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CROATIAN NATIONAL BANK

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MACROPRUDENTIAL ANALYSIS

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MACROPRUDENTIAL ANALYSIS

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Contents

Introduction[1]

The second issue of *Macroprudential Analysis* discusses the developments of macroprudential indicators for the Croatian economy in the first half of 2005 in accordance with the statistical data available until mid-September 2005.

Some of the basic macroprudential indicators visibly improved in the first half of 2005, relating primarily to the decrease in the total central government debt and the country's total external debt. On the other hand, current account deficit widened unexpectedly. Renewed intensification of bank lending contributed to the continuance of accelerated growth of household debt, while continued strong growth of the activities of leasing companies, accompanied by still favourable conditions for direct external borrowing, contributed to the increase in the debt of non-financial enterprises. Public sector debt also increased but at usual rates, with an unusual growth of the share of domestic debt in the structure of total public debt. However, stronger domestic currency, lower interest rates and longer maturities helped keep the debt service burden of all three sectors unchanged. Of other favourable macroprudential developments, the period of stable and satisfactory level of inflation continued, despite its growth. There is also the healthy recovery of economic growth in the second quarter of this year after the slowdown in the first quarter.

External debt to gross national income totalled 85.2% at the end of the second half of 2005, down 0.8 percentage points compared with the end of 2004 and up 2.5 percentage points compared with the end of the second half of 2004. This shows that strong external debt growth was finally brought to a halt. Still, according to the World Bank criteria, this level of external debt places Croatia among the heavily indebted countries. At the same time, external debt as a percentage of exports and foreign income, totalling 157.2%, is much below the level that would indicate potential external liquidity problems, according to the same criteria.

Public sector debt, exclusive of government guarantees, continued to increase in the first half of 2005, reaching HRK 105.3bn at the end of June, or 49% of GDP. Although the public sector debt burden continued growing at a slow pace, being far below the upper limit under the EU criterion, it has been growing wider compared with

1 Definitions and guidelines for macroprudential analysis on which this 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 August 2004. The analysed indicators for the first half of 2005 have been calculated in accordance with the data available as per 15 September 2005. Gross Domestic Product (BDP) as per 30 June 2005 has been calculated as the arithmetic mean of the GDP outturn in 2004 and CNB projection for 2005, except the part of the analysis that shows real growth of the semi-annual GDP. All other indicators have been calculated as per 30 June 2005 or on the basis of developments in the period from 1 July 2004 to 30 June 2005. The described methodology gives less volatile, that is, seasonally less sensitive indicators but also mild deviations of their values from the values of similar indicators in other CNB publications.

the debt burden of other countries in the region, where it is either stagnating or decreasing as a result of the successful consolidation of government finances. Despite the substantial increase of the share of domestic debt in total public debt, which reached 51.2%, the currency structure of domestic debt remains unfavourable, with over 80% still being denominated in foreign currency.

The estimated value of the total debt of non-financial enterprises rose to 49.7% of GDP by the end of the first half of 2005, which is a relatively low debt level by European standards. This is a result of the continued stable growth of this debt at rates between 10% and 15% a year, which could not be prevented by measures of monetary authorities. This is primarily due to the high rate of growth of the debt to leasing companies, by some 42%, and external debt, by some 14%, year-on-year. Improved financing conditions contributed to a much slower growth of interest service burden, which amounted to 5.4% of total corporate revenues, than total corporate sector debt. On the other hand, corporate interest rate and currency risk increased some more in the first half of 2005. The share of long-term bank loans with a variable interest rate amounted to some 84% at the end of the period, while the share of those denominated in foreign currency amounted to some 86.5%.

The growth of total household debt accelerated slightly, with household debt totalling 33.9% of GDP at the end of the first half of 2005, after having risen by 21% year-on-year until the end of June. Some 96% of household debt is still accounted for by liabilities to banks, although the debt to leasing companies, which increased by 56.6% within a year, continued growing at twice the pace. Household debt to banks thus remained twice larger than in the new EU Member States, where it has not exceeded 16% of GDP. Despite long-term strong growth of total debt, due to increasingly more favourable conditions for financing consumption, household debt service indicator in 2004 even reduced, to 6.0% of the gross disposable income, which is a half of the 12% it amounted to in EMU Member States at the end of 2004. In the past year, the large share of long-term bank loans to households denominated in foreign currency did not change, maintaining the level of some 86%, while the share of loans with a variable interest rate grew significantly, to 88%, thus raising the exposure of households to interest rate risk.

The increase in non-financial private sector debt has so far not affected the indicators of its credit risk in the portfolio of commercial banks. Total specific provisions to total assets ratio stood at 2.76% at the end of the first half of 2005, down 0.12 percentage points from the end of 2004. The greatest contribution to this decrease came from the improved banks' estimate of the credit risk of private enterprises. However, the relative level of overdue bank claims increased abruptly in the first half of the year, by over three percentage points, to 20.7% of total bank assets. The consequence was a significant increase in overdue bank claims to total specific provisions ratio, for all sectors, which may indicate a possible deterioration in credit risk of the non-financial private sector.

However, loan growth and better credit risk rating were not sufficient to continue the trend of rising profitability of Croatia's banks which has lasted for several years. Following its all-time high of 1.68% in 2004, the annual pre-tax return on average assets totalled 1.62% at the end of June 2005. At the same time, following its best result of 16.1% also in 2004 the return on average equity reduced to 14.5% in the past year. The greatest contribution to this reduction came from increased losses arising from the revaluation of the balance sheet positions indexed to foreign currency in line with the contractual exchange rate and the relatively faster growth of assets and capital over the growth of income at the majority of banks, while the low aggregate amount of pre-tax profit resulted primarily from the income reduction at one large bank, in accounting terms, which may be expected to be a one-off occurrence.

In addition to profitability indicators, capital adequacy indicators also point to a possible reversal in the years-long trend. The capital adequacy ratio continued decreasing in 2003 and 2004, even after the transfer to the new calculation methodology, totalling 15.1% at the end of June 2005, down 0.2 percentage points compared with the end of the previous year. At the same time, tier 1 capital to risk-weighted assets remained unchanged, while the total capital to total assets ratio went up by 0.1 percentage points. A reversal of the declining trend of banks' aggregate capital adequacy ratio, could, at least in theory, indicate a reversal in the trend of falling estimates of the risk from banks' unexpected losses. This could also mean that banks do not expect that planned further improvements in their macroeconomic and institutional environment will be as fast as over the past period.

Practical reasons for stopping the reduction of the aggregate capital adequacy ratio of banks are probably of a much different nature because activities relating to the harmonisation of regulations governing Croatia's financial system with those of the European Union greatly intensified since the beginning of 2005, which should additionally improve the legal framework for operating in the financial market. The comprehensive new Obligations Act was adopted in February 2005, comprising among other things, the provisions regulating contractual and penalty interest rate. Currently, several new acts or amendments to the existing acts regulating financial operations are being prepared and are expected to be adopted by the end of the year: the new Act on Investment Funds, the first Leasing Act, the new Accounting Act, the new Audit Act as well as the amendments to the Foreign Exchange Act and the Customs Act. Of all new regulations in preparation, the one most eagerly awaited is the Act on the Agency for Supervision of Non-banking Financial Institutions, which is to accomplish the long-announced intention to unite the supervision of those financial institutions.

In addition to the adoption of laws and other regulations, the project of land registry reform, which made considerable progress in the first half of 2005, stands out as part of the process aimed at improving the institutional framework. Although the created data base currently serves only to provide access to the experimental Central data base of the land registry offices of municipal courts, in the future this data base will ensure for land registry data to become more easily available to a broader circle of users as well as speed up the issuance of registered land certificates. The project is expected to be fully completed in 2006. On the other hand, the Croatian Register of Credit Commitments (CRCC) has not yet become operational but is expected to in the middle of 2006, while the movable property register, which is also expected to improve transparency of lending based on pledged property, has not yet been established although negotiations on its implementation are under way.

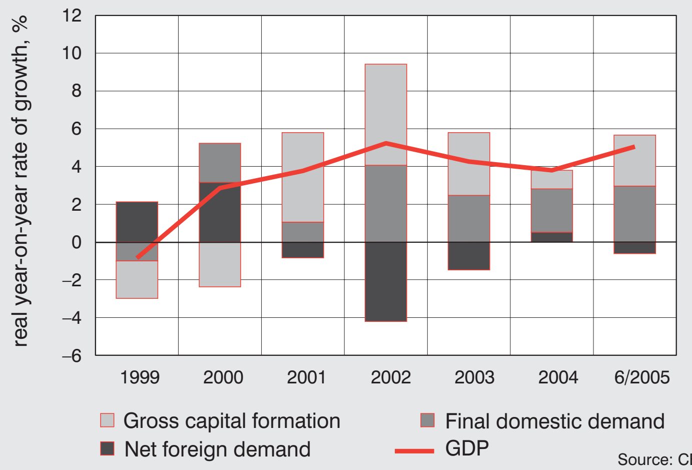
2 Macroeconomic Developments

The first half of 2005 saw visible improvements of some main aggregate economic and financial indicators: primarily economic growth strengthening in the second quarter and further relative reduction of total central government deficit and total external debt. However, no major improvements were made in employment, while registered unemployment also stopped declining. Current account deficit widened, thus reversing the two-year trend of improvement in foreign trade imbalance. Of neutral developments, the most visible are the continuance of a stable period of strong domestic currency and a still adequately low level of inflation and public debt, despite their growth.

Real economic growth accelerated to 5.1% in the second quarter after having realised weak results in the first quarter. This was most likely caused by a harsh winter and weak economic growth in the region. Consumption, which is traditionally the major growth generator, contributed the most to the acceleration of economic activity. Despite the decline in the government capital investments, almost equally significant contribution came from gross capital formation, thus indicating a recovery in private investments. Despite strong goods and services exports, the contribution of net foreign demand to economic growth was negative because the growth of goods and services imports outpaced the growth of exports. In the end, the first quarter shortfall and strong recovery in the second quarter are expected to have a neutral or mildly negative effect on the estimated total economic growth until the end of the year.

Despite faster relative growth of exports over imports, foreign trade imbalance increased, raising the annual current account deficit to 6.9% of GDP. Although the contribution of foreign trade to this deterioration was neutral, unusual shortfalls were recorded in the income and services accounts. The first because this year retained profits of non-residents were entered into books earlier than last year, and the second due to the reduction in income from tourism. In both cases, balance of payments current account was greatly influenced by specific characteristics of the applied statistical methodology. In addition to methodological influences, both in relation to goods imports and exports, one should stress the movement of energy prices, which was under a strong influence of the substantial increase in the price of crude oil for the entire period.

Figure 1 Economic Growth

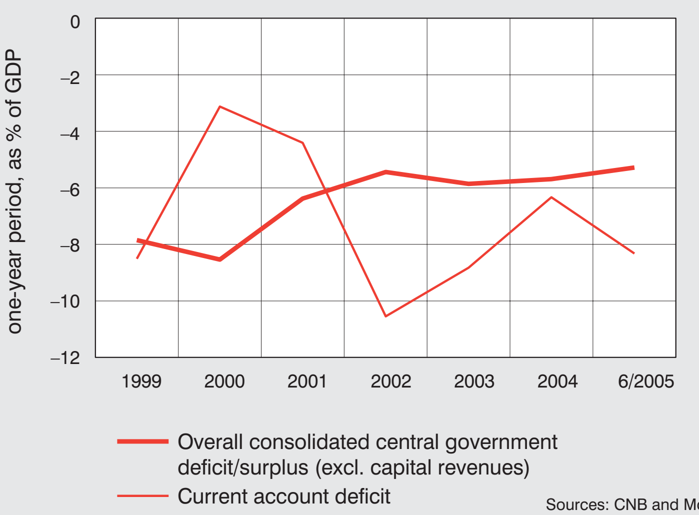


Source: CBS.

The annual deficit in the consolidated central government account (under the 1999 coverage) made up 4.4% of GDP at the end of the first half of 2005. At the same time, this indicator for the general government budget deficit on cash basis totalled 4.8% (compared with this year's target of 3.7%). As a result and due to the expected weaker revenues outturn combined with inflexible pressures on the expenditures side, the government adjusted its end-2005 deficit target to 4.2% of GDP. Thus, this adjustment shows the ongoing challenges faced by the government in its attempts to quickly reduce the government finance deficit.

Although inflation continued rising, prices remained stable. The year-on-year rate of change in the CPI reached its five-year high of 2.9%. The greatest contribution to

Figure 2 Government Finance and External Imbalance



Sources: CNB and MoF.

such price development came from the continued increase in the prices of energy based on the rapid increase in the price of crude oil as well as from the increase in the price of foodstuffs resulting from unfavourable weather conditions.

Price stability continued to be based on maintaining the relative stability 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. Due to continued appreciation pressures and central bank's orientation to less frequent but more decisive foreign exchange interventions, the average annual kuna/euro exchange rate slightly appreciated from some 7.6 HRK/EUR at end-2004 to some 7.4 HRK/EUR at the end of the first half of 2005. However, exceptional stability of the exchange rate is still reflected in the fact that the average annual exchange rate has been maintained within the range of 7.4 HRK/EUR to 7.6 HRK/EUR over the past seven years.

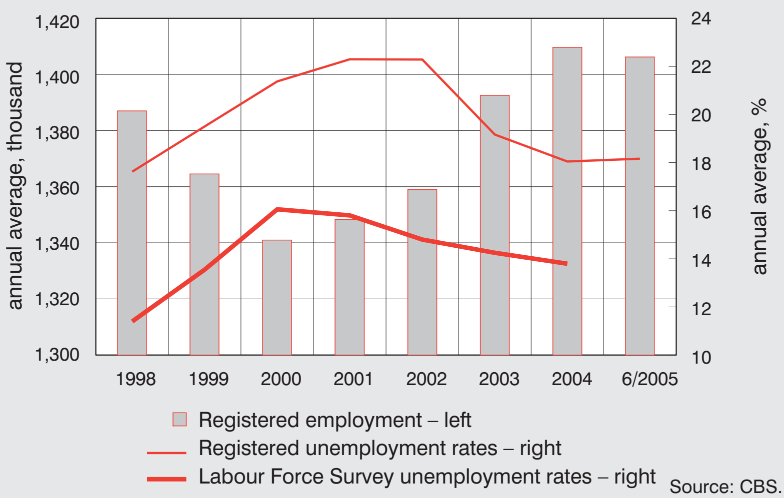
Figure 3 Prices and Exchange Rate

Source: CNB.

Despite positive developments in the number of employed persons and registered unemployment in the second quarter of 2005, annual indicators still do not reflect overall positive developments in the labour market. The annual average of the registered unemployment rate stopped reducing, ending the first half of this year at 18.2%, while the average number of employed persons slightly reduced, to 1.406 million people. Indicators on the developments in the labour market pursuant the Labour Force Survey for the same period are not yet available. The average Labour Force Survey unemployment rate in 2004 was 13.8%, and its downward trend in 2004 showed signs of a mild slowdown.

The strong external debt growth of 2003 and 2004 has finally been stopped by coordinated monetary and fiscal policy actions. After the change in the methodology of external debt calculation, which now includes accrual interest, it amounted to a still

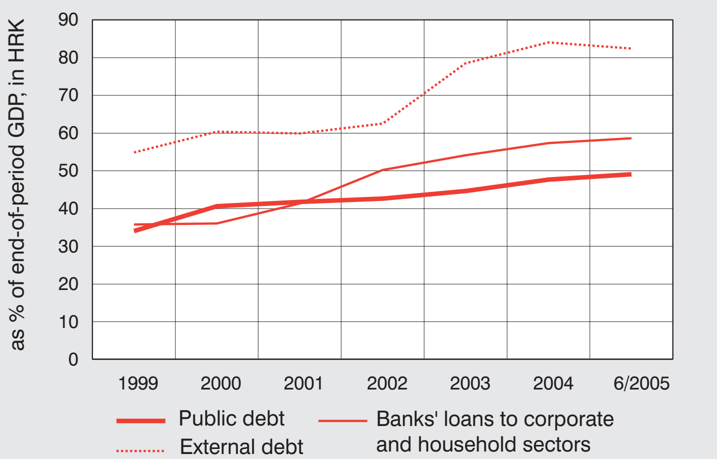
Figure 4 Employment and Unemployment Rates



Source: CBS.

high 82.4% of GDP at the end of the first half of 2005, nevertheless nearly two percentage points less than at the end of 2004. On the other hand, public debt (general government debt inclusive of CBRD debt but exclusive of not activated guarantees) continued increasing in 2005, reaching 49% of GDP by the end of the first half of the year. Despite the continuous rise of public debt since 2000, its level and relatively sluggish growth are still not concerning. Government finance consolidation which is under way should have a positive effect on this indicator in the near future.

Figure 5 Main Financial Indicators



Source: CNB.

3 International Environment

Optimistic forecasts for the global economy in 2005 started coming true in the first half of the year. The world's strongest economy, that of the United States of America, continued growing at real growth rates exceeding 3% a year. The Japanese Economy recovered as well after a standstill at the end of last year, while in China the industrial production growth of 16% announced a continuance of a strong expansion of the economy which has been growing at the fastest rate in the world. At the same time, in the EU, the most important region for Croatia's exports and imports, economic growth varied from country to country. Economic recovery in EMU participants is still sluggish, with real GDP ranging between 0.9% and 1.6% year-on-year in the first half of 2005 according to the revised estimates. On the other hand, economic growth in many of the new EU Member States even exceeded 5% in real terms.

Strong growth of the world economy in the first half of the year has been realised thanks to still favourable conditions of financing and despite increased insecurity regarding the impact of the growth and fluctuation of crude oil prices on the level of prices across the world. Due to the higher-than-expected rise in oil prices, all forecasts made until the end of the first half of this year as regards inflation developments by the end of the year have been revised upwards (to some 2.2% a year in the EMU countries), while further growth of oil prices could provide a negative influence on the growth of prices during the remainder of the year. However, since the increase in short-term interest rates in the US in the first half of the year did not lead to a strong rise in long-term interest rates and other key short-term interest rates in other developed economies did not change to a great degree, the conditions for financing economic growth still seem favourable.

The financial sphere was marked by the strengthening of the US dollar against the European currency (from some 1.3 to some 1.2 dollars for one euro), despite further increase in US foreign trade imbalance, primarily as a consequence of political turmoil in the European Union and the decrease in the difference between interest rates on loans in these two currencies. The differences between the interest rates reduced due to several major increases in the key interest rates of the Federal Reserve System

Table 1 Real Economic Growth in Selected Countries

	2001	2002	2003	2004	2005[a]
China	7.5	8.3	9.5	9.5	9.0
Russian Federation	5.1	4.7	7.3	7.2	5.5
Central and Eastern Europe	19.4	14.7	9.2	6.5	4.8
USA	0.8	1.6	2.7	4.2	3.5
Japan	0.2	–0.3	1.4	2.7	2.0
EU	2.0	1.3	1.3	2.5	1.6
EMU	1.7	0.9	0.7	2.0	1.2

[a] Forecast. Source: IMF, World Economic Outlook Database, September 2005.

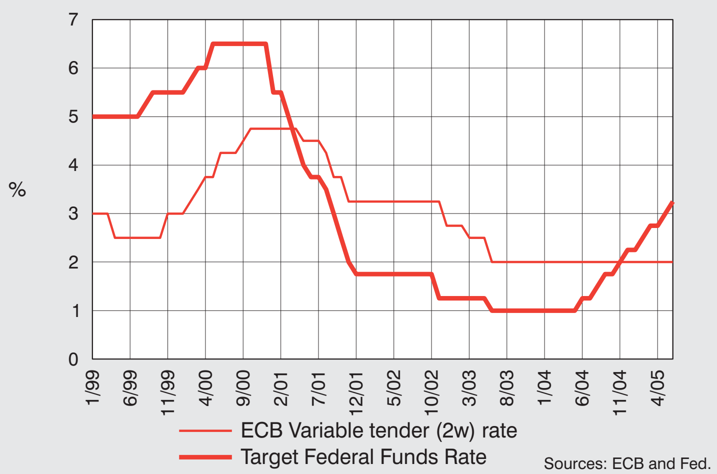
(Fed). The Fed raised interest rates despite blows that the economy sustained from the natural disasters that hit the southeast of the US. This is because they do not expect the effects of the increase in oil prices to spill over to consumer prices through prices of energy until the near future.

Contrary to the Federal Reserve System, slower economic recovery of the EMU economies and the still strong European currency, despite the strengthening of the dollar since 2004, prompted the European Central Bank (ECB) to maintain its key interest rates at the level they have held since mid-2003. The ECB has taken such a decision, despite the expected higher inflation, because there are no indications that it is caused by cyclical inflationary pressures. It seems that its only cause is in the higher-than-expected rise in oil prices. The ECB's key interest rate thus remained at 2%, while long-term interest rates continued decreasing throughout 2005: the average yield on 10-year government bonds of EMU participants dropped to its lowest recorded level of 3.25% year-on-year until June 2005.

Despite the prospects of a continued steady growth with a higher, although still low, level of inflation there are still certain risks threatening the global economy in the short-run. The first and the main risk is the growth and fluctuation in the price of crude oil. Should it gradually have a large impact on the prices of consumer products through energy prices, this could, at first, have two negative consequences – lower domestic demand and higher prices. The second risk could arise from the return of long-term interest rates to historically more usual levels. If this adjustment takes place suddenly, its impact could be asymmetrical, i.e. the negative impact would be stronger on severely indebted economies.

In addition to risks that are difficult to foresee such as oil prices and long-term interest rates, the growth of world economies will also be faced with some challenges that

Figure 6 Key European and American Interest Rates



Sources: ECB and Fed.

are to be met only by economic policy adjustment. Increasing government finance deficits and balance of payment deficits of numerous countries are already unsustainable in the long-run, primarily in the countries of Central end Eastern Europe. Possible changes of long-term interest rates in the world's financial markets could thus be both the cause and the consequence of continued deterioration of government finance indicators and indicators of foreign trade balance. In addition, normal levels of inflation in emerging markets are still substantially above inflation levels in developed economies, which will require additional economic policy adjustment in countries of Central and Eastern Europe as part of the process of further integration of the European market.

Table 2 Global Outlook for Key Economic Indicators

IMF outlook for 2005	GDP, real year-on-year rate of change	Inflation, year-on-year rate	General government account, as % of GDP	Current account, as % of GDP
World	4.3	3.9		
Major advanced countries	2.5	2.1	–4	–2.1
EU	1.6	2.1	–3.1	–0.1
EMU	1.2	2.1	–3	0.2
Emerging markets	6.4	5.9		4.1
Central and Eastern Europe	4.3	4.8		–4.8

Source: IMF, World Economic Outlook Database, September 2005.

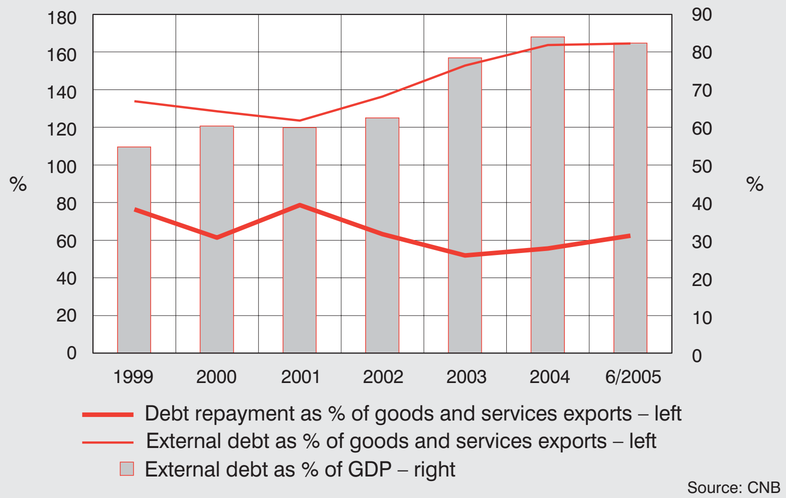
4 External Debt

According to the new methodology,[2] external debt of the Republic of Croatia stood at EUR 24.21bn at the end of the first half of 2005, up EUR 1.54bn or 6.8% over the end of 2004. However, external debt to gross national income ratio totalled 85.2%, down 0.8 percentage points compared with end-2004. This shows that strong external debt growth of 2003 and 2004 could finally be stopped. However, external debt to gross national income ratio grew by 2.5 percentage points compared with the end of the first half of last year so the final trend estimate can not be given until the end of the year. The 85.2% share of external debt in gross national income at the end of the first half of this year puts Croatia into a group of severely indebted countries[3] according to

2 Early in 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, on a so-called gross basis, and accordingly revised the historical data series on external debt.

3 According to the World Bank classification, highly 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%. Figure 7 shows the development of the external debt to gross domestic product ratio, which is in the Republic of Croatia slightly lower than the external debt to gross national income ratio.

Figure 7 External Debt of the Republic of Croatia, end of period



Source: CNB

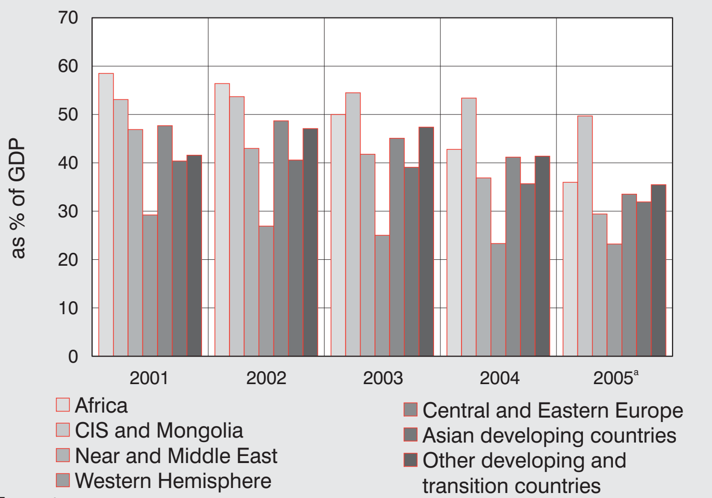
the World Bank criteria, while the Croatian external debt as percentage of exports and foreign income, which stood at 157.2%, is much below the level of 220% that would indicate potential external liquidity problems.

The major increase in external debt in the first half of 2005 occurred in the banking sector, whose share in total external debt rose from 33.7% to 35.1%. In the same period, the share of the government in the total external debt was cut from 31.9% to 29.0%. In line with its efforts to stabilise the external debt stock at the attained level, the Croatian MoF did not issue any bonds on the foreign market but opted for borrowing on the domestic capital market.

In the future, the greatest risk for the timely servicing of external debt at its currently very high level will arise from the potential interest rate rise in the EMU, since banks' external liabilities are mostly contracted at a variable interest rate based on the EURIBOR, with interest rates in the EMU being at their lowest level since its inception. In addition, the rise in these rates would increase the price of government external debt refinancing, which is the main source of funds for its due liabilities. Should at the same time the current, historically the highest, risk-aversion increase, this would additionally aggravate the financial position of both the government and banks.

By external debt to GDP ratio, Croatia is far above the average for Central and Eastern European Countries, which make up the most indebted region in the world according to this criterion, followed by African countries and countries of the Western Hemisphere (especially Latin America). All of these regions have seen a noticeable downward trend in the external debt to GDP ratio over the past few years, while in Croatia it increased during the period. On the other hand, by the share of debt

Figure 8 External Debt Across the World

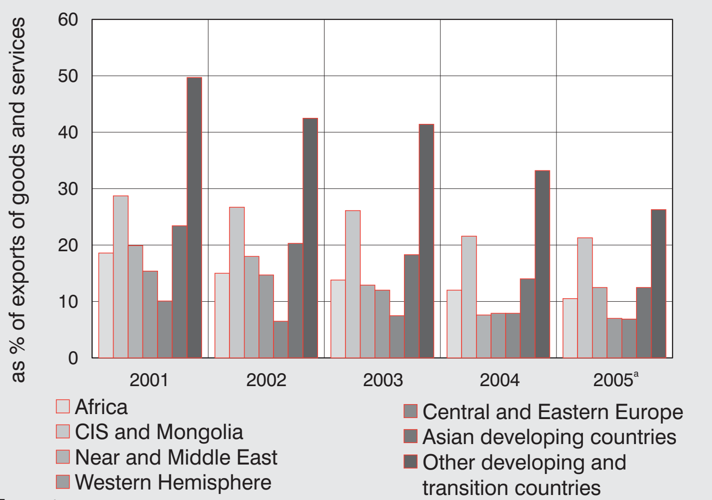


[a] Forecast.

Source: IMF.

repayment in goods and services exports, which reflects the external debt service burden, Croatia does not stand out from the average for Central and Eastern European Countries. This indicator reached the highest level for a group of countries from the Western Hemisphere, largely made up of Latin American countries, which traditionally have the greatest difficulties in servicing their external debt.

Figure 9 External Debt Burden Across the World



[a] Forecast.

Source: IMF.

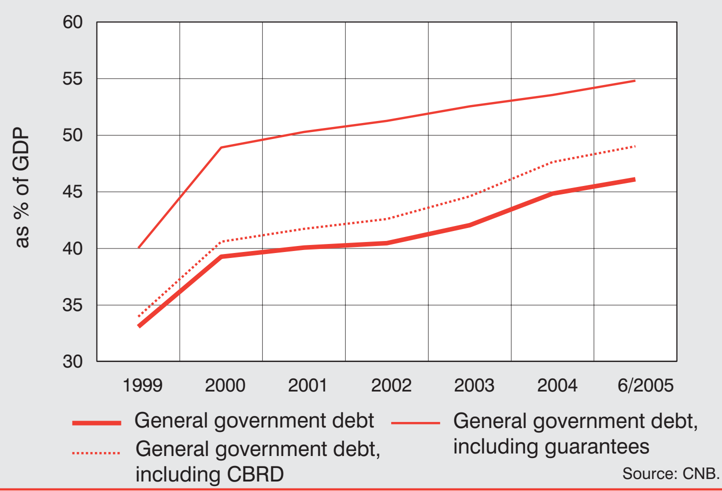
5 Public Debt

Public sector debt (general government debt inclusive of CBRD debt and exclusive of not activated government guarantees) continued growing, totalling HRK 105.3bn or 49% of GDP at the end of June. General government debt exclusive of CBRD debt and not activated government guarantees also continued growing with its share in GDP totalling 46.1%. At the end of the first half of the year, total general government and CBRD debt, inclusive of issued government guarantees stood at HRK 117.7bn, or 54.8% of GDP.

Although public debt-to-GDP ratio was higher at the end of June this year than at the end of last year, its level is still not the reason for concern even if compared with the Maastricht criterion of the 60% public debt-to-GDP ratio. As for the share of general government debt in GDP, general government debt-to-GDP ratio in comparable countries at the end of 2004 reflected the highest debt level in Hungary (57.4%), Poland (43.6%) and Slovakia (42.5%). However, in contrast to Croatia, in other countries this public sector debt indicator has either been stagnating or declining, following the consolidation of government finances. The announced completion of the process of consolidation of government finances should soon lead to an improvement in this indicator in Croatia as well.

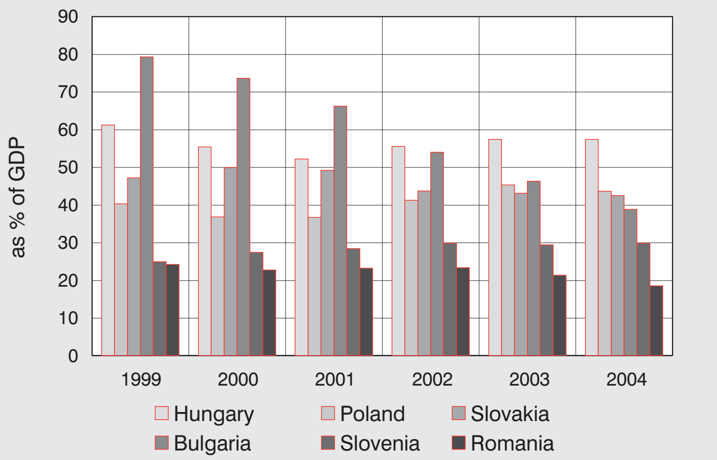
In contrast to the previous several years, total increase in the public debt in the first half of 2005 was due to borrowing in the domestic financial market. Such a borrowing policy, which largely reflects the government's intention to rely more on domestic sources of financing, affected the debt structure. As a result the share of domestic debt in general government debt (inclusive of CBRD debt) went up by 7.5 percentage points, to 51.2% of GDP at the end of June, while the share of external debt decreased accordingly.

Figure 10 Public Sector Debt



Source: CNB.

Figure 11 Consolidated General Government Debt in Central and Eastern European Countries

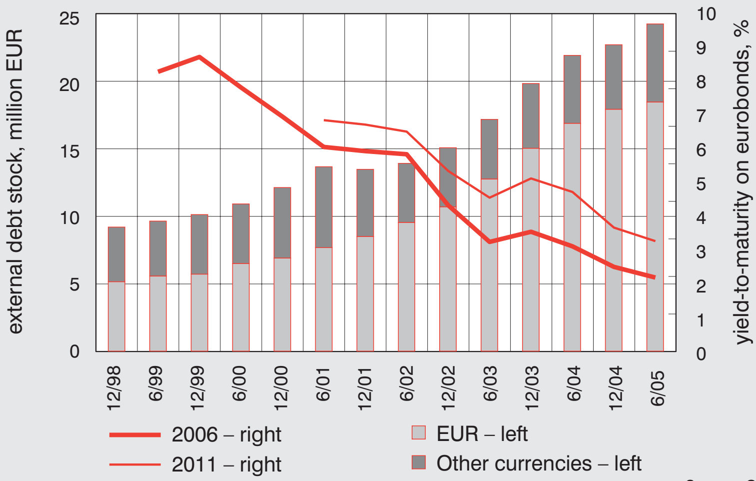


Source: Eurostat.

Despite the substantial decrease, the still high ratio of the external debt to total public debt makes Croatia sensitive to external refinancing risk. In 2003 and 2004, 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 bonds of these countries. In the first half of 2005, these yields continued falling, however, intensified recovery of developed world economies or worsening of the economic indicators for developing countries could make them grow.

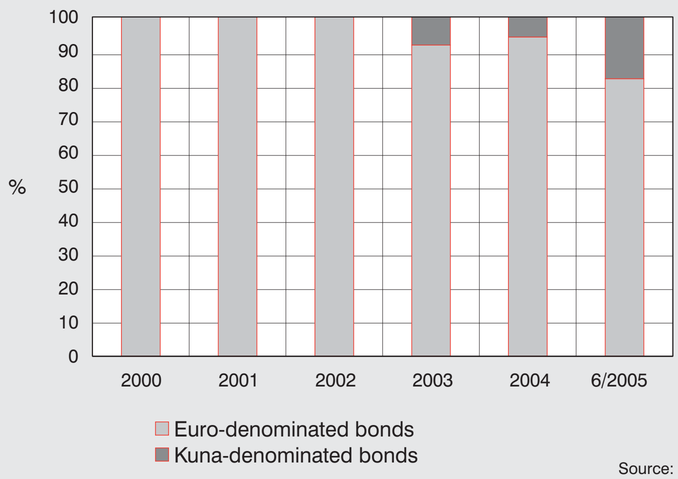
In addition to the refinancing risk, due to its high external debt ratio, the country

Figure 12 Financing of Gross External Debt of the Republic of Croatia



Source: CNB.

Figure 13 Currency Structure of Domestic Public Debt



Source: CNB.

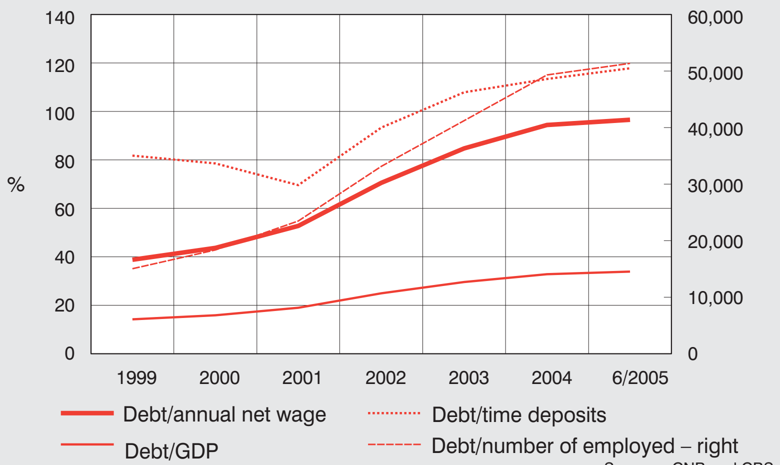
continues to be exposed to substantial currency risk, accentuated by the indexation of a large share of the domestic market debt to the euro. The share of the nominal value of government and municipal bonds denominated in foreign currency in the total amount of bonds issued in the domestic market exceeded 80% at the end of the first half, although it shows a downward trend. Thus, with inflation expectations, public sector exposure to currency risk additionally supports the monetary authorities' maintenance of a stable exchange rate of the domestic currency against the euro.

6 Households[4]

In the first half of 2005, total household debt as well as the total debt of all domestic sectors continued growing, in both absolute and relative terms. The estimated household debt to GDP ratio went up to 33.9% from 32.8% at the end of 2004, of which 96% refers to obligations to banks. The ratio of household debt to the estimated annual net wage bill, which almost doubled from the end of 2001 until the end of 2004, grew to some 96.5% until the end of June 2005. The average debt per employee continued to grow steadily, from some HRK 23 thousand at the end of 2001 to some HRK 51 thousand at the end of June 2005. The ratio of household debt to time deposits at commercial banks, which exceeded 100% for the first time in 2003, grew to 117.8%.

4 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 carries out once a year.

Figure 14 Household Debt

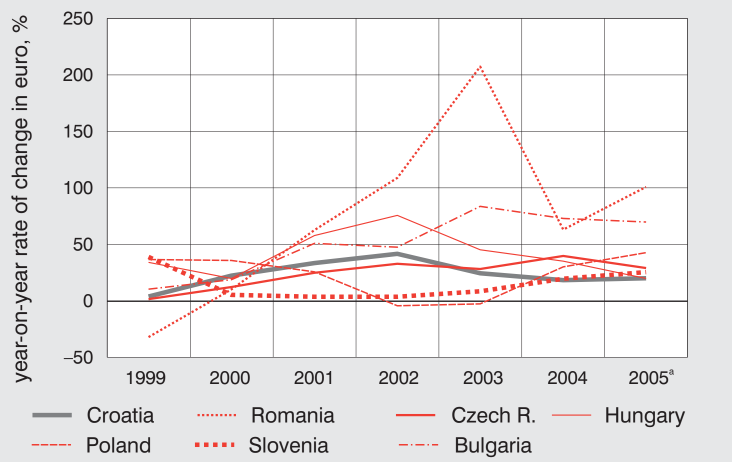


Sources: CNB and CBS.

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 started in 2002. After 2002, the annual growth rate of household debt started reducing, dropping to 21% at the end of June 2005. The annual growth rate of total household debt to banks is expected to decline to below 20% until the end of 2005, which is substantially below the expected growth rate in the majority of new EU Member States.

Although the increase in household debt indicators calls for alert from the aspect of bank financial stability and soundness, at the end of the first half of 2005, expressed in euro, it totalled to 33.4% of GDP, still far below the household debt level in EMU countries, which totalled 55% of GDP at the end of 2004. Still, data for individual

Figure 15 Bank Claims on Households in Central and Eastern Europe



[a] Forecast.

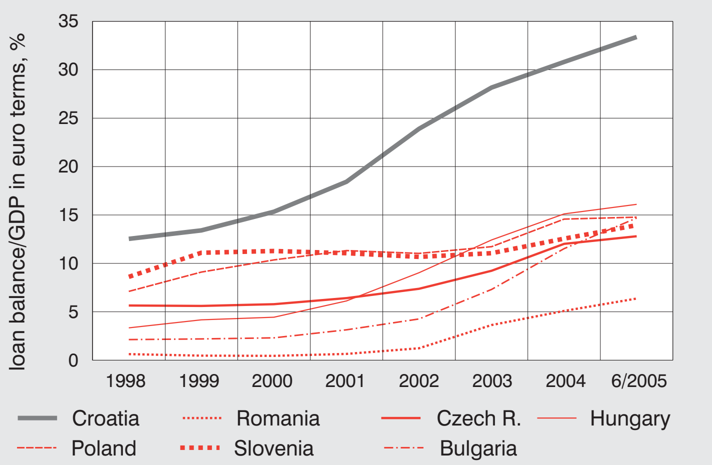
Sources: CNB and central banks of Central and Eastern European Countries.

countries show that the Croatian household debt burden slightly exceeded the Italian household debt burden, which amounted to 27% of GDP. While Croatian household debt is substantially smaller than the household debt of old EU Member States, the comparison with new Member States gives different results. At end-2005, the share of bank claims on households in these countries did not surpass 16% of GDP, which is roughly half as much as in Croatia.

Household debt service indicators also do not give reason for concern. Although the estimated total debt service to gross disposable income ratio increased from 3.6% in 2000 to 6.1% in 2003, it reduced for the first time in 2004 to 6.0%, which is twice less than in EMU countries, where it exceeded 10% already in 2000 and stood at slightly below 12% at the end of 2004. This reduction occurred under the influence of a cut in commercial banks' interest rates on long-term household loans from some 12% at the end-2000 to some 7% in June 2005. In addition, the alleviation of the debt service burden was affected by greater supply of loans with increasingly longer terms to maturity. On the other hand, the household debt service burden in EMU countries did not change much over the last decade.

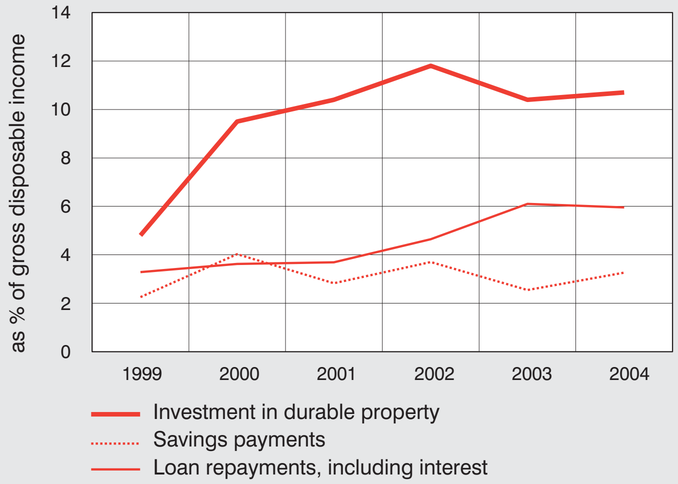
With a stable nominal exchange rate and a faster increase in wages than consumer prices that can be observed for several years, continued credit expansion of commercial banks continues to enable an increase in the standard of living of the creditworthy segment of the household sector. This is primarily evident in the continued growth of 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 9.1% over the past year. The greatest contribution to this increase was accounted for by construction costs which went up by 16.7% in the same period, while the prices of construction sights declined by 5.3%. However, the same data indicates that since 2002, when the credit expansion of Croatia's bank started, until June 2005 the price

Figure 16 Bank Claims on Households in Central and Eastern Europe



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

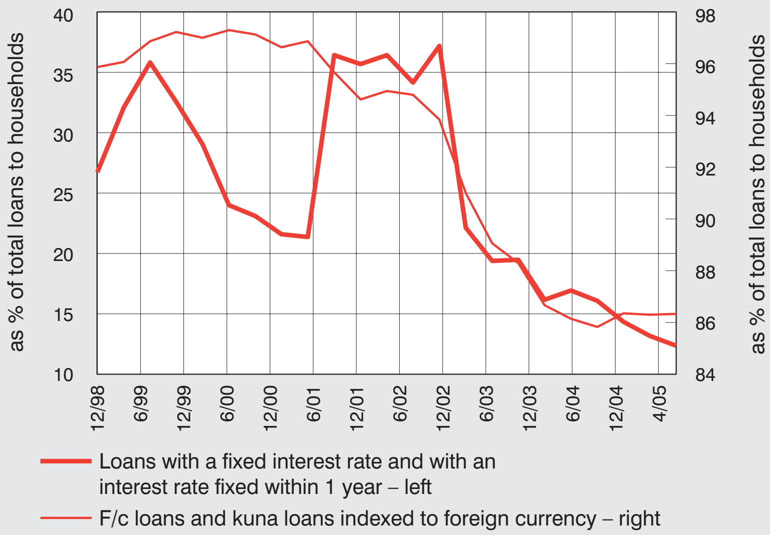
Figure 17 Use of Household Funds



Sources: CBS and CNB calculations.

of newly built flats increased cumulatively by only 10.3%, which is a substantially smaller rise than the one recorded by unofficial sources, which are related to the average prices of all sold flats. 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.

Figure 18 Currency and Interest Rate Risk of Households



Source: CNB.

Over the past year the share of loans indexed to foreign currency in the total gross value of long-term loans has not changed, standing at some 86%. Although this ratio reduced substantially compared to end-2001, when it exceeded 97%, due to specific traits of the Croatian economy it is still high. Such a structure of credit commitments directly exposes households to a high level of currency risk. In addition, the share of loans with a remaining maturity of over one year, where the interest rate cannot be changed within a year, reduced from 17% to only 12% in the past year which exposed households to even greater interest rate risk.

The real level of currency risk Croatian households are exposed to, with the described currency structure of their bank loans, cannot be accurately calculated. However, it may be established with certainty that young, educated persons in dependent employment are at greatest risk since they represent the most creditworthy segment of the population but also the one with the least assets. Therefore, it can be assumed that almost all assets and income of this segment of the population are denominated in kuna, while all their (credit) liabilities are indexed to the exchange rate. Since it may be assumed that this segment of the population is the most indebted, it reflects an almost unit-for-unit sensitivity of the debt service burden to the changes in the exchange rate of the domestic currency.

However, according to official statistical data for 2004, the average total debt service burden of Croatian households totals 6% of their disposable income. In case of a currency crises (for example, doubling of the kuna exchange rate against the euro), assuming that household sector income is in kuna and its debt indexed to foreign currency exchange rate, this indicator would total 12.2%, well above the EU average of 10-11%. This still does not reflect the real debt payment problems of the average borrower. However, in case of a currency crises the majority of borrowers with below-average income would have debt payment problems due to the practice of some banks to approve loans with monthly loan-payments not exceeding personal monthly income less minimum personal income (which officially amounted to net HRK 1700 in 2004). In addition, lack of a register of credit commitments makes it possible for individual borrowers from all income classes to borrow from different sources thus exceeding the reasonable level of debt. Finally, the asymmetrical influence of a currentcy crisis, with greater consequence for lower-income segment of the population, would be facilitated by the practice of this segment of the population to use loans approved outside the framework of the regular loan supply.

7 Non-financial Enterprises[5]

The relative debt burden of the non-financial enterprises sector continued growing this year at nearly the same pace as over the past three years. Hence, the estimated total debt of non-financial enterprise climbed to 49.7% of GDP until the end of the first half of 2005 as a result of its stable growth at rates between 10% and 15% per year. This growth was not affected by monetary policy measures aimed at slowing banks' lending, which are still in effect but in an amended form. Still, due to the said measures, the total debt of non-financial enterprises to banks grew several times slower than the debt of households to banks, but they made up for it by increasing their debt to leasing companies and their external debt. This trend continued over the first half of 2005, with the growth rate of the debt of non-financial enterprises to leasing companies totalling some 39% at the end of the first half of the year and of external debt to some 18.3% year-on-year.

Continued faster growth of the debt of non-financial enterprises to the non-banking sector continued changing the debt structure, with the share of debt of non-financial enterprises to banks in the total debt declining to below 57%, compared with 63.5% at the end of 2002, which was marked by strong growth of lending to all sectors. Increase in the share of financing outside banks and improvement in the terms and conditions of financing at banks affected the debt repayment structure of non-financial enterprises. Interest burden grew much slower than the debt burden and at highly volatile one-digit rates, which resulted in substantial reduction of the share of paid interest in the total debt to banks, to 5.4% compared with 7.1% at the end of 2001.

As a benchmark value that indicates the low level of debt of the non-financial enterprise sector in Croatia compared with the levels of debt in developed economies there is the indicator for EMU countries, which has been oscillating around some 62% of GDP, with loans to this sector growing at some 5% a year, depending on maturity. Even if such trends in Croatia and the EMU continued, the debt of non-financial enterprises in Croatia would not reach the level of debt of non-financial enterprises in the EMU for five years, which provides enough time to undertake the necessary measures if deemed that this trend negatively affects the liquidity of non-financial enterprises. At the same time, movements in the ratio of their total debt to time deposits at banks do not point to a substantial reduction in the liquidity of non-financial enterprises. This ratio increased to slightly over 300% in 2004, totalling 339% at the end

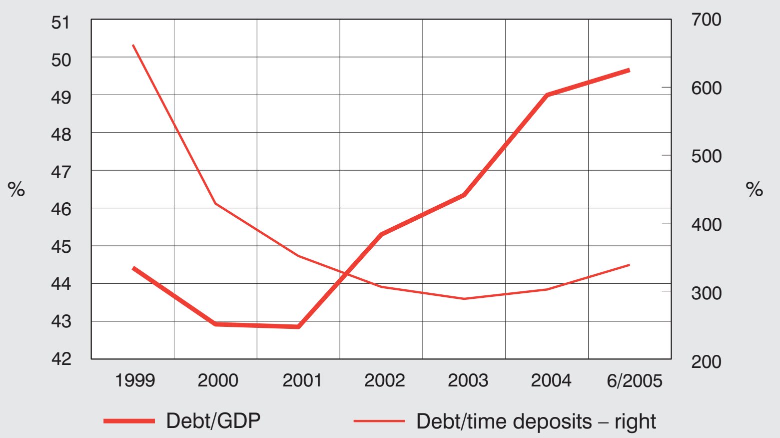
5 The CBS does not prepare the consolidated balance sheet of the non-financial enterprise sector, and the central bank does not prepare a financial survey, but only a monetary survey. Hence, financial assets and liabilities of the non-financial sector can be only roughly estimated on the basis of the 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 enterpreneurs, which are collected by the FINA.

of the first half of 2005, which is better than at the end of 2001, prior to the latest wave of credit expansion in Croatia.

Other debt burden and debt service indicators of non-financial enterprises[6] 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 total debt of non-financial enterprises in their total assets increased mildly in 2003 and 2004, ending the year at some 25%. Also, the debt service burden measured by the interest expenses to gross income ratio declined continually, from 4.6% in 1999 to 1.6% in 2004. In addition to the change in the sample that eliminated the most risky enterprises, this was definitely contributed to by the parallel fall in domestic interest rates; interest rates of domestic commercial banks on long-term corporate loans fell from over 12% in early 2000 to below 5.5% in the middle of 2005.

Over the past few years other indicators of the financial position of non-financial enterprises continually improved. The aggregate profitability of this sector grew from a negative level, which culminated with return on assets (ROA) of –1.63% and return on equity (ROE) of –3.36%, in 1999, to the level of 1.37% and 2.87% in 2004. Based on semi-annual data, further improvement of aggregate profitability of Croatian enterprises may be expected until the end of the year, resulting in the increase of the (pre-tax) income to expenses ratio to its highest level (apart from 2002) ever of 103.17.

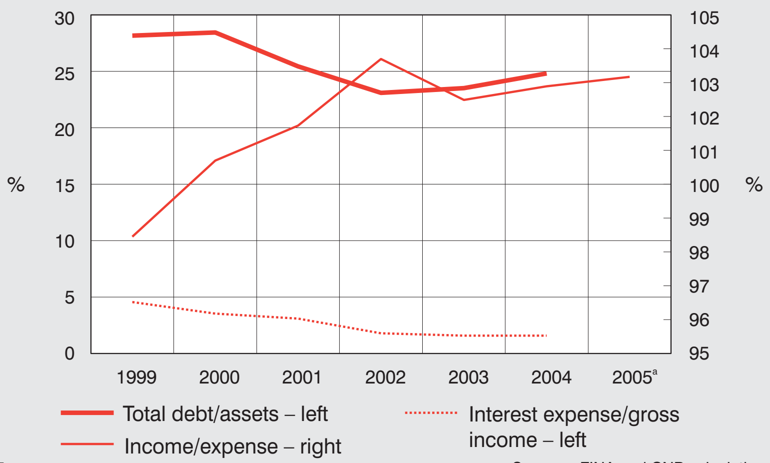
Figure 19 Non-financial Enterprises' Debt, end of period



Sources: CNB, MoF and CNB calculations.

6 Since separate data for non-financial enterprises are not available this and the next paragraph analyse indicators calculated on the basis of aggregate data on enterprises including some financial institutions such as leasing companies, savings and loans cooperatives, brokers as well as some other enterpreneurs belonging to the group of auxiliary financial services.

Figure 20 Enterprises' Debt Burden and Profitability, end of period



[a] Forecast.

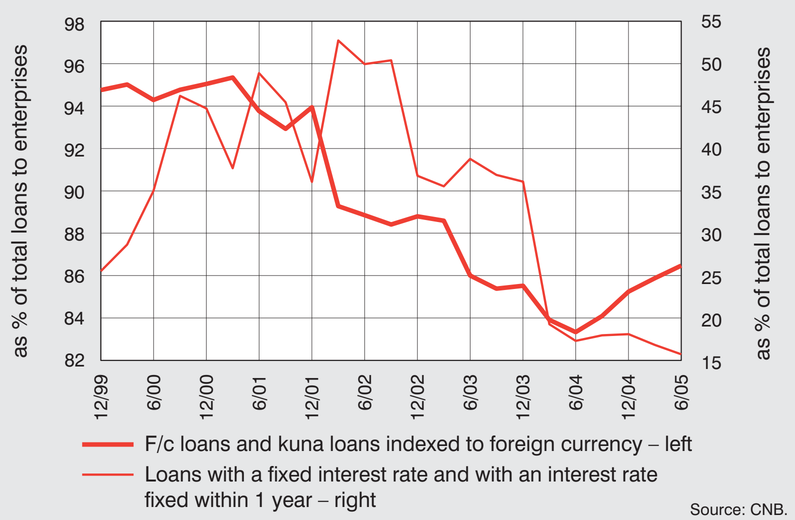
Sources: FINA and CNB calculations.

Risks that threaten non-financial enterprises mildly increased during the first half of 2005, with the most important risks being the unpredictability of global long-term interest rates and less likely, but more dangerous, risk of domestic currency weakening. Thus, the share of long-term corporate loans whose interest rates may vary within a year continued increasing, ending the first half of 2005 at some 84% of total long-term bank loans. The share of corporate loans denominated in f/c, inclusive of kuna loans indexed to f/c, rose from 83.3% to 86.5% over the past year.

In the circumstances where more than 80% of bank loans are indexed to f/c it is difficult to precisely quantify the currency risk that Croatian enterprises are exposed to due to the lack of sufficiently detailed statistical data. It is primarily caused by the currency imbalance of income and expenses of most enterprises, which in case of a substantial change in the foreign exchange rate may negatively influence their liquidity. However, the weakening of the domestic currency would weaken the balance sheet of the majority of companies, thus negatively affecting their creditworthiness and consequently the terms and conditions of future financing. Finally, it is currently impossible to make an estimate of the influence of a more substantial disruption of the exchange rate on domestic demand and creation of a chain of illiquidity among enterprises, starting from those most exposed, which would additionally contribute to the reduction of corporate income.

Despite the said difficulties, it is possible to roughly estimate the direct effect a major disruption of the exchange rate would have on the aggregate financial position of enterprises at this point. Based on data from annual financial reports of enterprises and CNB monetary statistics combined with reasonable assumptions it is possible to roughly divide balance sheet and profit and loss account items of enterprises into kuna and f/c items. In case of a currency crisis (doubling of the kuna price of foreign currency) debt service burden of enterprises would increase on aggregate level, as analysis showed, from the current 11% to some 20% of their total income. At best, this would lead to a substantial reduction in the income to expenses ratio of enterprises from the current level of some 103% to the lowest recorded level of 95%. As a result, it may be concluded that Croatian enterprises as a whole would sustain considerable losses in case of a large scale disruption in the foreign exchange market.

Figure 21 Currency and Interest Rate Risk of Enterprises



Source: CNB.

8 Financial Intermediation

The share of the assets of non-banking financial intermediaries in total assets of the Croatian financial sector continued growing. This growth, with the greatest contributions coming from investment and pension funds, led to a decrease in the assets of the dominant, banking sector in total assets of domestic financial intermediaries to 79.3% in the first half of 2005, which is some 2 percentage points less than at the end of 2004. Leasing companies took the second place with a share exceeding 6%, while insurance companies were third with a share of over 5%. Following the period of strong growth in 2002 and 2003, leasing companies continued growing in the first half of 2005 but at substantially slower pace, similar to the one in 2004. Assets of leasing companies that are included in the CNB monetary statistics and that by some estimates make up some 99% of total assets of leasing companies operating in Croatia, totalled HRK 18.4bn, up 11.8% compared with the end of 2004. In the leasing portfolio structure by type of leased goods, personal vehicle leasing (operating leases) and real estate leasing (financial leases) are still predominant. Almost entire assets of leasing companies are denominated in foreign currency. Financial leasing is more important than operating leasing, with the value of assets in operating leasing totalling to 57% of the total leased assets.

The share of assets of insurance companies in total assets of financial intermediaries continued slowly reducing, totalling 5.4% at the end of the first half of 2005. Assets of insurance companies rose by 9% compared with the end of 2004. Gross insurance premium collected in the period from July 2004 until June 2005 was 6% higher than the one collected in 2004. The life insurance segment continued growing at rates much larger than non-life insurance, but still smaller than those in 2001 and 2002. Gross life-insurance premiums collected from July 2004 went up by 16% compared with premiums collected in 2004. Gross life-insurance premiums went up by 7%, but continued its dominance, accounting for 75% of all insurance premiums collected.

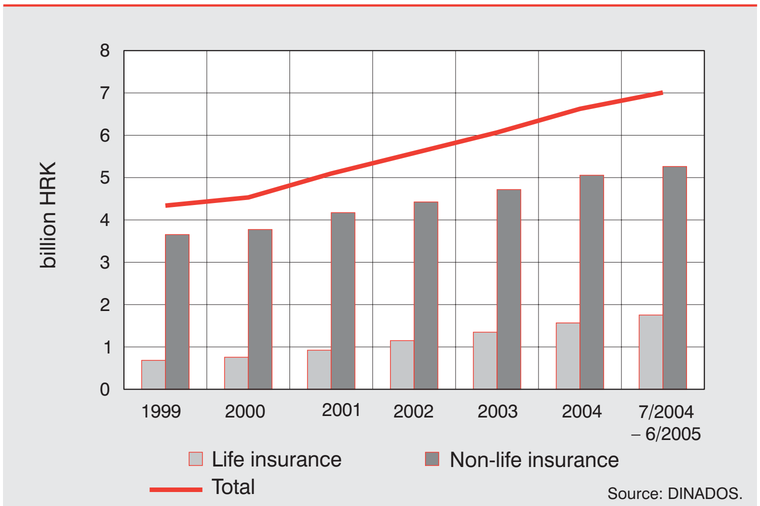
Assets of mandatory pension funds continued growing with their relative importance in total assets of domestic financial institutions rising from 2.9% in 2004 to 3.2% at the end of the first half of 2005. According to the data of the Agency for Supervision of Pension Funds and Insurance (HAGENA), total assets of mandatory pension funds stood at HRK 9.6bn. The lion's share (79%) was invested in debt securities, of which 66% (HRK 6.3bn) in bonds issued by the Republic of Croatia. The shares of

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	6/2005
1	Banks, consolidated gross assets	87.7	87.0	87.3	84.7	83.2	81.4	79.3
2	Open-end investment funds, net assets	0.02	0.2	0.9	1.4	1.4	1.8	3.0
3	Closed-end investment funds and PIFs, net assets	2.6	3.0	2.3	1.6	0.4	0.4	0.5
4	Insurance companies	7.2	6.8	5.9	5.7	5.4	5.2	5.4
5	Housing savings banks, consolidated gross assets	0.1	0.4	0.8	1.1	1.5	1.8	1.7
6	Mandatory pension funds, net assets	0	0	0	1.1	2.0	2.9	3.2
7	Voluntary pension funds, net assets	0	0	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	0.5	0.5
9	Leasing companies[a]	1.3	1.7	2.2	3.7	5.4	6.0	6.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

– 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
[a] Estimate based on CNB statistics and FINA data. Sources: CNB, HAGENA, DINADOS, CROSEC, FINA and MoF.

Figure 22 Calculated Gross Insurance Premium



debt and equity securities in the balance sheets of pension funds increased compared with end-2004 to 11.7% and 2.6%[7] respectively. The average nominal yield of mandatory pension funds was 9.75%.

Despite high growth rates, voluntary pension funds are still the smallest financial intermediaries in the Croatian market, with total assets of HRK 132.4m at the end of first half of 2005. The investment strategy of voluntary pension funds mostly relies on government bonds (60% of total assets), with investment in equity securities increasing substantially (from 10% of assets at the end of 2004 to 26%). The yields of the existing six voluntary pension funds ranged from 7.06% to 11.08% during the one year period.

Net assets of open-end investment funds rose by as much as 64% in the first half of 2005, totalling HRK 7.4bn, of which money market funds accounted for the lion's share (HRK 5.0bn or 68% of total assets). At the end of the first half of 2005, 41 open-end investment fund was operating in Croatia, 4 more than at the end-2004 and 9 more than at end-2003. According to their statutes, 12 were money market funds, 11 were registered as bond funds, 9 as equity funds, and 7 were registered as mixed investment funds. Among open-end investment funds equity funds are still the

7 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.

Table 4 Annual Yields of Funds as at 30 June 2005

Pension funds		Open-end investment funds[c]	
Mandatory		Money market funds	
AZ OMF	7.26	Erste Money	4.66
Erste Plavi OMF	10.91	Raiffeisen Cash	5.02
PBZ/CO OMF	9.07	ZB plus	4.72
Raiffeisen OMF	11.75		
Mirex[a]	9.32		
Voluntary open-end		Balanced funds	
AZ benefit ODMF	10.37	Raiffeisen Balanced	34.18
AZ profit ODMF	11.08	ZB global	17.58
Croatia osiguranje ODMF	7.06	ZB trend	11.6
Raiffeisen ODMF	10.08		
Voluntary closed-end[b]		Bond funds	
AZ VIP ZDMF	8.38	ICF Fixed Income	7.58
AZ Dalekovod ZDMF	5.99	Raiffeisen Bonds	10.98
AZ Hrvatska kontrola zračne plovidbe ZDMF	2.77	ZB bond	8.26
Ericsson Nikola Tesla ZDMF	6.66		
Hrvatski liječnički sindikat ZDMF	7.92	Equity funds	
Sindikat pomoraca Hrvatske ZDMF	0.37	Select Europe	9.8
		Victoria fond	30.12
		ZB euroaktiv	14.96

[a] Mirex is the value of the accounting unit of the average open-end pension fund and it is calculated as the weighted arithmetic mean. The weight indicates the share of net assets of the individual fund in total assets of all funds. [b] Yield as from the start of their operations. [c] Shown are yields of the three largest open-end investment funds for each group.
Sources: HAGENA and To one.

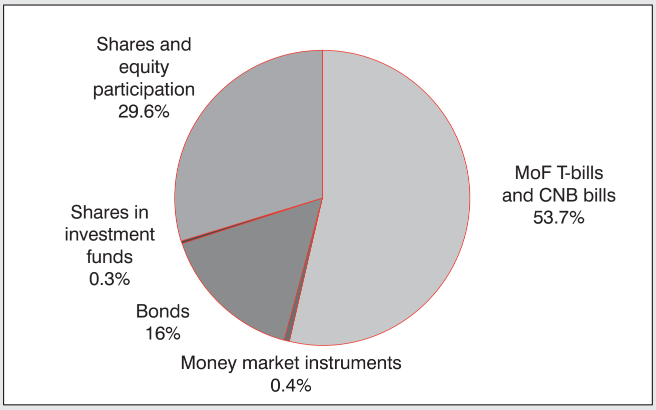
smallest, accounting for only 5% of the total assets of open-end investment funds, although their assets increased by 74% (to HRK 364bn) at the end of first half of 2005. The major stake in investment funds' assets is accounted for by legal persons, which thanks to improved liquidity management increasingly 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 the end of the first half of 2005, 5 closed-end investment funds were operating in Croatia, with total assets of HRK 1.4bn, up 25% over end-2004.

The relative importance of housing savings banks reduced mildly in the first half of 2005. However, since savers are inclined to deposit their savings deposits in the second half of the year or just before the expiry of the time limit for the right to claim government incentive funds, it may be expected that their assets will grow until the end of the year.

Savings and loan associations (SLAs) are still the most numerous but financially weakest group of financial intermediaries in the Croatian financial market. Data of

Figure 23 Portfolio Structure of Open-end Investment Funds as at 30 June 2005



Source: CNB.

the Croatian MoF, which is responsible for the supervision of these institutions, available only on annual level show that total assets of SLAs stood at HRK 1.5bn or some 0.5% of total assets of financial intermediaries. Thus, the declining trend of the relative importance of these financial intermediaries, which at the end of 1999 accounted for 1.19% of total assets of financial intermediaries in Croatia, continued.

9 Capital Market

Developments in the domestic capital market in the first half of 2005 were marked by great price volatility, because prices were greatly affected by the insecurity surrounding the continuance of Croatia's rapprochement to the EU. The market capitalisation of shares increased compared with end-2004, aided by two Scandinavian funds purchasing domestic shares at the beginning of the year. However, according to the market capitalisation of shares, the Croatian capital market is still twice smaller than its banking sector, largely due to the traditional corporate reliance on bank loans as the major external funding source.

At the end of first half of this year, seven government bonds were listed on domestic stock exchanges as well as two municipal bonds, two government agencies' bonds and seven corporate bonds. Market capitalisation of government bonds, municipal bonds and government agencies' bonds stood at 10.4% of GDP, while market capitalisation of corporate bonds was 2.1% of GDP for 2005, down slightly compared with the end of 2004.

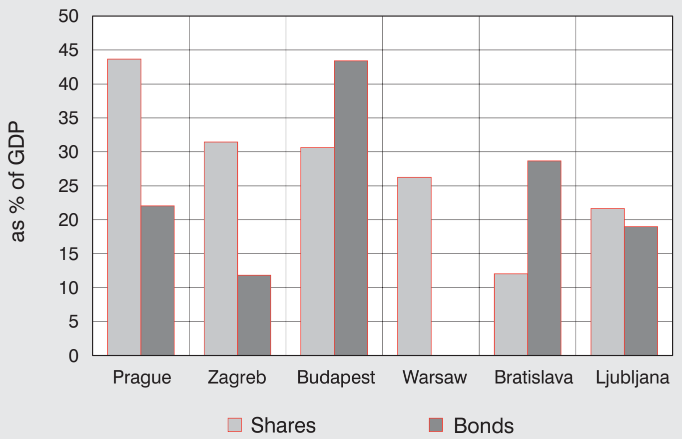
Market capitalisation on the ZSE stood at 32% of GDP, which is a mild rise

Table 5 Equities' Public Offers, in million HRK

Year	Number of successful issues	Total value of successful 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
1-8/2005	0	0,0

Source: CROSEC.

Figure 24 Market Capitalisation at end-June 2005



Sources: National stock exchanges.

compared with 29.8% of GDP at the end of 2004. According to this indicator, the Zagreb Stock Exchange stands shoulder to shoulder with the Budapest and Warsaw Stock Exchange, lags behind the Prague Stock Exchange but stands well ahead the Ljubljana Stock Exchange and especially the Bratislava Stock Exchange. In contrast, the liquidity of Croatian shares remains among the lowest in the region. The average daily share turnover on the ZSE in June totalled 1.5% of GDP. During the same period the average daily share turnover on the VSE totalled 17.6% of GDP, on the Budapest Stock Exchange 20.1% of GDP and on the Prague Stock Exchange 26.2% of GDP.

Compared with the end of the first half of last year, the value of the ZSE index rose by a significant 57.7%. In the same period only Bratislava Stock Exchange index and Budapest Stock Exchange index grew more, by 122.9% and 62.44% respectively.

Table 6 Yields of Selected Stock Exchanges Indices

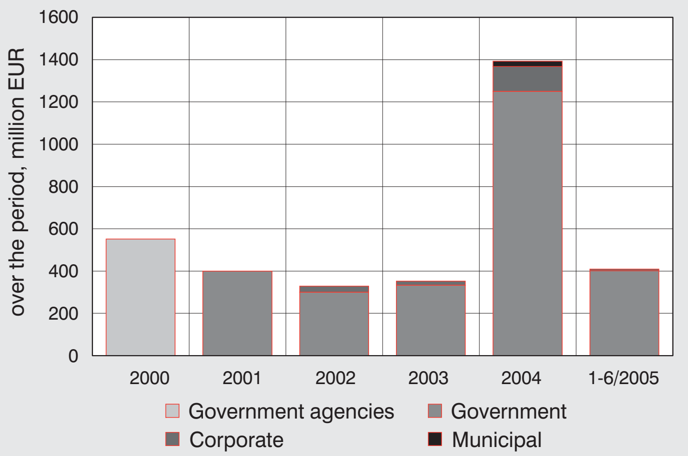
	2002	2003	2004	6/2005
Bratislava - SAX	15.90%	26.90%	83.89%	122.90%
Budapest - BUX	0.94%	30.31%	57.17%	62.44%
Ljubljana - SBI20	55.24%	17.71%	24.87%	–1.13%
Prague - PX50	16.75%	43.06%	56.58%	52.50%
Warsaw - WIG	3.19%	44.92%	27.94%	18.30%
Zagreb - CROBEX	13.33%	1.07%	32.05%	57.66%

Sources: National stock exchanges.

The Croatian bond market continued to be dominated by government bonds, whose share in total market capitalisation on the ZSE totalled 86%. Their dominance was additionally strengthened by the government's intention to limit its foreign borrowing. Accordingly, the Republic of Croatia issued no bonds in foreign markets, but a new kuna bond with a 5-year maturity, worth HRK 3bn, was issued in the domestic market. A new EUR denominated corporate bond worth HRK 60m appeared in the domestic market, raising the total number of corporate bond issues to seven. However, their market capitalisation at the end of the first half of 2005 amounted to only 2.1% of GDP. The negligible role that capital markets play in corporate financing, as reflected by this indicator, is additionally confirmed by the fact that bank loans to enterprises stood at 25.4% of GDP at the end of the first half of 2005, while the corporate sector external debt was 17.9% of GDP.

After the narrowing of the spread between Croatian eurobonds and benchmark German bonds at the beginning of 2005 due to the progress made in Croatia's rapprochment to the EU at the end of last year, in the middle of the first half of this year it widened again, owing to insecurity as regards the starting date of negotiations

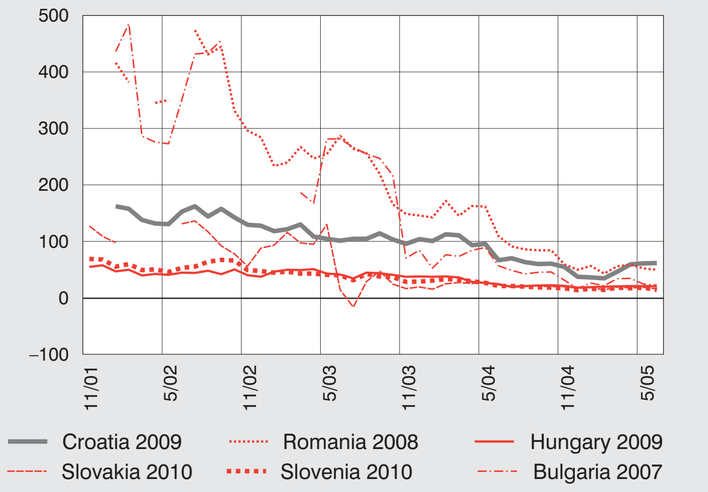
Figure 25 Bonds Issued on the Domestic Market



Source: ZSE.

with the EU and the rise in developing countries' bond yields. At the end of June 2005, the spread between the Croatian eurobond and the benchmark German bond stood at 61 basis points, which placed Croatia behind Romania and Bulgaria because their spreads stood at 50 and 23 basis points respectively.

Figure 26 Yield Spread between Selected Countries' Bonds and the Benchmark German Bond



Source: Bloomberg.

10 Money Market

The Croatian money market is still strongly influenced by banks, which dominate trading on both the official money market – the Zagreb Money Market (ZMM), and on the OTC money market. Although overnight turnover on the OTC money market among all market participants in the first half of 2005 declined due to ample banking sector liquidity, the share of bank trading with non-banking financial institutions and non-financial enterprises increased. However, the volume of interbank trading remained several times larger than trading with other money market participants, both on OTC money market and the entire money market.

As form of money trading, direct domestic market lending again by far surpassed securities repo trading. In the maturity structure of loans on the money market dominant were overnight loans, with their dominance rising during periods of reduced banking sector liquidity. Money trading for periods over one week was only sporadic, occurring within periods of high interest rates. It is under such conditions that market participants with excess liquidity use their position in order to enter into contracts with maturities as long as possible before the next interest rate decline. Between these two extremes, the share of loans with maturities from 2 to 7 days in total money trading continued growing.

Figure 27 Overnight Turnover in Interbank Trading on OTC Money Market

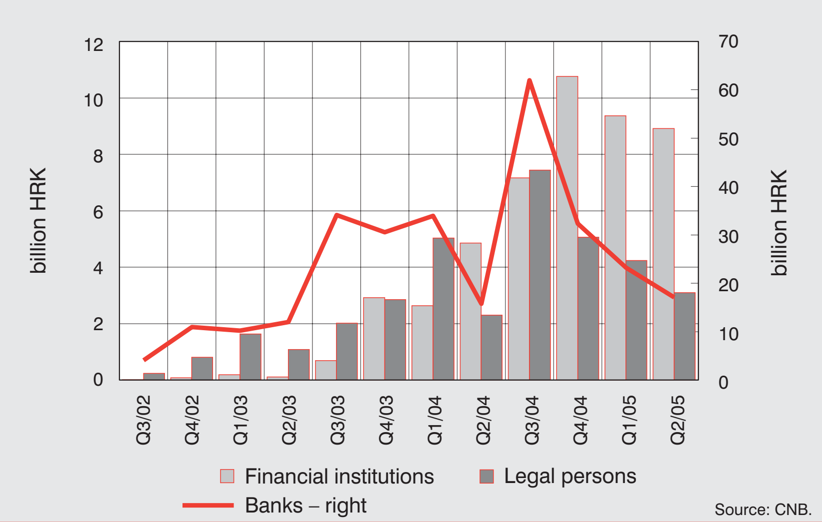
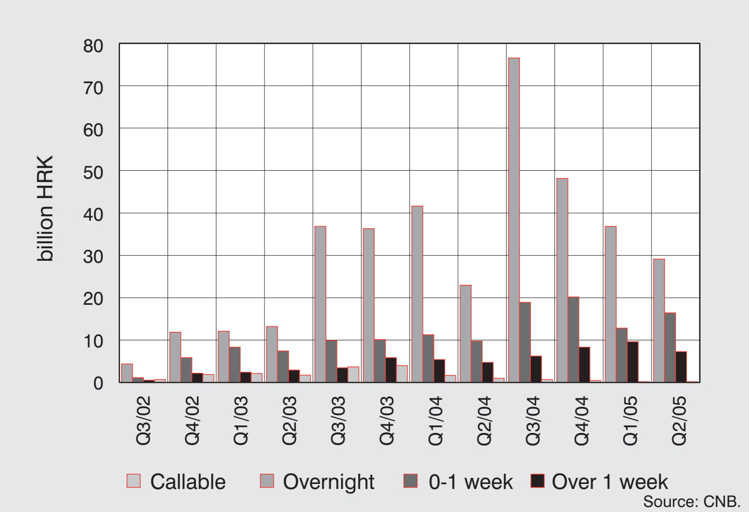


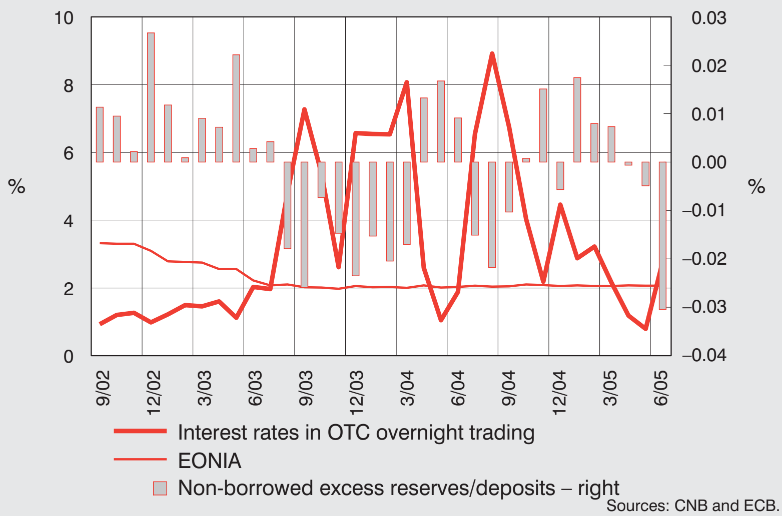
Figure 28 Money Market Turnover by Maturity



Good banking sector liquidity, that may, to the greatest extent, be attributed to seasonal effects, caused a reduction in money market interest rates. However, they remained extremely volatile so just before the end of the first half of the year they went up suddenly due to the increase in kuna demand. The volatility of money market rates was again caused by the combined effect of seasonal excess of liquidity, on one side, and occasional great changes in demand for bank reserves due to the adjustment to CNB measures aimed at restricting external borrowing, on the other.

Benchmark short-term rates on MoF T-bills with maturity of three months stabilised at the level of some 4% with minor monthly fluctuations. At the end of June 2005, the stock of subscribed T-bills of all maturities reached the level of HRK 12.85bn. This is

Figure 29 Overnight Interest Rates and Liquidity of Banks

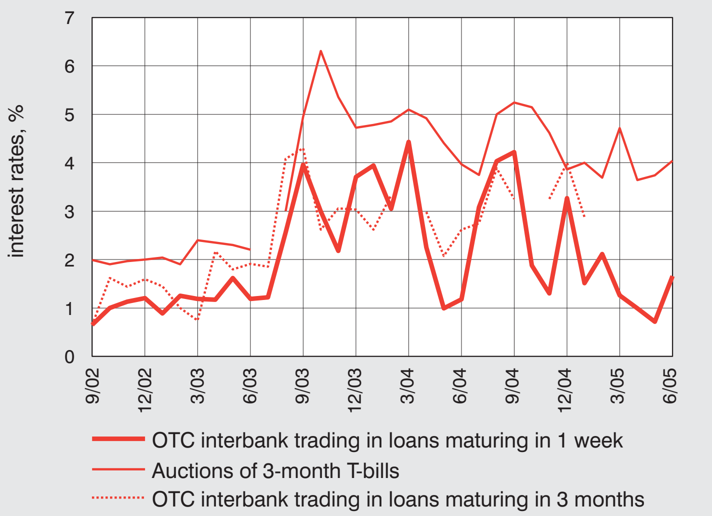


Sources: CNB and ECB.

a result of the fact that excess liquidity that banks had at their disposal did not significantly lower the level of interest rates at MoF T-bill auctions, which have been higher than the comparable money market interest rates for similar maturities since the middle of 2003. Thus, the risk premium on the Croatian money market is still negative or it only continues to be a reflection of the illiquidity of the money market in the segment of trading for periods over one week.

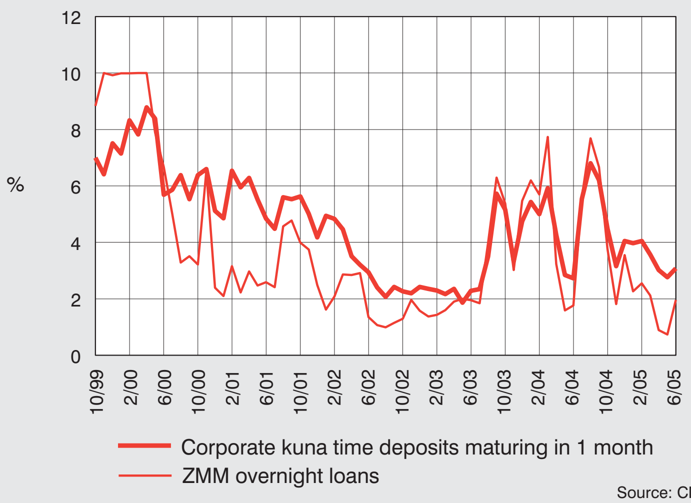
Interest rates on short-term corporate kuna deposits continued to follow the volatile movements of money market interest rates. Companies used this for occasionally earning short-term profits by placing their excess liquidity at a higher rate of return.

Figure 30 Risk and Liquidity Premium on the Money Market



Sources: CNB and MoF.

Figure 31 Interest Rates on Overnight Loans and Short-term Corporate Deposits



Source: CNB.

In the middle of the second half of 2005, the CNB started carrying out open market operations in order to maintain the good liquidity of the banking sector and limit the possibility of transferring the volatility of money market interest rates on the stability of short-term funding sources. However, relatively ample banking sector liquidity marked almost the entire period, so the first few reversed repo auctions did not attract much interest from banks. However, the increase in demand for kuna caused by the start of the tourist season and the CNB decision to raise the foreign exchange reserve requirement calculation base allocated in the domestic currency from 42% to 50%, spurred bank interest for using regular reversed repo operations, with marginal reversed repo rate stabilising at the level of 3.50%. However, for the time being this does not seem to be an obstacle to further fluctuation of money market interest rates at moments of greater changes in the demand for the kuna.

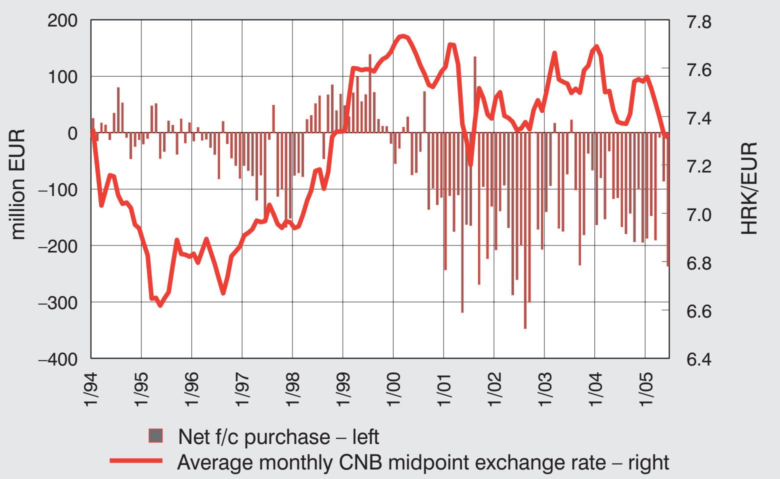
11 Foreign Exchange Market

Due to a large inflow of foreign exchange from different sources, domestic currency is still largely exposed to appreciation pressures. As a result, the Croatian National Bank held six foreign exchange auctions in the first half of 2005, purchasing EUR 293.2m from banks. Compared with the same period in 2004, when the average exchange rate was 1.3% higher, this is a net rise of EUR 163.5m. In the first half of 2005, the midpoint exchange rate ranged from HRK/EUR 7.29 to HRK/EUR 7.66. The difference between the highest and the lowest exchange rate of the kuna roughly equalled the one in the first six months of 2004, when the midpoint exchange rate moved within a band of HRK/EUR 7.36 to HRK/EUR 7.72.

The volume of trade in the foreign exchange market was fairly stable in the first six months of 2005. Banks' total turnover realised in spot foreign exchange trading totalled EUR 3.9bn in June 2005, which roughly equals the average monthly turnover for 2004. Between 2002 and June 2005, 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.

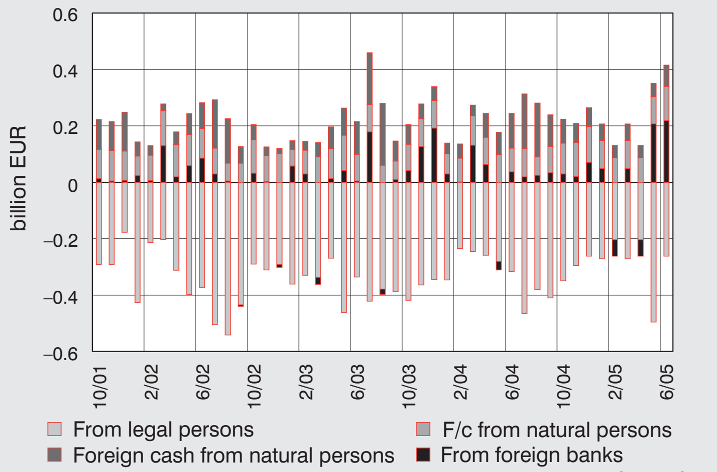
The foreign exchange market continues to be very lively but poorly liquid, so that there are indications that seasonal effects and large transactions of the strongest market participants could briefly reverse the long-term exchange rate trend, which is still stationary. In addition, the foreign exchange rate is not sufficiently differentiated, so it has for a long time been dominated by spot transactions. The 2004 saw the development of the foreign exchange swap market, which continued through the first half of 2005, with the total amount of their transactions making up 43% of the total foreign exchange trading over the past year. Foreign exchange forward transactions continue to account for the smallest segment of the foreign exchange market which

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



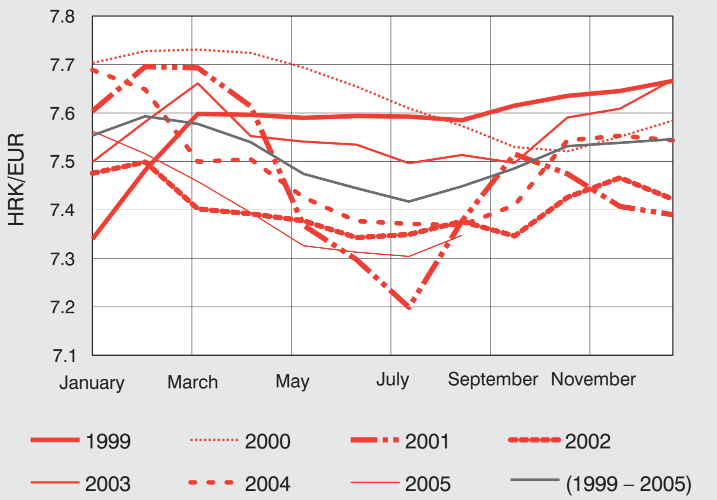
Source: CNB.

Figure 33 Banks' Monthly Spot Net F/c Purchase



Source: CNB.

Figure 34 Seasonality of Average Monthly CNB Midpoint Exchange Rate



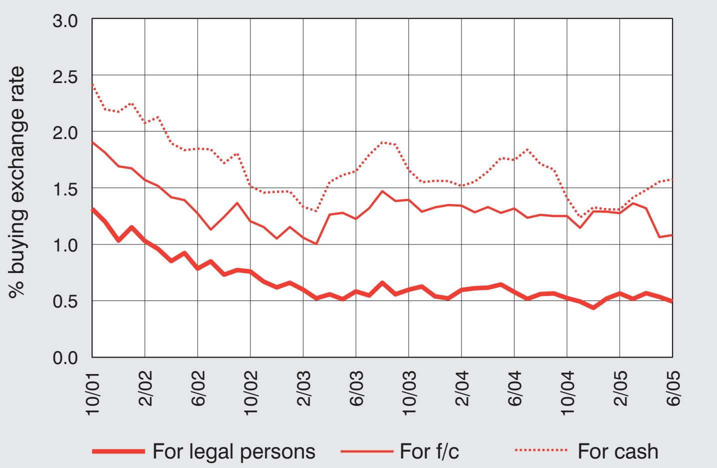
Source: CNB.

made up only 2% of total foreign exchange trading over the past year.

With the prevailing structure of the foreign exchange supply and demand, banks earn a large portion of their income from buying f/c from the household sector and then selling it to legal persons. The net bank income from foreign exchange trading in twelve months, including June 2005 totalled 23% of banks' profits before taxes and extraordinary items (over the same period). Profitability of foreign exchange trading improved the efficiency of the foreign exchange market; so that the difference between the selling and the buying exchange rate (spread) in trading with legal persons and cashless (through bank accounts) trading with natural persons, following a substantial reduction in spreads in all segments of trading during 2002 and 2003, remained quite stable during 2004 and the first half of 2005 (in trading with legal persons it moved around 0.6% and in trading in foreign currency around 1.3%). As regards trading for cash fluctuations are slightly larger, however, the spread has as well been moving around some 1.6%.

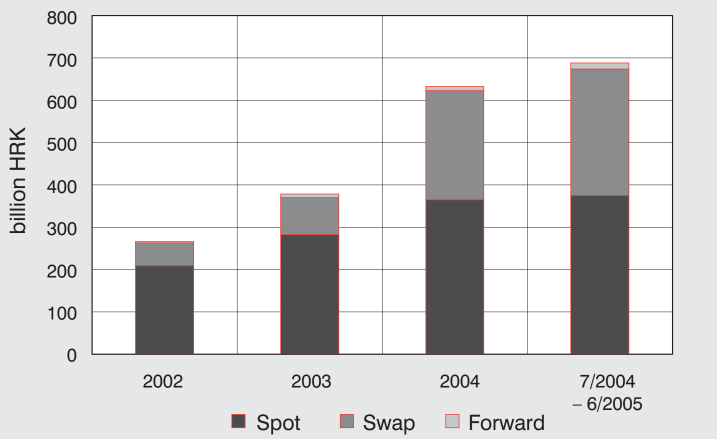
The Croatian foreign exchange market has continued to develop in a favourable macroeconomic environment. As a result, the nominal exchange rate of the kuna against the euro still has not recorded large fluctuations either in the daily or in the long-term horizons. The foreign exchange market pressure index is far from disturbing values ever since it briefly increased in summer 2001 when the central bank easily repelled an attempt of a speculative attack. With this stable exchange rate, 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 35 Difference between Average Monthly Selling and Buying Exchange Rate



Source: CNB.

Figure 36 F/c Turnover by Type of Transaction



Source: CNB.

12 Institutional Framework

By adopting the new Interest Rate Act, the new Deposit Insurance Act and the new Obligations Act, Croatia started harmonising its financial system legislation with that of the European Union more actively at the end of the last and the beginning of this year. The Interest Rate Act, whose greatest contribution is the strengthening of legal security for the first time proscribes a uniform method of calculating default interest and, more importantly, limits contractual interest rates, which also applies to bank lending activities. The new Deposit Insurance Act broadened the insurance coverage to include household giro and current accounts and lowered the linear premium rate for this type of insurance. In addition to reducing the burden on banks, a characteristic of this act is that it strives to increase the security of clients by broadening the base. The new and extremely comprehensive Obligations Act, adopted in February 2005, continued the incorporation of the acquis communitaire into the legal system of the Republic of Croatia. The new Act comprises provisions regulating the area of contractual and penalty interest rates, but since it defines the maximum interest rate in relation to the central bank's discount rate, the question of it being the benchmark rate still remains open.

Several new acts in the field of finance are being prepared with their adoption expected by the end of the year. Although discussion on the new Act on Investment Funds has been postponed for several times, the bill should soon go through the procedure in the government. The Association of Investment Fund Management Companies at the Croatian Chamber of Economy participates in its preparation. One of the objectives of the new Act is to set up the regulatory framework for the operation of venture capital investment funds. The new Insurance Act, will among other things, require the balance between the real and insured value when the insured event occurs and not only at the time the contract was concluded as it was the case so far. In this way the policy holders will, in order to avoid possible future underinsurance, also include the expected change in the value of insurance contract until its expiry. The Leasing Act is also under preparation, aimed at establishing the legal framework for this segment because there is currently neither an act nor an institution for its supervision.

The problem of large differences between Croatian accounting practices and worldwide practices, which has arisen as a result of the fact that changes in the International Accounting Standards were not published in the official gazette of the Republic of Croatia *Narodne novine,* as well as an array of other objections that have been raised by accounting professionals will be solved together with the enactment of the new Accounting Act and the new Audit Act, which are also being prepared. At the same time, an Accounting and Accounting Standards Committee will be established, facilitating the alignment of Croatian accounting and financial legislation with that of the EU as well as their credible interpretation.

The Foreign Exchange Act of 2003 will also be changed by the end of the year or more accurately the part relating to the operations of authorised exchange offices. The CNB is expected to introduce the requirement of obtaining prior approval for performing the operations of exchange offices. Still, of all new regulations in preparation the most impatiently awaited is the Act on the Agency for Supervision of Non-bank Financial Institutions, which would finally accomplish the long announced intention of unifying the supervision of these institutions. The new agency should take over supervision over all non-bank financial intermediaries including those currently unsupervised, such as leasing and factoring companies.

Although Amendments to the Act on Housing Savings and Government Incentive to Housing Savings met with public disapproval, primarily due to the reduction in the amount of government incentive from HRK 1250 to HRK 750, the fact remains that government incentive to housing savings in Croatia is still the highest in Europe. In addition, these amendments introduced some changes that will be beneficial to the savers. A possibility of interim financing was introduced, meaning that housing savings banks are be able to grant housing savings loans straight away, i.e. that savers are no longer required to save for at least two years prior to acquiring the right to apply for a loan. An additional novelty is the extension of the purpose of financing, which means that the obtained funds may now be used also for financing home furnishing. Regardless of the fact that the government premium was reduced from 25% to 15% of the deposit, housing saving will still remain an interesting savings product due to a high and secure return.

Croatian Register of Credit Commitments has not yet become operational but is expected to become operational in the middle of 2006, three years after the first steps for its establishment were taken. Following the signing of the company contract for establishment of the Croatian Register of Credit Commitments, limited liability company, in January 2005, the company obtained central bank's approval and was registered as a company providing business services. This made Croatia a member of a group of transitional countries which are actively creating their registers of credit commitments. Inclusion of card issuers and leasing companies will represent a further challenge in the development of the register. In addition, the existing regulations are to a certain degree vague and incomplete so the Register is expected to actively cooperate with the Agency for Protection of Personal Data and the Croatian National Bank in order to find the fine line between adequate functioning of the register and protection of personal data. In the meantime, commercial banks continue to exchange data on their debtors on an unofficial basis.

The project of the reform of the land registry by the Ministry of Justice made great steps forward in the first half of 2005. The reform includes harmonisation of the databases of court registry offices and municipal cadastre offices, computerisation of the land registry, system rationalisation and improvement of the treatment of their users. For the time being, the database of the Ministry of Justice is used for access to the experimental Central database of land registry offices of municipal courts in the

Republic of Croatia, having an informational and corrective role. The database currently contains data from land registries that has been harmonised with the cadastral data and data from land registries that has been partially or entirely copied from the manual to the computerised land registry. The benefits of this project are, above all, the formation of a unified base of all relevant land registry and cadastral data, which will improve data availability and speed up issuance of registered land certificates for a broad circle of users. It is anticipated that this project will be fully completed in 2006.

Movable property register, which will also contribute to the transparency in lending activities, has not yet been formed but arrangements for its implementation are currently under discussion. In addition to transparency of lending based on pledged movable property, it would enable entrepreneurs who do not hold real property but hold valuable movable property to obtain bank loans for performance of their business activities. The benefit for banks lies in the fact that they will be able to easier check their clients' creditworthiness and prove ownership over pledged movable property before court.

As for events within the institutional framework that are not related to harmonisation of Croatian legislation with EU legislation, there is the attempt of presenting a court ruling that has not become final as one more legal defeat of the model of recovery and restructuring of the Croatian banking system that was implemented from 1998 to 2002. At the end of September, the Commercial Court in Zagreb ruled in a case which was initiated three years ago by one of the shareholders of Istarska banka, cancelling the merger of Istarska banka and Dalmatinska banka. Istarska banka merged with Dalmatinska banka in 2002. Dalmatinska banka later entered the Nova banka group, which, after a short period in the ownership of a capital fund, became a member of a strong Hungarian group, OTP in 2005. In the meantime, a complaint was filled, contesting the merger of Istarska banka with Dalmatinska banka, with the Commercial Court recently ruling in favour of the plaintiff. However, in contrast to the final judgement of the High Commercial Court in favour of Croatia banka shareholders, which contested the recovery and rehabilitation of that bank, the ruling in the case of Istarska banka is not connected with its voluntary rehabilitation in which the state and local public enterprises participated.

13 Banking System[8]

In the first half of 2005, the Croatian banking system achieved slightly weaker, although still solid, profitability with a moderate exposure to credit risk and strong capital base. It also achieved satisfactory asset growth despite moderately restrictive monetary policy. After reducing to 14% in 2004, at the end of the first half of 2005 credit growth totalled a high 21% year-on-year, while the growth of the aggregate balance sheet of banks slightly reduced, to 11%. These developments were equally contributed to by the growth in the loan portfolio to the non-financial sector of 22%, the growth in the portfolio of MoF T-bills of 125% and the growth in deposits with the CNB of 18%. As the 10% deposit base growth was not sufficient to finance such asset growth, it was primarily enabled by the increase in loans from financial institutions, which grew by 92%, and to a lesser extent by the growth of other loans within banks liabilities, totalling 7%.

Over the past year, the number of banks in the Croatian market reduced by six. After the winding up of two small banks, 34 banks were operating in the Croatian banking market at the end of the first half of 2005, with their number expected to be further reduced. After the disappearance of the two small banks from the market, the total number of small banks (with the share in total banking sector assets of below 1%) fell to 24, there were four medium sized banks (with the share in total banking sector assets of below 5%) and six large banks. As regards the ownership structure, there were 21 domestic banks in the Croatian banking market, while 13 were foreign-owned.

Notwithstanding accelerated loan growth, aggregate data show that, relative to assets and capital, banks realised a smaller return both on their assets and their equity. After its best result ever, of 1.68% at the end of 2004, pre-tax ROAA totalled 1.62% at the end of June 2005. At the same time, after-tax ROAE, which was growing steadily since 2001 until reaching its peak of 16.1% in 2004, reduced to 14.5%.

Developments in the profitability of the banking system as a whole largely reflect the developments in the profitability of large banks, i.e. banks in foreign ownership. At the end of the first quarter of 2005, large banks managed 81.7% of banking sector assets, while foreign-owned banks managed 89.7%. On the other hand, the six banks that disappeared from the market in the past year all belonged to the group of small and medium sized banks.

Except in 2001, when ROAA and ROAE reduced due to extraordinary losses of a large bank, aggregate ROAA and ROAE were rising right up to the end of 2004.

8 All indicators have been calcualted on the basis of banks' unconsolidated revised data. Semi-annual income and expenses have been expressed on annual level by taking into consideration the last four quarters. For indicators having the item *assets* or *capital* in the denominator, the average assets or average capital in the past year has been used; or half of the amount at the beginning of the period and half of the amount at the end of the period. Data does not include banks in winding-up proceedigns, while semi-annual data stem from unrevised temporary reports. Due to the said specific traits of the methodology used, some of the indicators may deviate from the values of similar indicators in other CNB publications.

Table 7 Main Data on Commercial Banks in the Republic of Croatia (in million HRK and %)

	Balance						Change 30/6/04 / 30/6/05	
	31/12/01	31/12/02	31/12/03	30/6/04	31/12/04	30/6/05	Amount	Percent
Number of banks	43	46	41	40	37	34	–6	–15
Total assets	148,455	174,139	204,043	212,116	229,305	235,748	23,633	11
Money assets, deposits, MoF T-bills and CNB bills	55,885	51,651	67,010	63,910	71,823	66,412	2,501	4
Trading and investment portfolio	17,441	21,094	18,241	23,379	24,036	23,685	306	1
Loan portfolio	65,898	92,293	110,052	113,373	125,202	137,193	23,820	21
Other assets	9,231	9,102	8,740	11,453	8,244	8,458	–2,995	–26
Liabilities and capital	148,455	174,139	204,043	212,116	229,305	235,748	23,633	11
Short-term liabilities	44,113	52,893	57,174	56,977	59,642	63,473	6,496	11
Long-term liabilities	80,185	95,181	118,809	122,303	139,001	140,086	17,783	15
Subord. and hybr. instr. and other liabilities	10,439	9,557	9,977	14,311	10,741	11,149	–3,163	–22
Capital	13,717	16,509	18,083	18,386	19,681	20,753	2,367	13

Source: CNB.

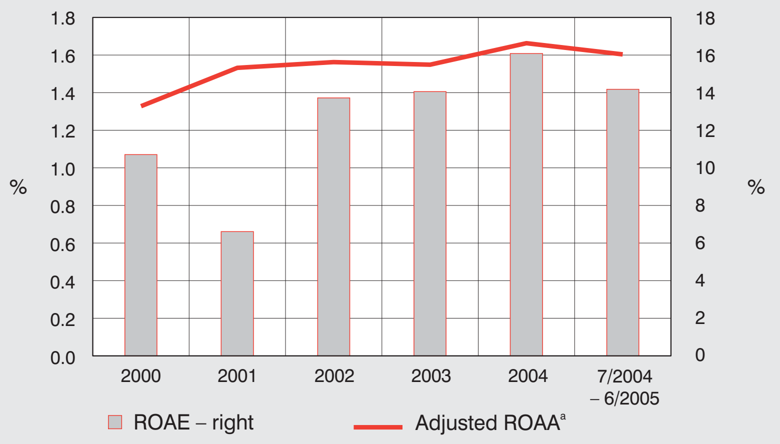
During this entire period large banks boasted more stable profitability indicators, with ROAA of large banks roughly equalling the ROAA of the banking sector as a whole, while, as usual, ROAE of large banks was larger than ROAE of the banking sector as a whole. This is because large banks, relatively speaking, have smaller equities than small banks, due to traditionally smaller fluctuation of unexpected losses at large banks.

Weak profitability at the end of the first half of 2005 is the outcome of slightly weaker regular bank operations. The ratio of net operating income to average bank assets reduced from 2.0% at the end of 2004 to 1.9%. At the same time, the ratio of net interest income to average bank assets held at 3.0%. Although interest expenses rose at a faster pace than interest income, net interest income went up 3.9% compared with 2004, while in the same period net income from fees and commissions rose by 4.5% year-on-year. Since general administrative expenses were held at the same level of 2.3% of average assets, both in absolute and relative terms, the greatest contribution to the weak business result came from the net non-interest income of 4.7%. This decrease was a result of the 16.9% reduction in net other non-interest income compared with 2004, which was to the greatest extent affected by the loss from the revaluation of the balance sheet positions indexed to foreign currency in line with the contractual exchange rate.

Although banking sector profits grew in absolute terms, assets and equity grew more, which resulted in weak relative indicators. Net non-interest income, which made up 1.33% of average assets in 2004, reduced to 1.22% of average assets in a one-year period which ended in June this year. The level of aggregate net income totalled 1.9% of average assets, which is a downturn from the 2.0% in 2004.

As many as twelve banks reported lower pre-tax profits at the end of June 2005, that is, increased their losses. The greatest contribution to the lower aggregate pre-tax

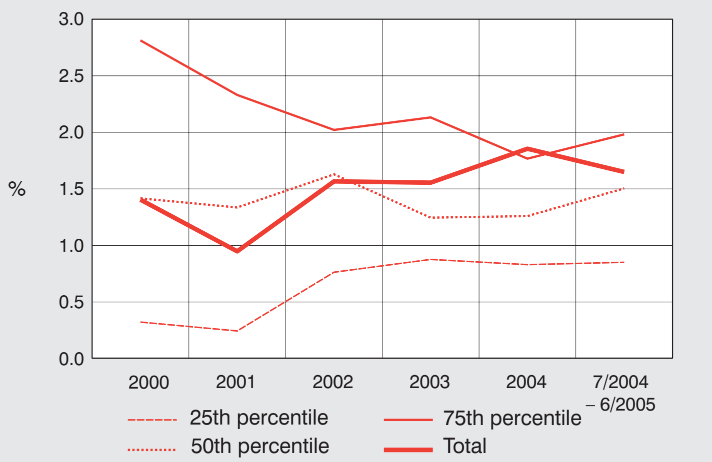
Figure 37 ROAA and ROAE of Banks



[a] Adjusted ROAA is pre-tax and pre-extraordinary items.

Source: CNB.

Figure 38 ROAA by Banks

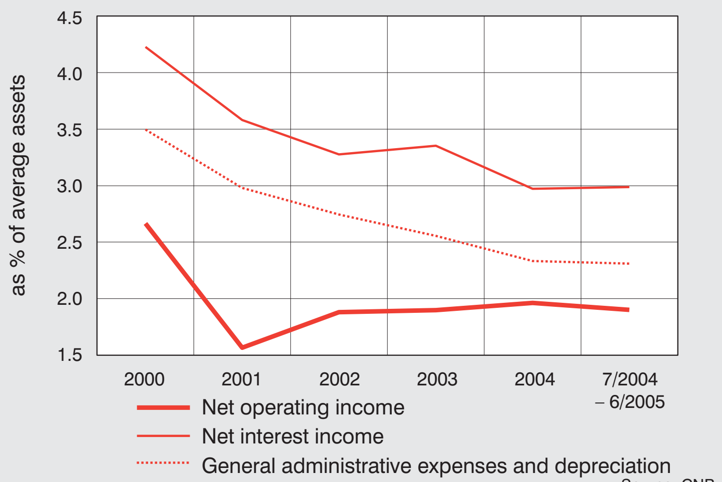


Source: CNB.

profits came from a large bank, which reported 42.3% lower pre-tax profits over the same date last year. The reported downturn in profits of this bank was primarily influenced by the reduction in income from investments in subsidiaries and associates, in accounting terms.

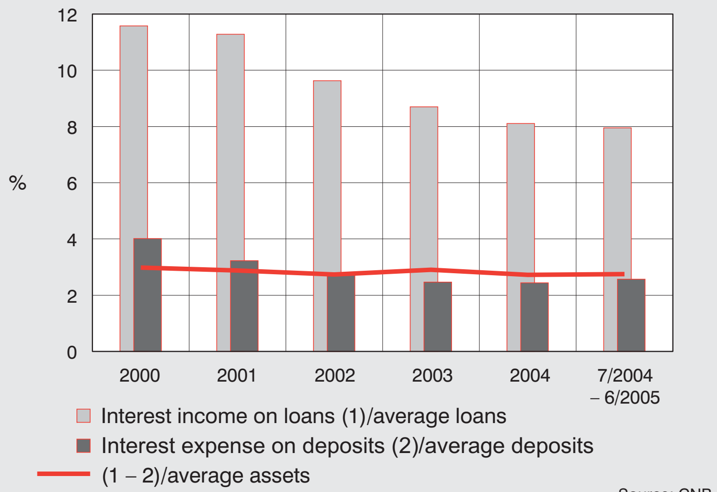
The contribution of the costs of credit risk provisions to bank profitability remained positive. Following a reduction in 2004, in the first half of 2005 the ratio of total specific provisions to placements and contingent liabilities they are related to remained at roughly the same level. The ratio of total specific provisions to total bank assets stood at 2.76% at the end of the first half of 2005, which is a moderate reduction compared with the 2.88% at the end of 2004. The greatest contribution to credit risk reduction in 2004 and the first half of 2005 came from banks' improved evaluation of

Figure 39 Banks' Efficiency Ratios



Source: CNB.

Figure 40 Interest Income on Loans and Interest Expenses on Deposits

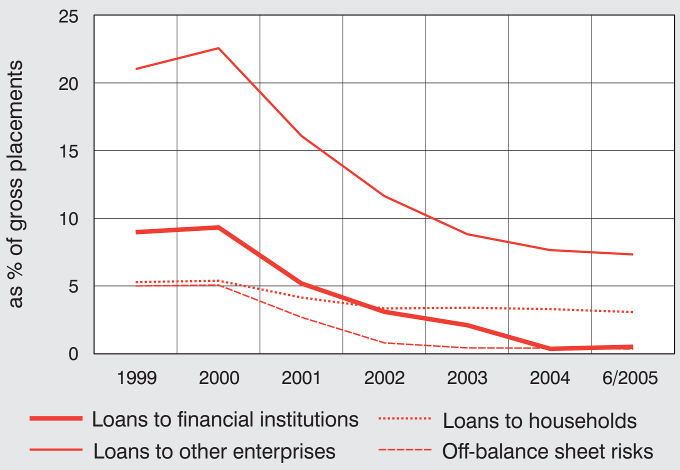


Source: CNB.

the quality of their loans to enterprises which are not public enterprises. For this debtor category, the ratio of total specific provisions to gross placements and contingent liabilities they are related to stood at its all-time low of 7.3% at the end of June 2005 (compared with 9.0% at the end of 2003, or 7.7% at the end of 2004).

Despite the continued trend of improvement in bank asset quality, it should be borne in mind that experience shows that in periods of economic growth Croatian banks considerably underestimate credit risk arising from long-term placements. If it should be judged by the experience from the mid-1990s, in case of a more significant slowdown in economic growth, the share of these placements with larger banks would be revised to a level of 3.5% to 5%. In addition, the ratio of overdue bank

Figure 41 Total Specific Provisions, end of period

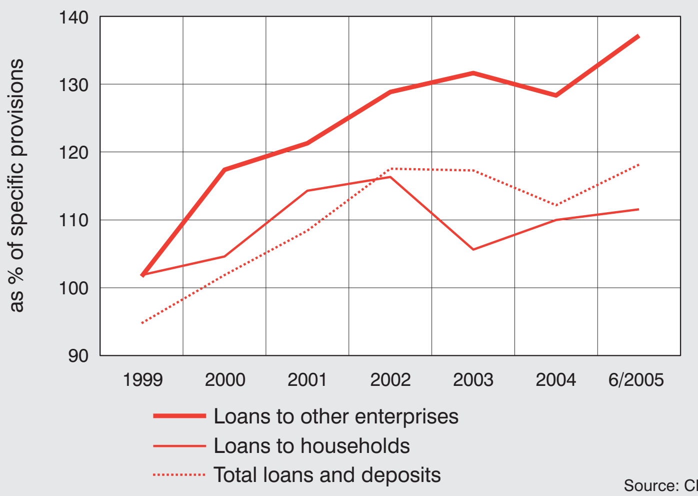


Source: CNB.

claims on loans and deposits to total specific provisions mildly increased in the first half of 2005, primarily in connection with loans to other enterprises which normally register the highest value of this ratio.

Total overdue claims on loans and deposits increased considerably this year, totalling 20.7% of bank assets at the end of June, rising considerably compared with the 17.6% at the end of 2004. Claims that are 30 days overdue and claims that are 90 or more days overdue, accounted for the greatest share of this increase. According to banks' assessments the riskiness of placements has not changed in the past year, but deterioration of some other indicators warns against a possible negative trend in the remainder of the year.

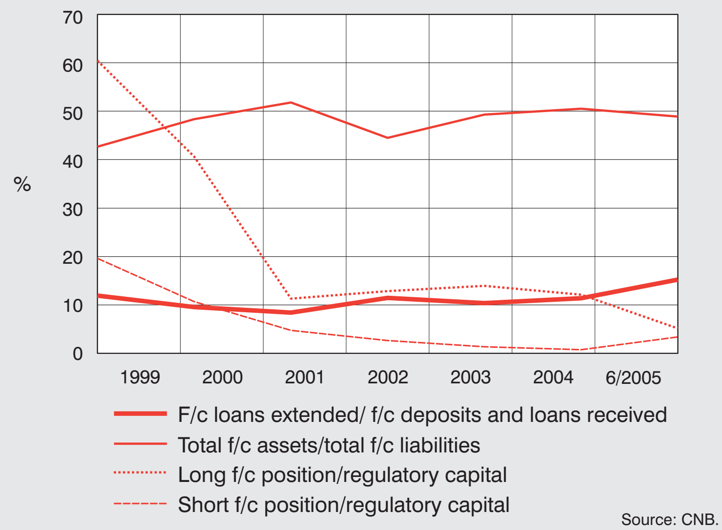
Figure 42 Overdue Bank Claims on Loans and Deposits, end of period



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 eurosiation. The maximum allowed bank exposure to direct currency risk is limited by the CNB decision so that the total open foreign exchange position may not exceed 20% of the regulatory capital of a bank. At the end of June, the ratio of total short positions of banks to their regulatory capital amounted to 3.4%, well above the 0.8% it amounted to at the end of last year. For long positions of banks, this ratio totalled some 5.1% in June 2005, which is a substantial reduction compared with 12.1% at the end of 2004.[9] Direct currency risk stress test for the banking system indicates that the direct currency risk does not pose a threat to banking system stability, with the direct impact of changes in the nominal exchange rate of the kuna on bank capital adequacy being almost neutral. On the other hand, indirect currency risk, which is extremely difficult to measure poses a much greater danger for the banking system because the majority of clients' obligations to banks is denominated in foreign currency, while their income is in kuna.[10]

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



Source: CNB.

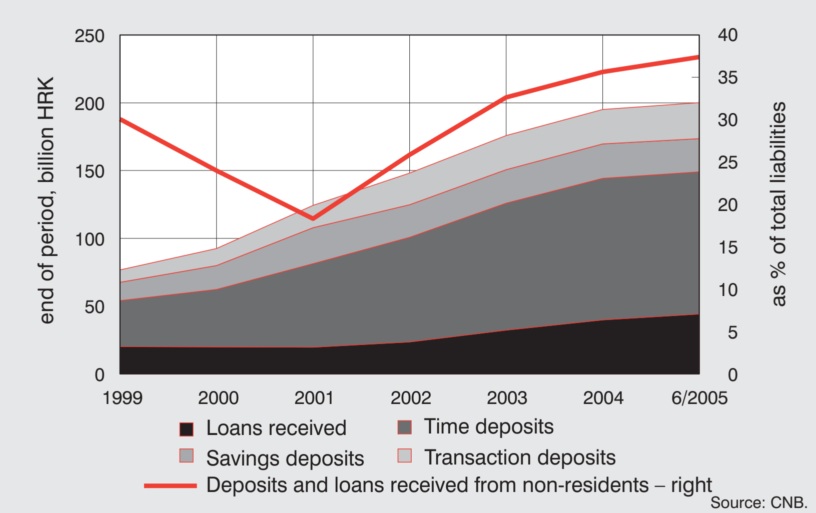
Internationally active banks, especially banks in foreign ownership are ever increasingly exposed to the so-called contagion risk. Data needed to precisely estimate the effects of potential contagion risk on Croatian banks' business results are currently not gathered. However, it is possible to estimate the relative importance of particular risks related to contagion risk.

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

10 See chapters 6 and 7 for a more detailed description of currency risk bank clients are exposed to.

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 the end of June 2005, it was only 0.26%). 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 almost doubled in 2004, totalling 38.07%, declining to 34.7% by the end of June 2005. Finally, the greatest danger in bank operations on international markets continues to be the financing risk. The share of liabilities to non-residents in total bank liabilities continues growing, rising from 35.6% at the end of 2004 to 37.4% at the end of June 2005.

Figure 44 Structure of Bank Liabilities by Instrument

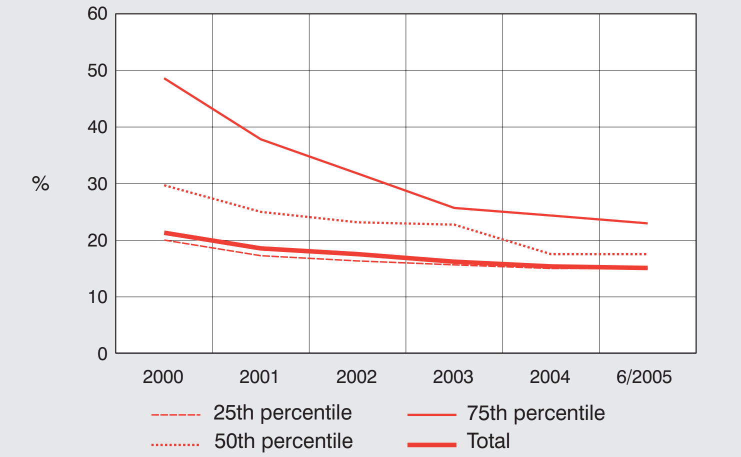


Source: CNB.

Banking system stress test conducted for internal purposes by the central bank showed that credit risk was 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 macroeconomic environment. Analysis also showed that the group of small banks is less vulnerable to deterioration of general credit risk. Only one of the ten largest banks would not be able to endure a more sizeable deterioration in placement quality without its capital adequacy ratio falling below the prescribed level of 10%.

The years-long trend of capital adequacy ratio reduction continued over the past year. The aggregate capital adequacy ratio totalled 15.06% at the end of the first half of 2005, down mildly compared with the end of 2004 when it stood at 15.32%. This trend was primarily affected by large banks which have low capital adequacy level that amounted to 14.06% at the end of this year. Described developments should reflect a reduction in the perceived risk from unexpected losses in banks' operations. Considering the specifics of Croatia's transition, this could mean a greater level of banks' trust in the political and economic stability of the country, in particular the improvement of the institutional framework.

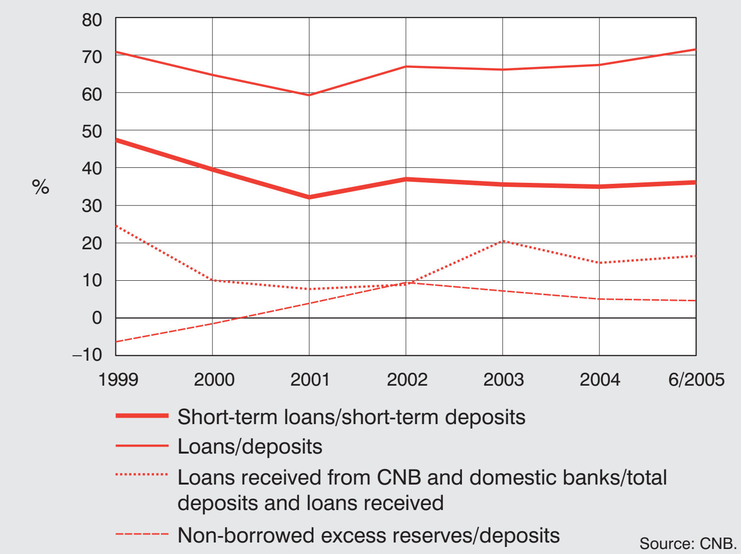
Figure 45 Capital Adequacy Ratio by Banks, end of period



Source: CNB.

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 much higher in 2004 than in 2003 judging by the decline in the absolute and relative value of loans received from the CNB and domestic banks and their share in total deposits and loans received, declining slightly by the end of the first half of 2005. At the same time, standard liquidity indicators (loan-to-deposit ratio and short-term loan to short-term deposit ratio) went up mildly. As a result of these different movements kuna liquidity of banks has been reducing since mid-2003, which is to the greatest extent reflected in the synthetic indicator of excess kuna liquidity of the banking system that totalled 4.62% at the end of June 2005 (compared with 9.42% at the end of 2002 and 5.04% at the end of 2004).

Figure 46 Main Liquidity Indicators of the Banking System, end of period

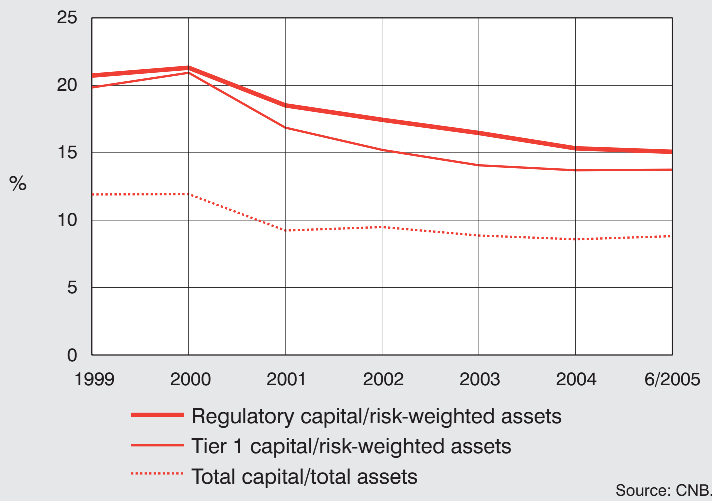


Source: CNB.

Although the liquidity of the banking system as a whole is still high even after a long period of decreasing kuna liquidity, the last internal banking system stress test showed that 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. It has also been shown that almost all banks are fully resilient to the risk of an individual bank run and that only one out of ten largest banks would require considerable additional funding in the amount exceeding its total liquid assets.

Overall, over the past year business results of the Croatian banking system were slightly weaker but still good despite monetary policy measures aimed at limiting banks' loan growth and external borrowing in a situation where competition did not allow lending rates to increase. Slightly weaker profitability compared with the end of the previous year combined with accounting changes at several banks are a consequence of several other factors. Although slightly, capital leverage increased for the first time since 1999, which led to a decrease in banks' ROAE indicators. Banks' general administrative expenses in net operating expenses increased by a half percentage point, to 54.9%. In addition, loans granted to government units increased by 63% over the past year, increasing their share in total loans to a high 9.8%. The share of relatively more profitable loans to households in total placements grew at a slower rate, which too contributed to a decrease in the ROAA.

Figure 47 Leverage, end of period



Source: CNB.

Table A Selected Indicators of Banking System Operations[11] (in %, unless otherwise noted)

Indicator	2001	2002	2003	2004	7/2004 – 6/2005
Number of banks	43	46	41	37	34
Assets (in million HRK)	148,455	174,139	204,043	229,305	235,748
Return on average assets (ROAA)[a]	0.9	1.6	1.6	1.7	1.6
Return on average equity (ROAE)[b]	6.6	13.7	14.1	16.1	14.5
Adjusted ROAA[c]	1.5	1.6	1.5	1.7	1.6
Indicator of net operating income[d]	1.6	1.9	1.9	2.0	1.9
Indicator of net interest income[e]	3.6	3.3	3.4	3.0	3.0
Indicator of general administrative expenses and depreciation[f]	3.0	2.7	2.6	2.3	2.3
Share of interest income from loans in average loans	11.3	9.6	8.7	8.1	8.0
Share of interest expense on deposits in average deposits	3.2	2.8	2.5	2.4	2.6
Share of difference between interest income from loans and interest expense on deposits in average assets	2.9	2.7	2.9	2.7	2.7
Share of value adjustment in total loans to financial institutions	5.1	3.1	2.1	0.4	0.5
Share of value adjustment in total household loans	4.1	3.4	3.4	3.3	3.1
Share of value adjustment in total loans to other enterprises	16.1	11.6	9.0	7.7	7.3
Share of specific provisions in total off-balance sheet risks	2.7	0.8	0.4	0.4	0.4
Ratio of f/c loans granted and f/c deposits received to loans	8.3	11.3	10.2	11.2	15.1
Total f/c assets to total f/c liabilities ratio	51.8	44.5	49.3	50.5	48.9
Long f/c position to regulatory capital ratio	11.3	12.8	13.9	12.1	5.1
Short f/c position to regulatory capital ratio	4.8	2.7	1.4	0.8	3.4
Ratio of overdue claims to specific provisions for loans to other enterprises	121.2	128.7	131.5	128.2	137.0
Ratio of overdue claims to specific provisions for household loans	113.9	116.3	105.6	109.9	111.5
Ratio of overdue claims to specific provisions for loans and deposits	108.4	117.5	117.2	112.1	118.1
Share of deposits and loans from non-residents in total liabilities	18.3	25.9	32.6	35.6	37.4
Regulatory capital to risk-weighted assets ratio	18.5	17.4	16.5	15.3	15.1
Total capital to total assets ratio	9.2	9.5	8.9	8.7	8.8
Tier 1 capital to risk-weighted assets ratio	16.9	15.2	14.1	13.7	13.7
Ratio of short-term loans granted to short-term deposits received	32.2	37.0	35.5	35.0	36.1
Loan to deposit ratio	58.0	65.7	65.0	65.3	71.5
Share of loans from the CNB and domestic banks in total loans and deposits received	7.6	8.7	20.2	14.3	16.5

a Percentage share of pre-tax profit in average assets.
b Percentage share of after-tax profit in average equity.
c Pre-tax profit does not include extraordinary income and extraordinary expenses.
d Percentage share of net operating income before loss provisions in average assets.
e Percentage share of net interest income in average assets.
f Percentage share of general administrative expenses and depreciation in average assets.

11 According to unconsolidated preliminary Bank Statistical Reports as at 30 June 2005 and unconsolidated revised Bank Statistical Reports for previous period, excluding banks subject to winding-up proceedings, available on 15 September 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 beginning and the balance at the end of the period for which the indicator is calculated.

Table B Selected Debt Indicators of Non-financial Sectors (in %)[12]

Indicator	2001	2002	2003	2004	6/2005
Household debt					
- as % of GDP	19.0	24.9	29.6	32.8	33.9
- as % of gross disposable income[g]	37.0	49.2	63.4	70.2	72.5
- as % of household bank deposits	43.4	60.7	70.7	76.7	79.8
- year-on-year rate of change	29.6	42.2	27.8	18.9	21.0
Debt of non-financial enterprises					
- as % of GDP	42.9	45.4	46.6	49.2	49.7
- as % of corporate bank deposits	352.0	306.9	290.0	303.5	338.7
- year-on-year rate of change	8.5	14.6	10.4	13.3	12.5
TOTAL – non-financial private sector					
- as % of GDP	61.9	70.4	76.2	82.0	83.6
- year-on-year rate of change	14.2	23.1	16.5	15.4	15.8
General government debt[h]					
- as % of GDP	41.7	42.6	44.6	47.6	49.0
- year-on-year rate of change	11.6	10.6	12.7	14.5	11.6
- interest paid as % of GDP	1.9	2.0	2.0	2.1	2.2
TOTAL – non-financial sector					
- as % of GDP	103.6	112.9	120.8	129.6	132.6
- year-on-year rate of change	13.2	18.1	15.1	15.1	14.2
Implicit interest payments[i]					
- households, as % of gross disposable income	3.9	4.5	5.7	6.0	6.1
- non-financial enterprises, as % of GDP	3.4	3.2	3.1	2.9	2.9

g 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 were estimated on the basis of data on population migration.

h According to an internally consistent broadest coverage of the general government, including the CBRD debt and excluding not activated 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.

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

12 Expert estimate based on data of the CNB, CBS, FINA, DINADOS, HAGENA, CROSEC and MoF, available on 15 September 2005. Possible are subsequent revisions of 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 sector's internal debt nor mutual debts of non-financial sectors.

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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
CIS	– Commonwealth of Independent States
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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