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MACROPRUDENTIAL ANALYSIS

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Contents

Foreword

Macroprudential Analysis is a new, semi-annual CNB publication. It will inform the general and professional public on the functioning of the Croatian financial system and its relations with the economy, public sector and international environment. *Macroprudential Analysis* focuses on recognising development possibilities of the financial system in its main role of the guardian of national savings and an efficient liquidity and capital source. At the same time, *Macroprudential Analysis* points to difficulties and threats challenging this development due to the unavoidable presence of numerous risks that financial intermediaries and all other financial market participants face today. This publication also links the themes of the existing regular CNB publications: the CNB Bulletin and Banks Bulletin, of which the former mainly deals with macroeconomic developments and monetary policy, whereas the latter describes changes in the structure and functioning of the banking system and its supervisory and regulatory mechanism. However, the major contribution of *Macroprudential Analysis* may be expected to come from the part in which it complements the existing CNB publications. This primarily refers to essential, previously uncovered subjects such as real sector debt, functioning of the non-bank financial intermediaries sector and quality of the institutional framework.

Guidelines for and the definition of macroprudential analysis were given as early as 2000 in *Macroprudential Indicators of Financial System Soundness* (IMF Occasional Paper, 192). More recent guidelines, on which the presented analysis is grounded, date from May 2003 when the IMF published *Financial Soundness Indicators – Background Paper*. Currently in progress is the long-term statistical project of harmonising the methodological framework of this analysis with the most recent guidelines presented in the IMF's *Compilation Guide on Financial Soundness Indicators* of July 2004.

1 Introduction

Bank-centeredness of the financial intermediaries sector and shallow financial markets are still the main characteristics of the Croatian financial system. The dominance of banks is not limited only to lending activities related to households, small and medium-sized enterprises, as is the case in some apparently similar bank-centred financial systems. This dominance is evident also on the money and foreign exchange markets, as well as the public debt market where more active participants other than commercial banks appeared only in recent years. However, Croatian banks or ownership groups to which they belong control also the major share in these non-bank financial intermediaries, such as the fast-growing sector of leasing companies, pension and investment funds and private insurance companies.

In addition to a strong impact of the consolidation process within the Croatian banking system itself, which has in various forms been present since the beginning of the Croatian monetary independence, numerous external factors have influenced its present security and performance. A stable macroeconomic environment, aided by favourable global economic developments, and especially the optimism and low risk aversion on international financial markets (apart from the short period after the Russian and Asian crises in 1997 and 1998), have led to the opening of the overall Croatian economy and of its banking system in particular, which thus developed much faster than banking systems of comparable countries. On the other hand, such an international environment, conjoined by specific Croatian features, has led to much quicker growth in Croatian external debt relative to other transition economies.

The stable environment and a huge increase in bank lending, supported by relatively favourable external sources of bank finance, have positively affected the real sector recovery as well. On the other hand, this recovery has been accompanied by a much faster debt burden increase, especially of the household sector, compared with similar economies. Hence, debt burden of the Croatian private sector is today more like that of old EU-member states than that of the new EU members from Central and Eastern Europe.

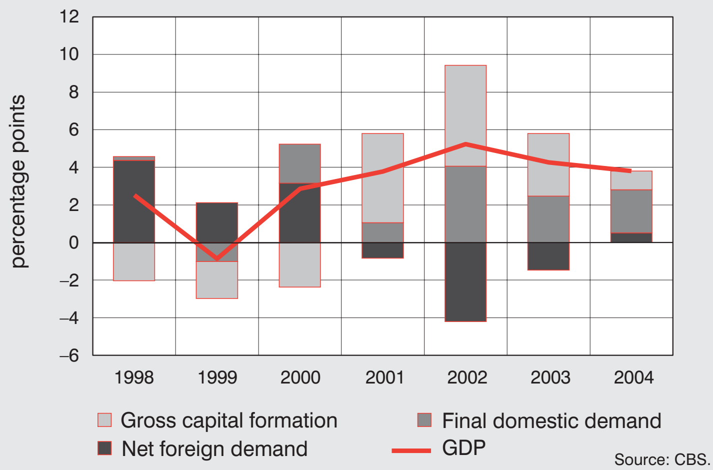
Described events that have marked the development of the Croatian financial system so far and determined its current relation with the real and external sectors are analysed in detail in the remaining twelve sections of this report. In addition, the report discusses uncertainties and obstacles in the institutional environment that hinder the functioning or development of the financial system, and the perspective of its necessary further development. The report ends with a detailed analysis of the banking sector efficiency and stability.

2 Macroeconomic Developments in 2004[1]

2004 saw the continuance of largely positive developments in main aggregate economic and financial indicators: stable economic growth, low inflation and reduction of the foreign trade imbalance with a still stable public debt level notwithstanding persistent pressures on the expenditure side of public finances. On the other hand, the planned progress concerning reduction of unemployment, external debt and the public sector's role in the economy was not achieved.

Economic growth slackened in 2004 relative to 2003, so that the real growth rate fell from 4.3% in 2003 to 3.8% in 2004. Economic slowdown can be mostly attributed to smaller investments, in particular the cut in government capital expenditure after the end of the road construction investment cycle, which was reflected in lower value added growth in both construction and individual production segments. Personal consumption provided a major boost to real growth, while favourable developments in foreign trade, for the first time since 2000, resulted in a positive contribution of the net foreign demand to overall real growth.

Figure 1 Contributions of Domestic and Foreign Demand to GDP Growth



Source: CBS.

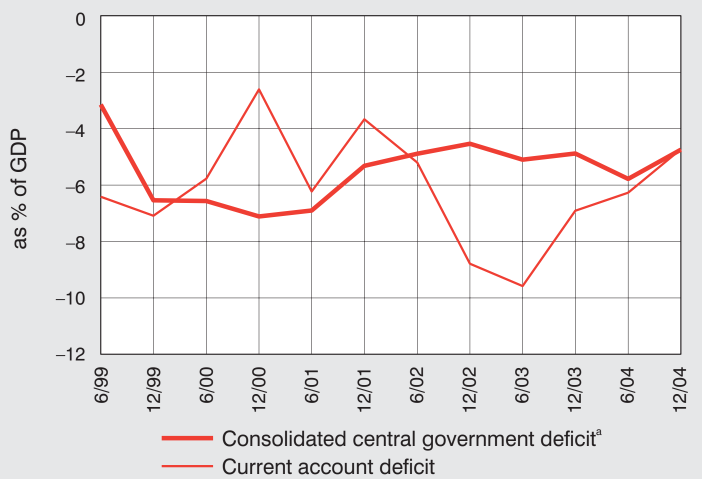
The reduction in the foreign trade imbalance considerably lowered the current account deficit (by 2.4 percentage points relative to 2003), which stood at 4.5% of GDP in 2004. Relatively positive developments in goods trade in 2004 were the result of a much lower annual growth rate of goods imports, especially road vehicles, which was accompanied by faster growth in Croatian goods exports.

Despite a several-year downward trend, the consolidated general government deficit was much higher than planned. At end-2004, it was 4.9% of GDP on a modified accrual basis. Preliminary Ministry of Finance (MoF) data show that the deficit on a

1 Source: *CNB Annual Report 2004*; according to the CNB, CBS and MoF data on 15 June 2005.

cash basis, which was planned at 4.5%, was as high as 5.1% of GDP. The main reason for such results in the public finance sector was a considerable shortfall in public revenues, which offset the positive effect of lower-than-planned public expenditures. The consolidated central government deficit (including capital revenues) on a cash basis grew from 2.8% of GDP at end-2003 to 4.4% of GDP at end-2004.

Figure 2 Consolidated Central Government Budget Balance and Current Account Balance (in four consecutive quarters)

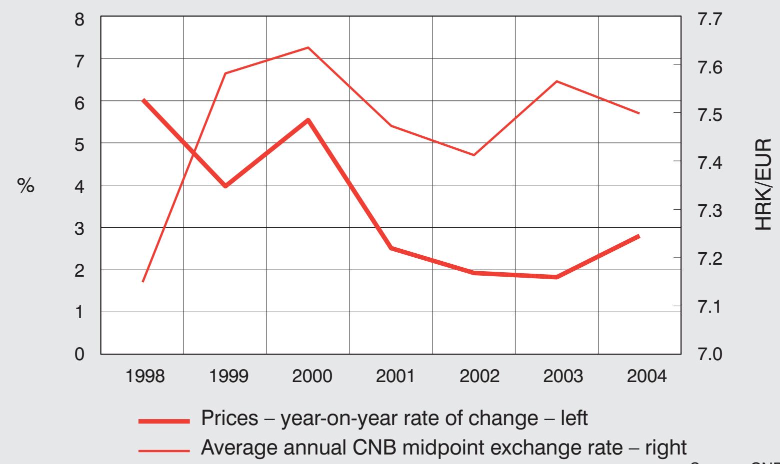


[a] Capital revenues excluded.

Sources: CNB and MoF.

Although consumer price inflation (CPI) picked up pace in 2004 relative to 2003, the annual rate of inflation recorded at end-2004 can still be considered low (in 2004, the average rate of inflation in Croatia was equal to that in the euro area). The annual rate of change in the CPI went up from 1.7% in December 2003 to 2.7% in December 2004. Above all, price stability was based on maintaining relative stability

Figure 3 Prices and Exchange Rate



Source: CNB.

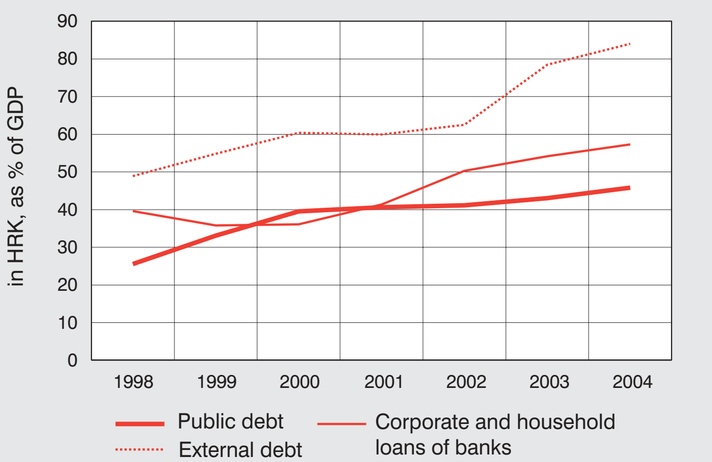
of the exchange rate of the kuna against the euro, which is the main nominal anchor for inflation expectations in the country and which affects the stability of import prices from the euro area. The kuna/euro exchange rate was relatively stable with a slight appreciation trend in 2004. In nominal terms, the average daily kuna/euro exchange rate appreciated from 7.56 HRK/EUR in 2003 to 7.50 HRK/EUR in 2004.

Figure 4 Employment and Unemployment Rates

Source: CBS.

The second half of 2004 saw a reversal of the downward trend in registered unemployment, which stood at 17.7%. Changes in registered unemployment in late 2004 were strongly influenced by the fact that the effects of the 2002 employment intermediation reform had run their course. At the same time, growth in employment in legal persons slackened, partly due to slower economic growth in that period. Labour market indicators for the second half of 2004 according to the Labour Force Survey, which are not susceptible to the institutional reform effects, will not be available till

Figure 5 Main Financial Indicators



Sources: CNB and MoF.

mid-2005 when it will be possible to make well grounded evaluations of labour market trends. The Labour Force Survey unemployment rate was 13.8% in the first half of 2004.

Since external debt growth did not slow down as much as desired, the external debt to GDP ratio continued to grow, reaching 82.1% at end-2004. On the other hand, the annual growth rate of external debt in 2004 was twice below that in 2003, whereas the country's international liquidity remained good. It is also positive that the main generator of public debt growth in 2003 and 2004 was not external debt, which grew much slower, so that its level of 30.5% of GDP including the guarantees issued is still not the reason for concern. The main reason for the growing external debt was banks' foreign borrowing, which was used to finance credit expansion in conditions of slow domestic savings growth.

3 International Environment

Mostly positive developments marked the global economy in 2004 although it slowed down due to the crude oil price hike in the second half of the year. The continued economic recovery of Economic and Monetary Union (EMU) countries, which started in late 2003, evidently picked up pace in early 2004. After slowing down in the second half of 2004, the 1.9% real GDP growth rate of EMU countries in 2004 was the highest growth rate since 2000 (it was only 0.6% in 2003). On the other hand, Central, Eastern and South-Eastern European countries recorded much higher economic growth rates in 2004, which were boosted by a favourable macroeconomic environment, good fiscal results and accommodating monetary policy. Preliminary estimates show that the real growth rate of aggregate GDP of the new EU member states was 4.9% in 2004, whereas the aggregate GDP of South-Eastern European countries (including Croatia) rose by 6.4% in real terms relative to 2003.[2]

Table 1 Real GDP Growth Rates in Selected Countries

	2000	2001	2002	2003	2004
Romania	2.1	5.7	5.0	4.9	8.3[a]
Bulgaria	5.4	4.1	4.9	4.5	5.6
Slovakia	2.0	3.8	4.6	4.5	5.5
Poland	4.0	1.0	1.4	3.8	5.3
Slovenia	3.9	2.7	3.3	2.5	4.6
USA	3.7	0.8	1.9	3.0	4.4
Czech Republic	3.9	2.6	1.5	3.7	4.0
Hungary	5.2	3.8	3.5	3.0	4.0
Croatia	2.9	4.4	5.2	4.3	3.8
Japan	2.4	0.2	–0.3	1.4	2.7
EU -15	3.6	1.7	1.0	0.8	2.3

[a] Forecast. Source: Eurostat.

2 Source: *Economic Survey of Europe*, published by the United Nations Economic Commission for Europe.

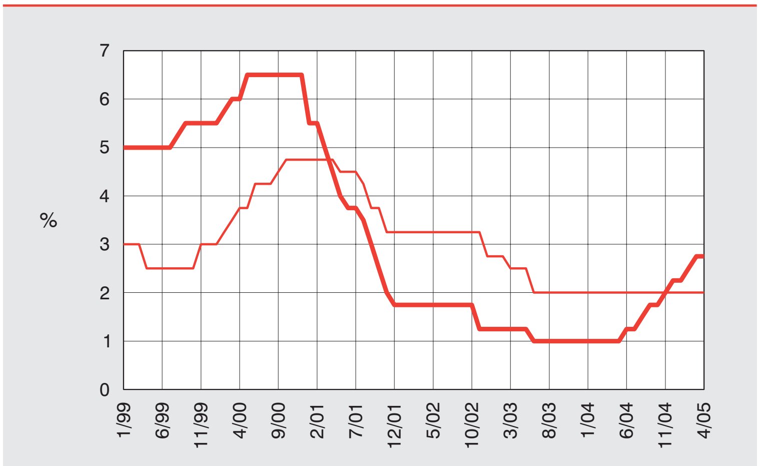
Economic analysts worldwide project a slight global economic slowdown in 2005, with EMU countries still lagging behind other major global economies in terms of growth rates. Judging by the most recent economic indicators, economic activities in Central, Eastern and South-Eastern European countries will also be slightly slower, but will still remain at a much higher level relative to Western European countries. The greatest risk for the global economy lies in the international oil market since persistent upward pressures on prices due to possible interruptions in oil extraction and growing global demand can be considered almost certain.

In the financial sphere, one may expect the continued pressures on the weakening of the US dollar and increase in American interest rates. This projection is based on a continued weakening of the US external position, as well as on the increased role of the euro in international transactions, particularly as the reserve currency of Asian central banks, which were formerly dominated by the US dollar. It is difficult to estimate the effect that these two factors of opposite signs will eventually have on the international capital market.

Contrary to the Federal Reserve System (Fed), slower economic recovery of EMU economies and the euro appreciation against the US dollar have prompted the European Central Bank (ECB) to maintain its key interest rates at the same level as in mid-2003. Nevertheless, the increase in American interest rates and monetary policy tightening in other global economies could lead to the rise in global interest rates that were on a downward trend for almost three years, which led to record low interest rates on financial markets worldwide.

There are four basic risks threatening the global economy in the short-run. The first is the possibility of the US dollar collapse due to the growing US economic imbalance and the potential sudden drop in US personal consumption, which would together negatively affect economic growth prospects both in the US and in other major global economies. The second risk arises from the global interest rate increase

Figure 6 Fed and ECB Key Interest Rates



Sources: ECB and Fed.

and the consequent decrease in currently weak risk-aversion, which could much affect international liquidity. The third threat arises from the possibility of the continued crude oil price upswing, which could jeopardise global economic growth. Finally, a sudden slowdown in Chinese economic growth would also adversely affect the overall global economy.

4 External Debt

According to the new methodology,[3] the external debt of the Republic of Croatia stood at EUR 22.7bn at end-2004, up EUR 2.9bn or 14.5% over end-2003. The 84% share of external debt (in euro terms) in gross national income puts Croatia into a group of severely indebted countries[4] according to the World Bank criteria, while the Croatian external debt as percentage of exports and foreign income, which stood at 150.6% in 2004, is much below the level of 220% that would indicate potential external liquidity problems.

Figure 7 External Debt Developments and Debt Repayment

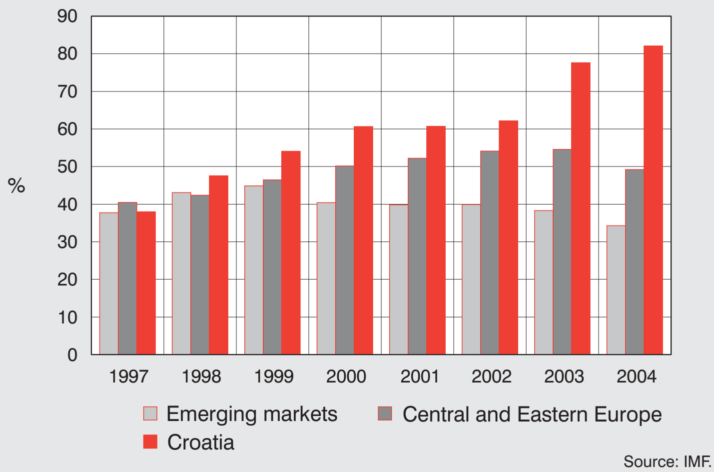
Source: CNB.

3 In early 2005, in line with the guidelines of *External Debt Statistics – Guide for Compilers and Users* (IMF, 2003), the CNB decided to change the method of external debt calculation and accordingly revised the historical data series on external debt. Compared with the formerly used methodology, the calculation of the external debt on a gross basis increases the external debt by the amount of interest arrears and accrual interest but also changes its structure. The CNB also decided to further expand the coverage of external debt by including the data on balances in: 1) hybrid and subordinated instruments, 2) bank and CNB repo transactions, 3) deposits of international financial institutions with the CNB, and 4) one-sided effects of the secondary bond market. The inclusion of hybrid and subordinated instruments, bank and CNB repo transactions, and deposits of international financial institutions with the CNB increases the previously reported stock of external debt, while the inclusion of one-sided effects of the secondary securities market results in its decrease. (Source: *CNB Annual Report 2004*).

4 According to the World Bank classification, severely indebted countries are characterised by present value of external debt service to gross national income exceeding 80% and/or by present value of debt service to exports, foreign income and workers' remittances from abroad exceeding 220%.

In comparison with end-2003, the major increase in external debt in 2004 occurred in the banking sector, whose share in the total external debt rose from 30.9% to 33.7%. In the same period, the share of the government debt in the total external debt was cut from 33.3% to 31.9%. In line with its efforts to stabilise the external debt stock at the attained level, the Croatian MoF issued only one bond on the foreign market in 2004, whereas the funds for the redemption of mature EUR-DEM bonds of 1997 and Samurai bonds of 1999 were raised by borrowing on the domestic capital market.

Figure 8 External Debt to GDP Ratio



Source: IMF.

Table 2 International Credit Rating of Croatian Banks' Owners

Bank	Owner	Owner's credit rating	
		long-term	short-term
Hypo Alpe Adria bank d.d. Zagreb	Hypo Alpe Adria Bank AG Klagenfurt Austria	–/Aa2/AA	–/P-1/A-1+
Slavonska banka d.d. Osijek	Hypo Alpe Adria Bank AG Klagenfurt Austria	–/Aa2/AA	–/P-1/A-1+
Raiffeisenbank Austria d.d. Zagreb	Raiffeisen Zentralbank Österreich	–/A1/–	–/P-1/A-1
Zagrebačka banka d.d. Zagreb	UniCredito Italiano SPA Milan, Allianz AG	AA–/Aa2/AA–	F1+/P-1/A-1+
	Allianz AG, (Insurer Financial Strength Rating)	AA–/Aa3/–	
Privredna banka Zagreb d.d. Zagreb	Banca Intesa SPA Milan	A+/A1/A	F1/P-1/A-1
Volksbank d.d. Zagreb	Österreichische Volksbanken AG Vienna (Volksbank International AG Vienna)	–/A2/–	–/P-1/–
Dresdner bank Croatia d.d. Zagreb	Dresdner bank AG F/M Deutschland	A/A1/A	F1/ P-1/A-1
Erste & Steiermärkische bank d.d. Rijeka	Erste bank der österreichische Sparkassen AG Vienna	A/A1/–	F1/P-1/ A-2
	Die Steiermärkische bank Sparkassen AG Graz	–	–
Gospodarsko kreditna banka d.d. Zagreb	Factor banka d.d. Maribor	–	–
Nova banka d.d. Zadar	Orszagos Takarekpenztar es Kereskedelmi Bank Reszvenytarsasag (OTP Bank Rt.) Budapest	–/A2/–	–/P-1/–

Institution	Long-term credit rating	Short-term credit rating
Republic of Croatia	BBB–/Baa3/BBB	F3/P-3/A-3
City of Zagreb	–/Baa3/–	–
CBRD	–/Baa3/BBB	–/–/A-3

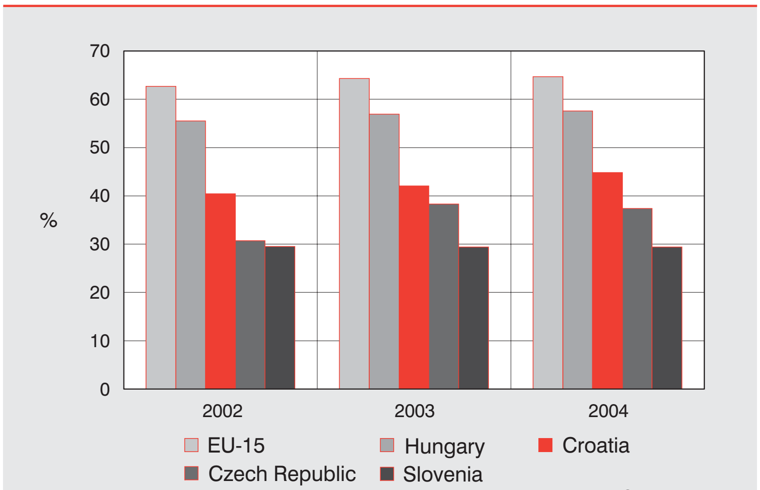
Note: All credit ratings are written in the following order: Fitch Ratings / Moody's / Standard & Poor's.
Sources: Fitch Ratings, Moody's and Standard & Poor's.

The major risk for the timely servicing of external debt at its currently very high level arises from the potential interest rate rise in EMU, since banks' external liabilities are mostly contracted at a variable interest rate based on the EURIBOR. Also, the rise in these rates would increase the price of the government external debt refinancing, which is the main source of funds for the repayment of its due liabilities. Should risk-aversion on the international financial market increase, this would additionally aggravate the financial position of both the government and banks, which also rely heavily on external sources for long-term financing purposes. A longer postponement of negotiations on EU accession could have similar negative effects on Croatia, even if the international financial market remains stable.

5 Public Debt

Public sector debt continued to increase in 2004. Although the public debt-to-GDP ratio grew in 2004 relative to 2003 (end-of-year data), its level is still not the reason for concern even if compared with the Maastricht criterion of the 60% public debt-to-GDP ratio. It is known that, due to historical reasons, the Croatian public sector was in a much more difficult financial situation than that of comparable countries, among which Hungary has the highest public debt-to-GDP ratio. Also, due to a few countries, this indicator states still surpasses 60% for the 15 old EU member states. At end-2004, the total debt of the general government and CBRD, including the guarantees issued, stood at HRK 110,870.1m, or 53.5% of GDP.

Figure 9 Ratio of Consolidated General Government Debt to GDP

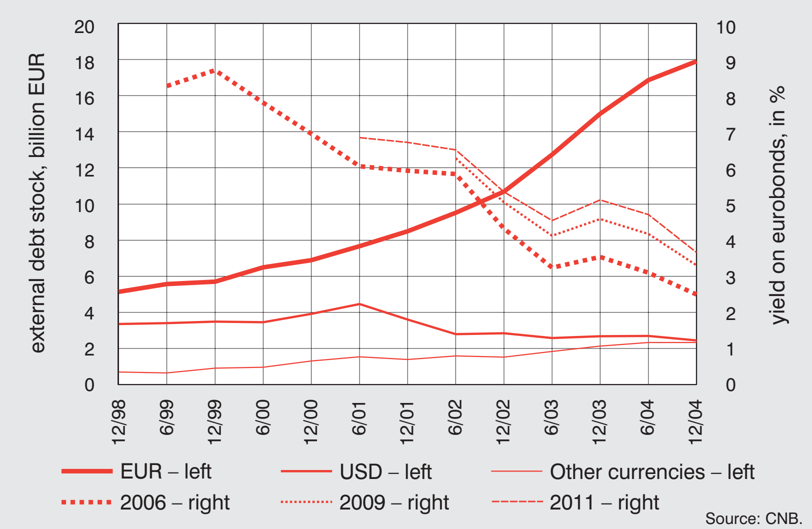


Source: Eurostat.

In contrast to previous years, almost 60% of the total 2004 increase in the public debt was due to borrowing on the domestic financial market. Thanks to coordinated monetary and fiscal policy actions in 2004, the ratio of the external general government debt (including the external debt of the CBRD and issued external guarantees) to the total public debt was reduced from 58.2% at end-2003 to 57.0% at end-2004.

However, due to a still high ratio of the external debt to the total general government public debt, Croatia is sensitive to external refinancing risk. In the last two years, the government borrowed abroad at relatively favourable interest rates (the coupon interest rate on eurobonds issued was 4.65% in 2003 and 5.11% in 2004) thanks to low global interest rates and investors' interest in lending to developing countries, which reduced the yield on these countries' bonds. However, global interest rates started to grow slightly in 2004 and intensified recovery of developed world economies could spur their further growth. In addition, a possible crisis in one of the developing countries could raise the present, historically low risk premium both for this group of countries and for Croatia.

Figure 10 Currency Structure of External Debt and Yields on Croatian Eurobonds 2006, 2009 and 2011



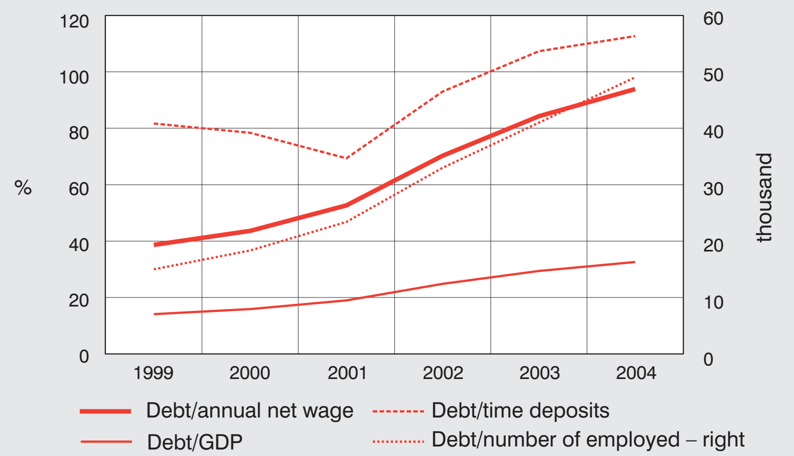
Source: CNB.

In addition to the refinancing risk, due to its high external debt ratio and the indexation of a large share of the domestic market debt to the euro, the country is exposed to substantial currency risk, which has been subdued so far thanks to the long-lasting kuna stability against the euro. Thus, with inflation expectations, public sector exposure to currency risk additionally supports the monetary authorities' maintenance of a stable nominal exchange rate of the domestic currency against the euro.

6 Households[5]

Together with external debt of domestic sectors, the total household debt grew strongly in both absolute and relative terms in the 2002-2004 period. The estimated household debt to GDP ratio increased from 29.5% in 2003 to 32.6% in 2004, of which almost 97% refers to commercial bank loans. The ratio of household debt to the estimated annual net wage bill grew from 52.7% at end-2001 to 93.9% at end-2004. In the same period, the average debt per employee grew steadily, from some HRK 23 thousand to HRK 49 thousand. Finally, the ratio of household debt to time deposits at commercial banks (that are still the primary form of household savings) continued to grow, from 69.4% at end-2001 to 112.7% at end-2004. This ratio stood at a high 107.4% at end-2003, which means that in that year households became the net borrowing sector of the economy, if we exclude their other financial assets.

Figure 11 Household Debt (end of period)



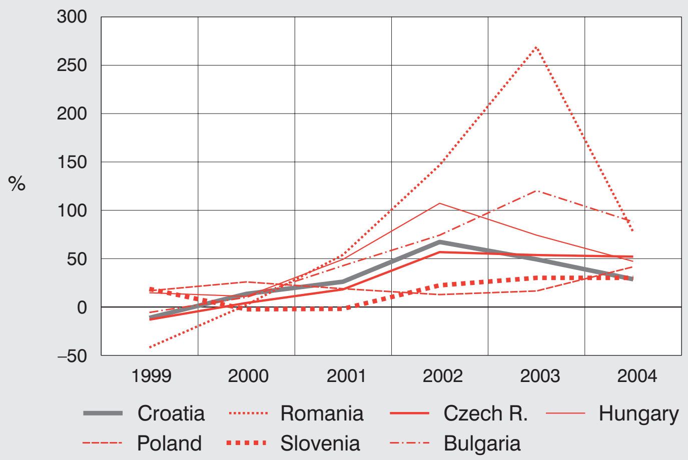
Sources: CNB, CBS and CNB estimate and calculations.

Such developments in household debt burden indicators are the result of strong growth in the supply of cheaper loans, mostly offered by commercial banks, which picked up pace in 2002. Between 2002 and 2004, the estimated total household debt grew by 42%, 28% and 19% respectively. It is expected that it will continue to grow at double-digit rates in 2005 as well, but probably by less than 20% on an annual level.

Although the presented increase in household debt indicators can be concerning, it is probably still early to talk about this sector's over-indebtedness. Debt at the level of

5 The Central Bureau of Statistics (CBS) does not prepare the consolidated balance sheet of the household sector, and the central bank does not prepare a financial survey, but only a monetary survey. Hence, financial assets and liabilities of the household sector can be only roughly estimated on the basis of the monetary survey and unconsolidated balance sheets of financial institutions. Non-financial assets of the household sector are unknown. The main source for estimating receipts and outlays of that sector is the *Survey on Household Consumption*, which the CBS conducts once a year.

Figure 12 Bank Claims on Households in USD (year-on-year rate of change)

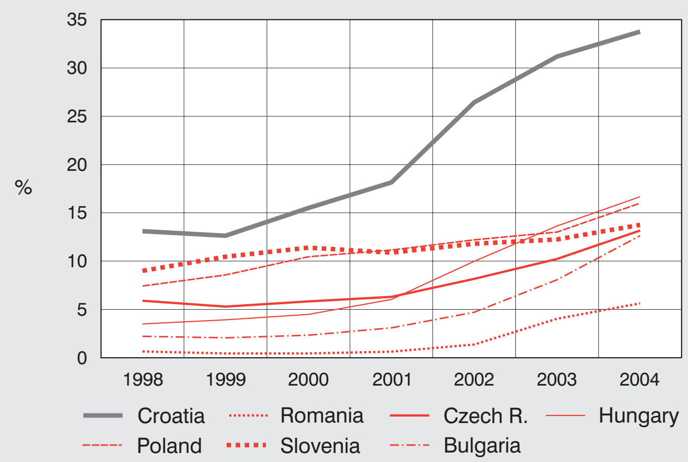


Sources: CNB, central banks of Central and Eastern European Countries and CNB calculations.

some 33% of GDP is far below the household debt level in EMU countries, which was estimated at 54.5% of GDP at the end of the third quarter of 2004. Still, estimates for individual countries at end-2003 show that the Croatian household debt burden has probably reached the Italian household debt burden and surpassed the Portuguese household debt burden, which was much below 30% of GDP at end-2003. Also, an international comparison of the household bank debt burden indicates that the Croatian household debt is very high compared with that in the new EU member states. At end-2004, the share of bank claims on households did not surpass 17% of GDP in these countries, while it was above 30% of GDP in Croatia.

While debt burden indicators show that the household debt level in Croatia is closer to that in the old than in the new EU member states, debt service indicators provide some reassurance. Although the estimated total debt service to gross disposable

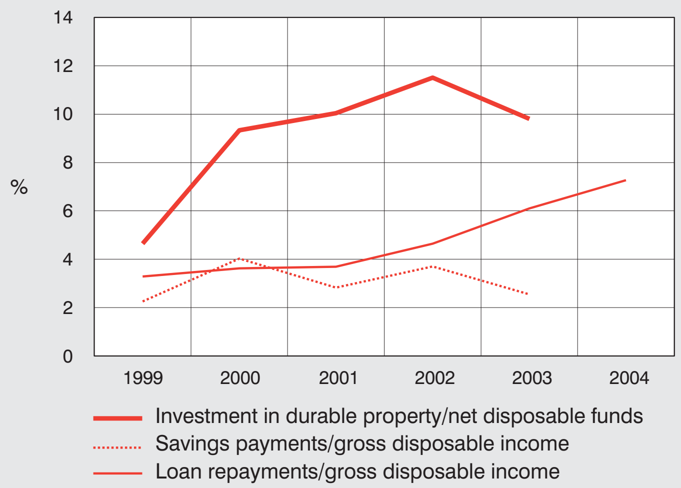
Figure 13 Ratio of Bank Claims on Households to GDP, in USD



Sources: CNB, central banks of Central and Eastern European Countries and CNB calculations.

income ratio increased from 3.6% in 2000 to 6.1% in 2003, it is currently much below that in EMU countries, where it exceeded 10% already in 2000. Still, currently available data suggest that in 2004 this indicator exceeded 7% in Croatia, which means that it almost doubled in four years. This occurred despite a parallel large cut in commercial banks' interest rates on long-term household loans, which fell from some 12% at end-2000 to below 8% at end-2004. On the other hand, the household debt service burden in EMU countries did not change much over the last decade when it moved between 9.5% and 10.5%.

Figure 14 Use of Household Funds



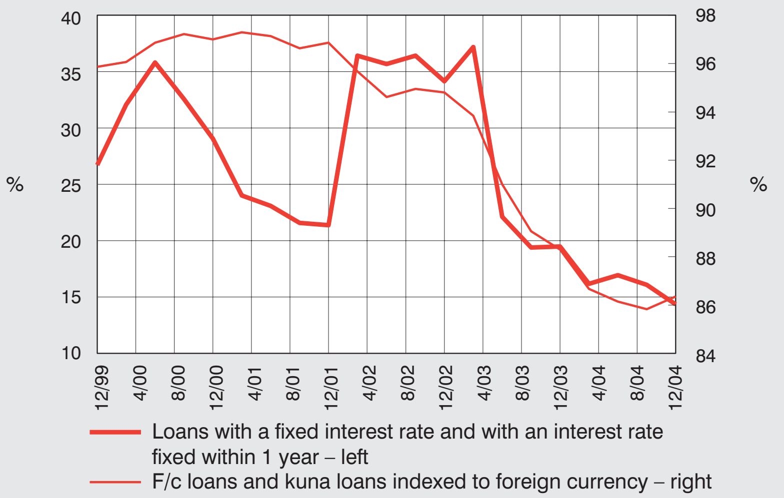
Sources: CBS and CNB estimate and calculations.

With a stable nominal exchange rate and a faster increase in wages than consumer prices, credit expansion of commercial banks over the last few years has enabled an unprecedented increase in the standard of living of the creditworthy segment of the household sector. This was mostly evident in an upsurge in car imports and the growing sale of new residential real estate. Statistical data point to soaring prices of flats on the real estate market, which increased by some 10% in 2004 relative to 2003, whereas prices of houses and constructions sites rose by 20–30%.[6] However, with regard to the risk to which households are exposed at the current level of indebtedness, the ability to service long-term credit commitments, which is indicated by the ratio of the real estate value to the loan obtained for its purchase, is not the most important risk.

Due to specific traits of the Croatian economy, some 86% of gross long-term bank loans to households was indexed to a foreign currency at end-2004. Although this was much less than at end-2001 when this ratio, which exceeded 97% at the time, started to fall, such a structure of credit commitments directly exposes households to

6 D. Mihaljek (2005): *Slobodno kretanje kapitala, tržište nekretnina i turizam: Blagodat ili nevolja za Hrvatsku na putu u europsku uniju?*, published in *Pridruživanje Hrvatske Europskoj Uniji*, the Institute of Public Finance.

Figure 15 Long-term Bank Loans to Households



Source: CNB.

a high level of currency risk. In addition, among loans with a remaining maturity of over 1 year, only 15% are contracted at an interest rate that cannot be changed within a year. Once global interest rates start growing, it is uncertain whether the intense competition of Croatian banks for a market share in retail lending will prevail, which would at least partly slacken the fast transfer of interest rate growth to the increase in the household debt service burden.

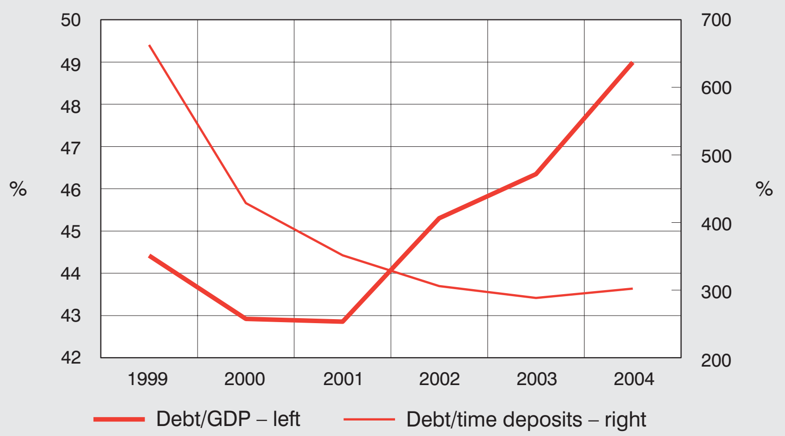
7 Non-financial Enterprises[7]

The estimated total debt of non-financial enterprises, measured as percentage of GDP, rose from 42.9% of GDP at end-2001 to 49.0% of GDP at end-2004. This was the result of its double-digit growth rates in the 2002-2004 period, which was still two to three times less than the growth rate of total household debt in 2002 and 2003. While the total debt of non-financial enterprises to banks grew very slowly in 2003 and 2004 due to monetary policy measures aimed at slowing banks' lending, their debt to leasing companies grew at three-digit rates, and their external debt grew by rates between 17% and 19%. This debt growth structure is actually reverse to that recorded before 2003, and it may be expected to last throughout 2005 due to the current orientation of commercial banks towards household lending.

7 The CBS does not prepare the consolidated balance sheet of the non-financial enterprise sector, and the central bank does not prepare a financial survey, but only a monetary survey. Hence, financial assets and liabilities of the non-financial enterprise sector can be only roughly estimated on the basis of the monetary survey and unconsolidated balance sheets of financial institutions. An additional source for estimating assets, liabilities, receipts and outlays of the non-financial enterprise sector are unconsolidated annual financial reports of entrepreneurs, which are collected by the FINA.

Finally, disregarding its structure, it may be said that the current level of the total debt of non-financial enterprises is not the reason for concern if compared with the debt of enterprises in EMU, which gradually grew from around 60% to around 63% of the region's GDP between early 2002 and mid-2004. A comfortable aggregate debt burden of non-financial enterprises is also confirmed by movements in the ratio of their total debt to time deposits at banks. In the 1999-2003 period, this ratio declined regardless of movements in debt burden indicators and went up to slightly over 300% in 2004. This shows that strong growth in the total debt of non-financial enterprises did not have direct negative effects on their aggregate liquidity.

Figure 16 Non-financial Enterprises' Debt (end of period)

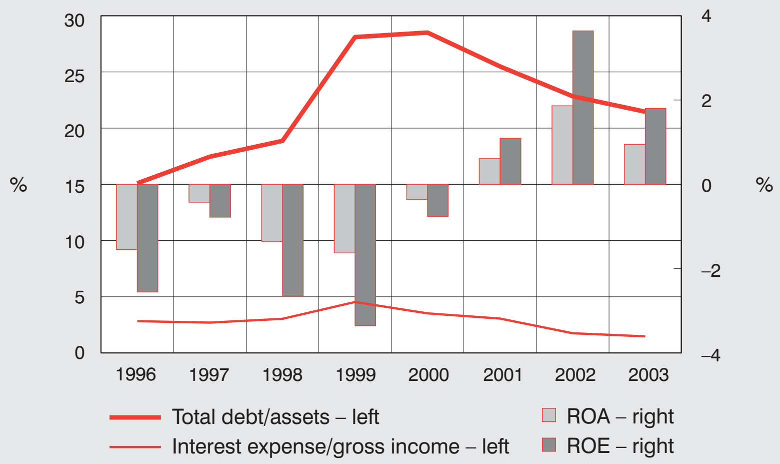


Sources: CNB, MoF and CNB calculations.

Other debt burden and debt service indicators of non-financial enterprises also point to their relatively comfortable position, which has not been threatened by a considerably higher total debt level. According to the data in unconsolidated annual financial reports of entrepreneurs, the share of the total (unconsolidated) debt of non-financial enterprises in their total (unconsolidated) assets ceased to grow in 2000 and fell from 28.5% in 2001 to 21.5% in 2003. This probably resulted from the fact that many over-indebted enterprises, which are under bankruptcy or winding-up, were removed from the sample. Also, the debt service burden measured by the interest expenses to gross income ratio fell sharply, from 4.5% in 1999 to 1.5% in 2003. In addition to the change in the sample that eliminated the most risky enterprises, this was definitely contributed to by the parallel fall in global and domestic interest rates; interest rates of domestic commercial banks on long-term corporate loans fell from over 12% in early 2000 to below 6% in late 2004.

Still, the post-1999 economic recovery certainly contributed most to a better financial position of non-financial enterprises. Over the four years that followed, the aggregate profitability of this sector grew from a negative level, which culminated with return on assets (ROA) of –3.35% and return on equity (ROE) of –1.63% in 1999, to its record high in 2002, and finally to 1.8% and 0.9% respectively in 2003. Still,

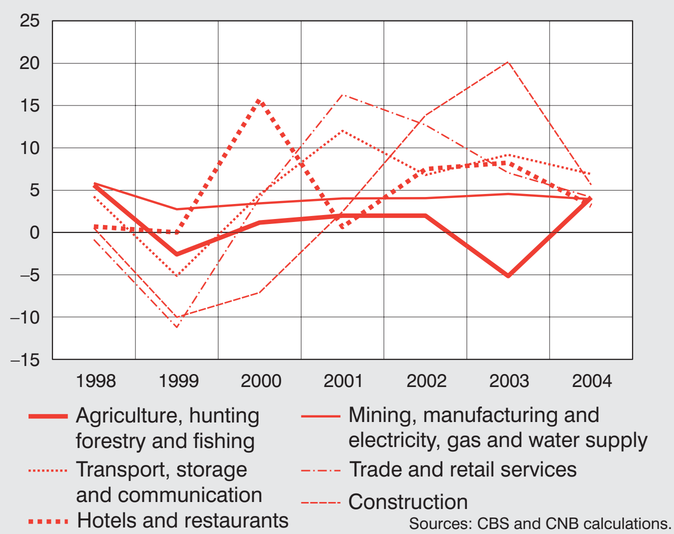
Figure 17 Debt Burden and Profitability



Sources: FINA and CNB calculations.

before finally estimating the recovery of the aggregate financial position of non-financial enterprises one should wait for currently unavailable data from financial reports of entrepreneurs for 2004. Presently, one can only assume that favourable indicators on the 2004 increase in gross value added (for all activities) could be reflected in good business results of enterprises.

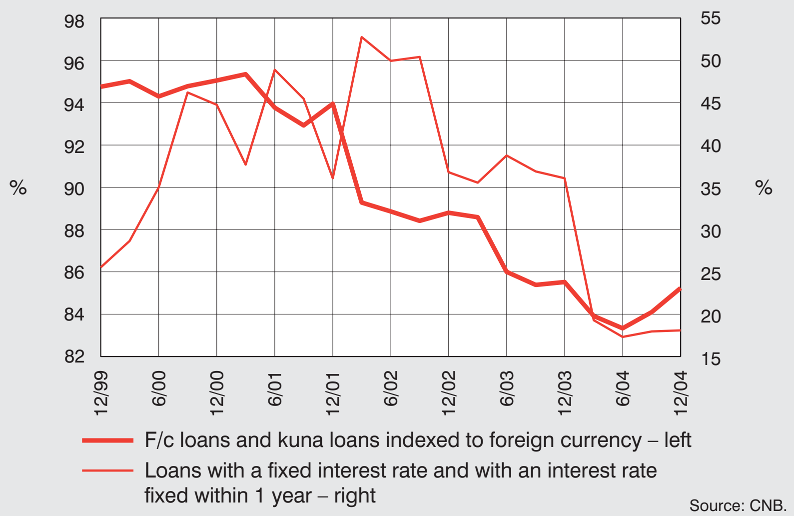
Figure 18 Gross Value Added (GVA) by Groups of Activity (cummulative year-on-year rate of change)



Sources: CBS and CNB calculations.

Among risks that threaten non-financial enterprises, in addition to slower economic growth that is expected in 2005 as in the previous two years, within the financial sphere there are the threat of the increase in interest rates on loans contracted at a variable interest rate, and currency risk that arises from the practice of currency indexation of long-term corporate liabilities. Although loans contracted at fixed rates are much more common in the corporate than in the household sector, and although enterprises are much more able to protect themselves from currency risk, both these sectors are rather exposed to the stated risks. Thus, the share of long-term corporate loans whose interest rates may vary within a year was constantly over 80% of total corporate loans in 2004. The share of corporate loans denominated in f/c fell from some 95% in early 2001 to a still high 85% at end-2004.

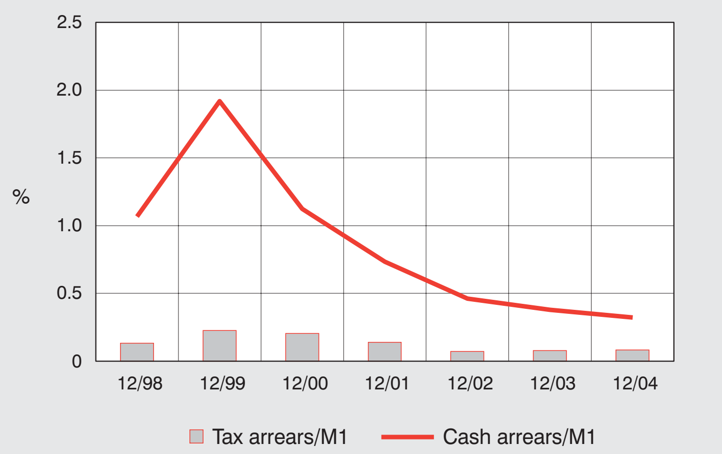
Figure 19 Long-term Bank Loans to Enterprises



Source: CNB.

More than households, enterprises are sensitive to liquidity risk, which has already proved to be dangerous for their profitability during the general illiquidity in 1999. Currently, this risk does not seem to pose a serious threat to operations of non-financial enterprises since the amount of cash arrears in the national payment system steadily declined, from 192% of money at end-1999 to 32% of money at end-2004.

Figure 20 Arrears as Percentage of Money



Sources: FINA and CCE data processing.

8 Financial Intermediation

The Croatian financial sector is rather bank-centred, with banks and their parent companies controlling also the major share in non-bank financial intermediaries. The 2004 rise of non-bank financial intermediaries, especially of pension funds and leasing companies, led to a slight fall in the banks' share in total assets of domestic financial intermediaries, to 81.6% at end-December 2004 (1.6 percentage points less than at end-2003).

In terms of total assets, among domestic financial intermediaries at end-2004, leasing companies took the second position away from insurance companies that had been the most important non-bank financial intermediaries in Croatia for years. However, following the substantial increase in 2002 and 2003 when assets of leasing companies grew at annual rates of some 100%, they grew much slower in 2004, by some 24%. At end-2004, assets of leasing companies that are included in the CNB monetary statistics and account for over 90% of the Croatian leasing market stood at HRK 15.6bn. In the leasing portfolio structure by type of leased goods, predominant were personal vehicle leasing (operating leases) and real estate leasing (financial leases), whereas leasing of commercial vehicles, machinery and equipment accounted for a much smaller share.

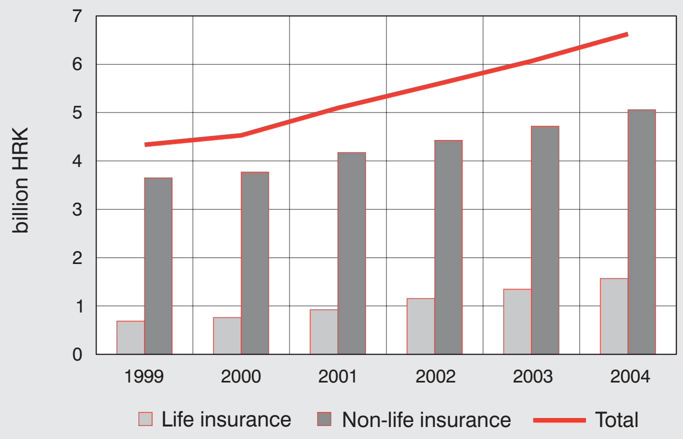
Table 3 Relative Importance of Financial Intermediaries (shares in total financial intermediaries assets, end of period, in %)

		12/1999	12/2000	12/2001	12/2002	12/2003	12/2004
1	Banks, consolidated gross assets	87.7	87.0	87.3	84.7	83.2	81.6
2	Open-end investment funds, net assets	0.02	0.2	0.9	1.4	1.4	1.8
3	Closed-end investment funds and PIFs, net assets	2.6	3.0	2.3	1.6	0.4	0.4
4	Insurance companies	7.2	6.8	5.9	5.7	5.4	5.2
5	Housing savings banks	0.1	0.4	0.8	1.1	1.5	1.8
6	Mandatory pension funds, net assets	0	0	0	1.1	2.0	2.9
7	Voluntary pension funds, net assets	0	0	0	0.0	0.0	0.0
8	Savings and loan cooperatives[a]	1.1	0.9	0.6	0.7	0.7	0.6
9	Leasing companies[a]	1.3	1.7	2.2	3.7	5.4	5.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0

[a] Estimate based on CNB statistics and FINA data.
Sources: CNB, HAGENA, DINADOS, CROSEC, FINA and MoF.
– for items 1 and 5: Statistical Reports of Banks and Housing Savings Banks
– for items 2 and 6: Quarterly Statistical Report of Investment and Pension Funds
– for item 3: CROSEC data
– for item 4: Directorate for the Supervision of Insurance Companies
– for item 7: MoF of the Republic of Croatia

As insurance companies grew slower than other financial intermediaries for several years, their relative importance was less at-end 2004 than at end-2003. Gross insurance premium collected in 2004 was 9% higher than in 2003, continuing a moderate upward trend from 2002 and 2003. Some 3/4 of gross insurance premium collected refer to non-life insurance. For several years, the life insurance segment has grown at higher rates than non-life insurance (in 2004, 16% vs. 7%). Still, its growth rate in 2003 was much lower than in 2001 and 2002, and it further declined in 2004.

Figure 21 Calculated Gross Insurance Premium



Source: DINADOS.

A steady increase in assets of mandatory pension funds, which has mostly resulted from the way in which they raise funds, brought the rise in their relative importance in 2004, from 2.0% to 2.9% in total assets of domestic financial institutions. According to data of the Agency for Supervision of Pension Funds and Insurance (HAGENA), total assets of mandatory pension funds stood at HRK 8.1bn at end-2004, of which 75% (HRK 6,065bn) was invested in bonds issued by the Republic of Croatia, up some 7.5 percentage points in relative terms over end-2003. On the other hand, the shares of MoF treasury bills (T-bills) and foreign debt securities in the balance sheets of pension funds decreased while, as at end-2002, equity securities accounted for 8% of total assets (of which over half was invested in foreign equity securities).[8] The average nominal yield of mandatory pension funds was 7.37% in 2004.

In 2004, assets of voluntary pension funds increased by more than three times relative to end-2003. Still, with their total assets of HRK 96m, these funds are undoubtedly the smallest financial intermediaries in the Croatian market. Although the legally prescribed investment rules for voluntary pension funds are less strict than that for mandatory pension funds, their 2004 investment strategy relied mostly on government bonds (74% of total assets). The yields of the existing four voluntary pension funds ranged from 6.35% to 10.03% in 2004.

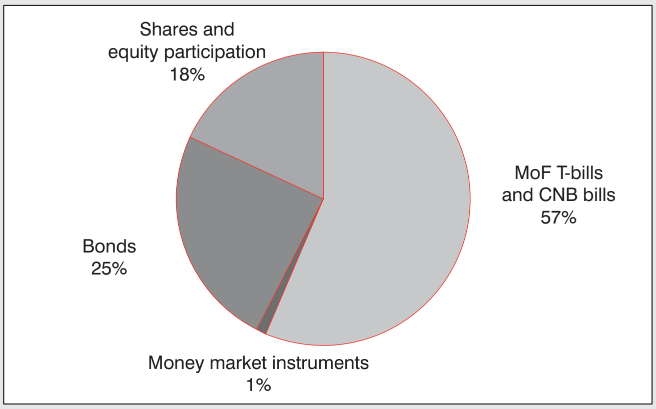
The rise on the domestic capital market has been especially beneficial for open-end investment funds whose net assets grew by almost 25% in 2004. At end-2004, 37

8 The investment structure of mandatory pension funds is prescribed by legal provisions, which set the amount and types of domestic and foreign securities in which mandatory pension funds may invest. At least 50% of mandatory pension funds' assets has to be invested in long-term bonds and other long-term debt securities issued by the Republic of Croatia or the CNB, whereas investments into shares of joint stock companies and domestic closed-end investment funds are allowed only if these shares are officially quoted on the stock exchange (currently only four shares fulfil this requirement: Pliva, Podravka, Croatia osiguranje and Varteks) and may amount up to 30% of the fund's assets. Mandatory pension funds may invest up to 15% of their assets in foreign securities.

open-end investment funds were operating in Croatia, 5 more than at end-2003 and 15 more than at end-2002. According to their statutes, among 37 open-end investment funds, 11 were money market funds, 10 were registered as bond funds, 9 as equity funds, and 7 were registered as mixed investment funds. Assets of open-end investment funds totalled HRK 4.9bn at end-2004, of which the largest share (HRK 3.1bn or 63%) was accounted for by money market funds. They were followed by mixed funds, which grew substantially in 2004 and with assets of HRK 820.9m took the second position away from bond funds in terms of asset size. The weakest growth in 2004 was recorded by bond funds whose assets increased by only 7% relative to end-2003 and whose market share fell to 16%. Among open-end investment funds the smallest are equity funds with HRK 217.5m assets at end-2004 or 4% of total assets of open-end investment funds. The major stake in investment funds' assets is accounted for by legal persons, which thanks to improved liquidity management increasingly invest in money market funds that ensure higher yields on their excess liquidity than classic bank deposits. Should favourable trends on the domestic capital market continue, households may be expected to increase their investments in these funds in the forthcoming years, especially in mixed and equity funds.

At end-2004, 4 closed-end investment funds were operating in Croatia, with total assets of HRK 1.2bn, up 16% over end-2003.

Figure 22 Investment Structure of Open-end Investment Funds in Securities as at 31 December 2004



Source: CNB.

The relative importance of housing savings banks only mildly increased in 2004 compared with end-2003, although their assets grew by 43% or HRK 1.5bn in that period. The major increase in housing savings banks' assets was recorded in the last quarter of 2004, which can be explained by the inclination of saviours to deposit their contracted annual savings at the year-end, just before the expiry of the time limit for the right to claim government incentive funds. Savings and loan associations (SLAs) are the most numerous but financially weakest group of financial intermediaries in the Croatian financial market. Data of the Croatian MoF, which is responsible for the supervision of these institutions, show that total assets of SLAs stood at HRK 1.5bn at end-2004. Out of 118 SLAs, 111 had total assets bellow HRK 40m, and only the biggest of them had assets over HRK 100m at end-2004.

9 Capital Market

According to the market capitalisation of shares, the Croatian capital market was more than twice smaller than its banking sector at end-2004, which is also characteristic for other Central and Eastern European countries as well as some Western European countries. However, while the Croatian banking sector may be included in more developed banking systems of the region, the Croatian capital market still lags behind those of other comparable countries.

The Croatian primary share market has failed to develop. Since end-1996, when the Croatian Securities and Exchange Commission (CROSEC) was established, only 32 companies issued equities in a public offer, amounting to a total of HRK 1.2bn, of which the major share is accounted for by banks and insurance companies. The reasons for underdevelopment of the primary market should be sought in the selected privatisation model, which was not beneficial for capital market development, while an additional obstacle has been the traditional corporate reliance on bank loans as the main external funding source.

Table 4 Equities' Public Offers (in million HRK)

Year	Number of successful issues	Total value of issues
1997	17	839.4
1998	6	247.1
1999	3	29.0
2000	1	20.0
2001	1	13.0
2002	1	11.8
2003	1	1.2
2004	2	11.0

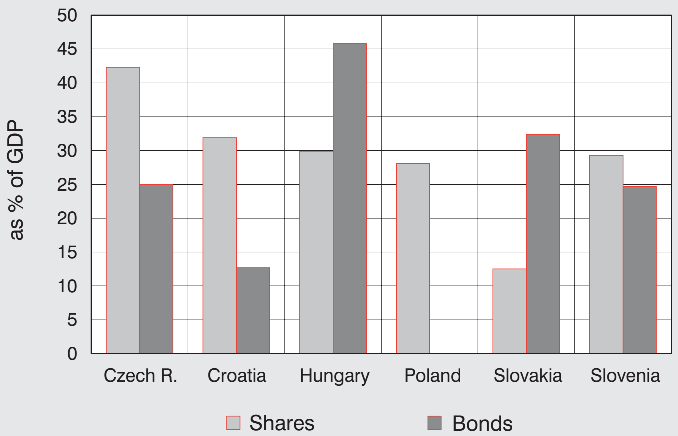
Source: CROSEC.

The market capitalisation of shares on both Croatian stock exchanges amounted to 50% of GDP at end-2004, which represents a considerable increase compared with the capitalisation of 31.3% of GDP at end-2003. This may be attributed to a strong upswing in prices of most shares, a few new issues, as well as the rise in the number of active shares.[9] According to the market capitalisation of shares to GDP ratio at

9 To obtain the market capitalisation of each share on the Zagreb Stock Exchange used is the product of multiplication of the share's last price and the number of shares issued. However, the calculation includes also the share's liquidity, so that the obtained market capitalisation of shares that were not traded in the previous month is halved. If a share was not traded in the previous three months, only a quarter of its market capitalisation is included in the total market capitalisation.

end-2004, Croatia flanks the new EU member states: Slovenia, Hungary and Poland, lags far behind the Czech Republic, but is far ahead of Slovakia. By contrast, liquidity of Croatian shares is among the lowest in the region. The total share turnover on both Croatian stock exchanges in the record high year of 2004 was slightly less than HRK 4bn, or 1.9% of GDP. In the same year, the share turnover in Slovenia was 3.9% of GDP, while it was 14% and almost 20% of GDP in Hungary and the Czech Republic respectively.

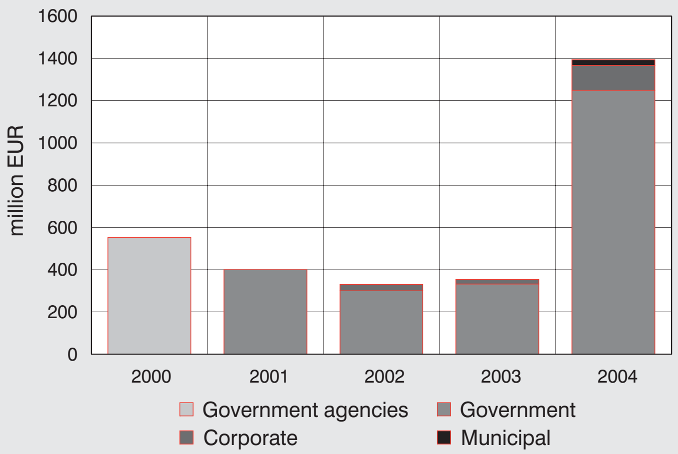
Figure 23 Market Capitalisation of Shares and Bonds at end-2004



Sources: National stock exchanges.

Until recently, the Croatian primary bond market has offered almost exclusively government bonds. The first corporate bond was issued in 2002, but this issue was too small to be traded on the secondary market. The first corporate bond in kuna (and still the only one) was issued in 2003, whereas even three corporate bonds of some of the best Croatian big companies were issued abroad in 2004. In the same year, the

Figure 24 Bonds Issued on the Domestic Market



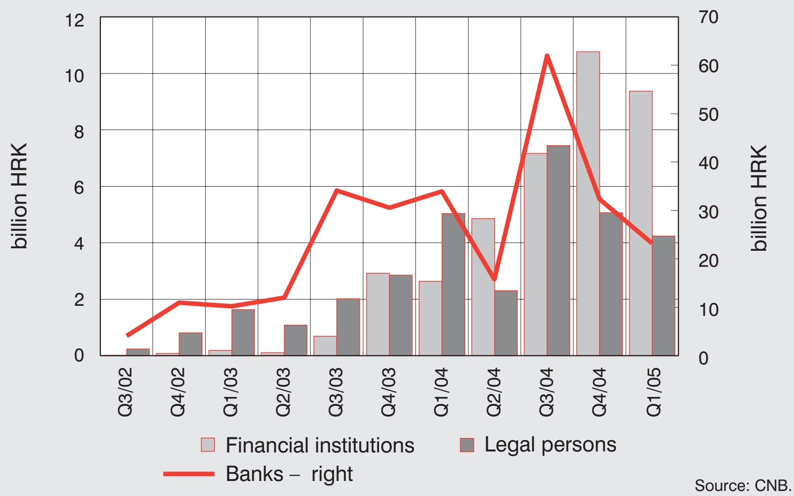
Source: ZSE.

corporate bond that was issued abroad in 2002 was quoted on the domestic capital market when its additional tranche was issued. Still, the market capitalisation of corporate bonds quoted on the domestic capital market was only 2.3% of GDP at end-2004. The negligible role that capital markets play in corporate financing is additionally confirmed by the fact that bank loans to enterprises stood at 25.8% of GDP at end-2004, while the corporate sector external debt was 17.9% of GDP in kuna terms.

10 Money Market

The Croatian money market is strongly influenced by banks, which dominate trading on both the official money market – the Zagreb Money Market (ZMM), and on the OTC money market. In 2004 and the first quarter of 2005, money market activities of non-bank financial institutions and non-financial enterprises increased relative to previous years. However, the volume of interbank trading is still several times larger than trading with other money market participants.

Figure 25 Overnight Turnover on OTC Money Market (by creditor)

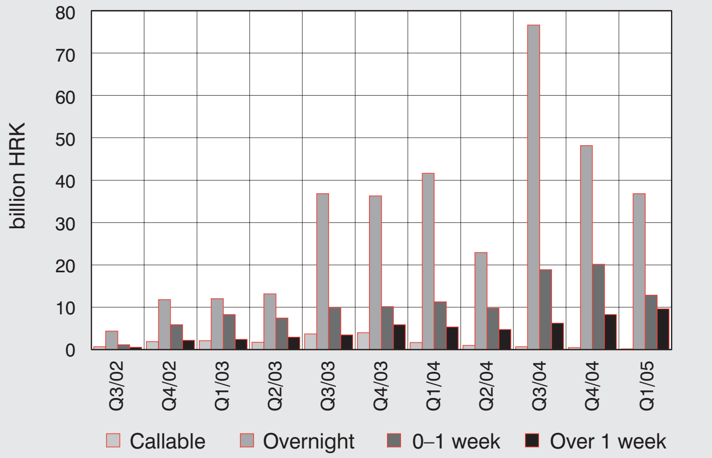


Source: CNB.

As a form of money trading, direct domestic market lending surpasses by far securities repo trading. In the maturity structure of loans on the money market dominant are overnight loans, which is particularly evident in periods of lower banking system liquidity. They are followed by loans maturing in up to one week, while loans with longer maturity have risen owing to sound bank liquidity at end-2004 and the first quarter of 2005. By contrast, callable loans, which are specific for the ZMM and which used to account for a major share in ZMM trading, almost completely disappeared in 2004.

Since mid-2003, money market interest rates have showed unprecedented volatility,

Figure 26 Money Market Turnover by Maturity

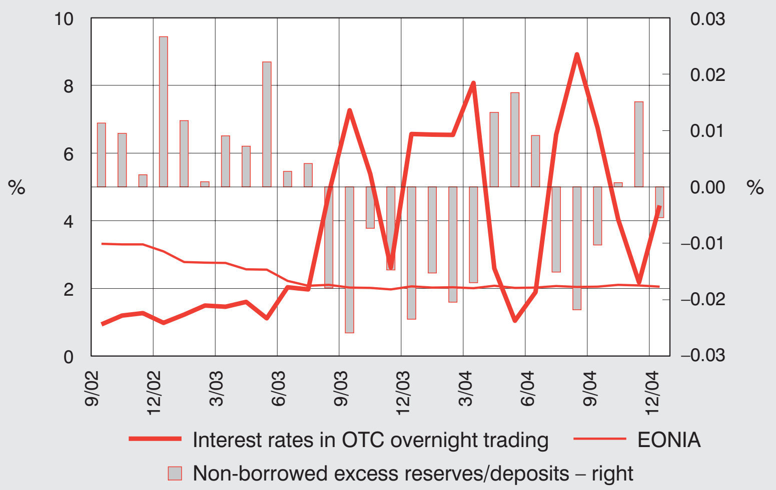


Source: CNB.

which is above all related to a new development pattern of banks' non-borrowed excess reserves. For the sake of comparison, the average interest rate in OTC interbank overnight trading until the end of the first half of 2003 was not much more volatile than the benchmark overnight rate for EMU banks (EONIA). However, several changes in monetary policy instruments that negatively affected the kuna liquidity, and three larger issues of government bonds on the domestic market, which were aimed at replacing external by domestic debt, led to an aggregate kuna liquidity shortage in the banking system in the second half of 2003 and in 2004. Seasonal factors and CNB foreign exchange interventions managed to turn this shortage into a surplus on two occasions, which added to the volatility of money market rates.

It seams that the volatility of money market returns has affected also the volatility of benchmark rates on risk-free T-bills with an original maturity of three months, which

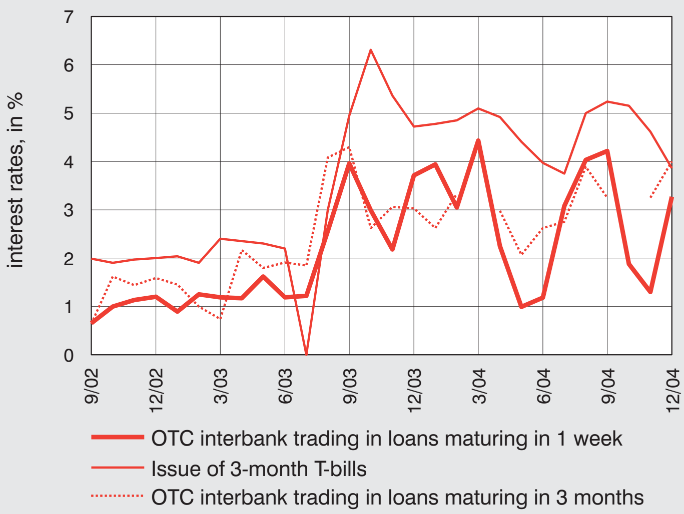
Figure 27 Overnight Interest Rates and Liquidity of Banks



Sources: CNB and ECB.

first went up from the level of much below 3% in the period prior to mid-2003 to the level above 4% at which they remained till end-2004. Furthermore, when interest rates on T-bills are compared with money market interest rates for similar maturities, it arises that the risk premium on the Croatian money market was negative in that period. Although the reason for this phenomenon is uncertain, it may indicate insufficiently efficient management of government finances on the one hand,[10] and, on the other, it may be the outcome of a lower benchmark value of comparable money market rates, since there is only sporadic trading for periods over one week.

Figure 28 Risk and Liquidity Premium on the Money Market



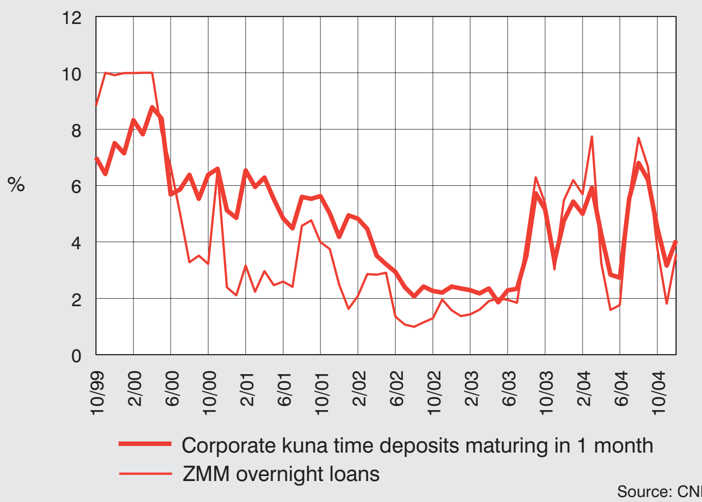
Source: CNB.

The volatility of money market rates was reflected in some of commercial banks' interest rates. Before mid-2003, the weighted interest rate on ZMM loans was much lower and more volatile than the commercial banks' weighted interest rate on time deposits without a currency clause. However, in the last 18 months, these two rates were much better aligned. This may be reasonably interpreted as a result of more active liquidity management on the part of large and liquid companies, which decided to profit from the interest rate volatility on the money market. The strengthening of non-bank financial intermediaries, particularly of money market investment funds, has provided companies a wider choice regarding liquidity management. Banks have thus been forced to offer competitive returns in order to retain short-term corporate deposits.

This explanation is corroborated by the fact that the rise in inflows of corporate kuna time deposits with the shortest maturity has started simultaneously with the increase in the volatility of money market rates. By their nature, these deposits are most like money market loans, so that their interest rates are most like money market rates.

10 A more detailed analysis of public finance management is provided in the publication of the Institute of Public Finance (2005), *Newsletter*, No. 22, June 2005.

Figure 29 Interest Rates on Overnight Loans and Short-term Corporate Deposits



Source: CNB.

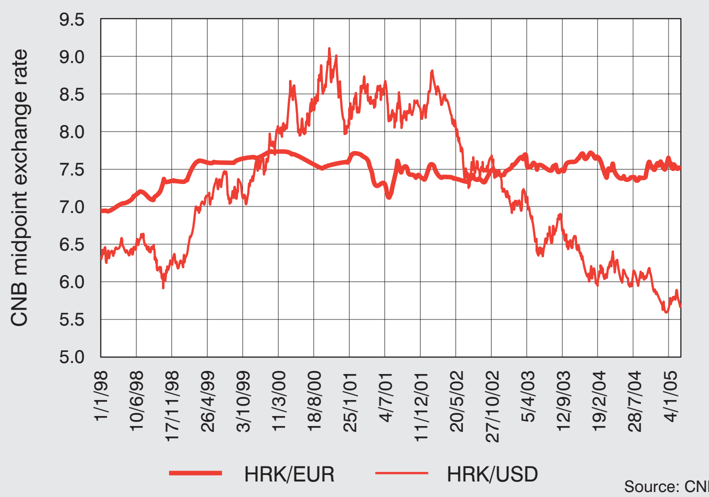
Therefore, a sudden strong upswing in their relative importance for the calculation of the weighted interest rate on total kuna time deposits at commercial banks, which the central bank monitors as an important statistical category, has led to strong, and still present, alignment between developments in that rate and the weighted interest rate on ZMM loans.

To avoid a further transfer of the negative effect that the strong volatility of money market rates exerts on price stability of short-term funding sources, the central bank introduced in April 2005 a limited form of open market operations in order to create a short-term interest rate corridor. The interest rate on overnight deposits at the central bank, which currently stands at 0.5%, is the firm floor of this corridor. Although only very small amounts were placed in the first few repo auctions, the implementation of the new CNB measures (the increase in the rate of the marginal reserve requirement to 40% and the increase in the percentage of allocation of the kuna component of reserve requirements) strongly boosted the demand for kuna in early June 2005, so that the amounts placed at repo auctions held in that month were several times larger than the average daily money market turnover. The marginal reverse repo rate has stabilised at the level of 3.50% and has become the benchmark money market rate, which added to the stability of short-term interest rates.

11 Foreign Exchange Market

The major portion of cashless trade on the Croatian foreign exchange market is intermediated by banks, while trade in foreign cash with natural persons is mainly oriented towards authorised exchange offices and private trade. The central bank monitors the statistical data on banks' foreign exchange transactions and, on the basis of exchange rates achieved in these transactions, calculates and publishes daily the official exchange rate of the kuna against selected global currencies, the so-called midpoint exchange rate of the CNB. For administrative reasons, the CNB midpoint exchange rate reflects the market price of the domestic currency two days ago. Authorised exchange offices have contracts with commercial banks on the purchase of raised foreign cash, so that the CNB midpoint exchange rate reflects the price of the domestic currency in that segment of foreign exchange trade as well.

Figure 30 Exchange Rate – HRK vs. EUR and USD

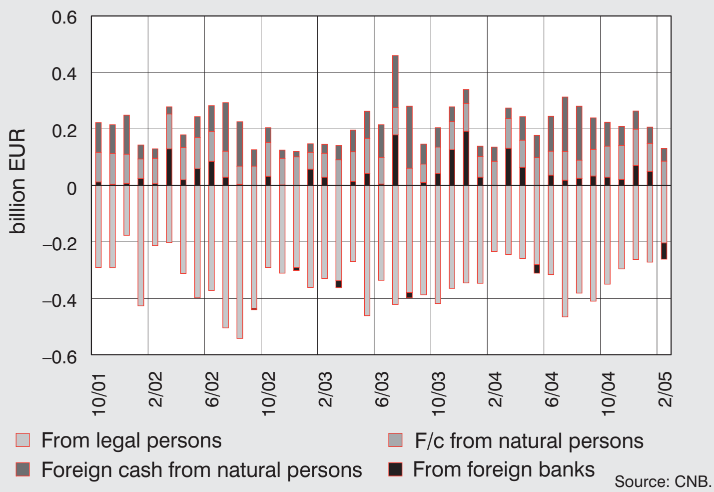


Source: CNB.

The volume of trade on the foreign exchange market has steadily increased, so that the banks' total monthly turnover realised in spot foreign exchange trading increased from some EUR 2bn at end-2001 to over EUR 6bn at end-2004. Between 2002 and 2004, domestic legal persons regularly participated in the foreign exchange market as net buyers of foreign exchange, while other sectors (natural persons and foreign banks) participated as regular net sellers. Since 2000, the central bank has on almost all occasions been a buyer of foreign exchange (from banks and government), since appreciation pressures on the domestic currency prevailed in this period due to substantial f/c inflows from several sources.

The maintenance of a stable nominal exchange rate of the kuna against the euro is the main monetary policy instrument used to achieve the main central bank objective – the maintenance of low inflation. Nevertheless, the foreign exchange market is very lively but still poorly liquid, so that there are indications that seasonal effects and

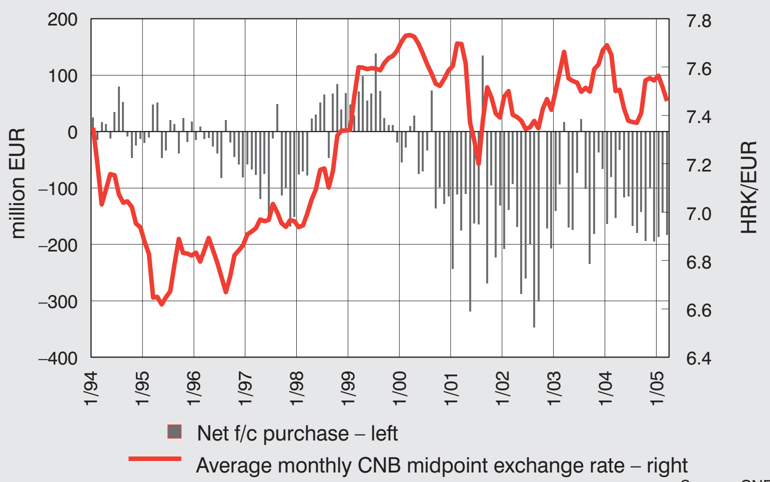
Figure 31 Banks' Monthly Spot Net F/c Purchase



Source: CNB.

large transactions of the strongest market participants could briefly reverse the long-term exchange rate trend, which has been stable for years. In addition, the foreign exchange market is relatively undifferentiated, and has until recently been dominated by spot transactions. 2004 saw the development of the foreign exchange swap market, while foreign exchange forward transactions did not surpass 2.5% of total foreign exchange trading in the entire 2002-2004 period.

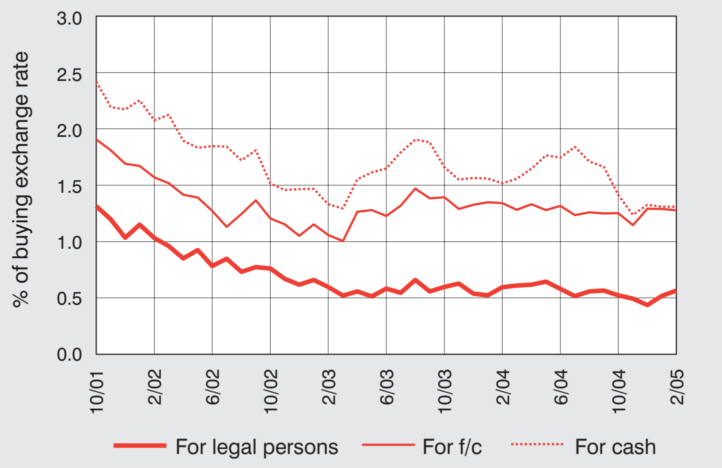
Figure 32 Commercial Banks' Net F/c Purchase and CNB Midpoint Exchange Rate



Source: CNB.

With such a structure of the foreign exchange supply and demand, banks earn a large portion of their income by buying f/c from the household sector and then selling it to legal persons. The net bank income from foreign exchange trading amounted to 20% of banks' profit before taxes and extraordinary items in 2004. Profitability of foreign exchange trading improved the efficiency of the foreign exchange market, so that the difference between the selling and buying exchange rate (spread) in all segments of trading sharply diminished in 2002 and 2003. In trading with legal persons this spread went down from 1.3% (the buying rate) in December 2001 to 0.4% in December 2004.

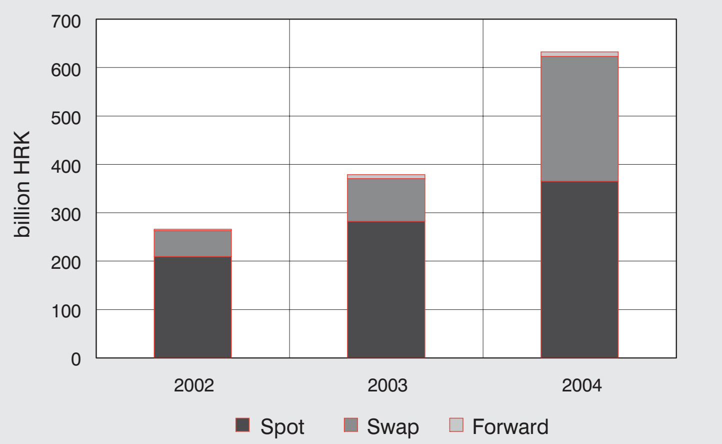
Figure 33 Difference between Average Monthly Selling and Buying Exchange Rate



Source: CNB.

The Croatian foreign exchange market has continued to develop in a favourable macroeconomic environment. The nominal exchange rate of the kuna against the euro has not recorded large fluctuations neither in the daily nor in the long-term horizons and the foreign exchange market pressure index is far from disturbing values ever since it briefly increased in summer 2001 when the central bank easily repelled a miniature speculative attack of a few domestic banks. In this stable environment, it may be hard to expect a strong development of the foreign exchange forward market, but the upward trend in the total turnover should further add to foreign exchange market liquidity.

Figure 34 F/c Turnover by Type of Transaction



Source: CNB.

12 Institutional Framework

The new Interest Rate Act, which was enacted in 2004, for the first time prescribes a uniform method of calculating default interest. Even more importantly, for the first time, this Act provides a legal limit on contractual interest rates, which also applies to bank lending activities. The Act provides for the establishment of the Interest Rate Board. At end-2004, this Board adopted a decision whereby the maximum nominal default interest rate was set at 15%. The highest permissible contractual interest rate on monetary obligations of legal and natural persons is 17% and 21% respectively per year. The Act came into force on 10 July 2004, and its contribution primarily refers to the increase in legal security since it eliminates uncertainties regarding the methods of calculating interest on various types of contracts, and solves disagreements among several acts regulating interest calculation.

The new Deposit Insurance Act, which broadened the insurance coverage to include household giro and current accounts and lowered the linear premium rate that banks pay to the State Agency for Deposit Insurance and Bank Rehabilitation (DAB), came into effect on 12 December 2004. Banks have adhered to the provisions of this Act since the second quarter of 2005 when the DAB published the instructions for its implementation. Deposit insurance premia are paid quarterly, and the annual premium amount has been lowered from 0.8% to 0.5%, which was aimed at lowering the commercial banks' burden. However, by broadening the base, the Act aims at increasing the security of bank clients. Nevertheless, although it has been reduced, this premium is still several times higher than in EU countries.

By initiating the process of EU accession, the Republic of Croatia took an obligation to gradually incorporate the entire acquis communitaire into its legal system. This also implies harmonisation of the Obligations Act with the provisions of EU directives. The new and comprehensive Obligations Act was adopted in February 2005. It replaced the previous act that was adopted in the former SFRY as early as 1978 and incorporated into the Croatian legal system in 1991. The new Act comprises provisions regulating the area of contractual and default interest rates. For commercial contracts, the maximum interest rate is to be obtained by increasing the central bank's discount rate by 8 percentage points, while for other contracts the discount rate is increased by 5 percentage points. Companies have the option to negotiate the amount of default interest. The Act's novelty, according to some interpretations, is also that it explicitly prescribes that monetary damages are to be calculated from the day on which a claim or charges are filed, instead of the day of the first-instance decision as was common in previous court practice since the former act failed to regulate this issue.

The discount rate is not currently used as the benchmark rate in the Republic of Croatia, so that the Act's provisions relating to interest rates will come into effect two years following the enforcement of the Act itself, i.e. in 2008. Until then, existing legally prescribed contractual and default rates are to be applied. It is still uncertain how will the central bank activate the discount rate instrument, i.e. whether this rate will serve only as the ceiling on the permissible contractual interest rates. In that case the central bank would independently limit contractual interest rates, and thereby assume the role that it was not intended to take neither according to the Croatian National Bank Act nor other acts.

The Stabilisation and Association Agreement (SAA) came into force on 1 February 2005. Under the SAA, the Republic of Croatia assumed the obligation to gradually liberalise its capital account. Currently, there are several remaining restrictions with regard to this account. For example, non-residents are not allowed to invest into T-bills, except those with head offices or places of residence in countries with which the Republic of Croatia signed a bilateral investment promotion and protection agreement. Also, residents may not grant short-term financial loans to non-residents except within direct investment. With regard to deposit operations, residents may not open accounts abroad unless they obtain CNB approval and they must buy and purchase foreign exchange in domestic banks (i.e. currency risk management is not allowed outside domestic banks).

The Amendments to the Decision Governing the Opening and Managing of Foreign Exchange Accounts and Foreign Exchange Savings Deposit Accounts of Residents with a Bank oblige banks to adjust the construction of foreign exchange accounts in a way that has been already prescribed for kuna accounts by 1 October 2007 at the latest. This is also the precondition for the application of multi-currency accounts and for the inclusion into the EU payment system. The Decision Governing the Conditions for and the Manner of Opening and Managing Non-Resident Bank Accounts has been amended in the same way. The Amendments to the Decision Governing the Conditions for and the Manner of Performing External Payment Operations moved the time limit for this decision's implementation from 1 January to 1 October 2005. This was to ease further liberalisation of foreign exchange operations by providing detailed instructions for implementation, and to provide banks sufficient time to adjust their information systems to the new regulations.

In December 2004, the CNB stipulated the form of the Statistical Report on Payment Transactions, which applies to banks and legal persons issuing payment cards. The report contains data on executed cashless and cash payments, payment transaction accounts, the infrastructure for performing payment operations, data on payment cards and other data on whose basis the CNB monitors the development of domestic payment operations. The gathering of these statistical data has been harmonised with the ECB methodology. In addition, the implementation of the Decision on the Croatian Large Value Payment System and Settlement in Bank Accounts Held with the Croatian National Bank, whereby the Central Depository Agency became a separate participant in the CLVPS, began on 1 July 2005. The clearing of transactions through the CLVPS is made within a clearing day, which enables that payment transactions for the settlement of securities trading are made on the delivery vs. payment principle.

On 21 January 2005, the European Committee for Banking Standards included the Croatian IBAN into the Register of European Account Numbers. All preconditions for domestic banks to start issuing their clients the IBAN that will be accepted in international payment operations have thereby been fulfilled.

In addition to efforts related to harmonisation with the EU, the idea to unify supervision of non-bank financial institutions in Croatia, which is currently performed by HAGENA, CROSEC, Directorate for the Supervision of Insurance Companies (DINADOS) and the Ministry of Finance, has been present for some time. This idea is also mentioned in the Government's Memorandum on Economic and Financial Policies, and primarily refers to supervising operations of funds and insurance companies. A new agency for the supervision of the non-bank financial sector should be established in 2006. It will probably supervise also leasing activities, for which the legal basis is yet to be established (the Leasing Act is at an early drafting stage, and in its preparation the MoF cooperates with the Association of Leasing Companies at the Croatian Chamber of Economy, CCE). The new Insurance Act and the Investment Funds Act are also being drafted and should be adopted by end-2005.

Another factor of a more efficient financial system is certainly the Croatian Register of Credit Commitments (CRCC) that was established on 24 November 2004 when the social agreement was signed (founders are 20 Croatian banks) and when the founding assembly was held (founders are banks accounting for 97.5% of total Croatian bank assets), upon obtaining CNB approval. The CRCC is a project of the Croatian Banking Association, and it should soon benefit consumers, improve bank risk management and spur the development and standards of lending in Croatia. In the third quarter of 2005, banks should start with the official exchange of data on credit commitments of citizens that apply for a loan. In the future, the CRCC is to include also card issuers and leasing companies. Although there is currently no legal basis for the inclusion of legal persons into the CRCC, it is possible that in future banks start exchanging data on loans to legal persons as well.

In addition to the CRCC, the security of banking operations is expected to be enhanced by two projects of the Ministry of Justice, the benefits of which could be felt already next year. The first project is the reorganisation of the land registry and cadastre. This project of the Ministry of Justice and State Geodetic Administration is financed by a loan from the International Bank for Reconstruction and Development (IBRD), an EU grant and Croatian budget resources and its objectives are computerisation of land registry records and establishment of a unified land registry database. Plans for 2005, in addition to a comprehensive updating of land registry data and harmonisation of databases of court registry offices and municipal cadastre offices, include also the establishment of a computerised land registry. The benefits of this project will be the formation of a unified base of all relevant land registry and cadastre data, which will, by use of a computerised database, improve data availability and speed up the issuance of registered land certificates and cadastre data for a broad circle of users.

The second project is the establishment of a movable property registry. Its importance lies primarily in transparency of lending based on pledged property. Hence, the project will simultaneously prevent that several mortgages are recorded on the same movable property, which has often been the case in the past, and enable entrepreneurs who do not hold real property but hold valuable movable property to obtain a bank loan. The project leader is the Ministry of Justice, and the registry itself will be kept by the Financial Agency (FINA). This project is in line with world practices and it certainly increases legal security. It will improve banks' ability to check their clients' creditworthiness and to prove ownership over pledged movable property before court. Since lending on the basis of pledged movable property will become less risky for banks, interest rates may be expected to fall, which would be beneficial for loan users who regularly service their debts. The only problem that needs to be solved is movable property appraisal, for which there is no tradition in Croatia.

In the legal sphere, impatiently expected is the Constitutional Court's decision on the DAB's appeal against the final ruling of the High Commercial Court, which was in favour of a dispossessed shareholder of Croatia banka. In 1999, this bank was rehabilitated at taxpayers' expense after it had been established that its estimated losses exceeded its capital, which led to the nullification of property rights of its shareholders at the time. Six years later, in February 2005, the High Commercial Court decided in favour of one of the small shareholders of Croatia banka who lost their shares during the bank's rehabilitation in 1999. Pursuant to this decision, taxpayers, which have already rehabilitated the bank, should now pay damages to small shareholders. However, following the High Commercial Court's ruling, the Association of Small Shareholders filed a claim with the Constitutional Court for the return of shares to most other shareholders. If the Constitutional Court decides that the Act on which basis Croatia banka and other Croatian banks were rehabilitated was unconstitutional, there may be an upsurge of claims for damages regarding rehabilitation of other banks formerly owned by private shareholders.

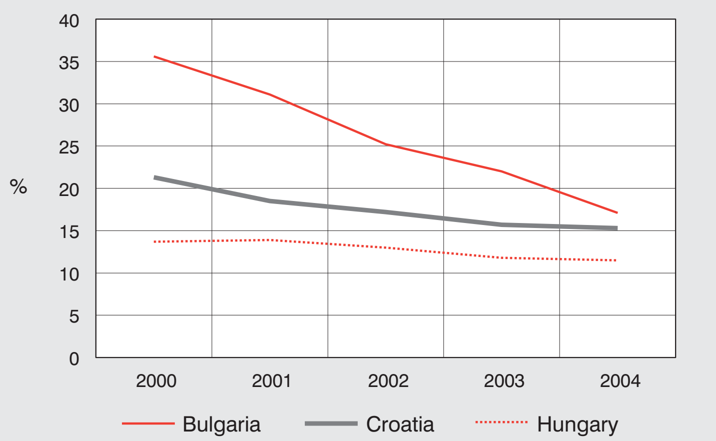
A much smaller problem than that of disorganised land registry and uncertainty regarding the legitimacy of bank privatisation and rehabilitation is the fact that, regardless of the requirement that changes in the International Accounting Standards (IASs), whose application is obligatory in the Republic of Croatia, have to be published in the official gazette *Narodne novine* prior to their application, no change in IASs has been published in the official gazette over the last years. As a result, in some cases there have been significant differences between Croatian accounting practices and worldwide practices. Some IASs have been rather changed in recent years, especially following the cases of accounting frauds that led to failure of several major global companies. The problem of the difference between Croatian accounting practices and international standards, which has been additionally aggravated by slow administration, is to be solved together with the enactment of the new Accounting Act, which is expected in the third quarter of 2005.

13 Banking System

In comparison with the banking systems of Central and Eastern European (including Baltic) countries in transition, the Croatian banking system achieved solid profitability in 2004 with a moderate exposure to credit risk and a strong capital base.

In recent years, the capital adequacy ratio (CAR) has been falling in Croatia, which can be largely attributed to the banks' perception of decreased risks. At end-2004, the aggregate capital adequacy ratio of Croatian banks stood at 15.3%, while it averaged 14.6% in the transition countries of Central and Eastern Europe. In recent years, this ratio was lowest in Hungary, and highest in Bulgaria, with the exception of end-2004 when it was highest in Slovakia.

Figure 35 Capital Adequacy Ratio in Selected Central and Eastern European Countries



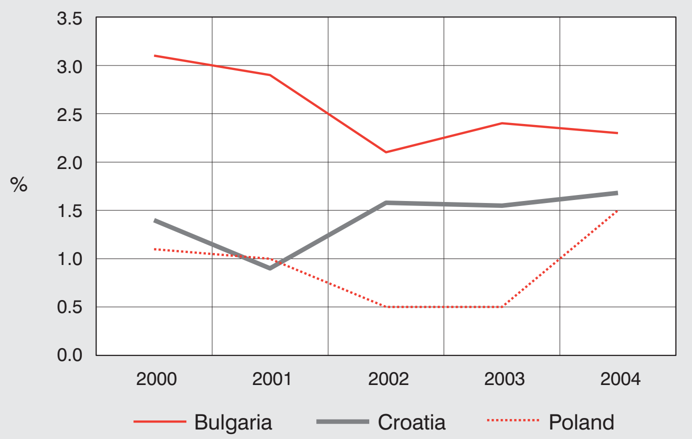
Sources: IMF and CNB data processing.

At end-2004, the average capital leverage ratio in these countries and Croatia was 8.5% and 8.7% respectively. It was highest in Bulgaria (12.0%) and lowest in the Czech Republic (5.7%).

In the 2000-2004 period, the share of non-performing loans in the total loan portfolio of the Croatian banking system fell by somewhat over 50%, standing at 4.6% at end-2004. It was somewhat below the average share of nonperforming loans in total loans in Central and Eastern European countries, which was 5.1% at-end 2004. It should be noted that there is a large dispersion among these countries with regard to this indicator, which is highest in Poland (18.1%) and lowest in Estonia (only 0.3%). At end-2004, the non-performing loans' coverage ratio was 61.4% for Croatian banks, somewhat less than the average for Central and Eastern European countries (72.4%).

Profitability of the Croatian banking system in the last five years has been close to the average profitability of banking systems of comparable countries, with the exception of 2002 when it was halved owing to an atypically high extraordinary loss in the income statement of one of the Croatian largest banks. Return on average assets (ROAA) was 1.7% in Croatia at end-2004, while it averaged 1.6% in Central and Eastern European countries. In recent years, ROAA was highest in Bulgarian banks (2.3% at end-2004), and lowest in Polish banks, except at end-2004 when it was lowest in Slovakia (1.0%).

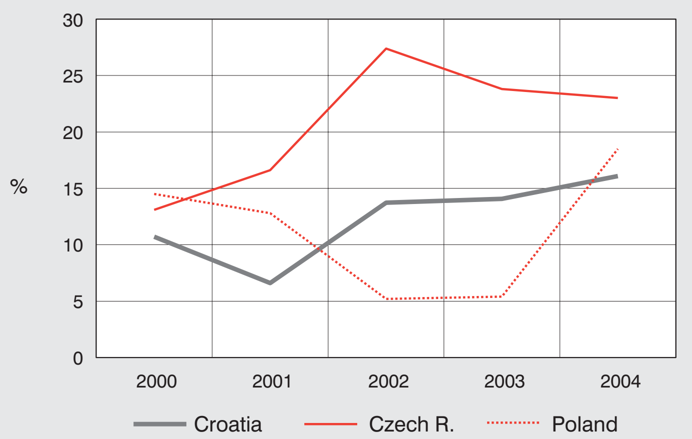
Figure 36 ROA in Selected Central and Eastern European Countries



Sources: IMF and CNB data processing.

Return on average equity (ROAE) of the Croatian banking system stood at 16.1% at end-2004, which is somewhat lower than the average ROAE of 18.5% in comparable countries in the same period. In recent years, the highest ROAE among the transition countries was recorded in the Czech Republic (23% at end-2004), and the lowest ROAE was recorded in Poland, with the exception of 2004 when Slovakia had the lowest ROAE (11.9%).

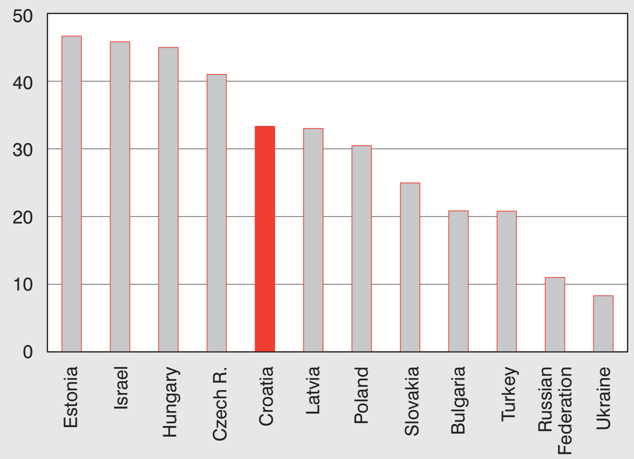
Figure 37 ROE in Selected Central and Eastern European Countries



Sources: IMF and CNB data processing.

This international comparison shows that the Croatian banking system is reasonably safe and profitable. In addition, a positive downward trend in banking risks and the parallel rise in bank profitability has been recorded in both Croatia and the entire Central and Eastern European region. Such developments are reflected in the ratings of the international credit rating agency Moody's, which assigned the Croatian banking system the financial strength rating of 33.3, thereby placing it among the five best performing banking systems of the transition countries. Estonia was assigned the highest rating (46.7) and Ukraine received the lowest rating (8.3).

Figure 38 Moody's Weighted Average Bank Financial Strength Index for December 2004



Sources: IMF and CNB data processing.

The CNB data for 31 December 2004 confirm that in that year the Croatian banking system achieved a solid business result and satisfactory growth despite relatively restrictive monetary policy measures that led to a fall in banks' kuna liquidity and slackened their loan growth relative to 2003. The aggregate balance sheet of banks increased by some 17% in 2003 and by another 13% in 2004, while the number of banks fell by three (one of these banks merged with its mother bank, one initiated voluntary winding-up proceedings and one was subject to compulsory winding-up proceedings). These developments were equally contributed to by the increase in the loan portfolio to the non-financial sector, of some 14%, growth in deposits with the CNB, of some 27%, and the increase in the securities portfolio, of some 32%. On the other hand, the largest negative contribution to growth came from the T-bill portfolio (which was 54% lower than at end-2003). Financing of the 2004 growth was primarily enabled by the increase in loans from financial institutions, which grew by 19% relative to end-2003, and an even higher increase, of 25%, in other loans within banks' liabilities and capital.

Thus, the positive period for the banking system continued into 2004, with a moderate increase in its total assets and a stable share of long-term funding sources in total funding sources. These developments are especially important since they followed

Table 5 Main Data on Commercial Banks in the Republic of Croatia (in million HRK and %)

	Balance						Change 31/12/04 / 31/12/03	
	31/12/99	31/12/00	31/12/01	31/12/02	31/12/03	31/12/04	Amount	Percent
Number of banks	53	43	43	46	41	38	–3	–7
Total assets	92,986	111,867	148,455	174,139	204,043	230,292	26,250	13
Money assets, deposits, MoF T-bills and CNB bills	23,120	35,266	55,885	51,651	67,010	71,823	4,813	7.2
Trading and investment portfolio	16,447	16,609	17,441	21,094	18,241	24,019	5,778	31.7
Loan portfolio	46,380	51,237	65,898	92,293	110,052	125,265	15,213	13.8
Other assets	7,039	8,755	9,231	9,102	8,740	9,185	445	5.1
Liabilities and capital	92,986	111,867	148,455	174,139	204,043	230,292	26,250	12.9
Short-term liabilities	26,444.057	31,943	44,113	52,893	57,174	59,641	2,467	4.3
Long-term liabilities	50,298.06	60,588	80,185	95,181	118,809	139,002	20,193	17.0
Subord. and hybr. instr. and other liab.	5,162.462	5,999	10,439	9,557	9,977	11,636	1,659	16.6
Capital	11,081.105	13,336	13,717	16,509	18,083	19,754	1,671	9.2

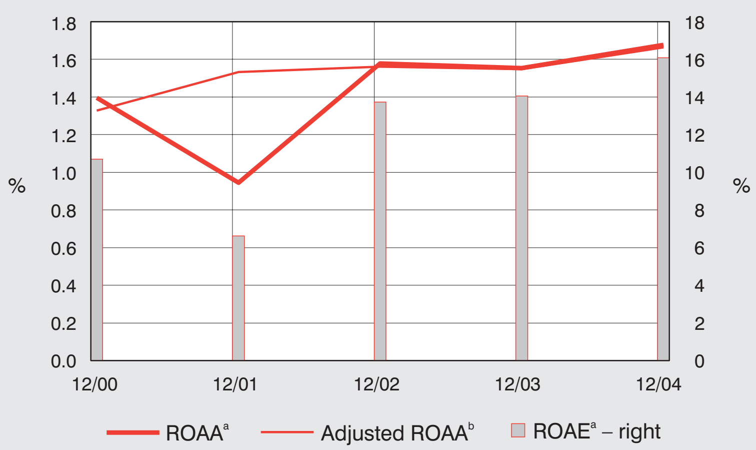
Source: CNB.

the revocation of the Decision on the Compulsory Purchase of CNB Bills, which administratively discouraged growth in bank placements of over 16% annually. The 14% growth rate of bank placements to the non-financial sector in 2004 indicates that the CNB projection was realised.

Notwithstanding slower loan growth, aggregate data show that, relative to assets and capital, banks made higher profit in 2004 than in 2003. Pre-tax ROAA stood at a high 1.68%, which was the best result ever, while after-tax ROAE, which has also been steadily growing, stood at 16.1% at end-2004 (it averaged some 10% for EU banks in 2003).

Solid business results of the banking system as a whole are above all the outcome of

Figure 39 ROAA and ROAE of Banks

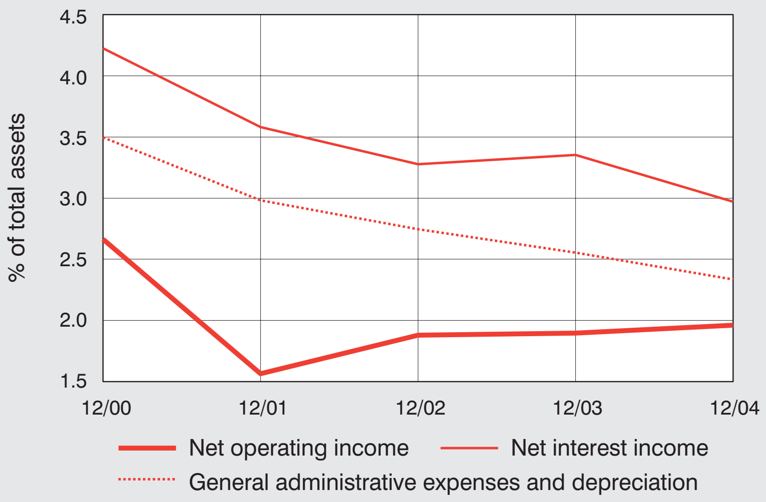


[a] ROAA is calculated from pre-tax profit and ROAE is calculated from after-tax profit.
[b] Adjusted ROAA is pre-tax and pre-extraordinary items.

Source: CNB.

improved bank management in 2004. A further fall in all interest rates led to a reduction of the ratio of net interest income to average bank assets, from 3.4% at end-2003 to 3.0% at end-2004. Banks also made considerable savings of 0.3% of average assets by cutting their general administrative expenses to 2.3% of average assets at end-2004 (they were around 1.6% for small and medium sized EU banks in 2003).

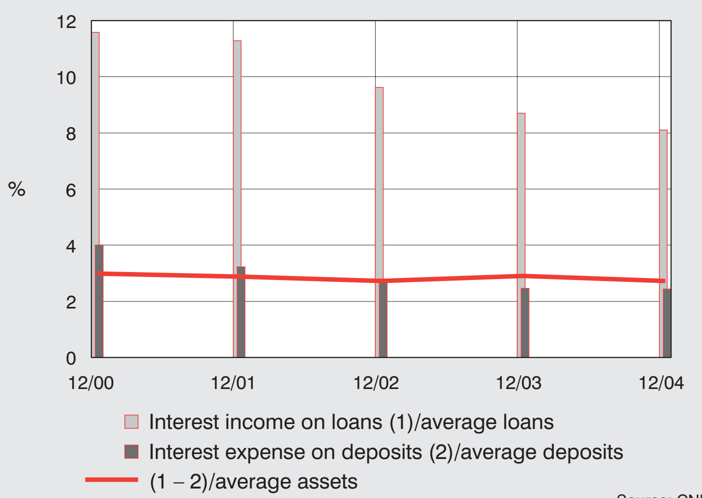
Figure 40 Banks' Efficiency Ratios



Source: CNB.

The profit increase was also boosted by the rise in net non-interest income, from 1.10% of average assets at end-2003 to 1.31% of average assets at end-2004, with an almost unchanged total provisions to assets ratio. The result of these bank adjustments is a slight upturn in aggregate net operating income, from 1.9% of average assets in 2003 to 2.0% at end-2004 (it was around 2.1% for small and medium sized EU banks in 2003).

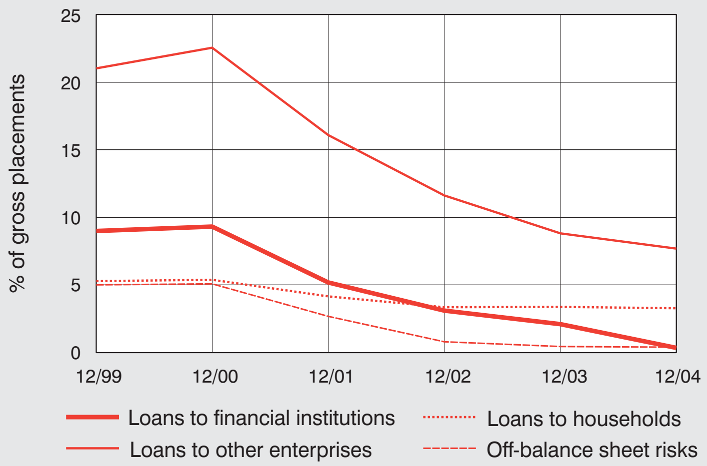
Figure 41 Interest Income on Loans and Interest Expense on Deposits



Source: CNB.

Credit and market risks, as measured by the total specific provisions to risky assets ratio, grew in 2003 but fell in 2004. After falling from 4.19% at end-2002 to 3.21% at end-2003, the total specific provisions to total assets ratio decreased further to 2.88% in 2004 (in 2003, it was around 1.4% for small and medium sized EU banks). The 2004 decline in risks was mostly the outcome of an improved grading that banks themselves assigned to the quality of loans to enterprises other than public enterprises. For this category of debtors, the total specific provisions to gross risky assets ratio fell by 1.3 percentage points in 2004, and stood at a record low of 7.7% at the year-end.

Figure 42 Total Specific Provisions

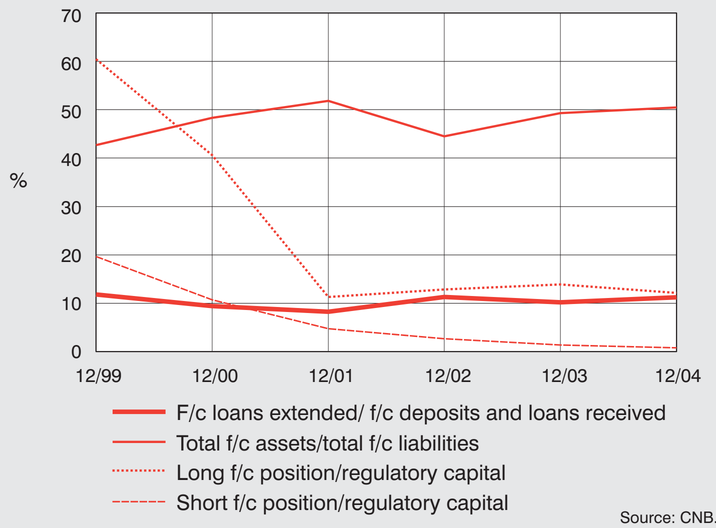


Source: CNB.

In addition to classic risks associated with banking, currency risk is still present in Croatia at the system level due to a high degree of euroisation. The maximum allowed bank exposure to direct currency risk is limited by the CNB decision so that the total open foreign exchange position (which may be either the total short foreign exchange position or the total long foreign exchange position, depending on which one is bigger) may not exceed 20% of the regulatory capital of a bank. At end-2004, the ratio of total short positions of banks to their total regulatory capital was a negligible 0.8%. For long positions of banks, this ratio was some 12.1%, which was only slightly better than at end-2003 when it was 13.9% of total regulatory capital of banks.[11] Direct currency risk stress test for the banking system indicates that the direct impact of changes in the nominal exchange rate of the kuna on bank capital adequacy is almost neutral (excluding the changes in particular currencies' exchange rates).

11 As of April 2003, the prescribed calculation of an open foreign exchange position of a bank requires also the inclusion of equivalent values of open foreign exchange positions in classic and embedded options.

Figure 43 Main Indicators of Banking System's Currency Risk Exposure



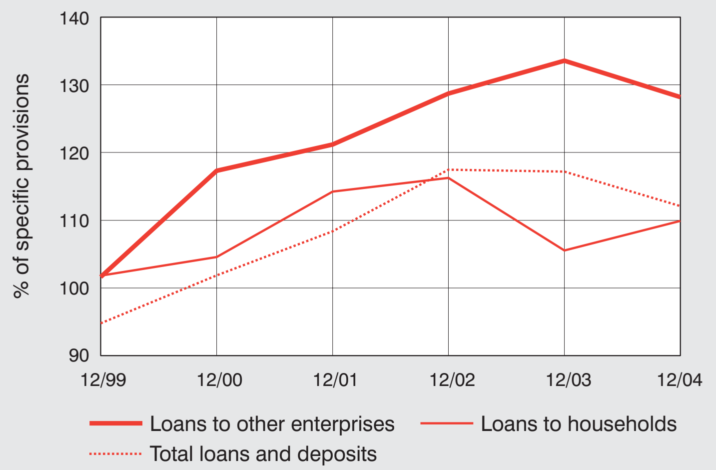
Source: CNB.

Described developments may lead to the conclusion that a combination of a long-term period of favourable macroeconomic conditions and improved management of all banking risks has further reduced expected banks' losses, accompanied by the lack of direct risk of the kuna depreciation. Still, it should be borne in mind that historical evidence shows that in periods of economic growth, Croatian banks considerably underestimate credit risk arising on long-term placements. Hence, at least in the long-run, it may be expected that non-performing loans will exceed the reported 3% of total bank assets (they amount to some 3% in the EU, and it may be assumed that the difference between Croatia and EU could be even greater). It is reasonable to conclude also that the damage from increased credit risk entailed by strong kuna depreciation would outweigh the benefits that this depreciation would bring banks due to their total net long foreign exchange position.

Other indicators also suggest decreased credit risk in bank operations (bearing in mind the suggested reservations regarding long-term stability of credit and currency risk indicators). Thus, after growing for three consecutive years, the overdue bank claims to specific provisions ratio recorded a fall in 2004. Also, the principal related to bank claims that are 90 or more days overdue declined from 5.7% of total assets at end-2003 to 5.0% at end-2004. Only the ratio of irrevocable claims (group C) to total bank claims, which was on a falling trend for a long time, increased from 1.6% at end-2003 to 1.8% in 2004. It may be concluded that a several-year-long decline in riskiness of bank claims continued in 2004 and that in the immediate short period the banking system will probably not be faced with considerable losses arising from increased credit risk.

Although credit and currency risks at the system level are still considered the greatest risks in Croatian banking, changes in the domestic banking system have given rise to other types of risks as well. It has been recently shown that uncovered liquidity risk,

Figure 44 Overdue Bank Claims on Loans and Deposits



Source: CNB.

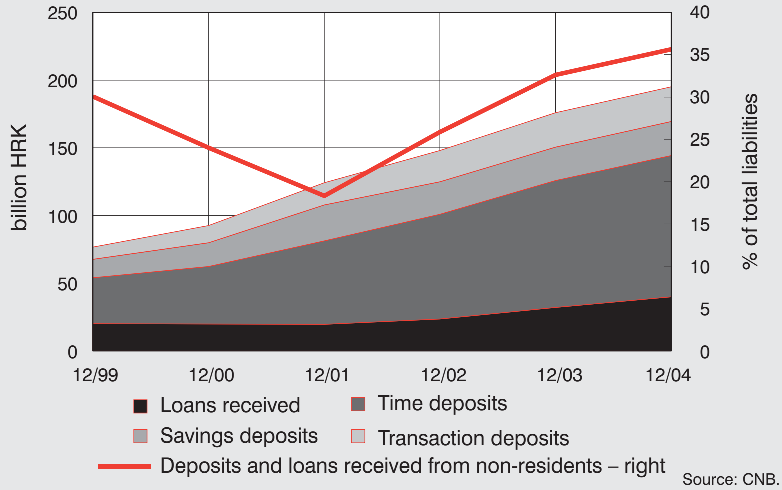
unmonitored operational risk and operational risk of the legal system can be very dangerous for banks. The CNB does not currently gather data that would enable the quantification of these risks.

In addition, internationally active banks, and banks in foreign ownership in particular, are also exposed to the so-called contagion risk, which implies all sorts of negative influences that domestic banks may suffer due to problems in neighbouring countries. This risk may be caused by ownership, creditor or partnership relations with neighbouring countries, and sometimes by the geographical proximity itself. Data needed to precisely estimate the effects of potential contagion risk on Croatian banks' business results are currently not gathered. However, it is possible to estimate the relative importance of particular risks related to contagion risk.

First, "classic" international credit risk is relatively negligible since the ratio of loans to non-residents to total loans of domestic banks has been below 0.5% for several years (at end-2004, it was only 0.25%). On the other hand, the importance of international market risk and the related counterparty credit risk and sovereign risk has been growing for several years. The value share of foreign securities in the total value of active securities portfolios held by domestic banks has almost doubled (from 23.2% at end-2003 to 38.07% at end-2004). This was the result of a fall in bank investment in domestic corporate debt securities and a parallel rise in investment in foreign countries' debt securities. Finally, the greatest danger in bank operations on international markets is financing risk, which is a specific form of liquidity risk. The share of liabilities to non-residents in total bank liabilities has steadily grown, from 32.6% at end-2003 to 35.6% at end-2004.

Banking system stress tests based on end-2004 data show that credit risk is still the main danger for the Croatian banking system although it is capable of absorbing considerable losses in case of asset deterioration, i.e. in case of a negative shock in the

Figure 45 Structure of Bank Liabilities by Instrument

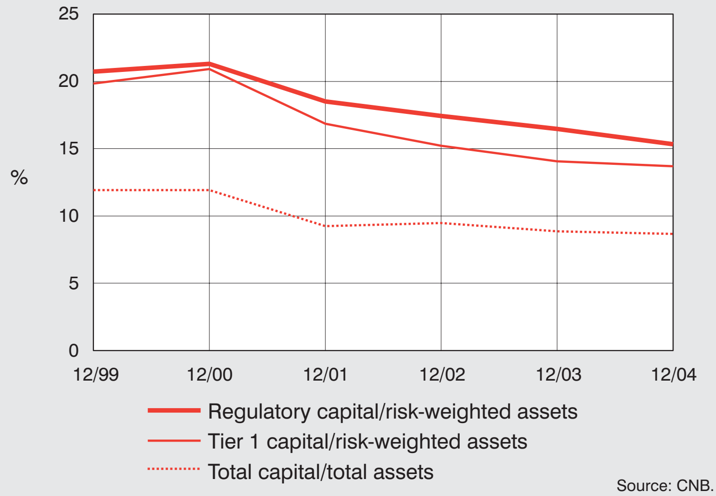


Source: CNB.

macroeconomic environment. For example, the CAR of the least capitalised bank among the 10 biggest banks, following a shock, would fall to below the prescribed 10% of regulatory capital, with some 3% of risky assets reclassified into the most risky group. It is noticeable that the group of small banks is less vulnerable to deterioration of general credit risk.

The new method for calculating the capital adequacy ratio of banks (harmonised with the 1996 annex to the Basle Accord), in addition to capital requirements for credit risk, includes capital requirements for market risks and for exceeding the permissible exposure limits, which has improved the coverage of the prescribed CAR. However, all types of operational risk are still uncovered so that capital adequacy indicators do not include capital requirements for operational risk. The Decision on the Capital Adequacy of Banks came into force in early 2004 and the first data on

Figure 46 Leverage

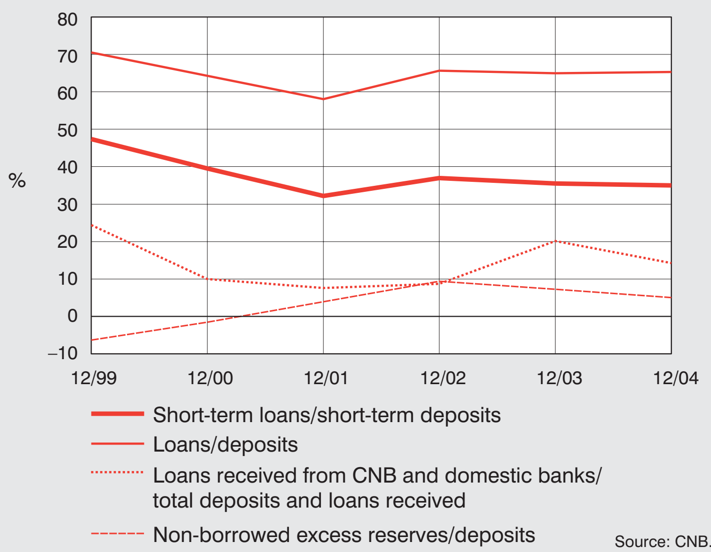


Source: CNB.

“new capital adequacy” show that the aggregate CAR went down from 16.47% at end-2003 to 14.1% at end-2004. This can be mostly attributed to the banks’ perception of decreased risks.

Available data enable also the assessment of banks’ liquidity risk, i.e. assessment of the general liquidity of the banking system and its short-run perspective. Total banking system liquidity was somewhat lower in 2003 than in 2002 but grew slightly in 2004 judging by the decline in the absolute value of loans received from the CNB and domestic banks and their share in total deposits and loans received. At the same time, standard liquidity indicators (loan-to-deposit ratio and short-term loan to short-term deposit ratio) have not changed much. Still, the kuna liquidity of banks has fallen considerably since mid-2003, which is reflected in the volatility of money market rates. The synthetic indicator of non-borrowed excess reserves of the banking system fell from 7.22% in 2003 to 5.04% in 2004.

Figure 47 Main Liquidity Indicators of the Banking System

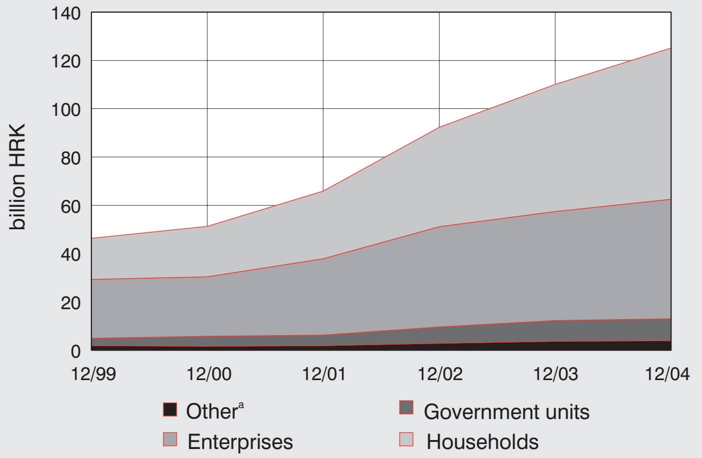


Source: CNB.

Although the liquidity of banks and the banking system as a whole is still very high, a potential danger in terms of bank exposure to liquidity risk may be present in the maturity mismatch between bank assets and liabilities within a year. In stress testing of the banking system, liquidity risk exposure is observed as banks’ vulnerability to potential one-off deposit outflows. Observed banks show full resilience to this risk and only two out of the ten largest banks would need considerable additional funding in case of a major (35%) deposit outflow; in both these banks, the funding needed would amount to almost 100% of their total liquid assets.

Finally, it should be said that all the above described developments in domestic banks’ business results and risks are the result of changes in certain structural indicators. Several processes are particularly responsible for good business results of

Figure 48 Banks' Loan Portfolio by Debtor



[a] Includes non-profit organisations, non-residents and financial institutions. Source: CNB.

Croatian banks in 2004, despite severe monetary policy measures to limit their loan growth and external borrowing in a situation when competition did not allow that the loss arising from lower rates of loan growth be compensated by increased lending rates. First, the steady decrease in capital leverage enabled further improvement of banks' ROAE indicators. Second, the increase in the ratio of relatively more profitable household loans to total placements enabled the maintenance of high returns on total assets. And third, general administrative expenses and expenses on loss provisions recorded a downturn. Since all three processes are actively managed by banks, it may be said that banks correctly predicted changes in their environment in 2004 and created conditions in which they managed to retain high profit rates and a sound capital base without increasing the main bank risk indicators.

Table 1 Selected Indicators of Banking System Operations[a] (in %, unless otherwise noted)

Indicator	2000	2001	2002	2003	2004
Number of banks	43	43	46	41	37
Assets (in million HRK)	111,867	148,455	174,139	204,043	229,305
Return on average assets (ROAA)[b]	1.4	0.9	1.6	1.6	1.7
Return on average equity (ROAE)[c]	10.7	6.6	13.7	14.1	16.1
Adjusted ROAA[d]	1.3	1.5	1.6	1.5	1.7
Indicator of net operating income[e]	2.7	1.6	1.9	1.9	2.0
Indicator of net interest income[f]	4.2	3.6	3.3	3.4	3.0
Indicator of general administrative expenses and depreciation[g]	3.5	3.0	2.7	2.6	2.3
Share of interest income from loans in average loans	11.6	11.3	9.6	8.7	8.1
Share of interest expense on deposits in average deposits	4.0	3.2	2.8	2.5	2.4
Share of difference between interest income from loans and interest expense on deposits in average assets	3.0	2.9	2.7	2.9	2.7
Share of value adjustment in total loans to financial institutions	9.1	5.1	3.1	2.1	0.4
Share of value adjustment in total household loans	5.4	4.1	3.4	3.4	3.3
Share of value adjustment in total loans to other enterprises	22.6	16.1	11.6	9.0	7.7
Share of specific provisions in total off-balance sheet risks	5.1	2.7	0.8	0.4	0.4
Ratio of f/c loans granted and f/c deposits received to loans	9.4	8.3	11.3	10.2	11.2
Total f/c assets to total f/c liabilities ratio	48.3	51.8	44.5	49.3	50.5
Long f/c position to regulatory capital ratio	40.6	11.3	12.8	13.9	12.1
Short f/c position to regulatory capital ratio	10.7	4.8	2.7	1.4	0.8
Ratio of overdue claims to specific provisions for loans to other enterprises	117.3	121.2	128.7	131.5	128.2
Ratio of overdue claims to specific provisions for household loans	104.5	113.9	116.3	105.6	109.9
Ratio of overdue claims to specific provisions for loans and deposits	101.8	108.4	117.5	117.2	112.1
Share of deposits and loans from non-residents in total liabilities	24.0	18.3	25.9	32.6	35.6
Regulatory capital to risk-weighted assets ratio	21.3	18.5	17.4	16.5	15.3
Total capital to total assets ratio	11.9	9.2	9.5	8.9	8.7
Tier 1 capital to risk-weighted assets ratio	20.9	16.9	15.2	14.1	13.7
Ratio of short-term loans granted to short-term deposits received	39.5	32.2	37.0	35.5	35.0
Loan to deposit ratio	64.3	58.0	65.7	65.0	65.3
Share of loans from the CNB and domestic banks in total loans and deposits received	10.0	7.6	8.7	20.2	14.3

a According to unconsolidated revised Bank Statistical Reports, excluding banks subject to winding-up proceedings, available on 15 June 2005. All indicators are calculated on the basis of aggregate unconsolidated banking sector data on a net basis (values of asset items are reduced by corresponding specific provisions). For indicators that are calculated on the basis of the average amount of a certain item, averages are calculated as the arithmetic mean of the balance at the previous year-end and the balance at the end of the year for which the indicator is calculated.
b Percentage share of pre-tax profit in average assets.
c Percentage share of after-tax profit in average equity.
d Pre-tax profit does not include extraordinary income and extraordinary expenses.
e Percentage share of operating income before loss provisions in average assets.
f Percentage share of net interest income in average assets.
g Percentage share of general administrative expenses and depreciation in average assets.

Table 2 Selected Debt Indicators of Non-financial Sectors[a] (in %)

Indicator	2000	2001	2002	2003	2004
Household debt					
– as % of GDP	15,9	19,0	24,9	29,6	32,8
– as % of gross disposable income[b]	28,1	36,9	49,2	63,3	70,1
– as % of household bank deposits	50,8	43,3	60,6	70,6	76,6
– year-on-year rate of change	21,1	29,6	42,2	27,8	18,8
Debt of non-financial enterprises					
– as % of GDP	42,9	42,9	45,3	46,3	49,3
– as % of corporate bank deposits	428,9	351,5	306,1	288,6	304,2
– year-on-year rate of change	4,1	8,4	14,5	10,1	14,1
TOTAL – non-financial private sector					
– as % of GDP	58,8	61,8	70,2	75,9	82,1
– year-on-year rate of change	8,2	14,2	23,0	16,4	11,8
General government debt[c]					
– as % of GDP	40,6	41,7	42,6	44,6	47,6
– year-on-year rate of change	28,7	11,6	10,6	12,7	14,5
– interest paid as % of GDP	1,8	1,9	2,0	2,0	2,1
TOTAL – non-financial sector					
– as % of GDP	99,4	103,5	112,8	120,5	129,7
– year-on-year rate of change	15,7	13,1	18,0	15,0	15,4
Implicit interest payments[d]					
– households, as % of gross disposable income	2,9	3,9	4,4	5,7	6,0
– non-financial enterprises, as % of GDP	3,8	3,4	3,2	3,1	2,9

a Expert estimate based on data of the CNB, CBS, FINA, DINADOS, HAGENA, CROSEC and MoF, available on 15 June 2005. Possible are subsequent revisions of 2003 and 2004 data related to the regular revisions of external debt statistics. Debt data do not include the debt to issuers of non-bank cards – indicators may be revised up if sectoral data on claims of card issuers become available. Debt sectorisation according to non-bank financial institutions is estimated on the basis of incomplete data – value of indicators for some sectors may be revised up with a parallel adequate decrease for other sectors if sectoral data on claims of non-financial institutions become available. Debt data include neither the sectors' internal debt nor mutual debts of non-financial sectors.

b Household gross disposable income is estimated on the basis of data from two CBS publications: the *Survey on Household Consumption* and the *Statistical Yearbook of the Republic of Croatia*. At the time of writing this publication, household data for 2003 and 2004 and data on household consumption in 2004 were unavailable, and were estimated on the basis of trends in 1999.

c According to an internally consistent broadest coverage of the general government, including the CBRD debt and excluding government guarantees. All deviations from this indicator calculated on the basis of official CNB or MoF statistics may be attributed to discrepancies in the general government coverage.

d Estimate based on existing data on interest paid to banks.

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Abbreviations

bn	– billion
CAR	– capital adequacy ratio
CBRD	– Croatian Bank for Reconstruction and Development
CBS	– Central Bureau of Statistics
CCE	– Croatian Chamber of Economy
CNB	– Croatian National Bank
CPI	– consumer price index
CRCC	– Croatian Register of Credit Commitments
CROSEC	– Croatian Securities and Exchange Commission
DAB	– State Agency for Deposit Insurance and Bank Rehabilitation
DEM	– German mark
DINADOS	– Directorate for the Supervision of Insurance Companies
EBRD	– European Bank for Reconstruction and Development
ECB	– European Central Bank
EMU	– Economic and Monetary Union
EONIA	– Euro Overnight Index Average
EU	– European Union
EUR	– euro
Fed	– Federal Reserve System
f/c	– foreign currency
FINA	– Financial Agency
GDP	– gross domestic product
GVA	– gross value added
HAGENA	– Agency for Supervision of Pension Funds and Insurance
HRK	– Croatian kuna
hybr.	– hybrid
IAS	– International Accounting Standards
IBRD	– International Bank for Reconstruction and Development
IMF	– International Monetary Fund
instr.	– instruments
m	– million
MoF	– Ministry of Finance
OTC	– over-the-counter market
R.	– Republic
ROA	– return on assets
ROAA	– return on average assets
ROAE	– return on average equity
ROE	– return on equity
SAA	– Stabilisation and Association Agreement
SLA	– savings and loan association
subord.	– subordinated

USD	– US dollar
ZMM	– Zagreb Money Market
ZSE	– Zagreb Stock Exchange

Symbols

–	– no entry
....	– data not available
0	– value is less than 0.5 of the unit of measure being used
ø	– average
a, b, c,...	– indicates a note beneath the table and figure
*	– corrected data
( )	– incomplete or insufficiently verified data

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