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Problems and Challenges of Avramović Stabilization Program Quarter of a Century Later

Summary: Avramović accepted a position of a governor of Central bank of Yugoslavia (at that time, consisted of Republic of Serbia and Republic of Montenegro) in 1994. He has successfully executed one of the most effective anti-inflation programs in an adverse financial environment and without international support. This paper deals with some of the basic problems Avramović has faced twenty five years ago, most of which have left visible consequences up to present day. They still nowadays present important weaknesses of Serbian monetary and financial system. First of those problems is low institutional independence of Serbian central bank. Second problem Avramović was facing was lack of confidence in the banking system. Third problem Avramović was facing at the time of his Program was lack of confidence in the local currency. These features, although less pronounced, still remain a burden for Serbian financial system. They increase lending risks, weaken monetary policy tools, and decrease rates of growth to this day.

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JEL: E58, G21, G28, N14.

Governor Avramović was a distinctive personality in the history of monetary, economic, political, and overall social system of Serbia. He has accepted central bank governor appointment upon an invitation by the ruling political structures at that time, in a situation of rampant ongoing inflation, slump of economic activity, and crippled salaries of citizens that could not provide for basic needs in undersupplied or empty retail outlets. Dragoslav Avramović accepted this challenge in his seventies, and tried to curb hyperinflation and save the economy of the country. Upon his arrival in the country and taking the position of a central bank governor, he was faced with three serious problems which hampered, and eventually diluted and stalled the success of his program. These problems are, to a certain extent, still present in Serbian financial and economic system, and still today pose a problem for acceleration of economic growth and development of Serbia. First of these problems is lack of central bank independence. As an independent expert, not a member of any political party, Avramović performed his duties as a central bank governor, and professionally survived, serving in that capacity just slightly more than two years. Avramović was facing political pressures as soon as first year end of his mandate. Those pressures continued and intensified and they not just eroded the effectiveness of the Program, and led to Avramović being ousted from the central bank, but eventually substantially annulled the positive results achieved by Avramović, mainly reverting central bank to its previous bad practices. Lack of central bank independence substantially decreased its capacity to conduct its mandate in long-term interest of its citizens. Second problem Avramović was facing was total lack of confidence in the banking system, and the third major issue was complete lack of confidence in local currency with extremely high level of Dollarization (to German Mark).

1. Avramović Program

In recent economic history of Serbia, arguably, there is no other personality besides Dragoslav Avramović that did so much in a relatively brief period of time during the 90's. Serving as a long-term international financial expert he took a hard challenge, in his seventies, to come back to his home country at time when its growing hyperinflation was spiraling out of control. Avramović tried to tame hyperinflation and save the remaining economy of the country. He succeeded in that extremely challenging goal, in one stroke in January 1994, without foreign support and under international blockade (Dragoslav Avramović 1995, 2007, p. 5).

Governor Avramović was, on many fronts, a unique personality. For a long time detached from macroeconomic issues of his home country, in 1992 he accepted an appointment as a member of Economic council of Government of Serbia. That gave him an opportunity to learn more about economic and financial (mis)fortunes of his motherland. After an additional short engagement abroad, he came back in second half of 1993. At the time, it was completely clear that, after couple of economic policy errors, hyperinflation was about to enter its extremely destructive phase. Economic activity was running towards a complete collapse, and citizens, with their obliviated salaries in half empty stores, could not fulfill their basic existential needs. In second half of 1993, massive impoverishment of large part of the society takes place. Prices are rising faster than money supply, and real value of money in circulation falls to around $40 million (Avramović 2007, p. 18). The Olivera-Tanzi effect, i.e. depletion of real value of fiscal income in hyperinflation circumstances, was underway in its extreme form (Julio G. H. Olivera 1967; Vito Tanzi 1977). Government revenues were seizing to exist. After preparing a relatively short economic study in August 1993, Avramović was appointed as the Head of an expert team which, in a short period of time, had to come up with a set of viable reform measures that could curb hyperinflation.

Almost to the last moment, Avramović program was in open competition with other stabilization programs offered by relevant institutions and individuals in Yugoslavia at that time. These other programs did not pursue the idea of creation of the new currency and radical and immediate elimination of inflation. Avramović program was just one of several possible programs until the political elite, due to desperate situation in the country, strong argumentation, and international renownedness of Avramović, made a decision to support his program. Soon after his program was adopted, Avramović accepted his appointment as a governor of National bank of Yugoslavia, and remained on that position for slightly more than two years. Central bank at that time was fully under control of the political structures. Practically, it was in a position of just another government instrument. I was fully subordinated to politicians in their realization of short-term politically popular, even populist, governmental measures. Therefore, politically independent, and independent minded, governor, making long-term reasonable decisions beneficial for the country and society as a whole, realistically could not survive. That was the case at the time when Avramović came to power in the central bank. That is, unfortunately, despite formal legal improvements, still the case today.

Avramović was ousted from that position before the end of his mandate, under political pressure, as an independent expert and non political party figure. In hindsight, it is clearly due to his intention to lead and manage National bank of Yugoslavia and monetary policy of the country in an independent way resisting political pressures.

Today, with quarter of a century time distance, in hindsight, in a rather simple analysis we can underline good elements and weaknesses and problems of Avramović program. We can understand the reasons of its extraordinary success, but also why this success was just temporary and in a limited time frame of political ambient at the time.

Avramović was facing hyperinflation on an unprecedented scale, in a small closed economy, under UN sanctions at the time, with very low FX reserves, and without international support. As if that was not enough, he faced two additional serious structural problems directly linked to hyperinflation and basic economic system weaknesses of the past.

First problem Avramović was facing was total lack of confidence in the banking system. Banks, almost without exception, were insolvent in real terms. Hyperinflation has depleted the value of their assets in dinars, but did not annul the value of their liabilities in foreign exchange, i.e. foreign currency savings of their clients. Therefore, due to hyperinflation, banks in those times were doomed even without huge NPLs in their assets. Such "banks", not extending loans and not repaying deposits, could not generate new savings in the economy. Without savings, there were no investments, and without investments, there was no real midterm and long-term growth. The seed of no confidence, laid down then, unfortunately lives today as well.

Second problem Avramović was facing at the time of his Program was complete lack of confidence in local currency. Seed of this attitude was sawn back in the sixties when Government allowed "workers temporarily employed abroad" to keep their savings in local banks in foreign currency. SFR Yugoslavia in those years, and in the seventies, and eighties was a country with relatively high inflation, so general public was used to keep their savings in foreign currency, but also to make longer term calculations and larger payments in foreign currency, dominantly in German Marks. As inflation was increasing, and country was falling apart in begging of the nineties, German Marks were used more, and more. Hyperinflation in 1992 and 1993 has created a situation that fewer and fewer goods and services were traded in local currency, and more and more goods and services were traded in German Marks. In 1993, this took an extreme form that even on farmer's markets goods were traded in German Mark coins, not in Dinars. Confidence in local currency was completely lost, and despite excellent initial results of Avramović program, this problem remained present, created the necessity to introduce foreign currency clause in most commercial contracts, usage of foreign currency for large payments, and even companies started creating dual financial statements, one, more for internal usage, in foreign currency. This high dollarization (tied to German Mark in the nineties and to Euro since two thousands) created then, in hyperinflation, hampering Avramović program, remains a serious problem to this day.

Good sides of the Program, even extraordinary good, for the specific circumstances of FR Yugoslavia in those years, simply put, were the following.

First, key advantage of Avramović program was the fact that he respected the necessity for immediate increase in liquidity as a necessary element of stabilization program. That was the key if one was to save remainings of real and financial sectors of the economy and living standard of general public. Therefore the main difference and essential quality of his program compared to alternative programs which were, more or less, "gradualist" stabilization programs, was an introduction of a new currency. This new currency, "new dinar", internally fully convertible, was supported by FX reserves, which although relatively small, were nine times larger than the real value of old hyperinflationary money in circulation. In essence, "new dinar" was designed to operate on currency board principles[1] but at the same time substantially increased real liquidity of the system. In addition, alongside "new dinar", old (hyperinflationary) dinar[2] was kept, but with halted printing, i.e. without monetary expansion. In this way, *de facto*, liquidity was additionally enlarged without the necessity for additional FX reserves, and in the amount of real value of "old dinars". Therefore, stabilization was executed with immediate drastic, practically tenfold, increase in real liquidity. It made it possible to avoid prolonged and painful disinflation, with immediate establishment of credible liquidity on a much higher level. As a consequence, there was immediate stabilization accompanied with economic recovery.

Second, fixing of the exchange rate and full internal convertibility, easily verifiable in everyday lives of average citizens, was essential for practically immediate and substantial public regaining of confidence in new local currency. New currency, and its full internal convertibility, with fixed exchange rate and full public disclosure that "money printing" has stopped, practically brought down inflationary expectations to a very low level if not eliminated them completely. Exchange rate was fixed between New Dinar and German Mark but also between New Dinar and Old Dinar. Exchange rate fixing was extraordinarily useful and important, alongside with full internal convertibility, for immediate confidence in local money. It has created desire and demand on the side of citizens, companies, banks, and the government to hold and keep new currency and to accept and make payments in this money.

Third, introduction of real positive interest rates on new Dinars, without delay, created the consequence that keeping any type of commodities away from the market as a safe haven against inflation was a "loosing game" compared to holding New

[1] Steve Hanke, little more then two years after Avramović, introduced currency board in Bulgaria on similar principles in 1997. After Deyton agreement, similar programe was introduced in Bosnia and Herzegovina. On currency boards see more in Steve H. Hanke and Kurt Schuler (2015).

[2] With which financial system of the country became temporarily and officially a dual currency system, similar to the system with Soviet Chervonets from 1922 (see Hanke and Schuler 1991).

Dinars. Stores were swiftly filled with merchandise and shortages seized to exist in a very short time span.

However, several months after introduction of Avramović program, some weaknesses and problems started to emerge in its implementation.

First, old (hyperinflation) money has been, most probably sooner than necessary, withdrawn from circulation (mid 1994) and exchanged for new currency. That way liquidity was maintained, but New Dinars issued in exchange for Old Dinars, new being fully internally convertible to German Marks, made additional pressures on convertibility of the currency and its exchange rate. This was done due to some administrative reasons given to Avramović by bureaucracy at a central bank, but in hindsight, obviously was creating additional fragility for New Dinar without strong necessity.

Second, savings would not pick-up in existing banks, not in local currency, but not in foreign currency either, since citizens completely lost confidence in the banking sector previously. Therefore, there was no possibility to increase FX reserves from internal sources, but also that meant that it was not possible to regain credit potential of banks, necessary for higher rates of growth on sustainable grounds.

Third, previously lost confidence in local currency made it widely accepted to use foreign currency for payments, lending and borrowing, store of value, and even internal accounting purposes within companies. German Mark or currency clause was used for these purposes. Effectively, financial and economic system was practically still operating as a dual currency system. To a certain extent, it is the case to this day.

Fourth, salaries in public sector and public spending as a whole were on the rise, above sustainable levels in stable conditions.

Fifth, maybe crucial, political pressures started mounting towards the central bank for more accommodative policy, i.e. to issue additional new money both for additional loans to the state, due to rising public expenditures, and for creation of credit potentials for banks in the absence of savings.

Lack of understanding of the necessity to increase central bank's institutional independence of Serbian ruling political elites at the time, but also business and banking communities, and overall public, all contributed to inadequate and even unacceptable ways of exerting pressure over the operations of a central bank, and politically independent governor. Avramović program, i.e. Currency board as its major part, and central bank independence, has not been sufficiently protected by the laws, bylaws and their full implementation in practice. Outside pressures and obstruction (outside of central bank) mainly coming from political sphere, led to ousting of governor Avramović in May of 1996, just over two years after his appointment.

Governor Avramović, as a very popular personality in general public, after his removal from the central bank, found himself briefly heading political opposition at that time. However, very soon, he has retreated from public life of the country. Avramović remains positively remembered as an extraordinary personality in recent history of monetary, economic, political and overall social system and life in Serbia.

In the following part, this paper deals with some of the fundamental problems Avramović was facing twenty-five years ago, which have vivid negative consequences to this day, and still represent weaknesses of Serbian monetary and financial system.

2. Central Bank Independence

First of the problems that has existed in the time of Avramović program, and regrettably still exists today, is week institutional independence of the Central bank. Due to the low legal and real guarding of Central bank operations from external, mainly, political interference, and lack of more solid legal foundations of the important components of Avramović program, possibility of long-term success of the program has not materialized, as well as probable wider positive effects of such a success. In the same way, long-term survival of politically independent expert on a position of a governor of the Central bank was not realistically possible. If National bank of Yugoslavia was effectively independent at the time of Avramović at its helm, and if he remained on that position for years until the legal end of his mandate, results of his program, most probably, would have been more far reaching and, possibly, today we would have been in substantially different and better financial, economic, and possibly even political and social environment in Serbia.

Central bank independence is, not without a reason, a positive legacy of well organized and successful countries of the world, gained through decades and even centuries of their development and through learning from trial and error. Frequently, throughout history, predominance of interests coming from political sphere (where lack of relevant expertise and short-term political interests may have prevailed) in central banking operations (where expert decisions and long-term national interests should prevail) created undesirable, sometimes even catastrophic, economic results. Dominated by politics, central banks have sometimes been passive, when they should not have been, and sometimes they were active but in a way that their decisions and policy conduct had a negative impact on inflation, financial instability and economic growth.

Through painful and dear trials and errors (hyperinflation, financial crises, deflation, etc.) it was realized that central bank independence, foremost from political influences, is key for achievement of positive long-term effects from existence of central banks as institutions. Institutional central bank independence, in the case of some developed economies, may not have been hardly stipulated in their legal framework, but remains ever-present in real life, i.e. factually (United Kingdom, Canada, and some other developed countries).

Unfortunately, it is much more the case that central bank independence exists in the legal framework of some countries, but does not work in real life (some countries in Central Asia, Middle East and the Balkans).

Therefore, central bank independence can be observed formally, i.e. *de jure*, and factually, i.e. *de facto*.

Formal central bank independence is easier to measure and analyze (Anna Carolina Garriga 2016) and can be observed by using the so called CWN (Cukierman, Webb, and Neyapti) index (Alex Cukierman, Steven B. Webb, and Bilin Neyapti 1992). Empirical analyses predominantly show that independence of central banks is negatively correlated with inflation and unemployment, and positively correlated with rate of GDP growth (Table 1). Central bank independence may be observed in several ways: institutional, personal, financial, and instrumental (functional).

Institutional independence provides discretion in central bank operations and relates to banning of any influence of instances outside of central banks on functioning, decision-making, execution of powers, and structure of the central bank.

Personal independence protects the governing structure of a central bank and their capacity in independent decision-making without outside interference. In real life, this relates also to protection against premature dismissal from governing positions, and to the length of the mandate, which should, as a rule, be longer compared to the length of a political cycle in the country. Literature stipulates two conditions of personal independence for the appointed governing structures of the central bank: competence and independence of domestic political processes.

Financial independence implies that central bank has to be unrestrained in managing their finances, and to have enough independent income streams and capital, so to be in a position to freely execute its goals prescribed by the law.

Finally, instrumental or functional independence implies freedom on the side of the central bank in choice and usage of instruments and tools of monetary policy so to fulfill legally prescribed goals for the central bank.

Maastricht Treaty has unequivocally demanded from all EU member states to establish full central bank independence (Treaty on European Union 1992, Title II, Articals 107, 108, 109, and Protocoles, Chapter III Artical 7). In Serbia, there seems to be lack of sufficient understanding of the need to uphold central bank independence. This attitude is unfortunately shared widely among political elite, business and banking communities, but also by general public at large.

This has led to inappropriate and unacceptable forms of pleasures towards operational conduct of the central bank in practice, and personally towards politically independent governors of the central bank.

Such state of affairs substantially undermines effectiveness and institutional capacity of the central bank in its endeavors to conduct its operations in long-term national economic interests. Outside pressures toward central bank, among other things, waists resources of the bank (time, people, and assets) on fundamentally unnecessary activities of repelling these pressures whose protagonists, fairly often, do not understand operations, tools and problems of central banking activities. Avramović was exposed to such pressures already by the end of the first year of his mandate at the helm of the central bank. In the second year of his mandate, these pressures became stronger and more frequent, despite his overwhelming popularity among the public at large. This personal popularity that he has enjoyed, most probably enabled him to stay in office longer than the current political elite wished for. Avramović was not willing to give in to political pressures, at least not in requested forms and amounts, so finally his term in office came to abrupt end by the decision of the Council of the National bank of Yugoslavia in May 1996.

After Avramović, who was a non political personality and an expert, new governor appointed at the helm of the central bank was from the upper ranks of the political structure. Reforms have been halted, current politics established its rule over the central bank, inflation was substantially picking up pace, and badly needed structural reforms have been postponed indefinitely.

Table 1 Relation between Central Bank Independence (CBI), Inflation, Unemployment, and Economic Growth in Various Studies with Different Samples and Data Sets

Model	CBI measure (sample)	DV: Inflation		DV: Unemployment		DV: GDP growth	
		Coefficient	N	Coefficient	N	Coefficient	N
1	Garigga (full)	-174.62 (-4.01)***	5672	-.328 (-1.66)*	3443	.587 (1.02)	5474
2	Garigga (high income)	-26.50 (-3.72)***	1897	-.670 (-2.41)**	1083	-1.310 (-1.73)*	1819
3	Garigga (middle & lower income)	-329.87 (-4.20)***	3775	.183 (0.68)	2360	3.267 (3.86)***	3655
4	CWN	-292.01 (-1.03)	1470	-1.688 (-1.30)	176	3.696 (1.10)	1364
5	Garigga (model 4)	-173.85 (-0.70)	1470	-1.154 (-0.99)	176	5.307 (2.01)**	1364
6	Polillo & Guillen	-293.19 (-1.29)	985	-.684 (-1.47)	902	1.993 (1.60)	965
7	Garriga (model 6)	-427.53 (-2.10)**	985	-0.68 (-0.16)	902	2.698 (2.46)**	965
8	Bodea & Hicks	-241.45 (-3.80)***	2305	-.307 (-1.06)	1455	1.864 (3.22)***	2273
9	Garigga (model 8)	-273.81 (-4.09)***	2305	-.226 (-0.77)	1455	1.669 (2.77)***	2273

Notes: DV - dependent variable, N - sample size. Coefficients after panel regression with fixed effects. Constant and lagged dependent variable omitted, *t*-values between parentheses.

Source: Garriga (2016, p. 22).

Since Avramović, position of the central bank in Serbia has improved in terms of its formal independence. Laws and bylaws have been bettered (especially in 2003) and formally aligned with EU legislation on this matter. However, in practice, concerning factual independence, unfortunately substantial improvement has not been made.

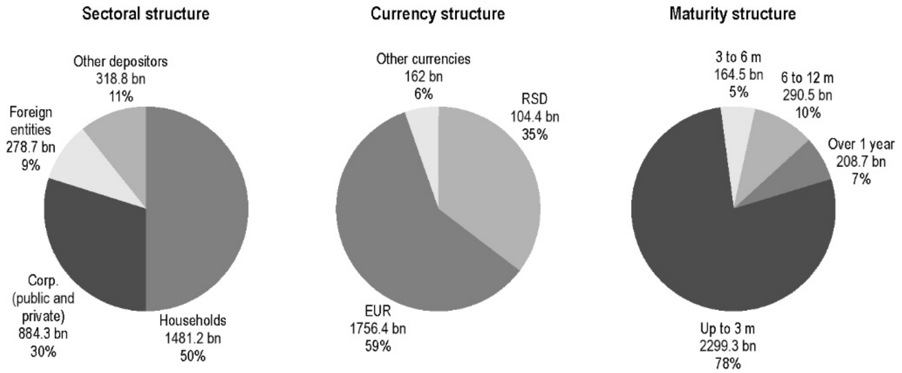
Roughly about fifteen years after Avramović was appointed as a governor (i.e. by the end of 00s) it seemed that managing and governing structures in the central bank were finally getting closure and in line with a modern central bank law enacted in 2003 which provided for formal independence of the bank. Non political experts more and more were appointed to decision-making positions within the central bank, and in the Council of the bank, they already were in majority. By particular set of circumstances, in mid 2010, non political expert from academic background, not affiliated to any political party, was appointed as a governor of the central bank. It seemed that formal independence of the central bank is on the path of becoming factual, substantial, independence. However, then in 2011, as was the case in 1995, just slightly over one year in the office of the non political party related expert governor, media attacks and pressures emerged targeting the governor and the central bank. It was a consequence of desire of particular members of the ruling political structure to influence decision-making in the central bank. And again this time, non political party related governor, managed to stay in office slightly over two years. He was *de facto* ousted out of the office, this time not by the decision of the Council, but by enactment of, unnecessary and worst, new Law on central bank, if that is any improvement. Governor formally resigned, protesting against political process which suspended central bank independence, and against new unnecessary Law on central bank, which was a step back compared to the existing one. With same reasoning, several vice governors and majority (expert and nonpolitical) Council members resigned as well. This time again, after non political party related governor, selected as an expert, was ousted out of the office, new governor was appointed from the top ranks of political structure (vice-president of the ruling political party). Again, current political structure has established direct rule over the central bank, rating agencies have downgraded Serbia, and some important ongoing reform processes have been halted and have not been addressed ever since. Lack of factual independence of the central bank, has been a serious problem and a challenge for Avramović, but the same problem still exists in Serbia quarter of a century later.

3. Savings and Confidence in the Banking System

Second major problem Avramović was facing, that still, quarter of a century later, to a significant degree persists today, and negatively influences functioning of banks and the overall economic system of the country, is lack of confidence in banks and overall low level of savings in Serbian economy. At the time of Avramović, hyperinflation has annulled asset side of bank balance sheets, disabling their capacity to honor their obligations towards citizens, i.e. depositors. At that time, payment system has been operating through a separate centralized payment institution (SDK) so business entities held their transaction accounts outside of banks, i.e. payment system was not jeopardized due to bank failures. Banks, almost without exception, were insolvent in real terms. Hyperinflation has annulled the value of their assets in Dinars, but did not annul the value of their obligations in foreign currency, i.e. foreign currency savings of their depositors (citizens). This was allowed in Yugoslavia traditinaly since the sixties, i.e. citizens could keep foreign currency deposits in local banks (bank liabilities), but at the same time, extending forreign currency loans (bank assets) was not alowed. So these bank liabilities stayed untouched by hyperinflation in local currency.

Inability of banks to pay out saving deposits to citizens, made savings in banks fully compromised as a social construct. Today, we understand that it was with long-term consequences. Another very important problem and a government mistake, with long-term negative consequences, especially for reconstruction of financial system based on local currency, is that local currency savings deposits of citizens were annulled by hyperinflation and were never compensated for. Foreign currency savings deposits were honored with a delay, through issuance of government bonds (FX savings bonds) in 2002, gradually maturing up to 2016. Local currency (Dinar) savings deposits, i.e. saving deposits of citizens fully honoring laws of the country they live in, saving in domestic currency in their own country, in domestic banks, have never been repaid. And today, quarter of a century later, we feel the consequences of that when we analyze the structure of savings deposits in Serbia (Figure 1.).

It is obvious that households (citizens) are still the most important element of depositors (first part of the Figure 1 to the left). We also observe that savings is predominantly in foreign currency (second part of the Figure 1 in the middle). And we see that term structure of deposits is significantly unfavorable for stable long-term financial intermediation, because deposits with maturity less than six months take 86% of total deposits (third part of Figure 1 to the right).



Source: National Bank of Serbia (2019, p. 26).

Figure 1 Structure of Banking Sector Deposits (31. December 2019)

At the time of Avramović serving as a governor of the central bank, banks were, due to the hyperinflation, condemned to failure even if they would not have have had large amounts of non-performing loans in their assets. Banks which did not extend loans to their clients, and did not return deposits to their depositors, could not attract new savings, and Avramović felt that to be a big problem. Even to the extent that some ideas were circulating at the time, that citizens perhaps should put their saving deposits directly in the Central bank. Without savings, especially under international blockade at the time of Avramović, investments were extremely limited. Seed of discomfort and distrust towards savings in banks sown at that time preceding Avramović arrival, unfortunately, to a certain extent, lives today as well. Serbia still has a problem of low level of savings and low level of investments compared to GDP. Savings that exist, still is (we saw in Figure 1) predominantly very short-term. Despite existing capacity of the banks to conduct so called maturity transformation, i.e. taking shorter term liabilities and transforming them into longer term assets, such a short average maturity of deposits in Serbian banks, prevents them from higher volume of longer term lending. That does not help, to say the least, long-term investing in Serbian economy and that is what is needed to finance technological caching up as a way of increasing competitiveness.

Therefore, key problems that even today burden Serbian banking system: low level of savings, domination of foreign currency savings, and short-term maturity of deposits, is a direct consequence of financial crisis from the beginning of nineties, when Avramović came back to the country trying to resolve it.

Once savings was compromised, it has not fully recovered to this day. Current consumption (as opposed to savings) as part of the GDP is very high and dominant in Serbia, and in recent years it is above 85% (Table 2).

Table 2 Gross Domestic Product, Expenditures Approach, Current Prices

	Year	GDP	Current consumption
Value, current prices, mil RSD	2018	5072932.2	4361238.1
	2019	5421851.3	4600185.0
	2020	5502216.3	4626690.8
As part of GDP, %	2018	100	86.0
	2019	100	84.8
	2020	100	84.1

Source: Statistical Office of Serbia (2021)[3].

Therefore, room for savings, as main source of investments, in Serbia is very low even today. It is true that with liberalization of cross-boarder financial flows, foreign savings can be, at least partly, source of financing domestic investments. But, at the same time, it comes with a price of additional debt, and/or, at least, further deterioration of country's International investment position.

Serbia thus still has a relatively low level of savings, and low level of investments. Existing savings are relatively short-term in duration. Despite maturity transformation that banks can do, average short-term maturity of deposits, influences relatively short-term maturity of loans to this day. Without larger amounts of long-term loans, especially towards corporate sector, it is not viable to finance technological leaps and caching up with more developed economies. Low savings, low investments, and inadequate lending maturity to corporate sector, remain weaknesses of our financial system even today that represent one of the key limitations for faster economic growth of the country.

Increase in domestic savings, more local currency savings, and longer maturity of savings deposits in banks are major source of healthy investing in the country. Long-term Dinar denominated loans are very important for low risk investment lending needed for increase in technological development and caching up of Serbian economy in terms of competitiveness with more developed economies.

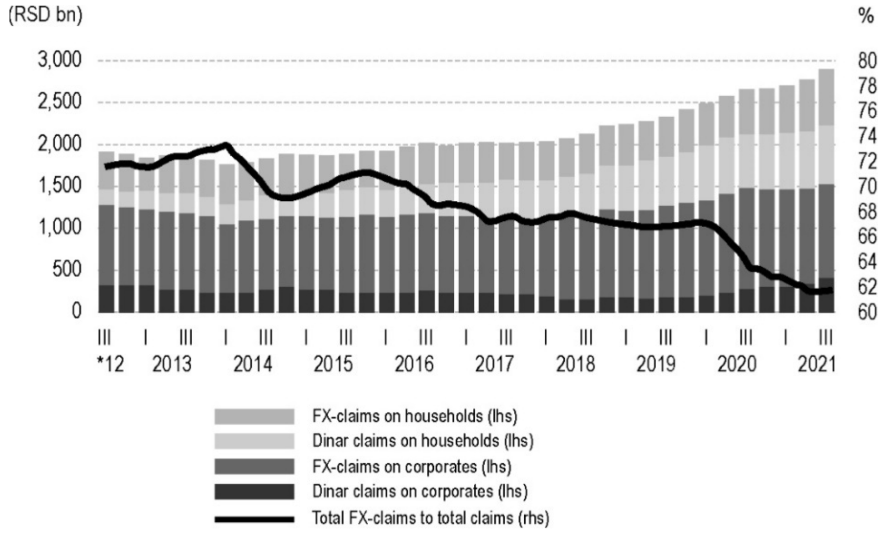
4. Confidence in Local Currency

Third major problem Avramović was facing at the time of his program was total lack of confidence in domestic money and extremely high dollarization (in German Marks). German Marks were used even for groceries and farmer's market transactions in 1993, and in some parts of the country (like the one-time subsidy to pensioners in Montenegro – at that time part of FR Yugoslavia) even some government obligations to citizens have been paid out in foreign currency.

Such practices were, to a certain extent, understandable in times of hyperinflation. However, even today, quarter of a century later, relicts of such an attitude towards local currency still persist in the form of high level of Dollarization (Eurization). One way of this attitude is visible and present through a wide spread use of foreign currency clause in various contracts in the economy, but also in lending. This issue still today

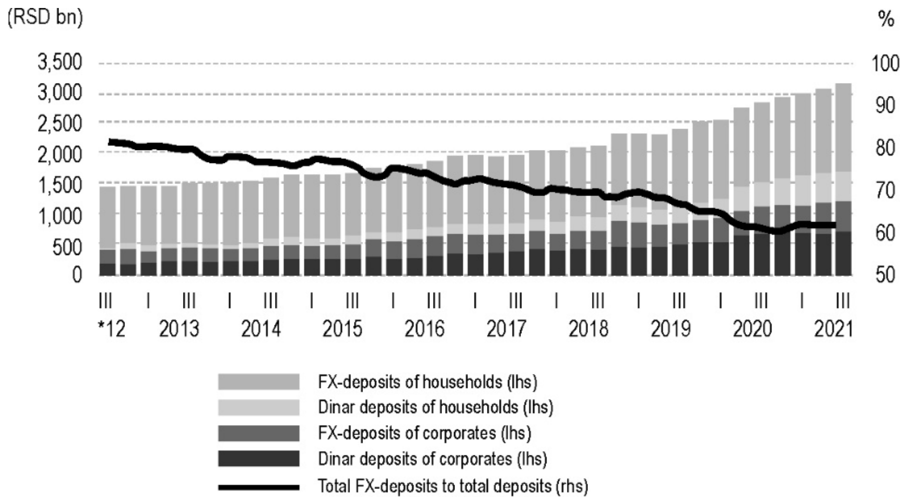
[3] **Statistical Office of Serbia.** 2021. Database. https://www.stat.gov.rs/en-US (accessed July 10, 2021).

substantially burdens domestic financial system (Figures 2 and 3), raising lending risks, weakening tools and efficiency of monetary policy and lowering rate of economic growth.



Source: National Bank of Serbia (2021, p. 9).

Figure 2 FX Claims to Total Banking Sector Claims



Source: National Bank of Serbia (2021, p. 9).

Figure 3 FX Deposits to Total Deposits

Widespread usage of Euro, in parallel to existence of local currency, in essence, has two negative effects: one on financial stability and the other on monetary policy.

Financial stability is negatively affected by Eurization in several ways. As we can see from Figure 2, liabilities of borrowers in Serbia are predominantly in Euros. Precisely because of hyperinflation that Avramović was called to deal with in 1993 and destruction of confidence in local currency at the time, Serbia still today has the highest level of Eurization in Central, Eastern, and South Eastern Europe[4].

Therefore, movement in exchange rate in Serbia, and other highly Euroized (and Dollarized) economies among developing and emerging countries (Ben S. Bernanke et al. 1999; Frederic S. Mishkin and Miguel A. Savastano 2001), may directly affect credit capacity of borrowers, deteriorate bank capitalization, and threaten financial stability of the country. In other words, if bank capital is expressed in local currency, as is the case in Serbia, weakening of the echange rate may deteriorate capital adequacy of banks and may even become a systemic event.

High level of Euroization creates a danger for market risk of exchange rate movement to be spilled over into, i.e. converted to, increased and widespread credit risk of borrowers, that is to say, diminished repayment capacity of borrowers towards the banking sector (Miloš Božović, Branko Urošević, and Boško Živković 2009).

Such an increase in credit risk has a potential to conquer all regions of the country, all industries of corporate borrowers, and all professions of retail borrowers. Therefore standard measures for credit risk control, such as diversification of borrowers, have a very limited potential impact. That may have a negative impact both on solvency of individual banks, but also on solvency of a banking sector as a whole, and consequently on real sector and state sector of the country. Therefore, Euroization makes financial system vulnerable, and can jeopardize overall financial stability of the country. Consequently, banking regulation has to be more conservative, i.e. more expensive for banks, and that in itself hampers financial intermediation and decelerates economic growth.

Besides, in the context of Euroization impact on financial stability, it should be noted what there is its impact on bank capitalization as well. Namely, local currency expression of bank capital in circumstances of high Euroization of banking assets (and, obviously, its risk weighted assets measure), as is the case in Serbia, creates a possibility that local currency weakening may decrease capital adequacy of banks related to its assets (and risk weighted assets) denominated in (or index linked to) Euros. And this is even without any increase in non-performing loans. Such a possibility, than, calls from additional capitalization to be prescribed by the regulator, which otherwise should not be necessary. Such additional requirements, as a rule, decrease banking efficiency, and push lending interest rates higher, and that has an obvious negative impact on overall financial intermediation and economic growth.

Monetary policy also suffers from negative impact of high Euroization (Dollarization) found by Avramović at the time he took the helm of central bank. Even today, high Euroization hampers monetary policy. Namely, in Inflation targeting as a

[4] Concerning the level of Euroization in Central, Eastern, and South Eastern Europe, one can consult regular surveys conducted by Central bank of Austria: OeNBEuroSurvey. For details also see Helmut Stix (2010).

monetary regime of choice, monetary policy is less effective, and less precise in circumstances of high Euroization. There are several important aspects to this point (Dejan Šoškić 2012, 2015).

First, any increase of central bank reference rate should, in theory, increase the price of lending and decrease aggregate demand. However, increase in reference rate of the local central bank directly influences only local currency denominated financial instruments, and therefore only part of the aggregate demand, that is, not on the dominant part of lending enticed aggregate demand which is financed through Euro, or Euro currency clause linked, lending. Besides, increase in interest rates should stimulate savings and decrease consumption. However, increase in reference rate of a local central bank will have only an incentive to increase savings in local currency, but not also on savings in Euros, despite that being the dominant way of savings (Figures 1 and 3). Therefore, movement in local reference rate has much less of an impact on aggregate demand, and can be partly an explanation for higher levels and higher volatility in local central bank reference rate in certain periods of time.

Second, Euroization of lending makes reference rate of ECB, and related movements in EURIBOR, practically more influential on price of lending and aggregate demand in Serbia, compared to movements in referent rate of the local Central bank.

Third, high Euroization increases the "pass-through" effect, i.e. influence of exchange rate movement on inflation, because many payments in the country are indexed to exchange rate movements (rents, salaries, production inputs etc.). With that, maneuvering room for relaxation of monetary policy that is targeting inflation may be reduced. Lower interest rates differential between local currency and Euro, may induce short-term capital outflow from the country with depreciation of the exchange rate and, consequently, higher inflation from "pass-through" effect.

Fourth, increase in the reference rate of the local central bank, without any change in financing conditions in Euros, may have an undesirable impact of increase in interest rate differential between the local currency and Euro, and may give an additional impetus for taking Euro denominated, or Euro currency clause linked, loans, i.e. for Euroization. That certainly falls substantially among undesirable outcomes and contrary to the interests and endeavors to strengthen local currency use as a way to support long-term stabilization of country's financial system. National bank of Serbia in 2010 and 2011 has put in order its instrument of reserve requirements with which it succeeded to diminish or even eliminate this problem, by moving the level and structure of foreign currency reserve requirement simultaneously with moving of local reference rate.

Fifth, increase in reference rate of the local central bank, without adequate influence over financing conditions in Euros, may increase interest rate differential, and that may give additional impetus for import of short-term unstable capital flows (Carry trade). This Carry trade, as a rule, when "coming in", may unnecessary raise the value of (appreciate) local currency, but, when "going out" unnecessary may cause depreciation pressures over local currency, and that can contribute to the overall increase in instability of a local financial system.

Sixth, in case of depreciation expectations for local currency, high Euroization may contribute to sudden and overemphasized shifts away from local currency into

Euros, and for a broad base of transactors (flight to safety). That cannot just contribute to depreciation of local currency, but make it more pronounced, and, in highly Euroized economies, have a more negative contribution toward higher inflation a “pass-through” effect. Prices ones raised due to local currency depreciation, as a rule, do not fall back easily on their previous level, even if the local currency subsequently appreciates.

Research conducted in National bank of Serbia, have shown, that in highly Euroized financial system of Serbia, monetary policy transmission mechanism is fundamentally distorted. Interest rate channel has significantly lower impact, and exchange rate becomes dominant channel of influence on inflation, and even a goal on its own (Pavle Petrović and Aleksandra Nojković 2015).

In short, paraphrasing Guilermo Calvo (2006), “... countries that aspire to have an independent monetary policy should aim at creating the conditions for eliminating Domestic Liability Dollarization …”.

High dollarization (linked to German Mark at the time) with which Avramović was faced when he implemented his program, was a huge problem undermining his efforts. That was understandable at the time of hyperinflation, but relicts of such attitudes remain to this day. This lack of confidence in local currency, initiated in hyperinflation times, still remains a cause for Dollarization (Euroization), and Euro currency clause, in lending in local financial system. These features remain a burden for domestic financial system, they increase lending risks, weaken monetary policy tools, and decrease rates of growth to this day.

Broad analyses conducted and active measures implemented concerning so-called De-dollarization, or De-eurization or, simply put, Dinarization during 2010 and 2011, started to bear fruit. Usage of local currency started improving in the beginning of 2012. In addition to that, in April of 2012, Memorandum on Dinarization has been signed between the government and National bank of Serbia. Memorandum prescribes an extensive list of measures that should be implemented with an aim to strengthen Dinarization of local financial system and, subsequently, support financial stability and efficacy of monetary policy of the country. Besides measures listed in Memorandum, other possible measures to strengthen Dinarization were in the pipeline. However, with appointment of a highly ranked politician in mid 2012 to the position of a governor, active work on Dinarization has effectively seized, and monetary regime of the country, without adequate decision of the Council (of the governor) of the central bank, in practice and unofficially has slided from Inflation targeting into *de facto* exchange rate targeting.

5. Conclusion

Quarter of a century has passed since anti-inflation program of governor Avramović. This program and Avramović himself have unusually successfully and in a brief period of time tamed one of the highest hyperinflations in history.

Financial and economic destruction going on in the country prior to Avramović arrival, has created a set of serious problems with which he was faced when taking his task.

Some of those problems even today persist and pose serious limitations in functioning of Serbian financial system, and hamper acceleration of economic growth in the country. Fact that twenty-five years have passed, and that some of the major problems of our economic system still remain, speaks vividly about economic and financial destruction that occurred in the beginning of nineties, and that it left long-term economic damage on an enormous scale for Serbia.

However, fact that some of the "Avramović problems" are still there, and that Serbia is facing them, to a certain extent, today as well as then, speaks perhaps on its own also about the capability of political elites in Serbia in past twenty-five years to fully understand country's problems but also to have adequate capacity for positive change.

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