MACROECONOMIC POLICY AND ECONOMIC GROWTH IN CROATIA - RECENT DEVELOPMENTS AND PERSPECTIVES*

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1 INTRODUCTION

One of the most important goals of a country's economic policy is to build and to continuously improve its economic system so that it can be able to generate high rates of growth which are economically, socially and ecologically sustainable. The realization of this goal would enable its citizens to reach the standard of living in the developed market economies within a reasonable period of time.

Undoubtedly, the creation of an open market economy best meets the needs of a robust growth. As part of the transition process towards such an economy significant reforms have been undertaken in Croatia in the recent years: the liberalization of prices and the exchange rate regime, the liberalization of foreign trade, privatization, the reform of the banking system, tax reform, and the development of many institutions of the modern market economy. The macroeconomic policy has born the brunt of adjustments in this process. After the initial instability, which was reflected in a high inflation, monetization of the fiscal deficit and the accommodating monetary policy, the macroeconomic situation has

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* *This paper was originally published in* ***Economic Trends and Economic Policy (Privredna kretanja i ekonomska politika)****, 1999, no. 73, 342-363.*

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stabilized significantly since 1994. Inflation is low and foreseeable, a modern tax regime, which does not generate major deficits, has been developed and the monetary policy is focused on maintaining stable prices. After a considerable decline in output at the beginning of 1990-ties, a significant growth has been achieved.

This paper is organized as follows. In the second and third part, the basic characteristics of growth in Croatia in the past transition period are described. The perspectives of the future long-term growth are examined in the fourth part, together with the role which individual measures of the macroeconomic policy could have in improving these perspectives. The fifth part concludes.

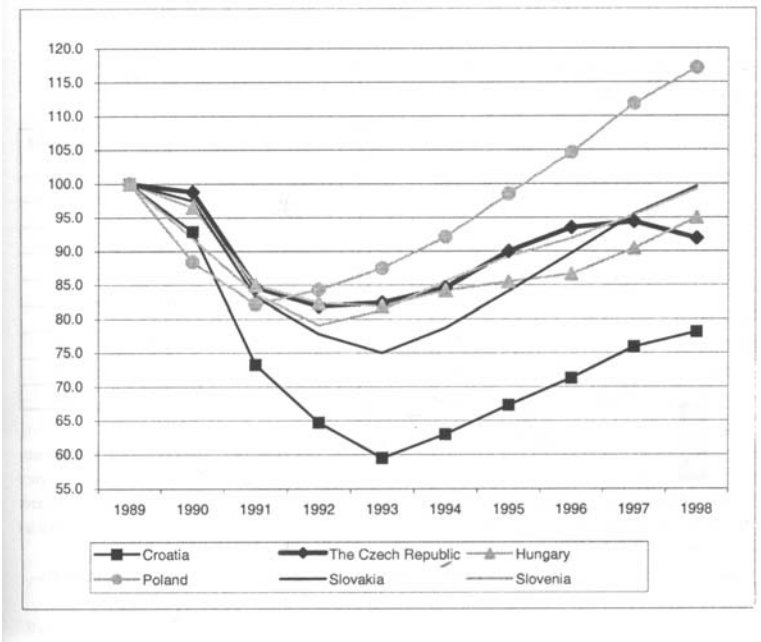
2
ECONOMIC GROWTH 1990-1997

The transitional recession, which characterized all countries after the collapse of the socialistic system, was deeper in Croatia than in other countries (Figure 1). The fall in GDP amounted to 7.1 percent in 1990 reflecting structural economic problems in the country, the disintegration of the Eastern-European market and the beginning of the disintegration of the common Yugoslav market. However, already in 1991 the decline in the output reflected, besides the transition factors, the influence of the war of aggression on Croatia.[1] The cumulative fall in output between 1989 and 1993 accounted for 40 percent and was significantly higher than in other Central European transition countries.

[1] *Selowsky and Martin (1997) estimate that the events of war in transition countries in the period 1990 - 1995 brought, on average, an additional decline in output by 16 percent in every year of the war conflict. Figure 1 depicts that the index of the real GDP in 1991 in the countries in transition was between 82 and 85 (1989 = 100) while Croatia had 73. There is no specific reason why this additional decline in output should not be ascribed to the war of aggression on Croatia. Besides the immediate impact in 1991, the war and the related destructions directly or indirectly influenced Croatia's economy for many more years.*

Figure 1

INDEX OF THE REAL GDP (1989=100)



Source: Havrylyshyn, Izvorski and van Rooden (1998).

The war and/or the state of immediate war danger slowed down market reforms. Major restructuring especially of large state enterprises was mostly postponed so as to avoid dangerous social tensions. Thus Croatia, although it started from a rather favorable reform situation in relation to other Central-European countries (smaller distortions of the economic structure, relatively developed market of goods and relatively independent economic agents, which had had experience in doing business in foreign markets), lost this advantage already in 1992 (see Table 1).

Table 1

INDEX OF ECONOMIC LIBERALIZATION IN CENTRAL AND EAST EUROPEAN COUNTRIES

Country	1989	1990	1991	1992	1993	1994	1995	Cumulative index
Czech R.	0	0.16	0.79	0.86	0.9	0.9	0.93	4.54
Slovakia	0	0.16	0.79	0.86	0.83	0.83	0.86	4.33
Slovenia	0.41	0.62	0.71	0.78	0.82	0.82	0.85	5.01
Hungary	0.34	0.57	0.74	0.78	0.82	0.86	0.93	5.04
Poland	0.24	0.68	0.72	0.82	0.82	0.86	0.89	5.03
Estonia	0.07	0.20	0.32	0.64	0.81	0.89	0.93	3.86
Latvia	0.04	0.13	0.29	0.51	0.67	0.81	0.81	3.26
Lithuania	0.04	0.13	0.33	0.55	0.78	0.89	0.86	3.58
Croatia	0.41	0.62	0.62	0.72	0.79	0.82	0.85	4.83

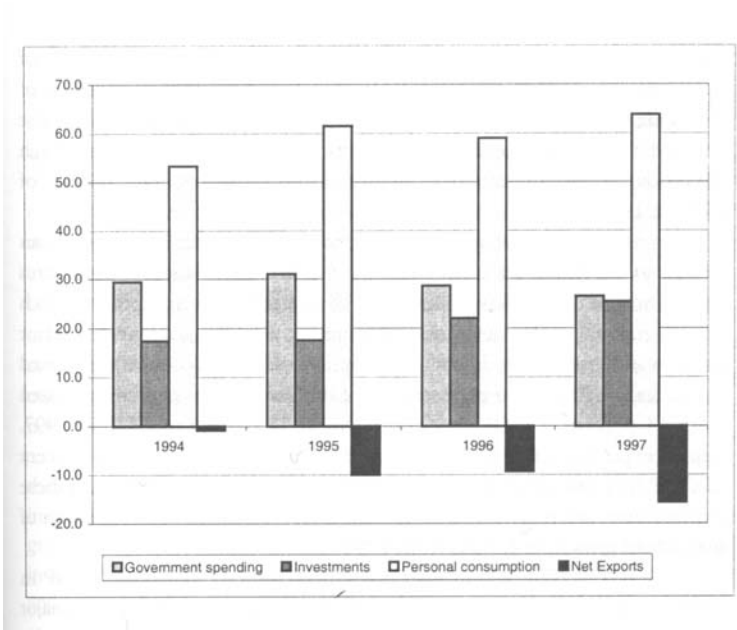
Note: The liberalization index is a weighted average of the assessed liberalization level in three areas: the internal market (price liberalization and state monopoly elimination), foreign trade (currency convertibility and foreign trade liberalization), and privatization and bank reforms. Indexes can have the value between 0 and 1 in which 1 marks the state in consistence with the developed market economy.
Source: De Melo, Denizer and Gelb (1996; Table A) and Fisher, Sahay and Végh (1998; Table 4).

After the stabilization of the military and the political situation in the region in the summer of 1993 and the creation of the necessary economic preconditions for a serious economic stabilization (monetary sovereignty, the creation of foreign exchange reserves, the decrease in budget deficit and in public infrastructure companies' deficit) the macroeconomic policy could start influencing the economy through a series of reforms and through stabilization of the macroeconomic situation.[2] The stopping of hyperinflation and the liberalization of foreign trade, both conducted at the end of 1993, contributed to boosted growth in the period that followed. Starting from a low-income level, macroeconomic stabilization resulted in high marginal returns in the form of high rates of growth. The lowering of inflation enabled a higher efficiency of the economy at company level and among them. Already in 1994 the real growth was at 5.9 percent and between 1994 and 1997 the average annual rate of growth was at 6.3 percent.

[2] *More on economic conditions before and immediately after the launching of the stabilization program see Anušić, Rohatinski and Šonje (1995).*

Figure 2

STRUCTURE OF GDP (IN %)



Source: The Central Bureau of Statistics (1998) and Lovrinčević (1998).

Figure 2 shows changes in the structure of GDP during the period of high growth. Since 1994 the share of personal consumption in GDP was growing so that in 1997 it accounted for more than 60 percent. The year 1997 saw a high increase of personal consumption: nominally by 23.3 percent, but in real terms by 18.5 percent (Lovrinčević, 1998). The high growth of personal consumption was enabled by a large increase in salaries, credit expansion and more generous government transfers (in the form of pensions and other current transfers to the population). When government spending is added to personal consumption, then resulting domestic absorption in 1997 accounted for more than 90 percent of the GDP. High propensity to consume was caused by the need for the renewal of the consumer durables in the household sector, as well as by certain needs of building and furnishing the institutions of a new sovereign state. The growth of domestic consumption induced the development of the sectors, which are primarily directed towards the domestic market (personal services, trade, and construction).

A high increase in the domestic consumption was financed primarily by incurring debts abroad, by repatriation of personal savings, and only in small part by foreign investments. In this way a temporary transfer of purchasing power from abroad took place instead of the expected transfer of knowledge and

technology. Capital inflow from abroad and strong domestic demand, in addition to the poor exports performance resulted in a high deficit of the current account in the balance of payments (12.7 percent of GDP in 1997).

The fall in government consumption after 1995, which can be seen in the Figure 2 actually hides the fact that government expenditures in the form of capital expenditure, as well as transfers and subsidies (which do not pertain to the category of consumption in the government sector according to the methodology of compiling national accounts) increased considerably. Thus, total expenditures of the general government increased from 44 percent of GDP in 1994 to almost 52 percent of GDP in 1997. Capital expenditures of the general government grew from about 3 percent of GDP in 1994 to 6.8 percent in 1996 and 6.1 percent in 1997. As these expenditures are recorded as investments, they explain a significant part of investment growth in Croatia from 1994 to 1997.

The rise in total investment from 17 percent of GDP in 1994 to more than 25 percent in 1997 could be considered a major achievement from the point of view of future development. However, the structure of investments does not justify such an assessment. Investment could be divided into inventories, which account for 2-3 percent of GDP every year (Lovrinčević 1998), and investment into fixed capital, which can be considered according to the main sectors. Firstly, we can consider investments of the household sector, which mainly refer to housing construction. These investments have contributed to the recovery of Croatia's construction industry. But, from the point of view of long-term economic growth they do not bear much significance. A greater credit availability in 1996 and particularly in 1997, as well as governmentally financed rebuilding of houses damaged in war, have brought about the increase in household investments from 3 percent of GDP in 1994 to about 6 percent in 1996, and 5 percent in 1997 (Lovrinčević 1998). For its own needs the government invested in fixed capital in the amount of 2.5 percent of GDP in 1994, and in 1996 and 1997 3.4 percent and 3.1 percent of GDP respectively (Ministry of Finance 1998, 1999). On the basis of these data we can estimate that the entrepreneurs' investments in fixed capital in 1994 accounted for 8.5 percent of GDP and that in 1996 they increased to 11.5 percent of GDP. Somewhat more significant growth of these investments occurred in 1997 when they accounted for approximately 15 percent of GDP.

The technical structure of investments shows that construction works account for over 62 percent of total investments in 1996, and investments in machines and equipment accounted for 34 percent (or about 7.2 percent of GDP). The investments of enterprises into new fixed assets for processing industry were about 3.44 billion of kunas (3.2 percent of GDP). Thus, we can conclude that

investments in new production, which could have been directed towards the international market, accounted for approximately 3 percent of GDP. An important part of the investment went into transport and communication (2.56 billion kunas or 2.4 percent of GDP), which indicates that part of the investment covered the needs of the old and war-destroyed car pool. In this case this means investments into services whose volume was so large due to war activities and thus crowded out part of the investment which would have otherwise been channeled into new production.

On the basis of the previous discussion we can conclude that the structure of the relatively high level of the total investment in Croatia in recent years does not offer an adequate incentive for the future economic growth. Investments of entrepreneurs make just over a half of the total investments, only 1/3 of the total investments was used for buying machines and equipment,[3] and the investments in the manufacturing of products which could possibly compete on the global market account for only about 3 percent of GDP. Construction work (investments in traffic infrastructure, rebuilding of houses) have a rather long repayment period, so we can estimate that in the following medium-term period they will not have significant effects on Croatia's economic growth.

3
GROWTH IN CROATIA AND EXPERIENCES IN OTHER TRANSITION COUNTRIES

The quest for possible growth implication of recently conducted macroeconomic policy in Croatia could start by reviewing the literature on the determinants of economic growth in transition countries. The empirical analyses of the growth in transition countries which were made in the first years of the transformation process dealt with determining the direction and magnitude of growth influence of the attained structural reforms. Only in the later years researchers linked growth to other indicators of macroeconomic policy.[4]

Sachs (1996) used an unweighted sum of nine indicators which refer to the individual aspects of institutional changes in transition countries, and

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[3] *Growth literatures shows that investment into machines and equipment brings the highest effects on future growth. Besides, they have a relatively short repayment period which is very important when capital is scarce, as in the case of Croatia.*

[4] *A review of the results of empirical analyses of economic growth in transition countries shown in order of publication can be seen in Table A.1 in Appendix of this paper.*

which are published by EBRD in its annual reports ("Transition Report") to find out that the economic growth in the period 1989 - 1995 was significantly positively correlated with the success of the structural reforms which were carried out. De Melo, Denizer, and Gelb (1996), as well as Selowsky and Martin (1997) later confirmed these results using similar indicators of reforms called "the liberalization index". They also stressed that, in addition to the structural reforms that were carried out, an uninterrupted course of reforms as well as a degree of the achieved microeconomic stability had a great impact on the revival of economic growth in transition countries. Selowsky and Martin (1997) point out to the significant differences in the ways in which the economies in Central and Eastern Europe, and the economies of the former republics of the Soviet Union, reacted to the reforms. The immediate impact of the reforms was positive in the first group and negative in the latter. Besides, the authors demonstrate there was a significant negative impact of the war conflicts on the economic growth in the transition countries.

Fischer, Sahay and Végh (1996a, 1996b) use various indicators of macroeconomic stability as independent variables in explaining economic growth in addition to the indicators of achieved structural reforms. They conclude that the countries that achieved macroeconomic stability (cutting inflation and fiscal deficit) and undertook comprehensive structural reforms had a faster growth.

The results of this research point to the basic determinants of a somewhat deeper and longer transition recession in Croatia. The war deepened and prolonged the recession in Croatia, not only through the direct effects of the destruction of production potential (both physical and human), but indirectly through its impact on macroeconomic instability (the need for monetization of the deficit in order to finance the defense needs of the country) and through slowing down (i.e. by the interruption of a natural course) of reforms in these conditions. Reforms and a quick disinflation at the end of 1993, as contrary to previously generated instability, soon began to show its positive impact on the economic growth.[5] However, it should be expected that the positive impacts on growth which resulted from the improved allocation of resources due to achieved price stability will diminish with time. Therefore, it is very important to continue with market reforms. The period 1994 - 1997 with its high rates of economic growth, could have been used for restructuring of loss-generating companies and economic sectors, i.e. for more robust reforms and creating prerequisites so that this transition recovery gradually turns into sustainable growth. However, a new

[5] *Van Elkan (1998) estimates that the slow progress of Hungary in stabilizing the inflation from 30 percent to about 20 percent in the six years of transition reduced its rate of growth by almost 2 percentage points.*

stronger reform impetus failed to materialize.[6]

The index of reforms in the process of transition (EBRD index) shown in Table 2 enables the comparison of the course of reforms with the other transition countries. It can be seen that from 1996 to 1998 Croatia actually stagnated in reforms and that in the restructuring of companies it suffered a slight regression. Judging by its entire reform characteristics, Croatia ranks lower than all other Central European and Baltic countries. In relation to the advanced Central European countries Croatia has a smaller share of private sector in GDP, it lags behind in the privatization of large and public infrastructural companies and banks, and its microeconomic restructuring is being carried out more slowly.

Although the majority of prices in Croatia were liberalized there is a need to improve the system of setting the prices in the infrastructure services. One of the poorest structural characteristics of Croatia's economy is its degree of competitiveness, i.e. the possibility of free market competition. Although this field has formally been regulated and there are certain institutions to promote competition, various markets experience visible barriers to free entry as well as intact monopolistic positions. Besides, there is a growing influence of the state in economy, which is visible from the growing budgetary subsidies, rehabilitations of companies and banks, extending credit guarantees etc. Big companies do not get punished for their poor business performance by bankrupcy procedures. The problems of the banking sector solvency, non-economic criteria for credit allocation and too slow deepening of the financial market linked with a relatively undeveloped securities market point to the need for improving these aspects of Croatia's economy. In the immediate future the acceleration of market reforms could offer an additional impetus to the transition recovery and create a sound base for a long-term sustainable growth.

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[6] *The stabilization program of October 1993 (Government of the Republic of Croatia, 1993) states the measures which should ensure a long-lasting low inflation, a stable currency and a sustainable economic growth (known as the second and the third stage of the program which should have begun in June 1994), in addition to the measures for quick reduction of inflation. Although the program does not elaborate these measures in detail, it stresses the need to accelerate the process of restructuring, privatization and demonopolization, as well as the needs to achieve a balanced budget and bank rehabilitation, and to stimulate the development of the financial markets. It seems that the preparation and execution of the majority of these reforms have fallen behind schedule, and, except for balancing the budget, the consistency thereof is still to be seen.*

Table 2

EBRD REFORM INDEXES IN TRANSITION COUNTRIES

Country	Year	Share of private sector in GDP (%)	Average value of reform indexes*			
			Privatization and restructuring	Prices, foreign trade, competitiveness	Financial institutions	Total (rank 1998)
Czech R.	1996	75	3.78	3.44	3.00	3.46
	1997	75	3.78	3.44	3.00	3.46
	1998	75	3.78	3.44	3.00	3.46 (3)
Hungary	1996	70	3.78	3.44	3.00	3.46
	1997	75	3.78	3.55	3.67	3.67
	1998	80	3.89	3.55	3.67	3.71 (1)
Poland	1996	60	3.44	3.44	3.00	3.33
	1997	65	3.55	3.44	3.17	3.42
	1998	65	3.55	3.55	3.33	3.50 (2)
Slovakia	1996	70	3.44	3.22	3.00	3.25
	1997	75	3.67	3.33	2.50	3.25
	1998	75	3.67	3.44	2.50	3.29 (5)
Slovenia	1996	45	3.44	3.11	3.00	3.21
	1997	50	3.44	3.11	3.00	3.21
	1998	55	3.44	3.11	3.00	3.21 (6)
Estonia	1996	70	3.78	3.33	2.5	3.29
	1997	70	3.78	3.22	3.17	3.42
	1998	70	3.78	3.22	3.17	3.42 (4)
Latvia	1996	60	3.33	3.00	2.50	3.00
	1997	60	3.22	3.22	2.67	3.08
	1998	60	3.22	3.22	2.50	3.04 (7)
Lithuania	1996	65	3.33	3.00	2.5	3.00
	1997	70	3.22	3.11	2.67	3.04
	1998	70	3.22	3.11	2.67	3.04 (7)
Croatia	1996	50	3.44	3.00	2.50	3.04
	1997	55	3.33	3.00	2.50	3.00
	1998	55	3.33	3.00	2.50	3.00 (9)

*Note: * Simple averages of 2 or 3 individual reform indexes of each group are shown. Column Total is a simple average of 8 individual indicators of reform. The individual reform indices acquired the value between 1 and 4+, and each index could be assigned a + or a - suffix. A higher value and a + suffix reflect higher stages of reforms. When calculating the average, the + suffix of an index is considered to be an increase in the index value by 0.33 and the - suffix as a decrease in the index value by 0.33.*

Source: EBRD (1996, 1997, 1998) and the authors' calculations.

We saw in Table 1 that in the field of the liberalization of the economy Croatia had a favorable starting position for a successful transition, but also that some countries managed relatively quickly to make up for lagging behind. De Melo, Denizer, Gelb and Tenev (1997) analyzed the importance of the initial conditions for the process of the later economic growth of the transition countries. The analysis of 11 potentially important factors, which describe the initial conditions, has shown their genuine importance but the conclusion suggests that the economic policy still had a dominant impact on the growth. Selowsky and Martin (1997) found that differences in the initial effects of the reforms among the Central European countries and the countries of the former Soviet Union stem from the different intensity and distribution of the distortions in the economic structure at the start of the reforms. Fischer, Sahay and Végh (1996a, 1996b) also demonstrate that the initial conditions, i.e. dependency on the trade with the countries of the former COMECON, and the initial income also had an important role. Havrylyshyn, Izvorski and Van Rooden (1998) confirm that the initial conditions to a certain extent influence the patterns of the later growth in the transition countries, but stress that the initial conditions were not as critical as the choices made in the field of economic policy.

The size of a government is another variable important for growth in transition countries. To explain the real growth of GDP in the transition countries Havrylyshyn, Izvorski and Van Rooden (1998) use following variables: the annual inflation rate as an approximation of the macroeconomic policy; the structural index of reforms as an indicator of the degree of the reforms achieved; the size of the government, measured by the share of the general government expenses in GDP, as an approximation of crowding out of private investments, tax distortions, and the size of the bureaucracy; as well as various indicators describing the initial conditions of the transition countries. The authors were able to analyze the entire period between 1990 and 1997 as well as two sub-periods: 1990-1993 and 1994-1997. They conclude that the macroeconomic stability and the structural reforms were critical for the sustainable growth in the transition economies. They particularly stressed that a combination of the different policies was more important than any individual type of reform. However, they suggest that the main component of sustainable growth is the reduction in the size of the government, i.e. of its expenses.

Van Elkan (1998) confirms that inflation and the size of the government, in addition to the extent of the structural reforms, were statistically and economically very significant determinants of the growth patterns in the transition countries in the period 1993-1997. The increase in inflation and in the

volume of government spending decreased the growth while the structural reforms had a positive influence. On the one hand, they enabled a more productive use of the existing resources, and on the other, they facilitated technological advance enhancing the opening of the economy towards international exchange and foreign investments. This empirical analysis includes direct foreign investments as an explanatory variable, and confirms their high significance in explaining the growth in the transition countries. The estimated parameter shows that a 1 percentage point increase in the share of direct foreign investments in the structure of GDP, increases the rate of economic growth by 0.94 percentage points.[7]

A relatively high share of public expenditures in GDP and a shortage of direct foreign investments in Croatia could prove to be a particularly important limiting factor to the successful continuation of the transition in the period that follows.[8] For example, the economic recovery of Hungary in recent years, when the growth of exports was particularly impressive, can be attributed to a considerable inflow of direct foreign investments, but also to the fall in government expenditure - from 55 percent of GDP in 1993 to 40 percent estimated in 1998 (OECD, 1998). The fascinating empirical results on the influence of direct foreign investment on growth (Borensztein, De Grigorio and Lee, 1995; Van Elkan, 1998) indicate that Croatia should attract this kind of investments more vigorously and should prepare itself to accept new knowledge and technology which they bring.

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[7] *This corresponds to the results in Borensztein, De Gregorio, and Lee (1995), where a sample of 69 developing countries showed that direct foreign investments were a very important channel of the transfer of technology which contributes to the economic growth relatively more than the domestic investments provided that the country that receives foreign investments possesses the minimum necessary quantity of human capital. The estimated parameter indicates, in addition to direct foreign investments, that a 1 percentage point increase in the share of foreign investments in GDP raises the growth rate by 0.85 percentage points.*

[8] *From 1993 to September 1998 the cumulative inflow of direct foreign investments into Croatia was 1.85 billion dollars (of which 619 million dollars in 1998); the shares of Pliva and Zagrebačka Banka account for half of these investments.*

4
THE OUTLOOK OF LONG-TERM ECONOMIC GROWTH IN CROATIA

Empirical studies have shown, at least when studying the process of transition so far, that the important elements of the economic growth were *initial conditions, the structural reforms* carried out and the related building of a market oriented institutions, and a sound economic policy which is reflected in the *macroeconomic stability*. The advance of these economic characteristics will certainly influence the economic growth of the transition countries in the years to come.

But in time the part of growth determined by the so-called transition factors is gradually going to diminish. In other words, the experience of other transition countries, particularly the most advanced ones, shows that in time the part of growth which results from improved resource allocation is diminishing due to the transition into the market way of doing business. The economic growth becomes more and more determined by the standard determinants set out in the neo-classical theory and in the theories of endogenous growth as well as in the large body of empirical research. These results suggest that the favorable effects on long-term growth are the consequence of stable macroeconomic conditions within the market oriented economic structure, but also of high savings and investments, well-educated workforce, openness of the economy, low public spending, low population growth and a stable social and political environment.

Aforementioned empirical research for the transition countries explain the process of growth in the recent period and do not allow for quantifying the future long-term growth of these countries on the basis of their results. Since too little time has elapsed it is impossible to estimate the parameters of standard long-term factors of the economic growth on the subsample of the transition countries.

Table 3

THE ECONOMIC GROWTH EQUATION
(Dependent variable: the growth rate of real GDP per capita)

Independent variable	Estimated coefficients
Constant	0.137 (4.889)
Log(GDP per capita in the initial year)	-0.143E-01 (-4.638)
Log(human capital in the initial year)	0.676E-02 (2.465)
Share of equipment investment in GDP (average)	0.224E-02 (5.227)
Share of non-equipment investment in GDP (average)	0.202E-03 (0.521)
Share of government consumption in GDP (average)	-0.104E-02 (-4.188)
Black market exchange rate premium (average)	-0.194E-01 (-3.511)
Revolutions and coup d'etats	-0.925E-03 (-0.146)
Dummy variable for Latin America	-0.981E-02 (-2.988)
Statistics	
Number of observations	63
R^2	0.709
R^2 corr.	0.665

Note: T-statistics is shown in parenthesis. White's procedure (1980) was used in order to obtain the estimates consistent with heteroscedasticity. Sources of the data used are: Summers and Heston (1991), Barro and Lee (1993), De Long and Summers (1993), King and Levine (1993), Barro and Wolf (1989).

Source: Mervar (1996).

Thus, some authors resorted to projections of the future growth of the transition countries by using the parameters from equations estimated on a large sample of non-transition countries taken from the traditional empirical studies (see for example Fischer, Sahay and Végh, 1998a, 1998b). They assume that the structural relations estimated in empirical studies are robust, and attempt to forecast the rates of long-term growth depending on the initial income level and the set of the control variables, which reflect economic policy. Such rough estimates are liable to multiple criticism, but for the moment they seem to be the only

possible approach in supplying broad numerical estimates of the potentials of long-term growth in the transition countries.

In the absence of other possibilities we shall try to estimate the long-term growth rate of Croatia's economy, starting from the equation of economic growth estimated for the period of 1960-1988 on a heterogeneous sample of industrially developed countries and the developing countries (Table 3).

The equation is based on the methodology developed within the neo-classical model of growth for closed economies with diminishing returns on capital. According to this methodology the growth rate of GDP per capita is related to the level of GDP per capita in the initial year of the analyzed period as well as to the initial level of human capital. Approximations of various macroeconomic policies, and social and political conditions are used as additional variables.

The estimated parameters from the equation are consistent with the results from the empirical literature. The regression coefficient with the initial level of GDP is negative and highly significant. The negative effect of the initial income level per capita on the rate of economic growth results from the hypothesis of convergence which suggests that the countries with lower initial income per capita, in relation to the long-term figures they aim for, achieve faster growth rates than those countries which had a higher income level in the first year, provided that the chosen independent variables retain the same values.

Other estimated parameters are also consistent with the results of the empirical literature that uses this model. Investment in human capital, measured by the number of years the total population spent at school, bear significant positive implications for growth, particularly according to the new growth theories. A higher share of investment in physical capital, especially in equipment, also increases the growth rate. Although there is no consensus on the effects of public expenditure, its share in GDP regularly appears with a negative sign. Contrary to that, social and political stability exerts positive influence on growth.

Independent variables in the equation explain a relatively high degree of variations in the growth rates of a large number of countries. All the coefficients have the expected sign and all of them, except for two, significantly differ from 0 at the level of 5 percent. It can be concluded that a relatively strong convergence is present when we control for other factors. As the estimated coefficient shows, the gap between the realized and the target value of income per capita is diminishing at the annual rate of about 1.8 percent.[9]

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[9] *Convergence coefficient is calculated from* $(1-e^{-\beta T})/T=-0.0143$. *T is the time of the estimation, and 0.0143 is the estimated regression coefficient. This implies that* β,

The procedure of projecting long-term growth rate consists of the application of regression parameters from the equation shown in Table 3 in order to estimate the growth perspectives depending on alternative assumptions on Croatia's economic policy.

The following assumptions are used:

- The initial relation between productivity of Croatia's economy and the industrially developed countries (OECD) is estimated at 30 percent;
- A stable macroeconomic policy, which implies price stability and no premium in the "black foreign exchange market";
- Maintaining the level of the accumulated human capital (since the average number of years the population spent at school is 8.85,[10] which could be considered high, and since major changes require a long period of time;
- Social and political stability and long-term peace.

Considering the above assumptions, and the values of the 26.9 percent share of public spending in GDP as well as the 23.2 percent share of investments of GDP (7.8 percent for investments in machines and equipment, and the remaining 15.4 percent for investments in construction works and other items[11]), which is consistent with the estimated values of these variables in 1998, the estimated long-term growth rate of 2.4 percent is obtained.

Let us consider the effects of the improvement in the indicators of public spending and investment activities. A decrease in public expenditure to 20 percent of GDP and an increase in the share of investment spending to 25 percent of GDP (10 percent of investments and equipment and 15 percent of investments in construction works and other items) imply the long-term average growth rate of income per capita of approximately 3.6 percent. It should be emphasized that this is long-term average which imply above average rates in the initial years. Further increase in investment spending to about 30 percent of GDP would increase the long-term growth rate to 4 percent.[12]

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speed of convergence, is 0.018 per annum. See Mervar (1996).

[10] *Calculated according to the Central Bureau of Statistics (1994).*

[11] *It was assumed that the technical structure of investments in 1998 did not change in relation to 1996 for which the last official data was published (Central Bureau of Statistics, 1998).*

[12] *The comparison of long-term averages attained in certain groups of countries shows that, for example, in the period 1960-1988 the EU countries and the four East Asian Tigers (Hong Kong, South Korea, Singapore and Taiwan) had the average share of investments in GDP of about 25 percent while the share of government spending in*

Obviously, this approach does not allow for the influence of some special factors. It excludes the possibility that some economies enjoy specific favorable conditions. The vicinity of the most developed industrial countries should have a positive impact on foreign trade and the transfer of knowledge and technology in Croatia. Besides, a relatively high level of accumulated human capital, a low rate of population growth and the transition to a functioning market economy should also ensure additional increase in productivity, at least for some time. However, a process of bridging the gap towards industrially developed countries will require a long period of time and it is very difficult to expect that Croatia's economy could achieve full convergence to productivity levels of industrially developed countries in a relatively short period of time. Besides, fast convergence is inconsistent with the experience of the most developed countries in the period after the 2nd World War.[13]

5
CONCLUSIONS

Empirical tests based on the growth experience of a large number of different countries, as well as of a group of transition countries suggest that economic policy in Croatia should continue to maintain macroeconomic stability in order to create the environment of trust with a minimal risk of sudden changes or turnovers in economic policy. This primarily refers to price stability, which is an aggregate indicator of the realization of that aim. The inability to ensure price stability, although it is not one of the main factors of growth, increases insecurity, hinders optimal decision-making and resource allocation, and threatens long-term economic growth. The role of monetary policy in creating a growth enhancing economic environment is to focus itself on ensuring price stability in the long run. Such monetary policy contributes to credibility of the entire economic policy.

On the fiscal side, as shown on the experience of most

the GDP structure accounted for 15 percent in the former group and 12 percent in the latter (Mervar, 1996). Thus, the assumptions on the desirable levels of investment and government spending of Croatia's economy seem to be attainable in a relatively short period of time.

[13] *After the 2nd World War Germany, Japan and later Hong Kong Singapore, South Korea and Taiwan experienced a period of robust growth. In spite of very high rates of investment in the period 1960-1988 these countries eliminated only 20-50 percentage points of a gap in relation to the productivity of the USA (Summers and Heston, 1991).*

transition countries, it is necessary to continue to reduce public spending, and the tax burden in order to increase economic efficiency. The same holds true for Croatia. A smaller public sector but more stimulating for the economic growth could be achieved through reducing some non-productive categories of spending (administration, army, and police), through the increase of cost-efficiency of public projects and through strict control of further growth of transfers. The reform of the pension and medical insurance systems is a necessary stage in the process of achieving such public sector. In order to achieve the restructuring and the reduction of expenditure in public financing, it is desirable to decrease the total tax burden and to lower, or at least restrain from further, tax distortions through different relieves and through multiplication of tax rates. A budget balance at lower levels of revenue and expenditure is a more desirable choice than a deficit. Lower taxes and a balanced fiscal sector would open up space for increasing savings, liquidity and investments in the enterprise sector.

Attention should also be paid to the improvement of general conditions of doing business. The optimal interrelation between the government and the market is one of the major factors in that respect. Government intervention should be limited to establishing the "rules of the game" and to the fields where the market is not able to accomplish it's role. It is necessary to create an institutional infrastructure for the functioning market economy. This infrastructure includes the possibility of fair market competition, unhindered entry into and exit out of the market, a legal system which is able to efficiently protect property rights and punish failure to adhere to contractual obligations, a developed and stable banking and financial system, transparent public administration, etc. In this group of determinants, which can be considered as 'transition' factors, Croatia can still make significant improvements and ensure a sound basis for a long-term economic growth.

Investments in human and physical capital unquestionably remain the most important factors of economic growth. Transition countries, including Croatia, are characterized by a relatively high degree of accumulated human capital, as measured by an average number of years the population spent at school, although such data do not say anything about the quality of education. Besides promoting formal education, it is also necessary to encourage the forming of the human capital through on-job training. Owing to the externalities or spillover effects there are no disagreements on the subsidizing of formal education and on-job training. However, more financial resources invested in education do not necessarily mean the furthering of the human capital. It is frequently linked to structural reforms in the education system, which can include the introduction of

competition in providing educational services. Alternative measures of encouraging education include sending students abroad, and stimulating individuals who possess knowledge and skills to, at least temporarily, migrate into the country. It can generally be said, however, that an attractive salary and good working conditions remain the most important incentives for higher education and prevent the outflow of highly educated professionals. It seems that the fastest way to acquire the knowledge Croatia lacks in the current phase of development, such as the improvement of entrepreneurial skills and adjustment to technological changes etc., is to open more intensively to the international influence through trade and investments.

Besides investments in human capital the main incentive to further growth in the transition countries should ensue from investment in physical capital, both domestic and foreign direct investments. The degree of achieved macroeconomic stability and the depth of the implemented structural reforms bear an important influence on the attracting foreign investments. The institutional infrastructure is vital for the successful functioning of the market. That means the financial system has to ensure an efficient payment system; a stable monetary system and an exchange policy is required; an efficient legal system which protects property rights should be put in place; and the basic physical infrastructure should be available. Besides all these conditions, the case of the transition countries has shown that investment security is a critical factor in attracting foreign investments. This is the best insured through the political and economic "umbrella" of the likely accession to the European Union and the NATO alliance. In Croatia's case this failed to occur so far. Foreign investments need not to be limited only to direct foreign investments, even though they have proved to be the most efficient, but they could also take the form of joint ventures, licensing agreements, and some other formal and informal forms of contracts. Namely, these forms of co-operation also ensure the transfer of technology, which is of particular importance for a small country that can thus acquire access to the ideas already present in the world. In addition to acquiring new ideas this enables access to industrial organization, to international markets and differentiation of products.

There are two other important factors of the organization of society which could influence economic growth: democracy and corruption. Democracy is usually evaluated independently of its influence on material wealth. The study of the direct effects of democracy on growth is considered questionable. However, democracy influences growth through certain indirect mechanisms. It creates positive effect through a faster accumulation of human capital (enabling, for example, a wider access to education), by decreasing social instability and unwise

government spending. But, it also implies a certain cost due to lobbying of special interest groups.

Although present in the world for thousands of years, since the 1990-ties corruption has become a phenomenon whose impact on economy has been studied intensively. The increase in corruption is could be related to the general tendency of the tax increase, of the increase in international trade and of the economic changes, particularly of privatization in the transition countries (although corruption linked to privatization was also present in market economy). Corruption lowers government revenues and increases public spending; it increases the inequality of income; it creates distortions in allocation of resources; it decreases private investments in physical capital, and spending for education and health care; it increases expenditure for public investments but decreases their productivity; it has a negative effect on attracting direct foreign investments.

To a small country the openness of its economy and its inclusion in the global flows of goods and capital ensure an efficient allocation of resources and a quick transfer of knowledge and technology. Therefore, Croatia can hardly have any choice. Ensuring of socially acceptable income distribution and maintaining social and political stability are among other generally accepted preconditions for a long-term sustainable growth. There is a need for a balanced development of a financial system with particular emphasis on its stability. A better organization of the environmental protection and the promotion of the idea of sustainable development would foster the quality of the economic growth and the life of present and future generations.

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APPENDIX

Table A1

AN OVERVIEW OF EMPIRICAL STUDIES ON ECONOMIC GROWTH IN TRANSITION COUNTRIES

AUTHORS	PERIOD; SAMPLE OF COUNTRIES; DATA: CROSS-COUNTRY/PANEL	ESTIMATED EQUATIONS*
Sachs (1996)	1989-95; 25 countries; cross-country	GROWTH = -23.15 +0.62IRP (-5.81) (3.74) R^2=0.38 GROWTH = average GDP growth in the period 1989-95. IRP = index of reforms
De Melo, Denizer and Gelb (1996)	1989-94; 26 countries; cross-country	AVGR = -9.1 +2.6CLI -0.54PCY -6.5RT (-5.4) (4.7) (-1.9) (-4.8) Adj. R^2 =0.65 AVGR = average GDP growth in the period 1989-94. CLI = cumulative liberalization index PCY = GDP in the initial year RT = dummy variable for countries involved in wars
Fischer, Sahay and Végh (1996a)	1992-94; 25 countries; panel	GROWTH = 15.77FIXED +0.30FISCAL -9.28Y92 (3.10) (1.48) (-4.41) R^2=0.75 GROWTH = 11.35FIXED +0.30FISCAL +7.42CLI (2.00) (1.42) (-3.54) R^2=0.72 GROWTH = GDP growth FIXED = dummy variable: 1 for fixed exchange rate, 0 otherwise. FISCAL = suficit of central government budget as a share of GDP Y92 = dummy variable: 1 for 1992. as an approximation for distortion in foreign trade CLI = cumulative liberalization index
Fischer, Sahay and Végh (1996b)	1992-94; 20 countries; panel	GROWTH = 0.10 -2.73LINF +0.24FISCAL +0.26OFAST +12.97LIP (0.02) (-5.27) (1.90) (2.32) (2.86) GROWTH = GDP growth LINF = log(annual inflation rate) FISCAL = suficit of central government budget as a % of GDP OFAST = foreign financial aid as a % of GDP LIP = log(index of reforms)

Table A1 (continued)

AUTHORS	PERIOD; SAMPLE OF COUNTRIES; DATA: CROSS-COUNTRY/PANEL	ESTIMATED EQUATIONS*
Selowsky and Martin (1997)	1990-95; 25 countries; cross-country	GROWTH = -10.65 +11.42LIB(t) -15.70WAR(t) (-6.76) (4.17) (-6.07) R^2=0.27 GROWTH = -12.58 -28.94LIB(t) +35.46LIB(t-1) +15.00LIB(t-2) (-4.11) (-2.365) (2.59) (2.00) +45.47CE*LIB(t) -45.18CE*LIB(t-1) -14.15WAR(t) (2.23) (-2.03) (-5.31) R^2=0.58 LIB = cumulative index of liberalization CE = dummy variable: 1 for countries in Central and Eastern Europe, 0 otherwise WAR = dummy variable: 1 for countries involved in wars, 0 otherwise
De Melo, Denizer, Gelb and Tenev (1997)	China: 1979-83, Vietnam: 1987-91, Central and Eastern Europe and Mongolia: 1990-94, former Soviet Union countries: 1992-96; 28 countries; panel	GROWTH = -10.41 -17.54LIB(t) +32.6LIB(t-1) -29.5PRIN1 -3.37PRIN2 -11.1RT (-4.37) (-2.31) (5.19) (-3.71) (-3.73) (-5.34) Adj. R^2 =0.43 LIB= cumulative index of liberalization PRIN1= initial conditions (share of foreign trade in GDP, repressed inflation, black foreign exchange market etc.) PRIN2= initial conditions (initial GDP, level of urbanization and industrialization, etc.) RT= dummy variable: 1 for countries involved in wars, 0 otherwise
Van Elken (1998)	1993-96; 25 countries; panel	g(i,t)= u(i)-0.160govexp +10.3plib +0.943avfdi -4.10log(inflL) -3.07log(inflM) -2.48log(inflH) (-2.36) (5.48) (4.09) (-2.44) (-3.13) (-3.98) Adj. R^2 =0.75 g(i,t)= annual GDP growth rate in country i govexp= share of primary budget expenditures in GDP plib= index of cumulative price liberalization avfdi= average of current and lagged foreign direct investments as a share of GDP inflL= average of current and lagged annual inflation less than 8% inflM= average of current and lagged annual inflation between 8 i 40% inflH= average of current and lagged annual inflation higher than 40%
Havrylyshyn, Izvorski and van Rooden (1998)	1990-97; 25 countries panel	GR(i,t)=-1.10LNP(t) -0.62LNP(t-1) -8.76RI(t) +20.31RI(t-1) +7.04RI(t-2) -0.15EXP(t) -0.08IDDEV (-4.89) (-2.68) (-2.20) (4.36) (3.39) (-5.50) (-2.41) Adj. R^2 =0.77 GR(i,t) = annual GDP growth rate in country i LNP = log(annual inflation rate) RI = index of liberalization EXP = share of public expenditures in GDP IDDEV = deviation from average level of industrialization in 1990

Note: T-values.*