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# Analysis of the causes of hyperinflation in the Republic of Croatia 1991-1993

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***Abstract***: The paper analyses the causes and dynamics of hyperinflation in the Republic of Croatia - which lasted from 1991 to 1993. Through the analysis of primary and secondary sources, the individual causes of hyperinflation are broken down, and based on the analysis the authors conclude that while the primary inflationary impulse is due to the economic legacy of Yugoslavia, and historical circumstances such as war and the collapse of the former state, the rise in prices would not have been maintained had there not been inflationary taxation as a form of accumulation of foreign exchange reserves. The authors aim to provide newer generations of economists with a complete overview of factors that instigated and maintained inflation in this turbulent and transitory period in Croatia's history.

***Keywords:*** inflation; hyperinflation; transition economy; monetary policy

***JEL classification***: P24

# Analiza vzrokov hiperinflacije v Republiki Hrvaški za obdobje 1991-1993

***Povzetek:*** Prispevek analizira vzroke in dinamiko hiperinflacije v Republiki Hrvaški, ki je trajala od leta 1991 do leta 1993. Skozi analizo primarnih in sekundarnih virov so razčlenjeni posamezni vzroki hiperinflacije. Na podlagi analize avtorji ugotavljajo, da čeprav je primarni inflacijski impulz posledica gospodarske dediščine Jugoslavije in zgodovinskih okoliščin, kot sta vojna in razpad nekdanje države, se rast cen ne bi ohranila, če ne bi bilo inflacijske obdavčitve kot oblike kopičenja deviznih rezerv. Avtorji želijo novejšim generacijam ekonomistov ponuditi celovit pregled dejavnikov, ki so spodbujali in vzdrževali inflacijo v tem turbulentnem in prehodnem obdobju hrvaške zgodovine.

***Ključne besede***: inflacija; hiperinflacija; gospodarstvo v tranziciji; monetarna politika

## Introduction

Inflation, although a phenomenon that apparently rarely appears in modern circumstances, and which due to its dynamics only in exceptional cases reaches drastic proportions such as were often seen during the twentieth century - still has a profoundly destabilizing effect on the economy and politics when it appears. Keeping the price level stable is therefore considered a prerequisite for the legitimacy of any government. As the supreme arbiter of the market, the state is expected to ensure the conditions for long-term planning, and the ability to predict the future value of money is an indispensable part of that process. As a fundamental macroeconomic topic, inflation also presents a specific challenge when analysing individual cases. Its otherwise potentially numerous and complicated causes and dynamics are further complicated by the conditions in which countries in transition from a planned to a market economy find themselves. The Republic of Croatia found itself in exactly such a position at the beginning of the 1990s - in the first phase of the transition towards a capitalist economy, with a hyperinflation that not only threatened its economic outlook but had a direct negative impact on the lives of its citizens, and on the defensive war that Croatia led at that time.

To understand why the analysis of inflation in such periods can give rise to additional research problems, it is necessary to emphasize at the outset several difficulties that any analysis of inflation faces. First, getting a complete picture of causal relationships between all the relevant variables in the process of price growth is often very difficult. Mainly because to fully understand specific cases, it's necessary to have access to a plethora of data concerning the studied process. Incomplete information can create a wrong perception of both the type of inflation and the necessary anti-inflationary measures that the state should take. It is also necessary to emphasize how much the choice of a theoretical paradigm through which economic phenomena are viewed affects the understanding of inflation. This is mainly reflected in how much importance is attached to some phenomena in relation to others. For this reason, it is necessary to bear in mind the theoretical basis on which the data is collected, organized and commented on, when analysing primary and secondary sources - which this paper is based on.

The goal of this analysis is to induce further research into the subject, so as to not only expand on the understanding of the Croatian hyperinflation in the nineties, but also - because of the myriad of possible causes in this specific case of hyperinflation – it can provide economists with valuable insights into inflation in general. The authors have grouped the causes of the hyperinflation into three groups: the inflation-prone economy of Yugoslavia; economic trends in the wider context of the Croatian War of Independence; and the causes of inflation stemming from the monetary domain. Given that economic phenomena should always be observed in continuity, the inflation that started in 1991 did not come out of nowhere but represented a logical continuation of events from the previous period. Thus, groups of causes are analysed chronologically.

## 1. Inflation inherited from Yugoslavia

During the entire existence of the Yugoslavia, inflation was almost an endemic disease. Thus, five inflationary cycles can be identified.

Table 1. Average annual rate of growth of retail prices in Yugoslavia (source: Žižmond, 1991)

| Cycle no. | Time period | Average annual growth rate of retail prices (%) |
|---|---|---|
| Cycle 1 | 1955-1962 | 5.2 |
| Cycle 2 | 1963-1966 | 15.9 |
| Cycle 3 | 1967-1975 | 14.1 |
| Cycle 4 | 1976-1981 | 21.8 |
| Cycle 5 | 1982-1989 | 131.5 |

As can be seen in table no. 1, in the period between 1955 and 1989, inflation had started to become an increasingly serious problem for Yugoslavia. "From 1971 to 1991, the average annual inflation was 69%. Strong recession and hyperinflation appeared at the end of the 1980s, and at the end of 1989, the monthly inflation rate exceeded the threshold of 50%" (Anušić et al., 1995:6). It begs the question: why was inflation such a persistent and insurmountable problem of the former state? The answer to that question is complex, but it is obvious that the entire Yugoslav economy was "systemically prone to inflation" (Babić, 2006:3). Analysing the literature, the main culprits for recurring crises are: inadequate incomes policy (and price policy in general), monetary policy that was managed by the state, and the imbalance between savings and investment.

According to Žižmond (1991), the basic feature of Yugoslav inflation, which differed significantly from inflation in market economies, is that the fundamental imbalances in Yugoslavia were primarily the result of inadequate system organization. Namely, the formation of price equilibriums of production factors was prevented, while at the same time allowing for a substantial increase of incomes (without the corresponding increase in labour productivity) and a relatively free pricing of products and services. In such circumstances, there was a constant discrepancy between aggregate supply and aggregate demand, and thus the road to inflation was open. The nominal increases in workers' incomes that the state ensured were in real terms cancelled out by increases in the price level. In turn, prices rose in response to nominal increases in incomes, leading to a wage-price spiral.

But how were the aforementioned income increases secured? The answer lies in the National Bank of Yugoslavia. While today the independent monetary policy of the central bank is understood as a conditio sine qua non of keeping the price level stable, the monetary policy of Yugoslavia was under direct control of the state. So said income increases - guaranteed by collective agreements - were in fact financed by money creation. These issuances had an additional inflationary effect, so a vicious cycle was slowly emerging, from which there seemed to be no way out.

It would also be important to note the role in the inflationary processes held by the combination of: the imbalance between savings and investment, foreign borrowing, and the devaluation of the Yugoslav dinar (YUD). In the period after World War II, real interest rates on savings were negative, so the propensity to save was negative. Savings were therefore insufficient to cover investment projects, so the state turned to foreign investors for the necessary funds. In the long term, the volume of investment must be in line with the volume of total savings. Only when investment exceeds this level, inflationary trends occur. The fiscal deficit, which was used to finance investments, was a problem because - as Švaljek writes: "Permanent fiscal deficits always create a danger of rising inflation" (1999:180).

In addition to the fiscal deficit, Yugoslavia also had a deficit in the balance of payments almost every year of its existence (Woodward, 1995). In order to improve the balance of payments, several dinar devaluations were carried out. Devaluations undermined confidence in the dinar, so citizens increasingly exchanged it for the German mark. This reduced the demand for the dinar, pushing inflation upwards. In addition, the relative openness of the Yugoslav market meant that Yugoslavia was not shielded from inflationary shocks due to the oil crisis of the 1970s. So, the prices of imports - from retail goods to electricity - went up. While the aforementioned problems (incomes policy, imbalance of savings and investment, and state-dependent monetary policy) fall under the macroeconomic category, for a complete understanding of Yugoslav inflation, it is necessary to also go into the microeconomic sphere.

Yugoslavia was known for its decentralized socialist economic system, the so-called self-management system. "Although different from the Soviet model of central planning, the system lacked microeconomic incentives like any other socialist model" (Anušić et al., 1995:6). It has been noted that increasing the money supply without increasing productivity leads to higher inflation rates, and "numerous studies have proven that private companies have higher productivity and better efficiency in general" (Gregurek, 2001:164). When it came to the microeconomic behaviour of companies, Yugoslavia, like other socialist economies, suffered from a number of problems, the most important of which to mention would be the problem of soft budget constraints (Kornai, 1986).

The microeconomic set of incentives at work at the company level differs in different economic systems – in this case, the socialist and the capitalist. Enterprises in market economies operate with hard budget constraints – that is, they are forced to cover their production costs with their own income, and if they cannot do so – they find their financing from other sources, but only in the short term. If a company fails to cover its costs in the long term, it ceases to operate - which means it either declares bankruptcy or is bought by another company. Hard budget constraints mean that the authorities will not subsidize or rescue companies that are doing poorly and/or taking losses.

Yugoslavia - despite several differences in relation to other socialist economies - was similar to them in that companies that operated at a loss in many cases were financially supported by the state. The soft budget constraint for the company meant that even if it did not achieve satisfactory productivity, it could continue its operations supported by local, federal, or state budgets. Moreover, the practice of inter-company loans, created outside the banking system, which in many cases were not repaid, was widespread in Yugoslavia and produced liquidity problems in the system (Kornai, 1986). In such an environment, there are no microeconomic incentives to improve production, achieve a better combination of inputs, or optimize the workforce. In addition, as was stated before, income increases in state-owned companies were secured with money creation. Therefore, there was an increase in the money supply, without an increase in productivity - which consequently led to an increase in the rate of inflation. Considering all of the economic problems listed above, it becomes obvious that at the start of its independence, Croatia inherited an economic system that generated inflation at its fundamental level.

## 2. Economic impact of the Croatian war of independence

The war in Croatia began in 1991 and lasted until 1995. At the end of the war, the number of dead and missing persons was determined to be 15,970 (Živić, 2005). The war also caused a large number of displaced persons, so that in 1991 there were 550,000 exiles and refugees on the territory of Croatia. Regarding property, according to the assessment of the state audit, it was established that in the period between 1990 and 1999, damages caused by war operations in Croatia were in the amount of HRK 236,431,568,000 (Perković and Puljiz, 2001). In addition to the destruction caused by the war, the Croatian economy also suffered from the stagnation of economic relations and production within the country, as well as from the loss of the market of the former Yugoslavia. All of the above resulted in a drop in production, i.e., a decrease in supply and an increase in prices. The authors conclude that an inflationary gap had appeared.

To form a clearer picture of the relationship between changes in macroeconomic aggregates (which were themselves largely determined by war and transition) and changes in the rate of inflation, it is useful to observe these aggregates as part of the potential causes of inflation, as they are usually grouped in the literature. To begin with, in order to question whether hyperinflation in Croatia is the result of a demand-pull, it is important to start by observing the GDP. The Croatian War of Independence is responsible for the largest recorded drop in real GDP in transition economies in Europe (figure no. 1). Real GDP fell to its lowest point in mid-1993, when it amounted to 60% of 1990 GDP.

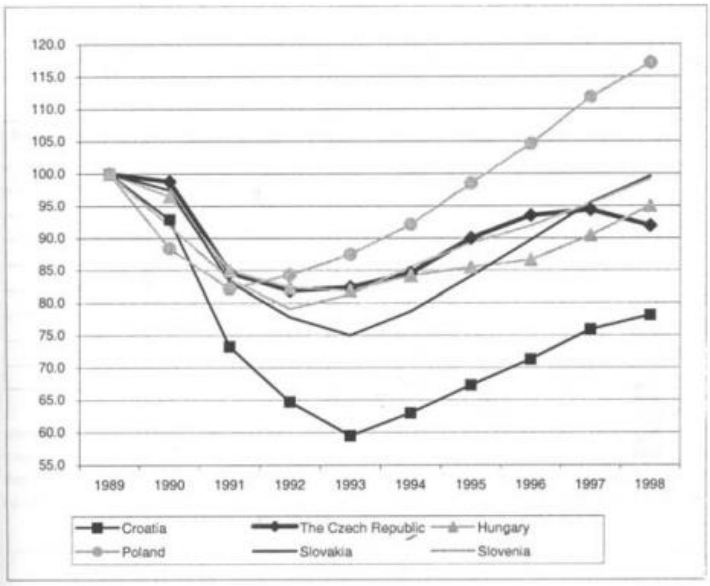


Figure 1. Real GDP index of transition economies (1989 = 100)

(source: Mervar, A. and Nestić, D., 2000)

Such a drastic drop in GDP leads to the conclusion that hyperinflation in Croatia was not caused by a demand-pull, given that there was an overall drop in economic activity. The decrease in investments in the economy also testifies to the absence of this kind of inflation: the investment index in March 1993 – compared to the 1990average - was 18 (a decrease of 82%). A drop in turnover was also evident in retail: in the services and consumer goods sector - in the period between December 1990 and April 1993 - there was a 64% drop in turnover. In the period between 1992 and 1993, a decline in the real value of money in circulation was recorded, which also tells us that "at the aggregate level, there was no inflationary pressure of the money supply on commodity funds and production capacities, which were largely underemployed" (Matutinović and Latković, 1999:9).

Considering the state of war, it is also necessary to consider the possibility that there was an increase in production costs, since the industry generally has to finance its fixed costs despite reduced demand. Part of these costs, which now represent a relatively larger part of the selling price - because the volume of production has decreased - tends to be passed on to the selling price, which increases inflation. The main production costs examined in the paper are labour costs and petroleum product costs. Firstly, an analysis of the trend of the unemployment rate is needed.

Considering the consequences that the war had on the economy in general, and inflation specifically, it is important to note the relationship between the unemployment rate and the inflation rate in this case, because it gives us a clear example of the inadequacy of the Phillips curve as a tool for predicting the interdependent movement of these two rates. While the Phillips curve predicts a negative relationship between the rate of inflation and the unemployment rate, this did not manifest itself in the case of the Croatian hyperinflation.

In the period between December 1989 and October 1993, employment in the state sector fell by 33.3%. At the same time, there was a dizzying increase in inflation, which - if measured by the rate of depreciation of the Croatian dinar (HRD) in relation to the German mark (DEM) - amounted to as much as 58,370%. (The DEM/YUD exchange rate in January 1990 was 1:7, while in October 1993 the DEM/HRD exchange rate was 1:4,092.90.) Thus, the Phillips curve has no predictive value when it comes to Croatia's experience with hyperinflation, and the same can be said for most transition economies, which simultaneously experienced high levels of both the rates of unemployment and inflation. Furthermore, the coincidence of high inflation rates, a sharp drop in GDP, and a high unemployment rate is proof that between 1989 and 1993Croatia was going through stagflation.

In addition to the drop in employment, there was also a drop in real wages and real incomes of the household sector. "In the first quarter of 1994, the real incomes of the household sector fell to 36.4% of the 1990average, and the average real net wage fell to 44.8% of the corresponding average from 1990. However, in the first quarter of 1993, real wages were at an extremely low level, at 28.3% of the 1990 average. This shows that the causes of inflation in Croatia are much more complex than the wage-price spiral" (Anušić et al., 1995:10).

Therefore, based on the decline in employment and the decline in real wages and incomes, the authors conclude that there was no increase in production costs caused by an increase in labour costs. The same cannot be said observing the price levels of petroleum products.

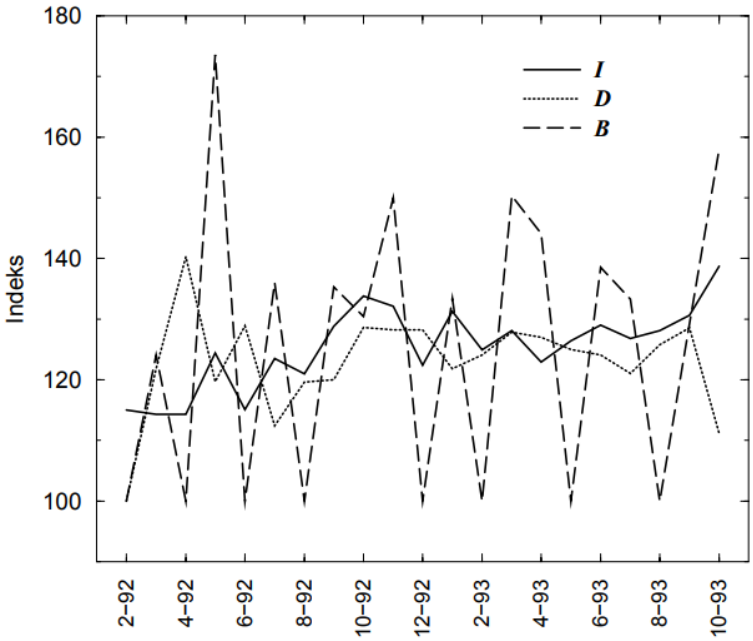


Figure 2. Index of changes in the rate of inflation/depreciation and the price of gasoline in 1992-1993
(I = Inflation; D=Depreciation; B = Gasoline)
Source: Matutinović, I. and Latković, M.,1999

Figure no. 2 shows the relation of the inflation/depreciation rates and the price of gasoline, in the period between 1992 and 1993. In the beginning, we can see a change in gasoline prices every two months. This change is positively correlated with the inflation rate. By September 1992, that trend ends, and gasoline prices change as needed. A positive correlation between these values is maintained, therefore the authors conclude that the price of gasoline had some influence on the movement of the inflation rate in this period, and that the growth of production costs - at least when it comes to the price of gasoline - is one of the causes of hyperinflation.

Considering the extraordinary state of war and the significant reduction in tax revenue, it is also necessary to examine whether there was inflationary financing of the budget deficit. It has already been noted that "there was no inflationary pressure of the money supply on the existing commodity funds and production capacities, at the aggregate level" (Matutinović and Latković, 1999:9). On the other hand, if the government's demand for imported goods and services was financed by the issuance of money, then there would be an obvious increase in the currency premium, that is, the real exchange rate would increase. "The currency premium, however, decreased during the first half of 1993, and eventually disappeared" (Matutinović and Latković, 1999:9). The most drastic pro-inflationary fiscal shock was recorded in 1991, in a period of devastating war circumstances. The effect of that shock had weakened through 1992, so much so that "97.3% of the average real inflation in 1993 was driven by other causes, not the budget deficit" (Anušić et al., 1995:21). After analysing the causes of hyperinflation which are based on systemic inadequacies (the legacy of Yugoslavia) and the economic trends (under the influence of war), it is necessary to consider how the monetary domain influenced the dynamics of inflation.

## 3. The influence on inflation had by the monetary domain

Closely related to the events leading up to the war, and the process of gaining independence, the process of creating an independent monetary system was also underway. That is, the process of separating the monetary system of Croatia from the National Bank of Yugoslavia. The creation of an independent monetary system was not just a mere formality in the broader process of establishing independence, but the need for an independent monetary policy was imposed by the hostilities that Serbia amounted against Croatia, precisely through their common monetary system.

On December 26, 1990, Serbia initiated a monetary incursion into the Yugoslav banking system. Illegally, they directly took 18,243,000,000 dinars from the National Bank of Yugoslavia, which amounted to 2.6 billion German marks at the time – nearly 10% of Yugoslavia's external debt. The intrusion was discovered on January 8, 1991, when it became known that Serbia had forcibly appropriated the entire foreign exchange reserves of the National Bank of Yugoslavia. As a result, Croatia was left not only without the sum of money that was meant to be issued to it as a standard part of money creation, but at the same time it also found itself without foreign exchange reserves, which are crucial for the implementation of monetary policy. In such conditions of uncertainty, the Croatian dinar was introduced in exchange for the Yugoslav dinar on December 23, 1991. The exchange was carried out in a ratio of 1:1, and the exchange rate to the German mark was 55 dinars for one mark. This was also the first devaluation with the new currency, given that at the end of 1991, the official exchange rate (of YUD) was 13 dinars for one mark. The exchange on the black market - which represented a significant part of the Croatian economy - was 37 dinars for one mark.

## 3.1 Relationship between the croatian dinar and the german mark

Observing the relationship between the dinar and the mark, an inverse relationship between depreciation and inflation can be seen, which is crucial for understanding the inflationary process at the time. The effect of depreciation on inflation is analysed in detail in the next chapter, but first it is necessary to examine the relationship between the German mark and the Croatian dinar.

The mark, in addition to being a relatively stable currency, had great significance for the Croatian economy for a number of reasons. One of them was a large number of Croats who worked in Germany and sent bank transfers in marks back to Croatia. In addition, due to recurring inflationary periods and devaluations, the practice of exchanging dinars for marks to maintain the value of incomes had become well established, and most of this exchange took place on the black market. Also, the prices of many goods, from retail to real estate, were expressed in marks - so that in spite of inflation, some objective measure of their value could be maintained. So the degree of substitution of the domestic currency with the mark was very high. There was a “flight” from the currency - confirmation of which can be seen in the fact that from the first quarter of 1992 to the last quarter of 1993, the real value of money decreased - which indicates a "large increase of the money supply turnover coefficient" (Anušić et al., 1995:10).

The substitution of the dinar with the mark had a negative effect on the value of the dinar – by reducing the demand for it and worsening inflation, which was the main reason for the aforementioned flight. So the situation was such that the population –desiring to maintain the value of the money they held - with their actions fed the process that devalued their money in the first place. The last government of Yugoslavia, chaired by Ante Marković, tried to bring inflation under control by fixing the exchange rate of the dinar to the mark at a ratio of 7:1, as a segment of the stabilization program that was part of the larger reforms of the late 1980s. The period of relatively low inflation lasted only until the second half of 1990, when inflation reappeared and began to accelerate. Figure no. 3 shows this growth.

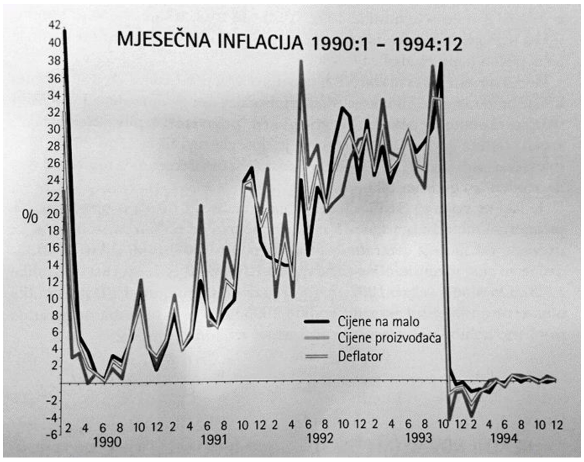

Figure 3. Monthly inflation rate in Yugoslavia 1990:1 – 1994:12
(Black line = retail prices; Grey line = producer prices; White line = GDP deflator)
Source: Anušić et al., 1995:7

## 3.2 Accumulation of foreign exchange reserves by programmed devaluation

Classifying Croatian inflation in the beginning of the 90s, it is obvious that in the period between 1991 and 1993 it took on the proportions of chronic hyperinflation, and the rise in prices was general. In table no. 2, observing the movement of retail prices, the initial containment of the inflationary process is visible - as a result of the actions of the Marković government - but already in 1991, the monthly average rate of inflation was around 10%. More serious problems arose in 1992, when the average monthly price increase was between 20 and 30%. This trend continued in 1993 - until October - when the highest inflation rate was recorded, at 38.7%.

Table 2. Index of retail prices in Croatia 1990 – 1994

| | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| 1 | 141.7 | 104.9 | 115.8 | 131.3 | 99.8 |
| 2 | 116.4 | 108.4 | 115.0 | 124.9 | 98.7 |
| 3 | 105.5 | 104.1 | 114.3 | 128.1 | 99.0 |
| 4 | 103.6 | 105.3 | 114.3 | 122.9 | 98.6 |
| 5 | 101.1 | 112.1 | 124.4 | 126.4 | 99.9 |
| 6 | 100.3 | 108.4 | 115.1 | 129.0 | 99.7 |
| 7 | 103.4 | 106.3 | 123.5 | 126.8 | 100.7 |
| 8 | 102.9 | 108.3 | 121.0 | 121.1 | 99.9 |
| 9 | 105.5 | 109.7 | 128.8 | 130.6 | 100.5 |
| 10 | 106.3 | 124.0 | 133.8 | 138.7 | 100.1 |
| 11 | 103.5 | 125.3 | 132.1 | 101.4 | 99.9 |
| 12 | 104.5 | 117.6 | 122.4 | 99.5 | 100.2 |

Source: Anušić et al., 1995:165

But in order to determine which causes of inflation deserve a greater weight than others in the analysis, it would be useful to look at what happened to the inflation rate after the introduction of the Stabilization Program in October 1993. As can be seen in figure no.3, inflation was successfully brought down by the Program, and did not return to the levels it was at before. In the following year, there was even a slight deflation, and for the rest of the nineties the inflation rate remained at around 4%.

Regarding GDP - Croatia finally reached the level of GDP that it had in 1989 – in the year 2005 (figure no. 1 shows that real GDP did not recover in the years after the war), and the rest of the nineties was characterized by a double-digit unemployment rate. So the authors conclude that economic trends did not generate hyperinflation by themselves, because the economic conditions - looking at them through the aforementioned macroeconomic aggregates - did not change significantly in the years after, compared to the time during hyperinflation.

In addition, if we shift the focus on the impact of the former system, the inflation inertia that had its roots in the hyperinflation of the late 80s would most likely have stabilized at rates that would have been lower than the recorded hyperinflation, but for a series of historical circumstances. Without extensive structural reforms, the cyclical hyperinflation from past periods would certainly had manifested itself again, but the low inflation level from the beginning of 1990 - figuratively speaking, a remission - would have probably continued, because the past Yugoslav stabilization programs were also effective - at least in the first few years. This did not happen this time - price growth had already gotten out of hand at the beginning of next year - partly due to extraordinary war circumstances, but also due to war-related developments in the monetary domain. In order to understand the dynamics and persistence of this hyperinflation, it is therefore necessary to analyse in more detail exactly these trends, which have already been established as having a considerable impact on the inflationary process.

One of the more important causes of inflation was the devaluation of the dinar, first the Yugoslav in 1991 and then the Croatian in 1992. Devaluations did not have a direct effect but were expressed indirectly through the mechanism of indexation in relation to the HRD/DEM exchange rate. As stated, prices in retail stores were expressed in marks, but in addition, provisions were also incorporated into contracts by which payment obligations were indexed according to the DEM exchange rate, to such a level that even the National Bank of Croatia (NBC) itself used indexation in its regulations. Indexation in relation to DEM made more sense than indexation in relation to one of the price indices (for example: indexation according to the retail price index - which is the practice in labour contracts - or indexation according to the producer index) for the reason that the information that these indices are based on comes with a delay, when prices have already risen-so that using them would have meant incurring additional costs. In conditions of hyperinflation, when there are almost daily price increases, these costs can be significant. By comparison, it was easy to get information about the exchange rate, and due to the substitution of the dinar with the mark, economic actors were already used to parallel use of the two currencies.

Due to the aforementioned practice of indexation, any changes in the exchange rate would automatically express themselves on the price level, so it is essential to analyse the series of devaluations at the beginning of the 90s. The first devaluation took place as a reaction to the monetary incursion of Serbia into the National Bank of Yugoslavia, in January 1991, when the incursion was discovered. That devaluation amounted to 28.57% and represented the first inflationary shock after the introduction of the stabilization program of the Marković government.

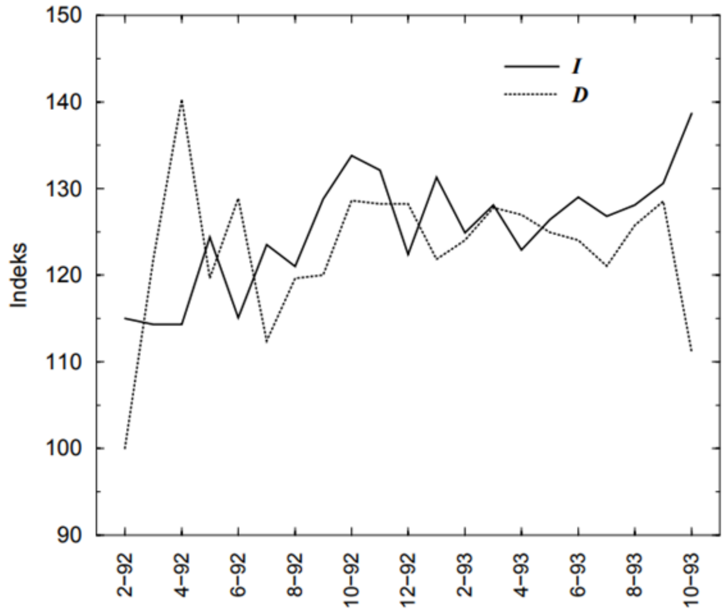


Figure 4. Inflation and depreciation rates in Croatia in 1992-1993
Source: Matutinović, I. and Latković, M., 1999

After that initial devaluation, five more followed: April 1991=44%; January 1992=323% (introduction of HRD); March 1992=22%; April 1992=40%; May 1992 = 20%. After those devaluations in 1992, floating exchange rate was introduced. Figure no. 4 shows the impact that depreciation had on the inflation rate, from the introduction of HRD to the beginning of the Stabilization Program.

In the period between 1992 and 1993 a feedback loop was generated between depreciation and inflation, by the mechanism of indexation. Economic actors adjusted their behaviour, anticipating future depreciations through the described process of substitution of dinars for marks. In doing so, the direct causal connection between the original generators of inflation, and the secondary ones that followed in response to the initial impulse, was lost. Finally, it is necessary to examine what prompted the Government to implement such a series of relatively strong devaluations. The reasons are manifold - from those that are obvious from the effect of the devaluation itself - that is, the increase in the competitiveness of exporters and the preservation of real values, such as foreign exchange prices - but it is also necessary to consider the specific reason for these devaluation processes, which is a form of "inflationary taxation as the way of accumulation of foreign exchange reserves" (Matutinović and Latković, 1999:12).

As stated, at the beginning of the 90s, Croatia found itself without foreign exchange reserves - which put it in a unique position with respect to comparable transition economies - and the creation of these reserves was one of the primary goals of economic policy. The devaluations were therefore an attempt to absorb the foreign exchange black market: "Under such conditions, the NBC tended to maximize international reserves, and because of this, economic policy makers considered it rational to depreciate the exchange rate in order to absorb the foreign exchange black market. They adjusted monetary instruments and discount rates with this in mind" (Anušić et al., 1995:23).

In this period, individual citizens could only sell their foreign currency to commercial banks, but they could not also buy it. The exchange rate at which they bought foreign currency on the black market was far higher than the official exchange rate, but it was their only source of foreign currency at the time, and thus the only protection against inflation. Programmed devaluation meant a higher purchase price of foreign exchange from the population, so that foreign exchange was diverted into official purchase channels - for the reason that these devaluations made them competitive in relation to the black market. The proof of the success of this policy is in the fact that in December 1991, the foreign exchange reserves of NBC were equal to zero, while in October 1993 they amounted to USD 500.1 million. In the same period, foreign exchange reserves of commercial banks grew from USD 200.9 million to USD 751.2 million. In this way, the absorption of the black market took place through devaluations, and with that – the creation of foreign exchange reserves that were the basis for the Stabilization Program. While at the same time, these same devaluations pushed the existing inflation higher due to the mechanism of indexation.

## Conclusions

Regarding the importance of certain causes of hyperinflation in Croatia, the authors conclude that while the economic legacy from the Yugoslav era is to blame for the primary inflationary impulse, as well as historical circumstances such as war and the collapse of the former state that caused the initial inflationary gap, high rates of price growth would not have been sustained had there not been inflationary taxation as a form of accumulation of foreign exchange reserves. These reserves made the Stabilization program possible, enabling the government to implement successful monetary policy and in October 1993 successfully end this period of inflation.

It should also be said that the Program was not conceived as exclusively anti-inflationary, but inflation was understood in it as a kind of synecdoche for the whole set of economic problems inherited from the Yugoslav era. Successfully winning the battle over the generators of cyclical inflation simultaneously meant overcoming these problems and transforming the socialist system into a capitalist one - and not just limiting the growth of one macroeconomic aggregate. The fight against inflation in these conditions was therefore a test of recognizing the historical moment in which the Republic of Croatia found itself, and success in that fight was among the first steps towards the modern Croatian state.

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