Oct. 1947	Mid-May 1949	Apr. 1949	5,070%	14.1%	5.34 days	Yuan	Wholesale for Shanghai
Free City of Danzig	Aug. 1922	Mid-Oct. 1923	Sep. 1923	2,440%	11.4%	6.52 days	German Papiermark	Exchange Rate
Armenia	Oct. 1993	Dec. 1994	Nov. 1993	438%	5.77%	12.5 days	Dram & Russian Ruble	Consumer
Turkmenistan	Jan. 1992	Nov. 1993	Nov. 1993	429%	5.71%	12.7 days	Manat	Consumer
Taiwan	Aug. 1945	Sep. 1945	Aug. 1945	399%	5.50%	13.1 days	Yen	Wholesale for Taipei
Peru	Jul. 1990	Aug. 1990	Aug. 1990	397%	5.49%	13.1 days	Inti	Consumer
Bosnia and Herzegovina	Apr. 1992	Jun. 1993	Jun. 1992	322%	4.92%	14.6 days	Dinar	Consumer
France	May 1795	Nov. 1796	Mid-Aug. 1796	304%	4.77%	15.1 days	Mandat	Exchange Rate
China	Jul. 1943	Aug. 1945	Jun. 1945	302%	4.75%	15.2 days	Yuan	Wholesale for Shanghai
Ukraine	Jan. 1992	Nov. 1994	Jan. 1992	285%	4.60%	15.6 days	Russian Ruble	Consumer
Poland	Jan. 1923	Jan. 1924	Oct. 1923	275%	4.50%	16.0 days	Marka	Wholesale
Nicaragua	Jun. 1986	Mar. 1991	Mar. 1991	261%	4.37%	16.4 days	Córdoba	Consumer
Congo (Zaire)	Nov. 1993	Sep. 1994	Nov. 1993	250%	4.26%	16.8 days	Zaire	Consumer
Russia	Jan. 1992	Jan. 1992	Jan. 1992	245%	4.22%	17.0 days	Ruble	Consumer
Bulgaria	Feb. 1997	Feb. 1997	Feb. 1997	242%	4.19%	17.1 days	Lev	Consumer
Moldova	Jan. 1992	Dec. 1993	Jan. 1992	240%	4.16%	17.2 days	Russian Ruble	Consumer
Yugoslavia	Sep. 1989	Dec. 1989	Dec. 1989	59.7%	1.57%	45.1 days	Dinar	Consumer

Source: Steve H. Hanke and Nicholas Krus (2013).

In line with Cagan's definition, the first hyperinflation in modern history occurred fourteen centuries later, during the French Revolution (1795-1796). Until recently, this was ranked as the fifteenth highest hyperinflation in history, but in the past several years, the ranking of the French hyperinflation has been seriously threatened by the hyperinflation in Venezuela. As this hyperinflationary episode is still ongoing,

the chances are that Venezuela may eventually progress in the Hanke-Krus table rankings of the world's highest inflations.

Yugoslavia twice found itself on the Hanke-Krus list of the highest hyperinflations in history. The first time it was in connection with the SFR Yugoslavia. This hyperinflation lasted for just over three months (September-December 1989), and the highest monthly inflation rate was around 60% (Hanke 2019).

Three years later, after the break-up of the SFRY, another hyperinflationary episode began. It lasted for almost two years, and the last monthly inflation rate reached the infamous 313,000,000%. By its destructive power, this hyperinflationary episode is classified as the third most destructive hyperinflation in history.

2. Hyperinflation in the Time of Ante Marković

The first Yugoslav hyperinflation arose after ten years of slow economic growth and rising economic problems, which were primarily a result of the policy of soft budget constraints (János Kornai 1986), growing foreign debt and growing deficit financing of public spending. At the same time, it is worth recalling that during the period from 1959 to 1989, the average annual inflation rate was of about 57% per year (Statistical Yearbook of SFRY 1989; International Monetary Fund 2002), rising every year for several percentage points over the previous one.

But the main problem was the decreasing rate of economic growth, while the foreign debt was growing unstoppably. In addition, the growth of the Yugoslav economy was cumulatively close to zero in the 1980s, and economic growth *per capita* was negative (cf. Statistical Yearbook of the SFRY 1989; SGS 2005).

The foreign debt of the SFRY, which amounted to about 2 billion USD in the early 1970s, had increased sevenfold by 1979, reaching 18 billion dollars (Milica Uvalić 1992). In addition, after the oil shock in 1979, there was sharp rise in interest rates in the United States, and in 1982 Yugoslavia was no longer able to repay its debts regularly, thus it practically went bankrupt.

Being unable to service its debt, the government decided to reschedule the loans, and started with mandatory public savings (after the first oil shortages citizens were allowed to drive their automobiles only on even or odd days, depending on the registration number, households experienced rolling blackouts, etc.). However, despite all the measures, the turning point in the explosion of the rate of inflation was a sharp rise in public spending after the 1986 Congress of the League of Communists, which was a common measure for gaining public support after the elections, but this time it led to a historical growth of the inflation rate of over 100% (Petar Đukić 2013). The inflation rate continued to rise until December 1989, when the anti-inflation program was implemented.

Ante Marković's anti-inflation program was unveiled on 18 December 1989. This program aimed at introducing the convertibility of the dinar, liberalization of prices (goods and services) and freezing personal incomes for the first six months. In addition, the government announced a restrictive monetary policy, balanced budget, liberalization of interest rates and prices (except for infrastructure), providing special assistance to underdeveloped regions, introduction of social programs and dinar

denominations, by removing the last four zeroes from the banknotes in circulation. As stated in the Stabilization Program: “Therefore, 1990 will be the year of implementation of the new economic system, stabilization of the economy, rapid decline in inflation and the year of creating the necessary conditions and mechanisms for successful economic reform, especially for the process of deep structural changes” (Ante Marković and Vojnić Dragomir 1990).

Ante Marković’s reforms began to bear fruit in a very short time. While the inflation rate fell to 3% in March, already in April 1990, the monthly inflation rate was 0%, exports and imports grew rapidly, while foreign exchange reserves rose by \$ 3 billion, to about \$ 10 billion. Public debt was reduced to about \$ 17 billion. The dinar thus became the first convertible currency in a socialist country.

The initial results of Ante Marković’s anti-inflation program are still considered the “golden age” of the Yugoslav economy. Free imports, shops full of goods and real income growth, with an average salary of around 1,000 deutschmarks, were never repeated until 2000. But these results were short-lived. Although the program projected a GDP decrease of about 2%, an inflation rate of about 13%, and an increase in foreign exchange reserves of \$ 2.3 billion, the results were far less favorable. According to the data in Table 2, industrial production fell by 12%, while wages, immediately after the six-month freeze, began to rise sharply, and, with the corresponding monetary expansion, inflation reached 8% in September and October 1990 and soon came to 121%, and by the end of the year the exchange rate against the deutschmark had reached to 13:1, from an initial 7:1.

Table 2 Growth of Real Gross Domestic Product, Industrial Production and Inflation Rate in FRY (1990-2001), in %

	Real GDP	Industrial output	Inflation*
1990.	-7.9	-12.0	121
1992.	-27.9	-22.0	9237
1993.	-30.8	-37.0	116*10 ⁺¹²
1994.	2.5	1.0	0.0
1995.	6.1	4.0	74.0

Notes: Inflation rates are given as average annual rates in %.

Source: Statistical Yearbook of Serbia and Montenegro 2003; Đorđe Đukić and Aleksandar Živković (2018).

Following the example of Marković’s advisers, professors Jeffrey Sachs of Harvard University and Steve Hanke of Johns Hopkins University, this program was largely conceived as a series of steps to quickly and efficiently transform the socialist economy into a capitalist economy. Basically, it meant building a society whose system would be based on the following principles:

1. Abolishment of the concept of the state ownership;
2. Introduction of the goods, labor and capital markets;
3. Transformation of the economy and its structural changes;
4. Deregulation and liberalization of state functions;
5. Introduction of modern tools of macroeconomic policies;
6. A new role of the monetary and fiscal system;

7. Changing the legal system of the country, which would correspond to the character of the new system, i.e. which would take into account that the character of ownership predetermines the character of society;
8. Introduction the concept of ensured freedoms, rights and sovereignty of citizens, therefore forming sovereignty of political communities (republics and countries as a whole);
9. Political pluralism (multi-party system)².

Of course, such reforms did not suit the political oligarchy in any of the former Yugoslav republics, nor at the federal level. Ante Marković's program to curb inflation was openly rejected by Slobodan Milošević's party, with the assistance of the leadership of both Serbian autonomous provinces. On the other hand, Serbia imposed customs duties on imports from Slovenia and Croatia and took funds from banks to finance increases in salaries, pensions, bonuses for civil servants and subsidize companies that had suffered losses. Thus, 1990 ended with inflation at 121%, and the following year, in 1991, it was almost twice as high (235%). The unauthorized money creation in January 1991, was a serious challenge to the Program, suggesting that it might be failing.

Another threat to the Program was disintegration of the ruling Yugoslav Communist Party in January 1990. Nevertheless, Ante Marković putting a brave face and stated: "If the Communist Party fell apart, Yugoslavia did not and can do fine without it!" (cf. Marković and Vojnić 1990). Shortly afterwards, in August 1990, Ante Marković founded the Union of Reform Forces, a political party that supported his economic reforms and advocated a market economy, and virtually all the elements of transition that were implemented in the former Soviet bloc with great success. Today these countries, to which SFR Yugoslavia seemed like an unattainable dream in the 1990s, have greatly surpassed all the former Yugoslav republics according to all economic indicators.

However, only a few months later, republic authorities started to fracture the federal monetary system though unauthorized monetary emissions.

Table 3 Unauthorized Monetary Emissions by the Republics, October 1990-February 1991

Republic	Amount
NB of Slovenia	1 billion dinars
NB of Croatia	1.7 billion dinars
NB of Serbia (including NB of Vojvodina and NB of Kosovo)	21.7 billion dinars (DEM 3.1 billion) ³
NB of Montenegro	2.6 billion dinars
NB of Macedonia and NB of Bosnia and Herzegovina	In January 1991 used insignificant amounts of "grey money"

Source: Mladan Dinkić (2000).

The available data vary, but the fact remains that the monetary blow in Serbia was 20 times greater than the one in Slovenia and 10 times greater than the one in Croatia. "Namely, on 8 January 1991, Milošević carried out a monetary coup against

² The speech by President Ante Marković in the Federal Assembly on 19 April 1991.

the National Bank of Yugoslavia. The coup was carried out in such a way that 18.2 billion dinars were extracted from the National Bank of Yugoslavia, through the National Bank of Serbia, i.e. 2.5 billion German marks. Although Marković then demanded sanctions against Serbia and the return of the money, none of that was implemented. That monetary blow formally marked the end of Marković's reforms and the beginning of the disintegration of Yugoslavia."

Marković's party advocated for the survival of Yugoslavia, i.e. against the disintegration of the republics of the Yugoslav federation. However, the support for his program was not impressive, although somewhat more massive support appeared in BH and Macedonia. However, a very important player in this puzzle was the Yugoslav People's Army (JNA), which was expected to be the biggest ally of Marković's reformists, and which sided with Slobodan Milošević. Thus, in the end, Marković's program lost the elections in all the republics of the former Yugoslavia.

Finally, two years after the introduction of his anti-inflation program, Ante Marković "returned the mandate" to the citizens of Yugoslavia at a press conference on 19 December 1991, saying that there no longer existed any state authority in Yugoslavia to whom he could offer his resignation.

It was the political end of "the only man with a smile on his face" in the Balkans, as one foreign journalist called him in 1989. After December 1991, he retired from public life and started a business career.

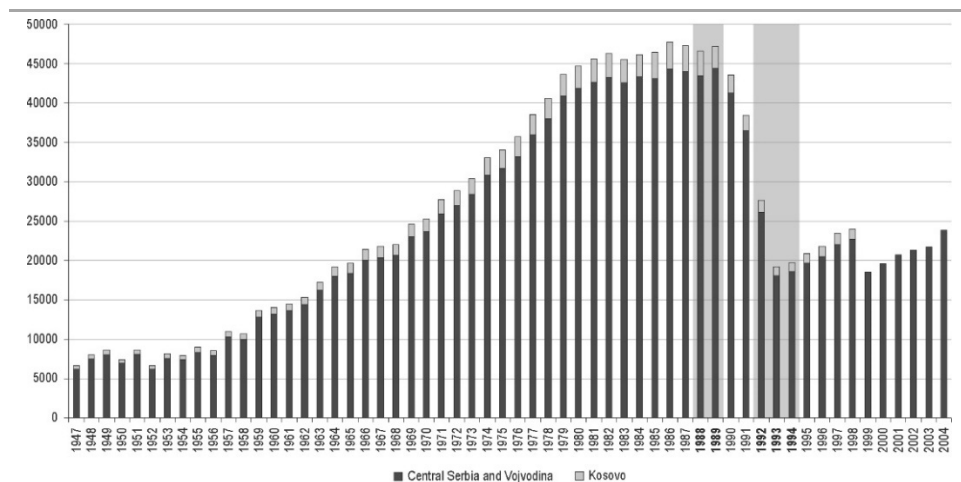
3. Hyperinflation in the Dragoslav Avramović Era

The second hyperinflationary episode (April 1992-January 1994) took place less than two years after the first one, in much more difficult circumstances. It was the era of the disintegration of the SFRY, with only two (out of six) republics remaining under the name Federal Republic of Yugoslavia. Serbia and Montenegro had just established the new state when the United Nations imposed sanctions against it, thus they faced an international economic embargo. This was during the war in Bosnia and Herzegovina and slow growth of an already exhausted economy. The previous negative rates of economic growth continued to decline further and steeper, so that, at the end of hyperinflation, the gross domestic product of the FR Yugoslavia amounted to barely 40% of the 1989 level.

The causes of the new hyperinflation, of course, could not differ much from those noted in the previous hyperinflation. Soft budget constraints and deficit financing of public spending were now been augmented by the funding of the war effort. All this has led to the uncontrolled printing of money and even faster growth of inflation. However, no one took responsibility for this.

Dragoslav Avramović, then Chair of the Expert Team for the Preparation of Yugoslavia's Economic Recovery Program, writes: "It is unbelievable, but it remains true, that no one was held accountable for the 1993 hyperinflation. No one in the apparatus of the National Bank, including its Council, did not protest or resigned because they disagreed or refused to participate in decision-making or implementation of decisions of massive printing of money... Instead, the officials of the National Bank were announcing brave new measures, and were constantly doing the opposite. Here is the

data on the increase in the amount of emission credits, which shows that the initial limit of money issuance has increased by 481,976 times... We know what happened to prices as a result of this flood of money” (Dragoslav Avramović 2007, p. 28).



Source: Dragan Vukmirović et al. (2008).

Figure 1 Gross Domestic (Material) Product of the Republic of Serbia, 1947-2004, at 1994 Prices (in Millions of Dinars)

Table 4 Issue of Money in FR Yugoslavia in 1993

Date	Dinars
1 October 1993	121,000,000,000
2 November 1993	204,193,800,000,000
23 November 1993	748,420,000,000,000
3 December 1993	4,045,878,400,000,000
8 December 1993	106,142,000,000,000,000
15 December 1993	233,641,840,000,000,000
22 December 1993	6,777,954,185,000,000,000
29 December 1993	54,368,800,185,000,000,000
31 December 1993	98,416,573,285,000,000,000

Source: National Bank of Serbia, Statistical Yearbooks of the SFRY and the FRY.

In addition to financing the war efforts, another reason for rising inflation was the burgeoning activity of new private banks, Jugoskandik and Dafiment Bank, in which the active monthly interest rates on foreign currency deposits amounted to 10%-15%, which is equivalent to an annual rate of 213%-435%. According to his own testimony, Professor Avramović instantly recognized that this was a Ponzi scheme, and it was quite clear to him that this problem could be solved very simply, by closing these banks.

However, it was evident that the country's political elite was behind the establishment of these banks, so Avramović himself gave up on the idea. According to

Avramović: “At the time Belgrade was full of rumors that the authorities have their fingers in the Dafiment operation, i.e. that they or some people in very high positions were the end users of the Dafiment foreign currency collected from the naive population... I pondered but I did not give up on the idea that these banks were one of the keys to our inflation. Unfortunately, I had to stop my work...” (Avramović 2007, p. 8).

Numerous negative consequences of the Yugoslav hyperinflation have been described in detail in many papers (cf. Uvalić 1992; Đukić 2013, etc.). It was a time when a monthly wage could buy a single ballpen, and the highest pension, on the day of payment, was barely enough to buy a bar of soap. The shops were getting emptier by the day, and at the end of 1993, no one even entered the shops anymore.

The race between the fall of the dinar and the inflation rate (explained in detail in Pavle Petrović, Željko Bogetić, and Zorica Vujošević (Mladenović) 1999) as well as the flight from dinar (cf. Petrović and Mladenović 2000) reached the peak in 1993. Even the Ponzi banks – Jugoskandik and Dafiment Bank – had to halt their business at the moment when daily payments exceeded the value of new deposits. Thus, in the fall of 1993 Dafina Milanović declared bankruptcy and Jezdimir Vasiljević fled the country. They abandoned about 150,000 deceived clients, who lost approximately 450 million deutschmarks.

It should be noted that this hyperinflation had its winners – the privileged clients of the Dafiment and Jugoskandik (as well as Delta) banks, but also the entire chain of intermediaries who participated in the purchase and sale of foreign currency and acquired enormous wealth.

In addition, the winners must also include citizens who in 1993, quite legally, participated *en masse in the giro* purchase of foreign currency, needed for acquiring their own apartments, which had previously been the property of the state. As newspaper *Blic* writes: “The formal reason for buying foreign currency was that in mid-1992 the citizens were offered to sell their foreign currency to the private savings banks at a five to 10 percent higher rate than the black market rate. The origin of that money was clear – the state was behind it”. Thus, the citizens, in addition to the daily loss of cash flows, also achieved a significant inflow of funds, achieved by purchasing the real estate they were inhabiting.

The anti-inflation program was implemented at a time when prices were increasing at a rate of 2% per hour, that is, at a monthly inflation rate of 313 million percent. However, there are estimates by Petrović, Bogetić, and Vujošević (Mladenović) (1999) that this rate is exaggerated. Namely, in January 1994, the depreciation of the dinar in relation to the deutschmark amounted to 58 million percent, which is too big a gap in relation to the registered inflation rate. In addition, it should be noted that in hyperinflation, data on exchange rate is much easier to collect and more reliable than data on changes in the general price level.

As the Chair of the Expert Team for the Preparation of the Economic Recovery Program, Dragoslav Avramović would begin extensive effort of hiring associates, initiating discussions, formal and informal meetings, and conducting analyses of alternative proposals for the anti-inflation program, which he described in detail in his book (Avramović 2007). “The program of reconstruction of the monetary system was not

the only economic program being prepared in late 1993 and early 1994. Next to it there was the Federal Government program; the program of Mr. Vuk Ognjanović, Minister of Finance in the Federal Government; the program of CES MECON, a consulting firm from Belgrade, prepared for the Federal Government; and the ideas of the National Bank of Yugoslavia. Finally, there were proposals for almost complete “dollarization” of our economy. All these programs and proposals were competing with the Monetary System Reconstruction Program of the Expert Team” (Avramović 2007, p. 56; Duško Radosavljević 2012).

In general, after extensive discussions, compromises and agreements, Dragoslav Avramović mentions that before the finalization of the anti-inflation program, one of the key unresolved issues raised by the Expert Team was whether to start two more reforms together with the anti-inflation program: foreign trade liberalization and more importantly – privatization. According to him, the prevailing opinion in most Eastern European countries (under the crucial influence of János Kornai and Jeffrey Sachs) was that a comprehensive program should be implemented immediately: stabilization-liberalization-privatization, and that any alternative was doomed in advance. However, Avramović himself was against the idea “because I was afraid that the simultaneous implementation of (all three reforms) would likely thwart the success of the monetary reconstruction, which had priority in our country in 1993”. As he himself states, “Unfortunately, when at the beginning and during 1995 it became clear that, after the monetary reconstruction, it was necessary to move on to further reforms – the program was inoperable”.

The anti-inflation program headed by Dragoslav Avramović consisted of 13 points, in which priority was given to achieving price and exchange rate stability. The key point in the Program was the introduction of a new dinar, where 1 dinar would be worth 1 deutschmark. In addition, the program provided for the liberalization of prices and wages, reestablishing the key role of the National Bank of Yugoslavia, initiation of foreign investment, and the proposal that sick state-owned companies may be taken over by strong private companies, and finally – for the state to assume the obligations of banks stemming from the old foreign currency savings.

Finally, the Program was adopted on 7 January 1994 and was set to enter into force on 24 January 1994. The reasoning for this delay given by Professor Avramović was that the National Bank could not be ready earlier with new money, although it was clear that those 17 days, until the beginning of the anti-inflation program, represented a genuine Eldorado for all previous hyperinflationary winners, who received a signal with this information to strengthen and conclude all their previous business. One of the confirmations of this thesis is given by Avramović himself: “Vojislav Tomić, the general director of this Treasury, unequivocally said that they received the order to print new banknotes too late for such a short deadline to be met. I do not believe that this cynical version was correct. I assume that the meeting at Botić’s villa (Milošević’s office) and the several-hour-long discussion on 7 January 1994 were staged”.

On 24 January 1994, the citizens of the FRY finally saw Dragoslav Avramović’s stabilization program cut off hyperinflation and return the economy to normal, and on 2 March 1994 he was appointed Governor of the National Bank of the FRY. The dinar was pegged to the deutschmark at a rate of 1:1, and at the same time

the convertibility of the new dinar was declared, which was immediately named “Avramčić” or “grandpa Avram’s dinar”. When converting the old to the new dinar, the ratio of 13,000,000:1 was first applied, and a few days later the exchange rate was changed to 12,000,000:1, which lasted until its complete decommissioning in July 1994.

The initial success of the program was unequivocal. Inflation dropped to zero, and the economy began to recover. The creators of the anti-inflation program, led by the new governor, Dragoslav Avramović, were especially proud of his “non-deflationary character”, emphasizing three elements: 1. there was an increase in real wages and pensions, 2. production began to increase, and 3. it was pointed out that after the huge growth of inequality in 1993 – it decreased during 1994.

In May 1996, Avramović was removed as NBY Governor. We learn from the media at the time (Vreme 1999): “He was replaced by the then convocation of the FRY Assembly, according to Milošević’s order – all according to protocol: Avramović’s speech, attacks on him by SPS deputies, a vote and – dismissal. The true reason for Avramović’s dismissal was his great popularity and the trust of the people, which he gained as a true savior from hyperinflation. All polls show that he was a threat to Milošević’s popularity. The second reason for Avramović’s downfall was precisely the sentence ‘I will not print money’, because there was increasing pressure from the government for the rise in printing money, which again created an inflationary circle. After Avramović’s dismissal, money was printed again at the government’s whim”.

However, it is worth mentioning that the reputation of the savior from hyperinflation is still attached to the name of Governor Avramović. People trusted him and attributed the success of the anti-inflation program exclusively to him. Basically, they were right: after his departure, annual inflation rose, and by the time Milošević left office in 2000, it had exceeded 100 percent a year.

4. The Epilogue of Yugoslav Hyperinflation

Although both Yugoslav hyperinflations were stopped quickly and efficiently, the initial stabilization was short-lived. One of the explanations was offered by Dragoslav Avramović, citing the words of Governor Branko Čolanović, who said that, in his experience, Yugoslavia was never able to balance its budget or collect non-inflationary sources of financing. Therefore, monetary stabilization, was always short-lived. In the case of the two hyperinflationary episodes, Yugoslavia had a credible carrier of the anti-inflation program, but three essential components were missing.

1. Political support: in both hyperinflationary episodes, political support for Ante Marković and Dragoslav Avramović did not last long. In both cases, there was swift political obstruction of any attempt at further reforms, due to their refusal to increasing money supply above economic growth levels.

2. This easily shows that the independence of the central bank is the primary and necessary condition for monetary stabilization. Dragoslav Avramović’s famous sentence “I will not print money” is the basic definition of central bank independence: an independent central bank is one that can say “no” to politicians (Charles Wyplosz 2013).

3. Missing reforms. None of the “saviors” from hyperinflation had the opportunity to implement the necessary reforms. At the same time, the reforms announced by Ante Marković were more ambitious and thorough, but the time never came for them to be implemented. Governor Avramović, on the other hand, approached the reform proposal with much greater reservations and with greater reliance on gradualism, but even such an approach did not lead to the desired outcome.

The lack of political support prevented both reformers, Ante Marković and Dragoslav Avramović, from successfully finishing the hyperinflation episodes. The former founded his own party, and the latter agreed to lead the Zajedno coalition in the fight against Milošević regime. Both failed in these endeavors.

Thus, our saviors from hyperinflation were successful only in that, basic goal, in curing the country from hyperinflation. Everything else – accelerating economic growth and catching-up developed countries – required (and still requires) political will, institution building and strengthening the rule of law.

References

- Avramović, Dragoslav.** 2007. *Rekonstrukcija monetarnog sistema Jugoslavije i pobeda nad inflacijom 1994 (Reconstruction of the Monetary System of FR Yugoslavia and Victory over Inflation)*. Belgrade: European Centre for Peace and Development.
- Cagan, Philip D.** 1956. "The Monetary Dynamics of Hyperinflation." In *Quantity Theory of Money*, ed. Milton Friedman. Chicago: University of Chicago Press.
- Desjardins, Jeff.** 2010. "Currency and the Collapse of the Roman Empire." *Visual Capitalist*, February 19. <https://www.visualcapitalist.com/currency-and-the-collapse-of-the-roman-empire/>.
- Dinkić, Mladan.** 2000. *Ekonomija destrukcije: Velika pljačka naroda (The Economy of Destruction: The Great Robbery of the People)*. Belgrade: Stubovi Kulture.
- Dukić, Petar.** 2013. "Doprinos Srbije i ex Jugoslavije praksi i teoriji hiperinflacije: Povodom dvadesete godišnjice od sloma monetarnog i finansijskog sistema u SR Jugoslaviji i programa monetarne rekonstrukcije D. Avramovića (The Contribution of Serbia and Ex-Yugoslavia to the Practice and Theory of Hyperinflation: On the Occasion of the Twentieth Anniversary of the Collapse of the Monetary and Financial System in FR Yugoslavia and the Monetary Reconstruction Program of D. Avramović)." *Finansije*, 68(1): 79-106.
- Dukić, Đorđe, and Aleksandar Živković.** 2018. *Prilozi za privrednu istoriju Jugoslavije i Srbije: Hiperinflacija i posthiperinflacija (Contributions to the Economic History of Yugoslavia and Serbia: Hyperinflation and Posthyperinflation)*. Belgrade: Faculty of Economics.
- Hanke, Steve H., and Nicholas Krus.** 2013. "World Hyperinflations." In *The Handbook of Major Events in Economic History*, ed. Randall Parker and Robert Whaples. Milton Park: Routledge Publishing.
- Hanke, Steve H.** 2019. "The Three M's: Milosevic, Mugabe, and Maduro." *Cato Institute*, May 13. <https://www.cato.org/commentary/three-ms-milosevic-mugabe-maduro>.
- Kornai, János.** 1986. "The Soft Budget Constraint." *Kyklos*, 39(1): 3-30. <http://dx.doi.org/10.1111/j.1467-6435.1986.tb01252.x>
- Marković, Ante, and Dragomir Vojnić.** 1990. *Jugoslovenske promene: Govori i izlaganja Ante Markovića, predsednika Saveznog izvršnog veća (Yugoslav Changes: Speeches and Presentations by Ante Markovic, President of the Federal Executive Council)*. Belgrade: Borba.
- Petrović, Pavle, Željko Bogetić, and Zorica Vujošević (Mladenović).** 1999. "The Yugoslav Hyperinflation of 1992-1994: Causes, Dynamics, and Money Supply Process." *Journal for Comparative Economics*, 27(2): 335-353.
- Petrović, Pavle, and Zorica Mladenović.** 2000. "Money Demand and Exchange Rate Determination under Hyperinflation: Conceptual Issues and Evidence from Yugoslavia." *Journal of Money, Credit and Banking*, 32(4): 785-806. <http://dx.doi.org/10.2307/2601183>
- Radosavljević, Duško.** 2012. "Sećanje na Antu Markovića (1924-2011): Nema srećnih reformatora (Remembering Ante Marković (1924-2011): There Are No Happy Reformers)." *Republika*, 516-519.
- Uvalić, Milica.** 1992. *Investment and Property Rights in Yugoslavia: The Long Transition to a Market Economy*. Cambridge, M. A.: Cambridge University Press.
- Vreme (Time).** 1999. "Svedok vremena - Dragoslav Avramović (Witness of Time - Dragoslav Avramović)," October 16.

- Vukmirović, Dragan, Aleksandra Vučićević, Gordana Nedeljković, and Vesna Aralica.** 2008. *Two Centuries of Serbian Development - Statistical Review*. Belgrade: Republički zavod za statistiku Srbije.
- White, Michael V., and Kurt Schuler.** 2009. "Retrospectives: Who Said 'Debauch the Currency': Keynes or Lenin?" *Journal of Economic Perspectives*, 23(2): 213-222. <http://dx.doi.org/10.1257/jep.23.2.213>
- Wyplosz, Charles.** 2013. "The Eurozone Crisis and the Competitiveness Legend." *Asian Economic Papers*, 12(3): 63-81. http://dx.doi.org/10.1162/ASEP_a_00238