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MACRO PRUDENTIAL *analysis*

CROATIAN NATIONAL BANK

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MACROPRUDENTIAL ANALYSIS

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Contents

1 Introduction[1]

The stability of the Croatian financial system remained high in the first half of 2007 due to continued favourable developments in the macroeconomic environment. The Croatian economy grew at a much faster rate than in the previous years. However, the external imbalance of the economy continued to increase, as evident from the further increase in external debt (although slower than in 2006) and the widening of the current account deficit, which prompted the central bank to continue implementing measures aimed at curbing excessive growth of bank placements to domestic sectors.

The period ending with the second quarter of 2007 saw a strong real economic growth of 6.6% annually, while the CNB projected GDP to grow at an approximate annual rate of 5.9% in 2007. Although expected to drift lower in 2008, this rate should remain relatively high. Inflation remained relatively low in the first quarter of 2007: the annual rate of change in the CPI stood at an average of 1.9% in that period. However, due to the sharp price increase of oil and food products, brought about by adverse weather conditions, the CNB projected an average annual inflation rate of 2.8% for 2007. The first half of 2007 was marked by the continued surge of equity securities prices on the Croatian capital market (the Zagreb Stock Exchange index, CROBEX, increased by 50.7% relative to the end of 2006) and continued increase in real estate prices (the hedonic real estate price index went up by 13.6% compared with the first half of the year). In the first six months of 2007, price stability was maintained also thanks to a stable kuna/euro exchange rate.

Due to favourable developments on both the revenue and expenditure side of the government budget, the consolidated general government deficit target for 2007 was revised downwards to 2.6%. The accelerated economic growth was positively reflected on domestic labour market developments: the average Labour Force Survey unemployment rate dropped to 10.3% at the end of the first half of 2007, whereas employment increased.

However, Croatia's external imbalance continued to increase, as evidenced by the further increase in external debt and a large current account deficit of 7.8% of GDP at the end of the first half of 2007. Despite continued efforts by the central bank to restrain foreign borrowing, Croatia's external debt in euro increased by 11.0% at the end of June 2007

1 The definitions and guidelines for macroprudential analysis which provide a basis for this analysis are outlined in the IMF's publication *Financial Soundness Indicators – Background Paper,* dated May 2003. A long-term statistical project is underway involving the alignment of the methodological framework for this analysis with the latest recommendations outlined in the IMF's manual *Compilation Guide on Financial Soundness Indicators* from August 2004. The indicators for June 2007 were analysed, based on the data available in late September 2007. Gross domestic product and all other flow indicators for 30 June 2007 were computed as the sum of performances in the last two quarters of 2006 and the first two quarters of 2007. All the other indicators were computed based on the balance as at 30 June 2007. The described methodology produces less volatile, that is, less seasonally sensitive indicators, but it also causes mild deviations of their values from the values of similar indicators in other CNB publications. The analysis in Chapter 13 *Banking Sector* is based on unconsolidated balance sheets of banks, which is why some differences may occur in relation to other chapters of this publication using consolidated data.

relative to the end of June in 2006 and its ratio to GDP grew by 1.4 percentage points in the same period. As in 2006, the largest contribution to the increase in external debt came from non-financial corporations, which continued with the strong pace of direct foreign borrowing. Due to the CNB measures aimed at reducing external imbalances, the external debt of banks decreased by 5.1% in absolute terms in the year since the end of June 2006, whereas general government external debt rose by 2.5% relative to the end of the said month. The fact that these trends in the country's external position are unsustainable in the long term is also illustrated by the external debt service burden of 34.3% annually, which, despite a slight decrease from 35% at the end of 2006, still exceeds the level of 30%, commonly considered as the ceiling of a country's external debt repayment burden. The CNB projected that the gross external debt to GDP ratio would stand at 85.7% at the end of 2007 and decline slightly in 2008.

Banks' lending continued to be strong in the first half of 2007. Despite a slowdown, the growth of placements in the first half of the year was higher than targeted by monetary policy measures, which prompted the central bank to further tighten the requirements for the subscription of compulsory CNB bills. Banks' corporate and household loans increased by 8.9% by the end of the first half of 2007 compared with the end of 2006, with household loans up by 9.3% and corporate loans up by 9.9%. Banks were financing credit growth by recapitalisations and by increasing the deposit base, while their foreign liabilities decreased. Although strong competition among banks and a rise in deposit interest rates, unmatched by an increase in lending rates, further narrowed the interest rate spread in the first half of 2007, gross profit of the banking sector grew, boosted primarily by a strong growth of banks' non-interest income. The favourable business performance was also due to reduced expenses for the coverage of credit risk, since the share of impairment loss for placements and contingent liabilities in total placements and related contingent liabilities decreased from 1.8% at the end of 2006 to 1.7%. This improvement was primarily due to the continued downward trend in the estimated risk of loans to other enterprises, while the estimated risk of household loans remained at about the same level as at the end of 2006.

Debt burden of the non-financial corporation sector continued to grow faster than GDP in the first half of 2007 so that the ratio of the aggregate debt to GDP reached a record high of 62.2% at the end of June. The increase in debt to banks of 21.8% annually was coupled by a somewhat faster growth of interest expense paid to banks, amounting to 23.1% in the period from June 2006 to June 2007. The fastest growing component of the aggregate debt of the non-financial corporation sector was external debt, up at an annual rate of 31.3% at the end of June 2007. The debt burden increase was accompanied by a rise in the number of legal persons defaulting on their liabilities: the share of insolvent legal persons in the total number of legal persons liable to income tax was 1.6 percentage points higher at the end of April[2]

2 Fina is preparing a new methodology for monitoring liquidity and solvency in the Croatian economy and a new publication with the related data, which is not yet available, so that the data available under the old methodology relate only to the period until the end of April 2007.

2007 than at the end of 2006. The debt growth and worsening of some liquidity indicators have not negatively impacted good financial results of the non-financial corporation sector.

The household sector also continued to borrow heavily and its debt burden indicators rose further. The estimated total household debt to GDP ratio went up from 40.3% at the end of 2006 to 43.2% at the end of June 2007, while the average debt per employed person increased by over HRK 5.000 in the first half of 2007. As household deposits with banks rose at a slower rate in the same period, the ratio of debt to household time deposits reached an unusually high level of 139% by the end of June 2007. However, the total household debt to household financial asset ratio was much more favourable due to the continued strong upward trend in household investments in investment funds and directly on the capital market in the first half of 2007. Specifically, most share prices continued to surge and the stock exchange index hit a record high in that period, while the turnover and number of transactions increased sharply. The share price surge was a consequence of a strong demand for quality shares, driven by the sharp increase in investment funds and mandatory pension funds' assets, but also by an increasing number of small investors who independently invest in shares.

The harmonisation of the Croatian financial regulations with the EU *acquis* continued in the first half of 2007 with the adoption of two new acts. The Act on Amendments to the Act on Mandatory and Voluntary Pension Funds, providing for the liberalisation of the investment policy of pension funds, was adopted in June, and the Financial Insurance Act, entering into force on 1 January 2008, in July. However, the adoption of the Securitisation Act, although planned for 2007, will probably be postponed until 2008, but its adoption is not directly related to Croatia's EU accession. One of the most important changes about to be made to the Croatian banking system is its full harmonisation with Directive 2006/48/EC (on the taking up and pursuit of the business of credit institutions), which will be achieved by enacting the Credit Institutions Act in 2008.

2 Macroeconomic Developments

Notwithstanding the further deterioration of Croatia's external imbalance indicators, the first half of 2007 was marked by continued positive trends of some basics economic and financial indicators. The Croatian economy grew at a much faster rate than in previous years, which proved that restrictive monetary policy measures did not jeopardise the country's economy, the exchange rate remained stable and inflation relatively low. The fiscal deficit was cut thanks to positive developments on the revenue side of the government budget, and favourable trends were also recorded on the labour market, where a decrease in unemployment was coupled by an increase in employment. However, the external imbalance continued to deteriorate in the same period, as evident from the further increase in external debt (although slower than in 2006) and the widening of the current account deficit. In the context of these developments, the central bank decided to maintain the same monetary policy stance aimed at reducing the contribution of the increase in banks' lending to the external imbalance. In addition to the marginal reserve requirement rate of 55% and the minimum foreign exchange liquidity requirement of 32%, for this purpose was also the Decision on the subscription of compulsory CNB Bills, requiring the banks whose placement growth in 2007 exceeded 12% to subscribe for CNB bills bearing a very low remuneration rate and having a one year maturity. This Decision was amended several times over the year in order to achieve the planned annual growth of placements. The ultimate aim of this and other central bank measures was to weaken the surging domestic demand, which has led to macroeconomic imbalances and threatened the stability of the economic system. In addition, the first part of 2007 was also marked by a steep increase in the prices of equity securities on the Croatian capital market and continued growth of real estate prices, which proves that monetary policy should be concerned not only with the price stability on the goods and services market but also with the overall stability of domestic prices.

Despite the risks arising from the country's increased external imbalance, domestic and international institutions have held positive expectations about Croatia's economic growth, projecting GDP growth rate to range between 5.5% and 6.0% in 2007 and between 4.7% and 5.1% in 2008. The CNB projected GDP to grow at an annual rate of about 5.9% in 2007 and drift lower in 2008, although still remaining relatively high. Standing at 6.6% annually until and including the second quarter of 2007, the real economic growth rate for the whole 2007 is expected to approach the economic growth rates achieved by CEE countries in the past few years, which are to average 5.8% in 2007 according to IMF data. The strongest contribution to the growth in the observed period came from personal consumption, while the contribution of gross fixed capital formation was slightly lower. The recurrent negative impact of net foreign demand was reflected in the widening of the current account deficit. What should be stressed is that the structure of this growth, which is, although relatively high, mainly driven by domestic final demand based on external borrowing, is unfavourable, as it generates great economic and financial imbalances and thus makes the growth unsustainable in the long term.

The accelerated economic growth had a positive effect on labour market developments, so that the average annual Labour Force Survey unemployment rate dropped to 10.3% by the end of the first half of 2007. The unemployment decrease was also confirmed by the trends in the average annual registered unemployment rate, which fell to 16.2%, its lowest level since 1997, while registered employment increased in the same period.

In spite of positive economic growth indicators, Croatia's external imbalance was further exacerbated by a negative foreign trade balance. Continued positive trends in international trade in services were insufficient to alleviate the widening of the annual current account deficit, up to 7.8% of GDP by the end of the first half of 2007,

Figure 1 Economic Growth, real year-on-year rate of growth

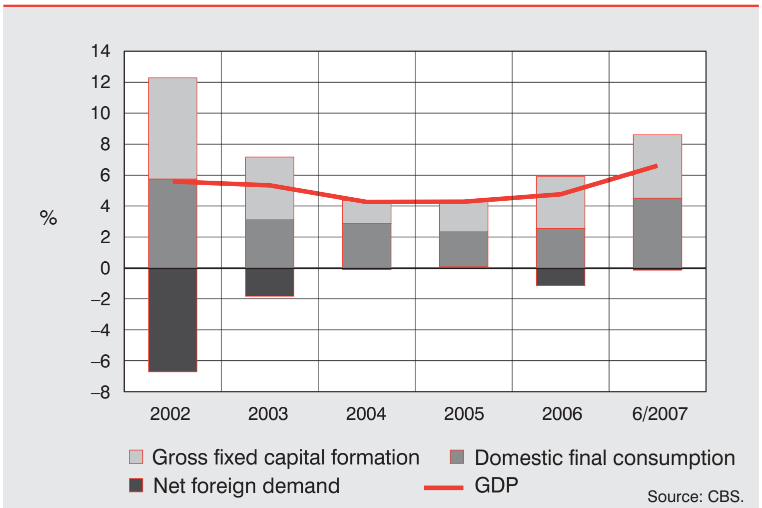
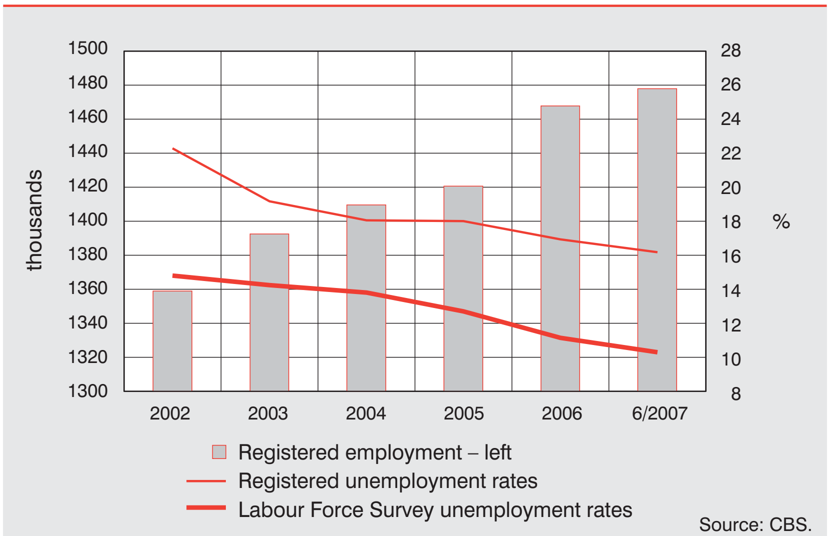


Figure 2 Employment and Unemployment Rates, annual average



increasing by 0.1 percentage point compared with the previous year, in consequence of goods imports considerably exceeding goods exports in absolute terms.

In contrast with the unfavourable balance of payments, due to a larger than planned increase in government revenues, the annual consolidated general government deficit on a cash basis was HRK 3.4bn (about 1.3% of GDP) at the end of the first half of 2007, while the annual consolidated central government surplus on a cash basis amounted to HRK 1.2bn (about 0.5% of GDP). Budget expenditures for 2007 exclude debt payments to pensioners,[3] whose third instalment was paid in June 2007. In late 2007, the last instalment of debt was paid to pensioners who had opted for faster repayment, and the first instalment was paid to those opting for slower repayment.

However, these are not the only outlays for pensioners, since the government also has to repay debt related to survivor and the highest (limited) pensions and will have additional outlays for the compensation of the so called "new pensioners"[4] in the near future. The consolidated general government deficit target for 2007 is set at 2.6% of GDP, which is supported by the data indicating higher than planned government revenues.

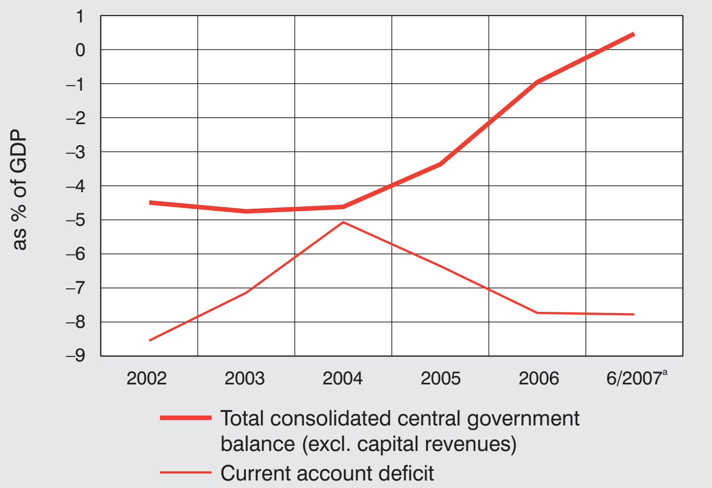
The described trends in the real, government and external sectors in the first half of 2007 were coupled by continued stable and relatively low inflation. The annual rate of change in the CPI ranged between 1.2% and 2.3% in the first half of 2007, averaging 1.9%, which was only slightly above the average annual rate of change in consumer prices in the eurozone, due to a drop in oil prices compared with the same period in 2006. Inflationary pressures were subdued in the observed period by a moderate growth of net wages and nominal appreciation of the kuna against the euro and US dollar. The average annual core inflation rate, which excludes administrative prices and seasonally volatile agricultural product prices, dropped from 2.6% in the first half of 2006 to 2.5% in the same period in 2007. However, because of a surge in the prices of oil and food products, caused by adverse weather conditions, it is expected that the annual rate of change in consumer prices will come close to 5.0% by the end of 2007 and that inflationary pressures will be relatively strong in 2008. According to the forecasts made by the CNB, the average annual inflation rate will amount to 2.8% for 2007 and continue to grow in 2008, boosted by price increases in late 2007 and developments in world market oil prices. While the average annual rate of change in consumer prices

3 The Act on the Enforcement of the Decision of the Constitutional Court of the Republic of Croatia of 12 May 1998 regulates the enforcement of the said Constitutional Court's decision of 12 May 1998 regarding the compensation of pension beneficiaries whose pensions were only partly adjusted to wages in the period between 1 September 1993 and 31 December 1998. Under this Act, the persons entitled to compensation are the beneficiaries of old-age, early old-age, disability and survivor pensions under the Act on Basic Pension and Disability Insurance Rights and the Pension and Disability Insurance Act. Compensation payment to descendants in the first degree and descendants of survivor pensions started in 2006 when they had to opt for one of the offered repayment possibilities: repayment of half of the debt amount over the period of two years or repayment of the entire debt amount in the period of eight years with a two-year grace period. The first three instalments for those who opted for the speedy repayment were paid in June and December 2006, and in June 2007, and the last instalment is to be paid by the end of 2007. Each instalment amounts to HRK 1.2bn. Debt to the pensioners who opted for the repayment of the entire debt amount will be paid in six instalments of HRK 703.3m each in the period between December 2007 and December 2012. 2007 also witnessed the beginning of compensation payments to beneficiaries of the highest (limited) pensions and beneficiaries of survivor pensions realised in the period between 1 January 1999 and 4 August 2004, which were recognised after the decease of beneficiaries who realised their right to old-age or disability pensions in the period up to 31 December 1998, in accordance with the Act on Amendments to the Act on the Enforcement of the Decision of the Constitutional Court of the Republic of Croatia of 12 May 1998. In the first half of 2007, beneficiaries were to opt for a shorter or longer repayment period. Those opting for a shorter repayment period are to receive their compensation in four instalments in the total amount of HRK 151.9m each, which are to be paid in the second and fourth quarters of both 2007 and 2008. Those who chose a longer repayment period are to receive their compensation in six instalments, the payment of which will require HRK 77.2m in each fourth quarter of the years 2008 to 2013.

4 A separate problem, which was, according to announcements, also to be solved in 2007, is posed by the equalisation of the so-called "old" and "new" pensioners. In other words, the pensions of the persons who retired after 1 January 1999 are no longer calculated based on the ten years of service with the highest average salary, but on the basis of the whole length of service, which puts them at a disadvantage relative to the persons who retired prior to that date.

was relatively low, the first half of 2007 was marked by the trends in the prices that are not included in the calculation of consumer price inflation. Specifically, real estate prices continued growth in that period and most equity securities prices rose at an even faster rate. The hedonic real estate price index (HREPI),[5] which, in addition to the price of a square meter of floor space, takes into account the qualitative characteristics of the property, continued on the upward trend in the first part of 2007, rising by 13.6% compared with the same period in 2006. At the same time, the Zagreb Stock Exchange index, CROBEX, increased by 50.7% in the first half of 2007, which made it one of the world's fastest growing indices in that period.

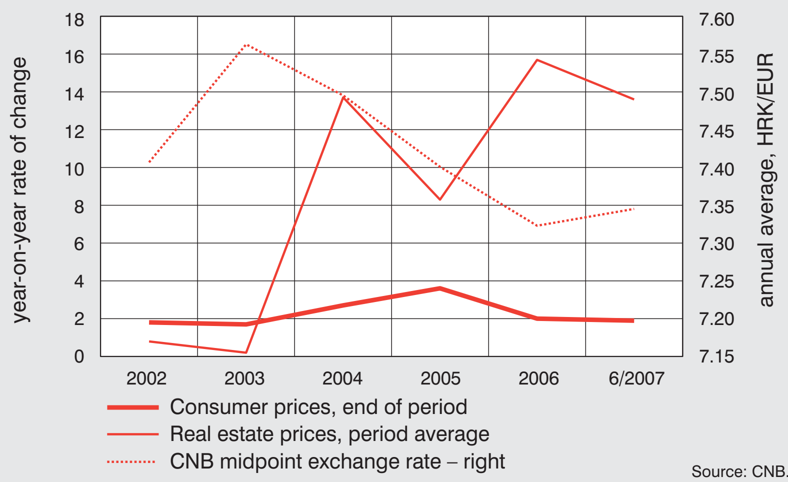
Figure 3 Government Finance and External Balance



[a] One-year period.

Sources: CNB and MoF.

Figure 4 Prices and the Exchange Rate



Source: CNB.

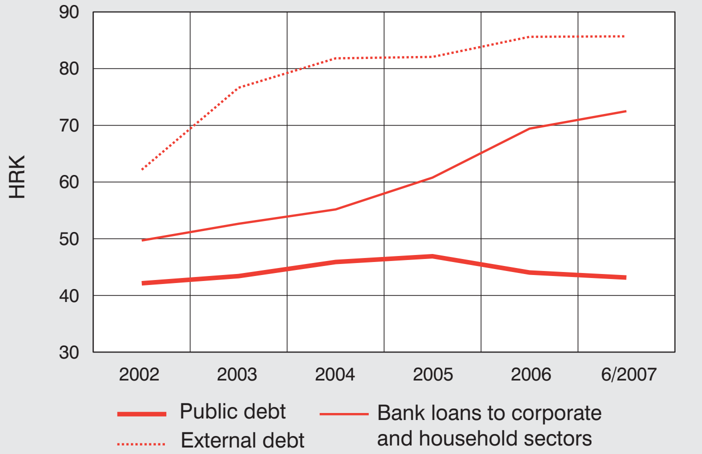
5 CNB calculations based on the data of *Burza nekretnina* real estate agency.

The price stability was in the first six months of 2007 also aided by a stable kuna/euro exchange rate. Owing to appreciation pressures in the second part of the first half of the year, the nominal kuna/euro exchange rate strengthened by 0.6%, and the real effective exchange rate of the kuna deflated by consumer prices appreciated by 0.7% in the same period. Boosted by foreign currency inflows from foreign direct investments, recapitalisations of banks by foreign owners, continued external debt growth, dominated by corporate debt, issues of kuna denominated securities, payment of the third debt instalment to pensioners and other factors, the kuna/euro exchange rate appreciated from HRK 7.35/EUR at the end of 2006 to HRK 7.30/EUR at the end of June 2007, oscillating within a relatively narrow range between HRK 7.30 and HRK 7.41/EUR within that period.

An important part of the economic developments in the first half of 2007 was steadily expanding bank lending. Banks' corporate and household loans increased by 8.9% by the end of the first half of 2007 relative to the end of 2006, raising their share in GDP to 72.5%, which was up 3.1 percentage points from the end of 2006. Substantial recapitalisations opened new possibilities for banks to continue credit expansion, with the result that placement growth in the first half of 2007, although somewhat slower than in the same period in 2006, exceeded that envisaged by monetary policy measures. In response to these trends, the CNB late in June 2007 tightened the requirement to subscribe for compulsory CNB bills by introducing a monthly sublimit of 0.5% for the growth of placements not subject to CNB bills subscription. Since the amended measure resulted in slowing down of lending in the remaining part of 2007, and since its previous implementation produced the desired results, placement growth for the whole year is expected to remain within the set limits.

Household loans continued to dominate the structure of loans, growing by 9.3% between the end of 2006 and the end of June 2007, while corporate loans increased at a slightly faster rate of 9.9% in the observed period. In addition to recapitalisations, banks also financed credit growth from the increase in kuna and foreign currency deposits, which grew by 6.7% between the end of December 2006 and the end of June 2007. Kuna deposits rose by 11.3% to HRK 51.2bn, accounting for 35.6% of total deposits at the end of the first half of 2007, while foreign currency deposits increased by 4.3% to HRK 92.0bn in the same period. The faster growth rate of kuna deposits was a result of banks' efforts to accumulate on their liability side as much domestic kuna sources as possible to finance lending, since foreign sources and foreign currency indexed domestic deposits became increasingly more expensive due both to the rise in key interest rates on developed markets and CNB's monetary measures aimed at reducing the country's external vulnerability. This relatively rapid growth of domestic sources of funds and recapitalisations resulted in a drop in banks' foreign liabilities, which were at HRK 72.5bn at the end of the first half of 2007 lower by 4.7% compared with the end of 2006. The drop was caused by the decrease in foreign liabilities in foreign currency, which were down by HRK 3.6bn (6.5%), while foreign liabilities in kuna rose slightly in the same period.

Figure 5 Indebtedness Indicators, as % of GDP at the end of period



Source: CNB.

3 International Environment

IMF data show continued strong global economic growth of above 5.0% in real terms in the first half of 2007, with estimates showing that this above-average rate will be kept over the whole 2007 despite the difficulties in global financial markets which arose early in the second half of the year. The global economic outlook for 2008 has nevertheless been revised downwards and the real growth rate of the global economy is expected to be 4.8%. In addition to the strong economic upturn, the first half of 2007 was also marked by high liquidity in global financial markets, which substantially improved the already favourable global financing conditions in that period. However, the global financial market crisis, triggered by problems in the US subprime mortgage market and the risk of contagion to other segments of the economy, prompted investors worldwide to opt for safer investments. The third quarter of 2007 thus saw a steep increase in demand for government bonds of developed countries and a sharp decrease in required yields on these bonds, which halted the downward trend in the spread between the yields on developed countries' government bonds and that on bonds issued by the countries with lower credit ratings. Owing to serious liquidity disturbances on the global level, the Fed, ECB and other central banks injected considerable liquidity into the systems. In addition to turbulences in global financial markets, a threat to the continuation of positive real trends was also posed by a massive global financial imbalance, involving the huge US balance of payments deficit on the one hand and balance of payments surpluses of Asian and oil exporting countries on the other.

Although developed economies grew relatively fast in the first half of 2007, the strong global economic upturn was primarily driven by emerging markets and developing countries, continuously recording above average growth rates. As the US economy grew more slowly in the first half of 2007 than in 2006, its real growth rate for 2007 is expected to be 1 percentage point lower than in 2006. In contrast, the economic growth in the EMU countries, above all in Germany, was relatively strong in that period, despite a somewhat unexpected slowdown in the second quarter of 2007. However, it still cannot compare with the economic growth in CEE countries, whose economies rose at an average annual rate of slightly below 6%. China had the highest real growth rate among the Asian countries, standing above 11% annually in the first half of 2007. India's economy also recorded a strong real growth rate, estimated at above 9% in the first half of 2007, while the growth rate in the Russian Federation was only slightly below 8%. These economies' rapid growth had a positive effect on the economies in their environment, but it continued to negatively impact the world market prices of energy products and raw materials due to demand growth triggered by their surging industrial production.

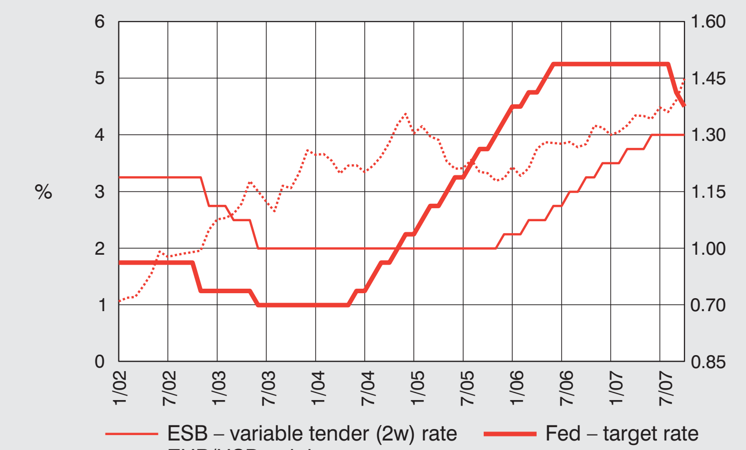
Table 1 Real Economic Growth in Selected Countries, year-on-year rate of growth, in %

	2003	2004	2005	2006	2007[a]	2008[a]
China	10.0	10.1	10.4	11.1	11.5	10.0
India	6.9	7.9	9.0	9.7	8.9	8.4
Russian Federation	7.3	7.2	6.4	6.7	7.0	6.5
Central and Eastern Europe	4.8	6.7	5.6	6.3	5.8	5.2
USA	2.5	3.6	3.1	2.9	1.9	1.9
Japan	1.4	2.7	1.9	2.2	2.0	1.7
EU	1.5	2.7	2.0	3.2	3.0	2.5
EMU	0.8	2.0	1.5	2.8	2.5	2.1

[a] Forecast. Source: IMF, *World Economic Outlook Database*, October 2007.

Favourable economic indicators observed in eurozone countries in early 2007 suggested stronger than expected economic growth. Indeed, the GDP growth rate for the first quarter of 2007 was 0.8%, primarily due to investment growth. However, a sharp downturn in investments in the second quarter brought the quarterly GDP growth rate down to 0.3%, its lowest level since the last quarter of 2004. Nevertheless, the economic growth for the whole of 2007 is expected to slow down only slightly compared with the previous year. The trends in the labour market were also positive, with the unemployment rate falling to 7.3% in September, and the indices of business and consumer optimism showed an increase in optimism in the first half of 2007. Due to the estimates of continued risks associated with persisting inflationary pressures (generated by possible further growth of oil prices and its impact on other consumer prices) the ECB continued the tightening of monetary policy started in 2006, so that its key interest rate, after having been increased by 25 basis points in March and June respectively, reached 4.00% at the end of June 2007. Although international analysts forecast another 25 basis point increase in the ECB's key interest rate by the end of 2007, recent expectations are that this rate will stay unchanged until the end of the year owing to the crisis in global financial markets. The eurozone annual inflation rate averaged 1.9% in the first six months of 2007, primarily as a result of a drop in oil prices in the first half of 2007 compared with the same period in 2006. However, as the annual inflation rate increased in the second half of 2007, reaching 2.6% in October, it is not very likely that the 2007 inflation target of below 2.0% will be achieved. This will depend on the trends in the prices of crude oil and food products, as well as on a possible wage increase in eurozone countries arising from the strong growth in the previous quarters. In addition, inflation was also influenced by Germany's increase of the VAT rate from 16% to 19% in January. Real economic growth in the eurozone is expected to slow down slightly in the forthcoming period, due to the delayed impact of the ECB's interest rate increase, while a risk to the attainment of the projected economic growth, besides the global financial market crisis, also derives from the continued strengthening of the euro against the US dollar because of its adverse effect on imports from eurozone countries.

Figure 6 Key European and American Interest Rates and the EUR/USD Exchange Rate



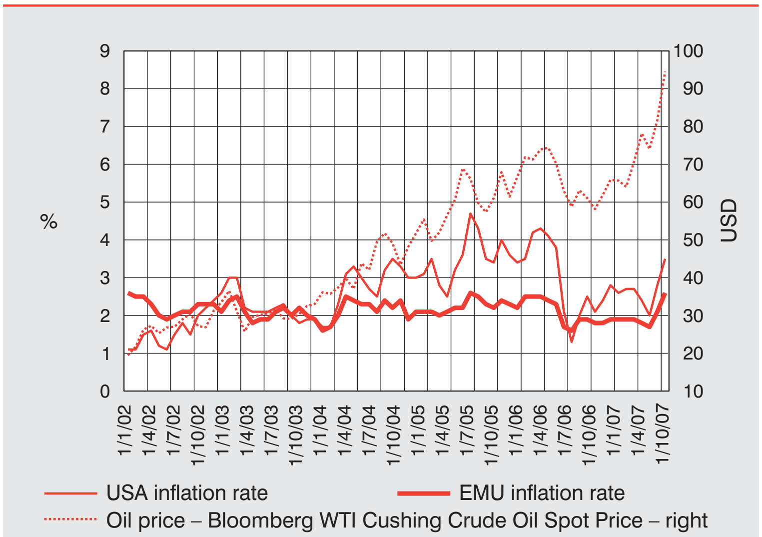
Sources: ECB, Fed and Bloomberg.

Trends in the exchange rate of the euro against the US dollar in the first half of 2007 were related to the forecasts of Fed and ECB's key interest rates and economic growth in the US and eurozone. Specifically, the euro appreciated by more than 5% against the US dollar in the first half of 2007 and investor confidence in the European currency generally increased due to expectations that the Fed reached its neutral interest rate and that it would remain at 5.25% in the first and the remaining part of 2007, which was in contrast with indicators in the eurozone, suggesting a continued tightening of ECB's monetary policy in the first half of 2007. In addition, the strengthening of the euro was substantiated by data showing a continued strong economic growth in the eurozone, whereas the US economy showed signs of a slowdown. The decline in the value of the dollar has also been attributable to the large US current account deficit, while in the second half of 2007 it was further enhanced by problems in the US subprime mortgage market and the correction in the real estate market. This was the main reason for the Fed to cut the benchmark rate by 50 basis points in September and by another 25 basis points in October, reducing it to 4.50%. Due to these developments, the US dollar continued to drop, depreciating by almost 10% versus the euro at the end of October 2007 compared with the end of 2006.

The crude oil price increase on the world market is a continuous threat to the global economic growth, although experts warn that, while industrially developed countries have successfully coped with these increases, the greatest burden is on the poor countries depending on energy products imports. Thanks to favourable weather conditions, oil prices fell below USD 60 per barrel at the beginning of 2007. However, owing to the OPEC's announcement of December 2006 to cut daily output by half a million barrels starting from February 2007, growth of demand and worsened weather conditions, prices quickly rebounded to above USD 60 per barrel, levelled off until June and then again went over USD 70 per barrel. Despite this, oil prices were lower in the first part of 2007 than in the same period in 2006, so that inflationary pressures receded in most countries, including Croatia. Oil prices increased further in July, owing to the limited exploitation of oil refineries' capacities and problems with the maintenance of North Sea oil fields, as well as to concerns that because of an increased demand for petrol during the summer, US refineries would not be able to produce sufficient heating oil to meet winter demand. In August, upward pressures on oil prices subdued because of signs of a global slowdown, caused by the crisis in the US subprime mortgage market, and the fact that hurricanes did not inflict heavy damage on oil refineries in the Gulf of Mexico. However, due to a strong demand for oil and escalating tensions in the Middle East, arising from the conflict between Turkey and the Kurds on the Iraq territory, oil prices hit historical highs of over USD 94 per barrel in September and October.

Demand for oil has been escalating in the last few years, backed by strong consumption growth in developing countries, primarily in China and India, and above-average

Figure 7 Crude Oil Prices and EMU and USA Year-on-Year Inflation Rates



Source: Bloomberg.

global economic growth. However, it should also be noted that oil price trends have to some extent been affected by speculative activities of some market participants. In view of the fact that oil demand has been rising at a faster rate than oil production capacities and that the increase in output has primarily been due to increasingly advancing technology used on existing oil fields, whereas the discoveries of oil fields have declined, it is to be expected that upward pressures on the prices of oil will persist in 2008. Owing to global financial problems, a record low dollar and record high crude oil prices on the world market, the price of pure gold hit a record high in the last 28 years of over USD 800 per ounce in early November.

Another risk to the achievement of the projected global growth rates is posed by the crisis in the US subprime mortgage market, whose dimensions and repercussions for other segments of the economy are as yet unknown. These events have stressed the importance of an adequate risk assessment, necessitated by lower credit standards and the expansion of investment instruments based on subprime mortgage loans. While risk evaluation and stricter financial market discipline provide a healthy basis for the continued growth and development of this financial market segment in the long term, its short term recovery will primarily depend on how fast liquidity of the financial system is restored to normal levels. In addition, the global financial imbalance continues to pose a major risk to the global economy, as there have been no signs that the difference between the US current account deficit and growing current account surpluses of the Asian and oil exporting countries will decrease considerably in the forthcoming period.

Table 2 Global Forecast of Key Economic Indicators for 2008

	GDP, real year-on-year rate of growth	Inflation, year-on-year rate	General government balance, as % of GDP	Current account, as % of GDP
World	4.8	3.6		
Major advanced countries	1.9	1.9	–2.6	–1.9
EU	2.5	2.3	–1.2	–1.2
EMU	2.1	2.0	–2.6	–0.4
Emerging markets	7.4	5.3		3.7
Central and Eastern Europe	5.2	4.1		–7.5

Source: IMF, *World Economic Outlook Database*, October 2007.

A possible slowdown in the world's largest economies, spread of the financial crisis and liquidity problems, decline in shares worldwide, losses generated by some of the world's leading banks due to non-performing loans and losses of other financial institutions, could limit inflows into Croatia's balance of payment capital account and reduce its exports due to a drop in demand from these countries. Such a slowdown in foreign capital inflows would, owing to Croatia's marked external vulnerability caused by a high external debt to GDP ratio and balance of payment deficit, have a series of adverse effects, including a decrease in the country's financing opportunities and external liquidity and, in consequence, an intensification of inflationary pressures and pressures on the weakening of the kuna/euro exchange rate. Notwithstanding this scenario, the sharp increase in the prices of oil and agricultural products is expected to further increase inflationary pressures in Croatia, as it will push up the prices of both imported and domestic products, especially in 2008.

4 External Debt

Croatia's external debt was EUR 30.8bn at the end of June 2007, which is an increase of EUR 3.1bn (11.03%) over the year before and of EUR 1.6bn (5.45%) over the end of 2006. The external debt to GDP ratio increased by 4.9 percentage points in the period from June 2006 to June 2007, standing at 85.9% at the end of the period. The external debt to GNI[6] ratio increased by 0.6 percentage points in that period, reaching 88.2% at the end of June 2007, which, according to the World Bank criteria,[7] places Croatia among highly indebted countries. However, the ratio of external debt to exports of goods and services, amounting to 174.4% at the end of June 2007, was well below 220%, a level indicating potential external liquidity problems under the same criteria, but it has been rising steadily since 2001, when it stood at 126%. Croatia has maintained a good ratio of external debt to exports of goods and services primarily thanks to substantial revenues from tourism services, which are expected to continue growing in the next medium-term period. Hence, in the context of the widening foreign trade deficit, a constant risk for Croatia's international liquidity derives from the fact that, of all foreign currency revenues, tourism revenues are the most susceptible to adverse external influences.

The annualised external debt service burden, measured by the ratio of debt repayments to goods and services exports, trending upwards since 2003, dipped from 35.0% in

Table 3 Selected Indicators of External Debt and External Liquidity for the Republic of Croatia

Debt stock indicators	31/12/2002	31/12/2003	31/12/2004	31/12/2005	31/12/2006	30/6/2007
External debt as % of GDP	61.9	75.8	80.0	82.4	85.3	85.9
External debt as % of GNI	63.4	79.1	81.9	85.0	88.2	88.2
External debt as % of goods and services exports	136.1	151.4	161.0	168.6	171.7	174.4
Gross international reserves as % of external debt	37.3	33.0	28.1	28.9	29.9	29.8
Gross international reserves in months of goods and services imports	4.9	5.2	4.8	5.1	5.3	5.4
Debt flow indicators						
Principal and interest payments as % of goods and services exports[a]	29.8	21.3	22.0	24.4	35.0	34.3
Interest payments as % of goods and services exports[a]	5.7	4.7	4.5	4.6	4.9	5.3

[a] Inclusive of principal payments on long-term debt, net of principal payments on trade credits and direct investments, as well as total interest payments, net of interest payments on direct investments.
Source: CNB.

6 Gross national income (GNI) is calculated as the sum of gross domestic product and the balance in the balance of payment factor income account.

7 Under the World Bank classification, external debt of a highly indebted country exceeds 80% of GNI and/or 220% of goods and services exports.

2006 to 34.3% in the first half of 2007. However, this means that Croatia is still relatively heavy burdened by external debt principal and interest payments. The dip was primarily because of the reduction in principal payments of government bonds issued abroad. Specifically, the government made EUR 545.2m worth of principal payments for these bonds in the first half of 2006 and only EUR 30.2m in the first half of 2007. As 30% is considered the acceptable ceiling on this ratio, this indicator places Croatia in the group of countries with a heavy external debt service burden.

As in 2006, other domestic sectors[8] were marked by the largest nominal increase in their external debt, EUR 1.4bn (15.1%). Direct investments[9] increased the most in relative terms in the observed period, by EUR 482.8m (17%), accounting for 10.8% of total external debt at the end of June 2007. Among other domestic sectors, external debt of non-financial corporations (including public and mixed enterprises and other companies) rose the most in absolute terms, which indicates a continuation of the strong upward trend in direct external borrowing by domestic non-financial corporations that began in 2005. Non-financial corporations borrowed EUR 1bn in the first sixth months of 2007 alone, which is almost 70% of the total amount borrowed in the whole 2006. External debt of non-banking financial institutions rose the most in relative terms, up by EUR 385.6m (about 20%), in the first six months of 2007. This debt also rose by about 20% in the first six months of 2006 compared with the end of 2005, which at the time amounted to EUR 268.1bn in absolute terms.

Due to CNB measures to reduce external imbalances, external debt of banks decreased by an absolute 5.1% in the period from June 2006 to June 2007: by EUR 111m in the second half of 2006 and by EUR 418m in the first half of 2007. After having decreased by 5.5% in 2006, debt of the government[10] to external creditors drifted upwards by 1.5% (EUR 102.5m) in the first half of 2007. The increase was primarily accounted for by a new CBRD bond, worth EUR 250m, issued in the foreign market in June.

The interest rate growth in the EMU poses a risk for Croatia's external debt servicing because external liabilities of banks are mainly contracted at a variable interest rate based on the EURIBOR. As part of its anti-inflationary strategy, the ECB increased its key interest rate several times since the end of 2005, bringing it up to 4.00% at the end of 2007, double the rate at the end of 2005. In addition to European interest rates, US interest rates were also on the rise in the last four years, which could also adversely impact Croatia's debt service burden as global investors might be prompted to redirect their funds into these areas. This is supported by the fact that the required yield on debt of the countries similar to Croatia increased. Required yields on Croatian eurobonds due 2009 and 2011 went up from 2.87% and 3.26% to 4.64% and 4.78% respectively

8 Other domestic sectors include: other banking institutions, non-banking financial institutions, public enterprises, mixed enterprises, other companies, non-profit organisations, craftsmen and traders and households.

9 Direct investments show debt transactions between the creditors and debtors of other sectors, which have ownership links (a minimum equity share is 10%).

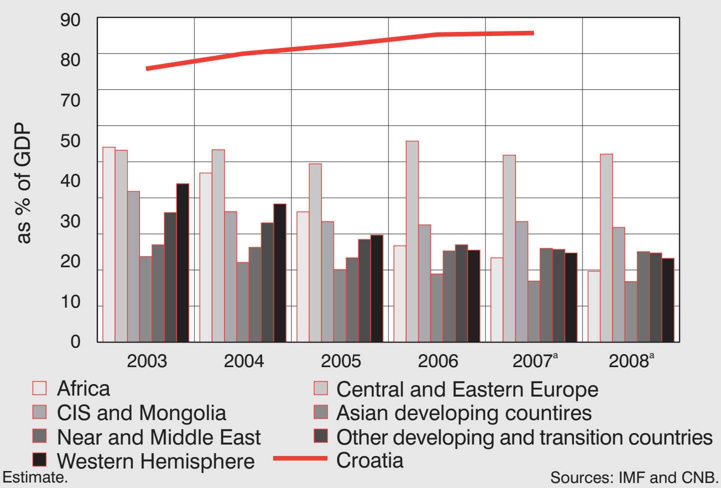
10 Inclusive of the Republic of Croatia, central government funds, local government and the CBRD, with direct investments being excluded from CBRD's external debt.

in the last two years. Such developments could have an additional negative impact on the accumulated external debt service burden as they could, coupled with continued external debt growth, lead to depreciation pressures on the kuna.

Croatia continues to be classified among the world's most indebted countries according to the external debt to GDP ratio. As suggested by data for the end of 2006, the CEE region is still ranked as the most indebted in the world according to this ratio, ranging around 50% for quite a few years, and this percentage is considerably lower than Croatia's ratio. Even more important is the fact that the external debt to GDP ratio has been declining or stagnating in the last few years in all the observed regions and is likely to continue the trend in 2007 and 2008 according to IMF estimates.

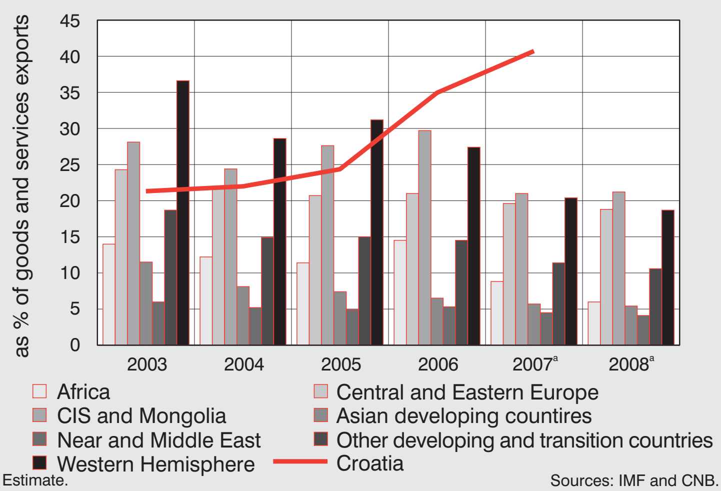
In addition, Croatia's high debt service burden has slowly begun to exceed the average for the CEE region, where it belongs, and for all the observed regions.

Figure 8 External Debt in Croatia and across the World



[a] Estimate. Sources: IMF and CNB.

Figure 9 External Debt Burden in Croatia and across the World

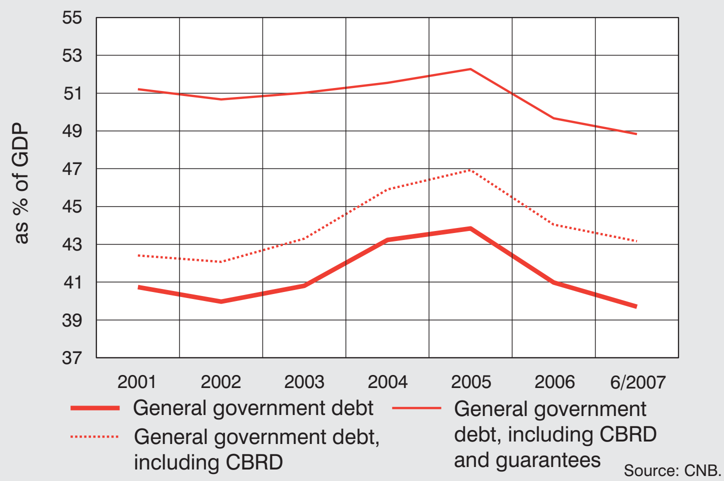


[a] Estimate. Sources: IMF and CNB.

5 Public Debt

The ratio of general government debt, excluding non-exercised guarantees, to GDP stood at 39.7% at the end of June 2007. Having been on the increase for several years, this indicator reduced in 2006 and in the first half of 2007 (general government debt accounted for 43.8% of GDP at the end of 2005 and for 41.0% of GDP at the end of 2006). This is primarily due to continued fiscal consolidation which resulted in a slight increase in general government debt of HRK 1.7bn in the first half of 2007. Among CEE countries, Hungary and Poland recorded the highest ratios of general government debt to GDP at the end of June 2007, an estimated 67.4% and 48.1% respectively.

Figure 10 Public Sector Debt



Source: CNB.

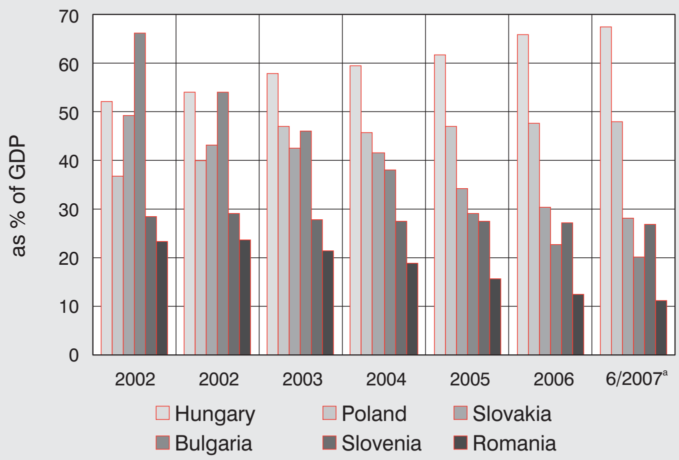
Total public sector debt (general government debt and CBRD debt, excluding non-exercised guarantees[11]) rose by HRK 3.2bn in the first half of 2007, standing at HRK 113.5bn at the end of June 2007 and accounting for 43.2% of GDP, which is a drop of 0.9 percentage points relative to the end of 2006. With HRK 14.9bn of issued government guarantees,[12] public debt totalled HRK 128.4bn at the end of June 2007, accounting for 48.8% of GDP, which is also a decrease compared with the end of 2006.

As had been the case for a long period of time, the increase in public sector debt (inclusive of general government debt and exclusive of issued government guarantees) was in the first half of 2007 again completely generated by borrowing in the domestic financial market. However, the CBRD issued a EUR 250m bond in the foreign market in June 2007. Having several times participated in international financial markets,

11 Issued government guarantees include CBRD debt because it is fully guaranteed by the government.

12 Public debt as defined by the Budget Act (OG 96/2003).

Figure 11 General Government Debt in Central and Eastern European Countries



[a] Estimate.

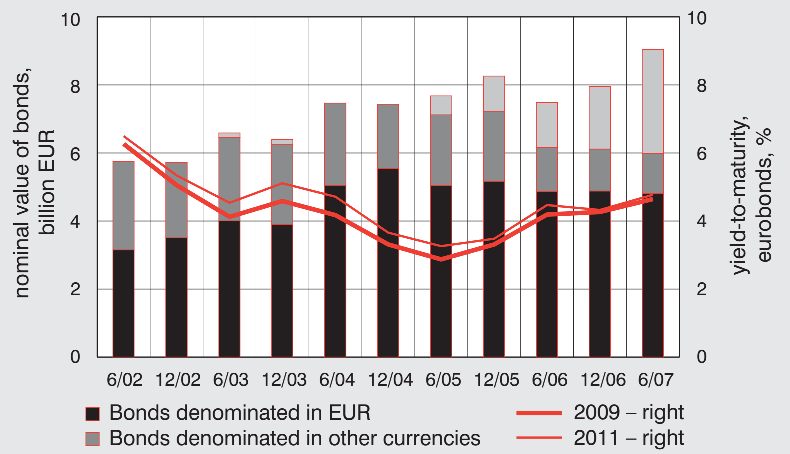
Sources: Eurostat and CNB estimates.

the CBRD already made a foreign bond issue in July 2006. Despite the HRK 274.6m increase in the foreign component of public sector debt, inclusive of all guarantees, in the first half of 2007, its ratio to GDP dropped by 1 percentage point to 21.3% at the end of June. The domestic component of public sector debt increased by HRK 3.7bn in the same period, with its ratio to GDP standing at 27.5% at the end of June 2007.

Although the ratio of external debt to total public debt (general government debt, inclusive of all guarantees) was the lowest ever (43.7%) at the end of the first half of 2007, it remained high and continued to expose Croatia to interest rate risk in external refinancing, as confirmed by the rise in Croatian eurobond yields, which continued from mid-2005 into the first six months of 2007. In contrast, yields-to-maturity at issue of government bonds issued in the domestic market fell. For example, yield-to-maturity at issue of a ten-year bond from December 2005 was 5.25%, while yield of a bond with the same features issued in February was 4.91%. Government's domestic loan commitments with variable interest rates are also subject to interest rate risk. Specifically, the share of banks' long-term loans whose interest rate may vary within a year in total banks' loans granted to government units grew markedly in the last three years, from about 60% to over 80%, rising by about 3.5 percentage points in the first half of 2007 alone. This share amounted to 88.1% at the end of June.

In addition to interest rate risk inherent to refinancing, the government also remains exposed to substantial currency risk. Currency risk is also present in government's domestic borrowing: the share of banks' foreign currency loans to government units, inclusive of foreign currency indexed kuna loans, in total long-term loans to government units increased by about 2 percentage points in the first half of 2007 and amounted to a high 85.6% at the end of June. The share of the nominal value of foreign currency denominated government and municipal bonds (pure eurobonds and euro-indexed bonds) in the total amount of these bonds issued in the domestic market was 45.5% at the end of June 2007, a decrease of 13 percentage points compared with the end of 2006 and the first drop below 50%.

Figure 12 Republic of Croatia Bonds and Eurobond Yields



Source: CNB.

As envisaged by the public debt management strategy for 2007,[13] public debt servicing costs will be stabilised by optimising the structure and reducing the risk of the government debt portfolio, as well as by improving trading practices and developing the infrastructure on the domestic government securities market. The structure optimisation primarily relates to the maturity and currency structure of public debt. Optimising the maturity structure implies efforts to reduce the amount of debt maturing in the following 12 months and debt with a variable interest rate to 33% of total debt. As regards the currency structure, it is planned that financing will be mainly directed to kuna sources so as to reduce the share of foreign currency denominated debt to approximately 40% by 2009. With an aim to reduce its foreign currency exposure, the government issued no foreign currency denominated bonds in the first half of 2007. In February, the government floated the first tranche (HRK 2.5bn) of a ten-year kuna bond, whose second tranche of HRK 3bn was issued in July, raising the bond's integral nominal value to HRK 5.5bn. This bond is the second kuna denominated ten-year government bond (the first was issued in December 2005). In addition to extending the kuna yield curve, such government bond issues are also important in the context of the alignment of Croatia's economy with the fourth Maastricht criterion related to the stability of long-term interest rates in EU member states.

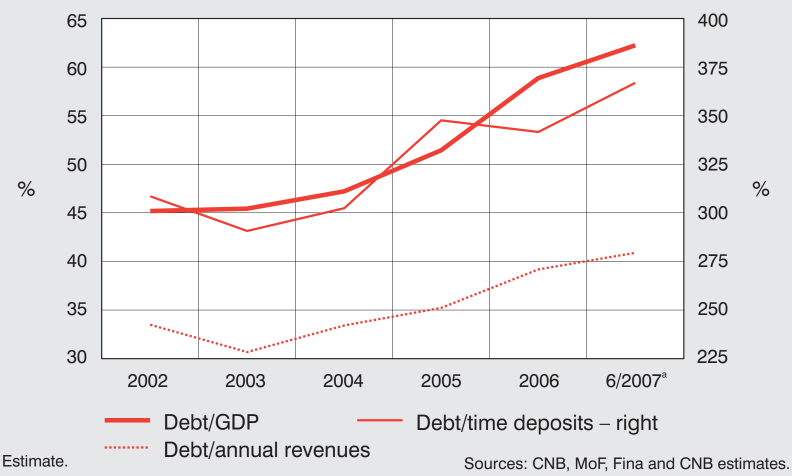
13 *Annual Debt Report and Public Debt Management Strategy*, Ministry of Finance of the Republic of Croatia, 2007, pp. 23 – 27.

6 Non-Financial Corporations[14]

Debt of the non-financial corporation sector, continuing to increase at a faster rate than GDP in the first half of 2007, reached its record high of HRK 163.7bn (62.2% of GDP) at the end of June. The annual growth rate of non-financial corporation debt peaked at an all-time high of 24.5% in the June 2006 to June 2007 period. The debt structure continued to be dominated by debt to banks, accounting for 55.6% of total debt at the end of June. The increase in debt to banks of an annual 21.8% was coupled by a somewhat faster growth of interest paid to banks, up 23.1%, which also shows a moderate acceleration of interest rates relative to 2006. External debt was the fastest growing component of non-financial corporation debt: growing at a rate of 31.3% in late June 2007 it increased its share in total debt of non-financial corporations from 36.5% at the end of 2006 to 37.2% at the end of June 2007. The share of debt to leasing companies in total debt of non-financial corporations also rose slightly in the first half of 2007, from 5.34% at the end of 2005 to 5.72% at the end of June 2007.

The slowdown in the growth of corporate deposits resulted in a deterioration of the ratio between non-financial corporation debt and time deposits with banks. This indicator, having dropped in 2006, rose again in the first half of 2007, reaching 366.9% at the end of June. However, as corporate investment options in Croatia have diversified in recent years (investment funds, securities), this indicator's worth may be underestimated at the moment.

Figure 13 Debt of Non-Financial Corporations, end of period



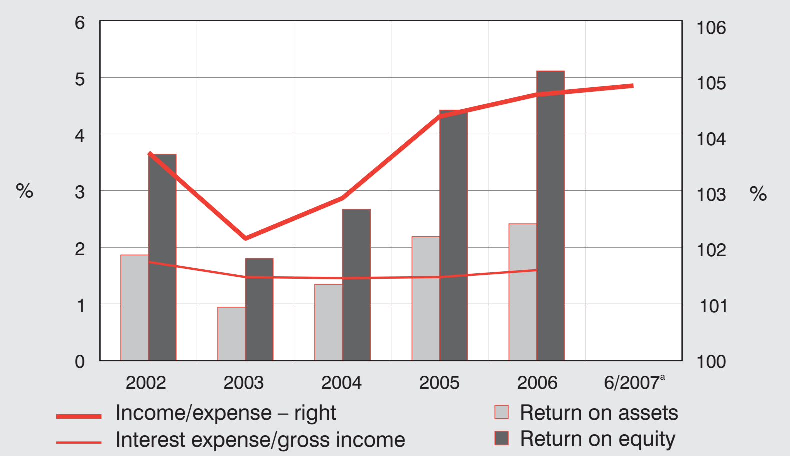
a Estimate.

Sources: CNB, MoF, Fina and CNB estimates.

14 The Croatian Bureau of Statistics does not prepare the consolidated balance sheet of the non-financial corporation 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 corporation 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 corporation sector are unconsolidated financial reports of entrepreneurs, which are collected by the Fina.

The increase in total debt of the non-financial corporation sector has not yet led to the deterioration of their financial performance ratios, which have stayed at relatively high levels. An estimate based on Fina data on the business performance of Croatian entrepreneurs in the first half of 2007 showed the ratio between (pre-tax) income and expenses of non-financial corporations to stand at a record high of 104.9%. However, this indicator increased at a much slower rate in 2006 and in the first half of 2007 than in 2004 and 2005.

Figure 14 Debt Burden and Profitability of Non-Financial Corporations



[a] Forecast.

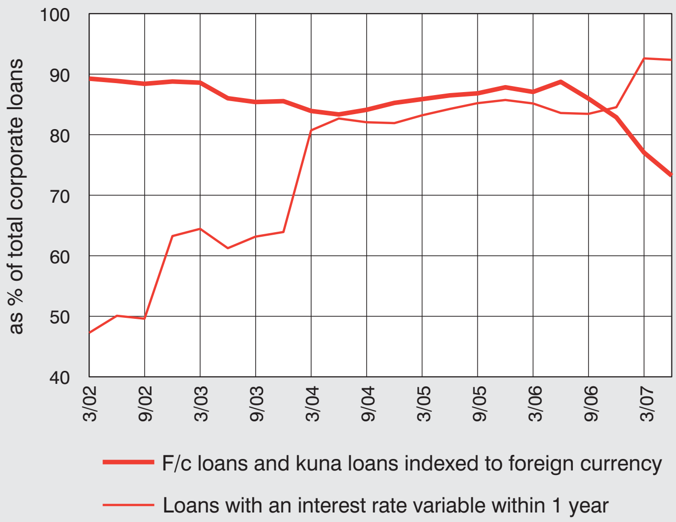
Sources: Fina and CNB calculations.

Currency risk and interest rate risk are the main risks threatening non-financial corporations in Croatia. The share of foreign currency corporate loans, including foreign currency indexed kuna loans, in total long-term corporate loans is extremely high, despite dropping sharply to 73.2% in June 2007 from 82.9% at the end 2006. The decrease was due to an increase in the supply of kuna denominated loans by domestic banks, triggered by central bank's regulatory measures from 2006, and especially the amendment to the Decision on the capital adequacy of banks, which raised the risk weights applied to foreign currency claims and foreign currency indexed claims of clients with unmatched foreign exchange positions. Due to a stable kuna/euro exchange rate in the first half of 2007, the exposure of non-financial corporations to currency risk did not increase further.

What should be mentioned regarding interest rate risk is a high share of long-term corporate loans whose interest rate may vary within a year. The exposure of non-financial corporations to this risk, having slightly decreased in 2006, increased considerably in the first half of 2007. The exposure to interest rate risk increased as the share of long-term loans with a variable interest rate went up from 84.5% to 92.3%.

This increase could be attributed to the fact that banks shortened the fixed interest rate period to avert risk arising from interest rate growth in the global financial

Figure 15 Currency and Interest Rate Risk of Corporate Loans



Source: CNB.

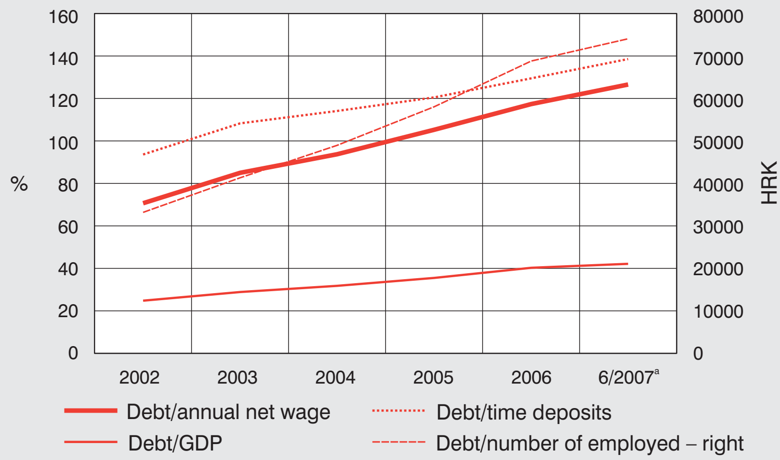
market, thus transferring it to a large extent to bank debtors. In addition, due to global long-term interest rate growth, domestic long-term interest rates on foreign currency indexed corporate loans reached their highest levels in the last three years in the first half of 2007.

7 Households

Households continued to borrow heavily in the first half of 2007 so that household debt ratios increased further. The estimated total household debt (which includes debt to banks, housing savings banks, leasing companies, insurance companies, savings and loan associations and external debt) to GDP ratio rose from 40.3% at the end of 2006 to 43.2% at the end of June 2007. The ratio of household debt to the estimated net annual wage bill went up from 117.4% at the end of 2006 to 126.6% at the end of June 2007, while the average debt per employed person increased by over HRK 5,000 in the first half of 2007, to about HRK 74,000 at the end of June. At the same time, as household savings held with banks grew at a slower rate, the ratio of household debt to time deposits with banks rose to approximately 139% at the end of June 2007. However, it should be taken into consideration that households continued to increasingly choose alternative investment options in the first half of 2007, including investment funds and direct capital market investments, so that the household debt to financial assets ratio is lower, but there are no statistics to support this.

Total estimated household debt rose by 22.4% at the end of June 2007 over the end of June 2006, which was a little lower than 22.7% at the end of June 2006. Debt to banks remained the most dominant debt category, with its approximate share of 94% in total

Figure 16 Household Debt



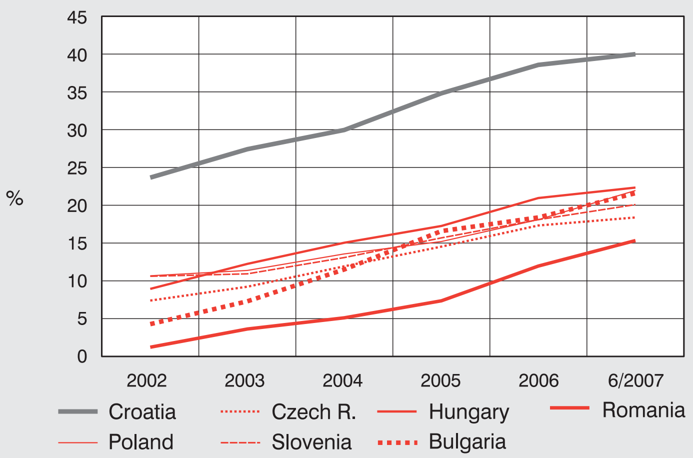
[a] Estimate.

Sources: CNB, CBS and CNB estimates and calculations.

debt, down only slightly from 96% in 2002. This was also due to a dip in the still strong growth rate of household loans, reducing from an annual 21.8% in 2006 to 21.1% in the first half of 2007. While Croatia's annual growth rate of household loans is relatively low compared with most new EU member states,[15] its ratio of euro-denominated household debt to banks to GDP is still almost twice as high as that in these states. At the end of June 2007, Croatia's ratio of household loans to GDP (in euro terms) was 40.0%, while in reference CEE countries it ranged between 15% and 23%.

The further development of the banking system and probable continued strong annual increase in claims on households, at rates exceeding 50% in some countries, could soon

Figure 17 Bank Claims on Households in Central and Eastern European Countries, loan balance/GDP in euro terms



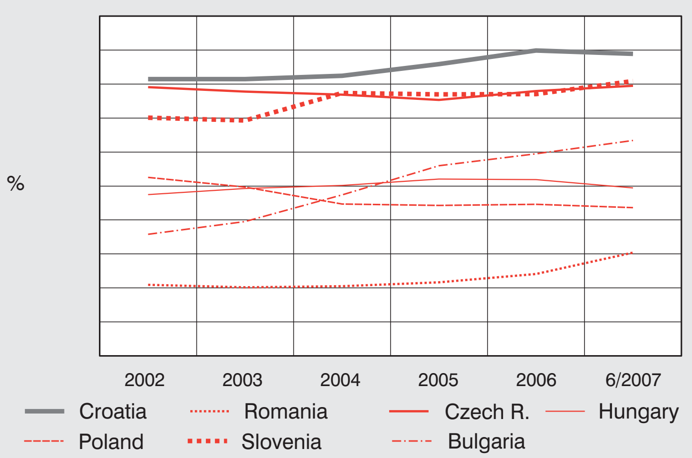
Sources: CNB, IFS, central banks of Central and Eastern European countries and CNB calculations.

15 Croatia's growth rate of bank claims on households has since 2005 been lower than that of Slovenia, Hungary, Poland, the Czech Republic, Slovakia, Romania and Bulgaria.

decrease the difference between the household debt level in new EU member states and in Croatia, especially in view of the close similarity of the ownership structure of the banking sector in these countries and that in Croatia.

Together with higher debt, Croatian households also hold relatively higher savings with banks than households in reference CEE countries. However, investments in investment funds, including a growing share of household investments, and direct capital market investments by households, rapidly expanded in 2006 and in the first half of 2007. As a consequence, after trending upward for several years, the ratio of household deposits to GDP reduced slightly from 44.9% at the end of 2006 to 44.5% in the first half of 2007. In the observed countries this ratio ranged between 15% in Romania and 40% in Slovenia and the Czech Republic at the end of June 2007.

Figure 18 Household Deposits in Central and Eastern European Countries, deposit balance/GDP in domestic currencies



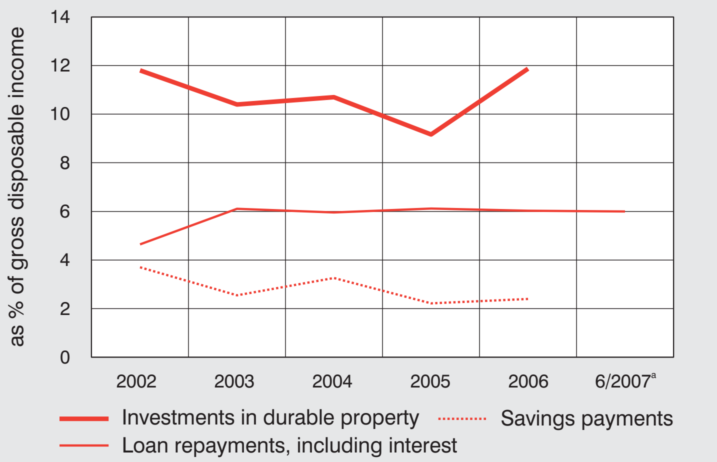
Sources: CNB, IFS, central banks of Central and Eastern European countries and CNB calculations.

Household time deposits with housing savings banks decreased by HRK 248.2m to HRK 5.6bn in the first half of 2007, which indicates a continued declining interest in saving with these institutions. Specifically, household time deposits with housing savings banks rose by HRK 786.5m in 2005, and by only HRK 288.9m in 2006, which was three times less and also almost five times less compared with HRK 1.46bn in 2004. The main reason for this is the cut in the state incentive rate, while another reason is related to high yields on other types of investments.

Housing loans remained the fastest growing segment of banks' loan portfolios, although their annual growth rate decelerated slightly from 34.4% in 2006 to 29.0% in the period from the end of June 2006 to the end of June 2007. Housing loans accounted for almost a half (HRK 4.1bn) of the total increase in household loans in the first half of 2007. Their share in total household loans continued on the upward trend started at mid-2002, reaching 40.2% at the end of 2007, a small rise over 39.5% in late 2006. In addition to banks' housing loans, housing loans extended by housing savings banks also increased, up by an annual 85.1% at the end of June 2007, which was, however, below the increase of 125% in 2006. The continued growth of housing loans could be attributed to an excessive demand for flats in Croatia, particularly in Zagreb and the coastal area, while its slight recent downturn might be due to ballooning housing prices and the effect of the interest rate increase, as well as to tightened CNB measures related to credit risk management.

Despite the rise in household debt, as measured by various indicators, the aggregate indicator of debt service burden from the CBS's Household Consumption Survey still gives no reason for concern. The share of the annualised principal and interest repayment in gross disposable household income was thus 6% at the end of June 2007, the same as at the end of 2006. However, other data suggest an increase in the debt service burden: the ratio of interest payments to gross disposable household income increased from 7.0% at the end of 2006 to 7.4% at the end of the first half of 2007.

Figure 19 Use of Household Funds



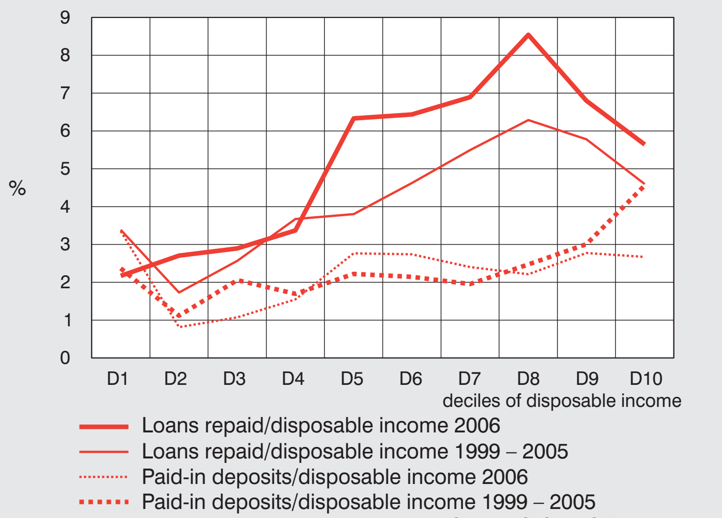
[a] Estimate.

Sources: CBS and CNB calculations.

The current stagnation of the mentioned indicator could easily end in the upcoming period, as the interest rate decrease almost halted already in the second half of 2006 and some banks started to raise their interest rates. The weighted interest rate on long-term household loans indexed to foreign currency was down to a record low in the first half of 2007, but then it increased and, according to the latest information, continued increasing in the remaining part of the year.

Besides by the aggregate indicator, the household debt service burden can also be usefully analysed by deciles of disposable household income. This analysis, based on CBS data for the 1999 to 2006 period, shows that the debt service burden, according to ratio between loans repaid and deposits made, is the highest in the seventh and eight decile of the gross disposable household income. This mostly involves young and educated population in dependent employment, whose loan demand is the greatest, but who dispose with relatively low savings. For example, the population in the third and fourth decile, while disposing with almost equal savings as the population in the fifth, sixth and seventh decile, has a several fold lower debt service burden. As can be assumed, the richest population segment, that in the ninth and tenth decile, has a lower debt service burden and considerable savings.

Figure 20 Household Debt Burden and Savings to Disposable Income

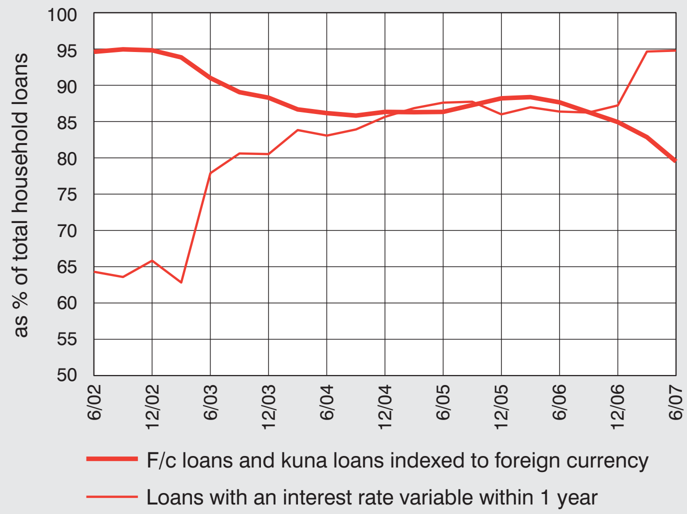


Sources: CBS and CNB calculations.

The ratio of foreign currency indexed household loans to the total gross value of long-term household loans continued the downturn trend from 2006 into the first half of 2007. This ratio dropped by significant 5.4 percentage points in the first half of 2007 alone (the decrease for the whole 2006 was 3.3 percentage points), reaching a record low of 79.5% at the end of June 2007. Among the reasons for the decline was certainly the central bank's amendment to the Decision on the capital adequacy of banks, which raised the risk weights on foreign currency and foreign currency indexed claims on debtors with unmatched foreign exchange positions. In addition, lending in kuna increased due to substantial recapitalisation of banks (in kuna), which led to a change in the currency structure of their financing sources. Although the said ratio reduced considerably from 97% recorded at the end of 2001, it remained high, owing to the specifics of the Croatian economy, continuing to directly expose households to a high level of currency risk.

The exposure of the household sector to currency risk was further aggravated due to an increasing share of loans indexed to the Swiss francs, whose exchange rate against the kuna is more volatile than that of the euro. The ratio of loans to the domestic non-financial sector indexed to the Swiss franc to total foreign currency and foreign currency indexed loans has been on a steady upward trend since 2004. Standing at 24.6% at the end of the first half of 2007, this ratio rose by 3.4 percentage points and 7.9 percentage points respectively relative to the end of 2006 and the end of June

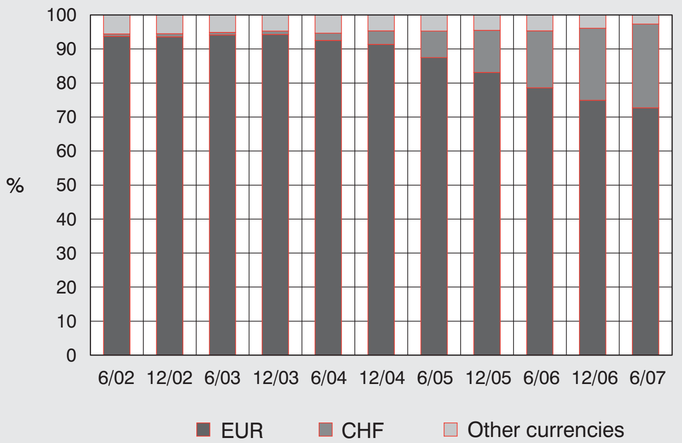
Figure 21 Currency and Interest Rate Risk of Household Loans



Sources: CNB and CNB calculations.

2006, but it dropped on an annual basis since it grew by 8.8 percentage points in 2006. The decrease in demand for these loans was also due to the increase in bank interest rates on loans indexed to the Swiss franc.

Figure 22 Currency Structure of Loans Indexed to F/c and F/c Loans Extended to Non-Financial Sector



Source: CNB.

With households directly exposed to currency risk, banks also have to take account of indirect currency risk arising from the currency mismatch between their clients' income and liabilities. Currency induced credit risk (CICR) is part of credit risk which is associated with the currency in which loans or other placements are granted and is inherent to all euroised (dollarised) banking systems, as is the one in Croatia. In May

2006, the CNB published the Currency Induced Credit Risk Management Guidelines, while the related data have been collected since June. As suggested by these data, the amount of household loans exposed to currency risk increased by HRK 1.1bn, to HRK 70.3bn, in the first half of 2007, with the share of unhedged loans of as high as 95.0% at the end of June 2007.

Household exposure to risk of interest rate change also changed considerably in the first six months of 2007: the ratio of loans with a remaining maturity of over one year to total household loans whose contractual interest rate may not vary within one year reduced by 7.6 percentage points to 5.4% at the end of June 2007. This reduction could, among other things, be attributed to the fact that banks, owing to the impact of the interest rate increase on the global financial market, shortened the fixed interest rate period, thus transferring this risk to their debtors.

8 Financial Intermediation

Financial sector assets increased by 10% in the first half of 2007 from the end of 2006, standing at HRK 431.5bn at the end of June. The share of assets of banks, the most important financial intermediators, dropped to 73.5%, as a sign that the relative importance of banks in the financial sector continued to decline, a trend that started several years ago. As in the previous few years, the share of leasing companies' assets in total financial sector assets, drifting upwards to 7.0%, was the second highest, while open-end investment funds' assets for the first time accounted for the third largest share, which rose to 6.2%. The fourth highest share, up slightly to 5.1%, was that of insurance companies' assets, while the fifth highest share, 4.3%, was made by the assets of mandatory pension funds. The share of closed-end pension funds' assets was the sixth largest at 1.7%. The share of housing savings banks' assets reduced again to 1.4%, while the estimated share of savings and loan associations' assets remained at 0.5%. Funds with a private offering and venture capital funds jointly accounted for 0.2% of financial sector assets, while voluntary pension funds remained the smallest financial intermediaries, with net assets accounting for only 0.1% of total financial sector assets.

Leasing companies held HRK 30.2bn in financial assets at the end of June 2007, an increase of 12.0% from the end of 2006. According to HANFA data, HRK 9.7bn (32.2%) of these assets were tangible assets leased under operating leases and HRK 10.2bn (33.8%) were claims based on financial leasing. As usual, car leasing predominated in operating leasing, with 54.8% of total tangible assets leased under operating leases, and real estate leasing predominated in financial leasing. Although it declined from the end of 2007, the share of liabilities to associated companies in total liabilities remained high at 46.2%. More than half of the subscribed capital of leasing companies is owned by non-residents.

As shown by HANFA data, there were 71 open-end investment funds with a public

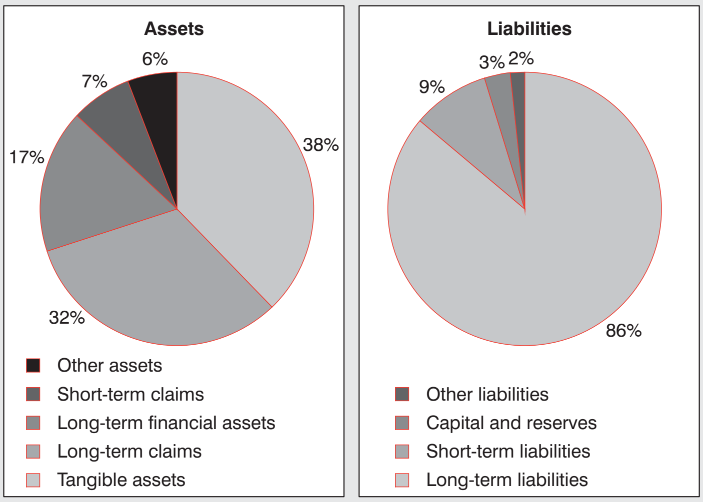
Table 4 Relative Importance of Financial Intermediaries, shares in total financial intermediaries' assets, end of period, in %

	2003	2004	2005	2006	6/2007
1. Banks (consolidated gross assets)	83.4	81.5	78.8	76.3	73.5
2. Insurance companies	5.4	5.2	5.1	5.0	5.1
3. Open-end investment funds (net assets)	1.3	1.6	2.7	4.1	6.2
– money	0.8	1.0	1.4	1.1	0.7
– equity	0.0	0.1	0.2	1.1	2.9
– bond	0.3	0.2	0.4	0.3	0.2
– balanced	0.2	0.3	0.6	1.5	2.3
4. Private offering and venture capital investment funds				0.1	0.2
5. Closed-end investment funds	0.4	0.4	1.1	1.4	1.7
o/w: War Veterans' Fund			0.7	0.8	0.8
6. Mandatory pension funds (net assets)	2.0	2.9	3.6	4.1	4.3
7. Voluntary pension funds (net assets)	0.0	0.0	0.1	0.1	0.1
8. Leasing companies	5.4	6.0	6.3	6.9	7.0
9. Housing savings banks (consolidated gross assets)	1.5	1.8	1.8	1.6	1.4
10. Savings and loan associations	0.6	0.5	0.5	0.5	0.5[a]
Total	100.0	100.0	100.0	100.0	100.0

[a] Estimate.
Sources: CNB, HANFA and MoF.

offering operating in the Croatian market at the end of 2006, including 23 equity funds, 20 balanced funds, 15 money funds and 13 bond funds. The net assets of these financial intermediaries totalled HRK 26.9bn at the end of June 2007, which is a rise of 67.9% relative to the end of 2006. This rise in net assets was primarily due to a steep rise in securities prices in the first half of 2007 and an increase in the number of clients and client payments. Equity funds attracted the greatest interest from investors, which is understandable considering the surge in equity prices in 2006 and the first half of 2007. The net assets of equity investment funds stood at HRK 12.4bn at the end of June 2007, an increase of 188% from the end of 2006. Balanced funds had the

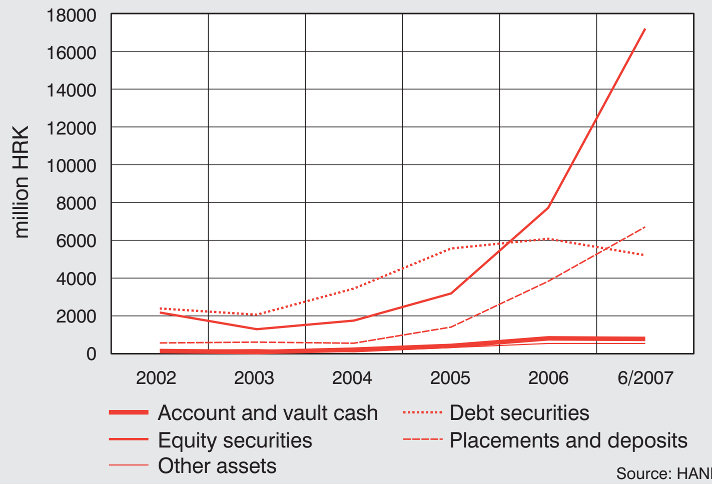
Figure 23 Leasing Companies' Assets and Liabilities, as at 30 June 2007



Source: HANFA.

second largest net assets, which at HRK 9.8bn recorded a rise of 64% relative to the end of 2006. In the same period, the net assets of money funds decreased by 25% to HRK 3.2bn, while the net assets of bond funds dropped by 32% to HRK 0.8bn.

Figure 24 Overall Trends in the Asset Structure of Pension Funds (open-end, closed-end and War Veterans' Fund),



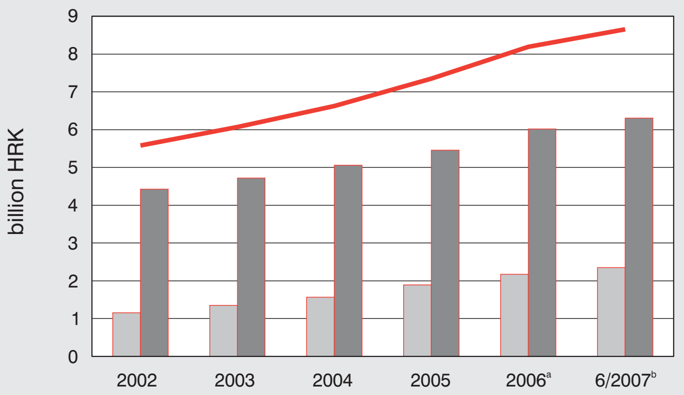
Source: HANFA.

Closed-end investment funds belong in the group of smaller financial intermediaries. There were ten such funds at the end of June 2007, two of which were registered as closed-end investment funds with a public offering for real estate investments and four as closed-end investment funds with a public offering. Also included here was the War Veterans' Fund, the largest fund in this group, with net assets of HRK 3.5bn accounting for 0.8% of financial sector assets. It should be mentioned that twelve investment funds with a private offering and one venture capital fund also operated on the Croatian capital market at the end of June 2007.

Insurance companies have developed at a slower rate than investment funds and leasing companies already for a few years. The annual increase in gross written premiums was almost half lower (6%) at the end of the first half of 2007 than at the end of 2006 (11%). Non-life insurance, while commonly growing at a slower rate than life insurance (their respective growth rates were 5% and 8% in the period from June 2006 to June 2007), retained a marked share of 73% in total insurance at the end of the first half of 2007. The lion's share of the aggregate assets of insurance companies (82.5%) was made up by investments, while reserves accounted for the largest share of their liabilities (72.5%), with 98% of this share made up by technical reserves.

The assets of mandatory pension funds increased by 17.5% relative to the end of 2006, so that their share in financial sector assets went up by the end of June 2007. The steady growth in the net assets of mandatory pension funds was generated by an increase in the number of contributors to the second pension pillar, up by 2.5%

Figure 25 Gross Written Premium

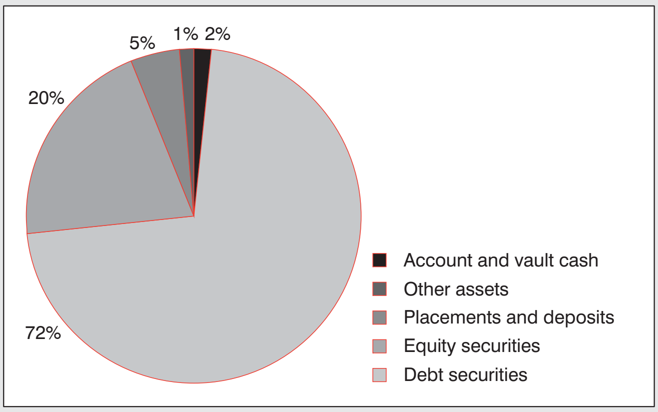


[a] Unaudited data. [b] In the last year. Source: HANFA.

to 1.3 million at the end of June 2007 from the end of 2006, and to the rising prices of their portfolio securities (especially equities). Although on the decline in the last few years, the share of debt securities in total mandatory pension funds assets remained the highest (72%). The share of equity securities went up by slightly over 5 percentage points and stood at 21% at the end of June 2007. Due to the liberalisation of investment restrictions for these intermediaries, the share of securities in their assets can be expected to expand. These intermediaries' average return was 10.7% in the period from June 2006 to June 2007.

Despite an increase of 32% in their net assets in the first six months of 2007, voluntary pension funds remained the smallest financial intermediators on the Croatian financial market. As was the case with mandatory pension funds, the share of debt securities in total voluntary funds' assets dropped (from 66% at the end of 2006 to 39% at the end of the first half of 2007), while the share of equity securities expanded (from 27% to

Figure 26 Mandatory Pension Funds' Asset Structure, as at 30 June 2007



Source: HANFA.

51%), which might also be attributed to the liberalisation of investment restrictions. The average annual return of voluntary pension funds was 13.5% in the period from June 2006 to June 2007. This return was slightly higher than the average return of mandatory pension funds as a result of more conservative investment policies. In addition, ten closed-end voluntary pension funds also operated on the Croatian financial market at the end of June 2007, with the nine of them which operated throughout the period from June 2006 to June 2007 generating an average return of 17.2%.

Table 5 Pension Funds' Annual Returns, as at 30 June 2007, in %

Mandatory		Open-end voluntary		Closed-end voluntary	
AZ OMF	9.18	AZ benefit ODMF	5.72	AZ VIP ZDMF	18.93
Erste Plavi OMF	11.57	AZ profit ODMF	18.81	AZ Dalekovod ZDMF	18.48
PBZ/CO OMF	12.11	Croatia osiguranje ODMF	16.39	AZ Hrvatska kontrola zračne plovidbe ZDMF	18.33
Raiffeisen OMF	10.30	Erste Plavi Expert ODMF	17.36	CROATIA OSIGURANJE ZDMF	15.66
Mirex [a]	10.38	Erste Plavi Protect ODMF	3.16	Ericsson Nikola Tesla ZDMF	20.41
		Raiffeisen ODMF	19.74	Hrvatski liječnički sindikat ZDMF	20.25
				Sindikat pomoraca Hrvatske ZDMF	13.46
				Novinar ZDMF	19.87
				ZDMF HEP grupe [b]	9.23
				T-HT ZDMF [c]	6.06

[a] Mirex is the value of an average MPF accounting unit and it is calculated as the weighted arithmetic mean. The weight indicates the share of a fund's net assets in total net assets of all funds.
[b] Commenced operating on 9 May 2006.
[c] Commenced operating on 20 December 2006.
Source: HANFA.

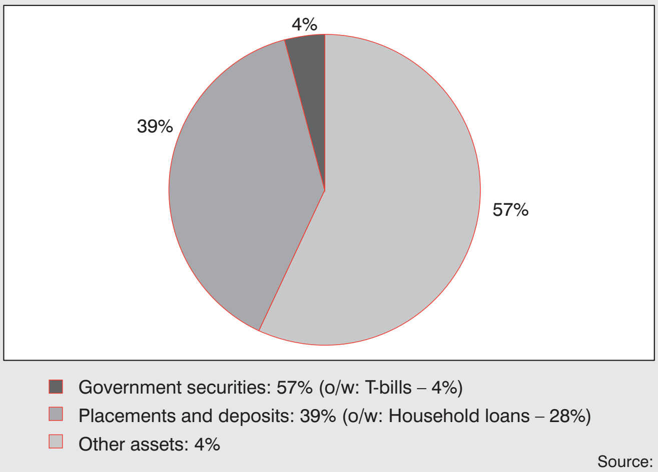
Savings and loan associations are currently undergoing the process of transformation or winding-up in order to continue operating as credit unions or savings banks. According to central bank data, there were 104 such financial intermediaries in operation at the end of June 2007, having total assets worth HRK 2.1bn. Until the end of May 2007 and the expiry of the prescribed period for deciding on the future mode of operation, as many as 43 savings and loan associations decided to transform themselves into savings banks, 37 into credit unions, and 20 opted for winding-up.[16] Due to a relatively high capital requirement and more complex infrastructure required for savings banks' operation, the final number of savings banks is likely to be lower. In addition, as the time limit for the adjustment and start of operation is somewhat longer for savings banks (31 March 2008) than for credit unions (31 December 2007), some savings and loan associations may have opted for the transformation into savings banks to postpone winding-up as far a possible.

Housing savings banks, of which there were five at the end of the first half of 2007, were the only financial intermediators on the Croatian financial market recording a decrease in assets in absolute terms relative to the end of 2006, so that their share

16 The four savings and loan associations that failed to opt for continuing their operations as savings banks or credit unions within the legally prescribed period are considered to have chosen to wind up.

in total assets of the financial sector fell from 1.6% at the end of 2006 to 1.4% at the end of June 2007. The asset structure of housing savings banks continued to be dominated by long-term government securities, although their share dropped from 66.8% to 56.9% in the first half of 2007, while the share of placements and deposits increased from 29.7% to 39.0%. As these intermediaries' continued to invest mainly in government securities, their placements almost exclusively carried the lowest risk.

Figure 27 Housing Savings Banks' Asset Structure, as at 30 June 2007

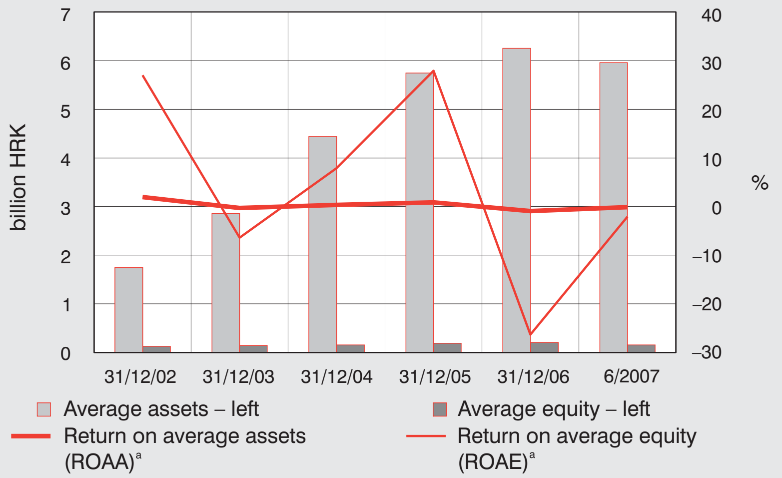


Source: CNB.

Several factors have adversely affected the operations of housing savings banks in the last few years. Under the legislative changes enacted in 2005, the state incentive rate for housing savings was reduced from 25% to 15%, and that at the time when banks were offering increasingly more favourable housing loan conditions. The waning of public interest in housing savings was also partly due to a rising interest in investment fund and capital market investments, although these products are not substitutes. Due to these circumstances, housing savings banks' deposits were 4.3% lower in the first half of 2007 than at the end of 2006.

In the first half of 2007, housing savings banks recorded a negative operational result of HRK 3.3m. Their net interest income went up by 15.1% annually from the end of 2006 and their non-interest income increased by a much more substantial 308.2%. General administrative expenses and depreciation were up 7.8% and total loss provision expenses rose by 23.5%. The annual ROAA was –0.1% at the end of June 2007, but this was nevertheless an improvement over –0.9% at the end of 2006. Even more significant was the increase in ROAE from –26.3% at the end of 2006 to –2.1% at the end of the first half of 2007. The improvement of financial indicators was to a great extent due to the fact that both average assets and average capital of these intermediaries decreased considerably from 2006, by 4.7% and 23.6% respectively.

Figure 28 Housing Savings Banks' Performance



[a] ROAA is calculated from pre-tax profit, and ROAE from after-tax profit.

Source: CNB.

9 Capital Market

Despite the forecasts that the surge in domestic stock exchange indices in 2006 will be followed by a lull in the capital market in 2007, quite the opposite happened. Most share prices continued to increase steeply in the first six months of 2007; the stock exchange index hit an all-time high, while turnover and number of transactions rose considerably. The key event for the Croatian capital market was the completion of the merger of the Varaždin Stock Exchange with the Zagreb Stock Exchange in March 2007, which turned the Zagreb Stock Exchange into the hub of securities trade in Croatia. Croatia's debt securities market was also vibrant in the first half of 2007, with semi-annual turnover at an all time high and continued borrowing by the government, municipalities and companies on the domestic market.

The unexpected upsurge in share prices was a result of several factors accounting for a great excess of demand over supply of quality shares on the domestic capital market. Firstly, demand for shares was greatly boosted by a sharp rise in investment funds assets, and especially by asset transfers from less risky investment funds, money and bond funds, into riskier equity and balanced funds. The assets of open-ended investment funds with a public offering grew by HRK 10.5bn to HRK 26.2bn in the first half of 2007. Much of the demand for domestic securities was generated by mandatory pension funds, whose net assets also rose considerably, by HRK 2.8bn, reaching HRK 18.7bn by the end of June 2007. Secondly, the number of individual investors trading in shares on their own account increased, a trend intensified by the successful initial public offering of Ina shares in late 2006. Additionally, trends on the Croatian capital market were given additional impetus by optimism reigning on global markets in the observed period and waning only temporarily in February 2007, after the Chinese government announced that it would set up a task force against illegal share trade and investment of borrowed funds. This announcement resulted in the sharpest decline in Chinese share prices in the last decade, which quickly spread to Asian and almost all global capital markets. Most domestic share prices fell in that period, rebounding, however, shortly afterwards, due to large amounts of investment funds' liquid assets and a relatively minor role of foreign investors on the domestic capital market.

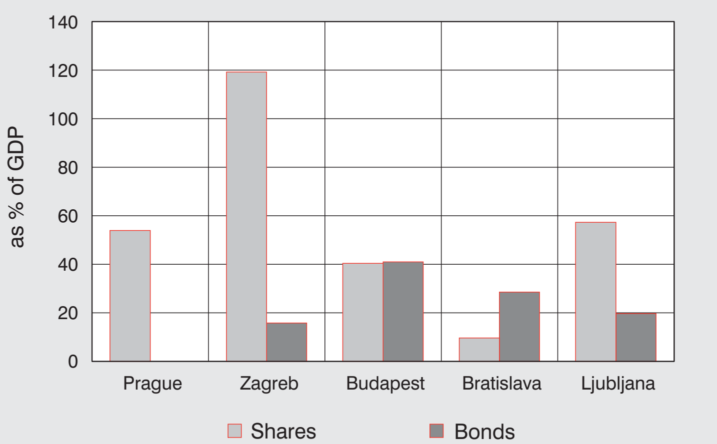
Table 6 Initial Public Offering of Equities and Corporate Bonds, in million HRK

	Equities		Corporate bonds[a]	
	Number of issues	Total value of issues	Number of issues	Total value of issues
2002	1	11.8	2	215.8
2003	1	1.2	1	150.0
2004	2	11.0	4	2637.5
2005	4	231.0	2	180.7
2006	0	0	9	2985.0
6/2007	1	3.6	1	125.0

[a] Exclusive of corporate bonds backed by government guarantees.
Public offerings are recorded according to the date of HANFA's decision.
Source: HANFA.

Despite a rising number of domestic companies, especially large ones, which have considered the option of raising capital though public share offerings, HANFA approved only one such flotation, worth HRK 3.6m, in the first half of 2007. HANFA's approval for one of the two corporate bonds issued in the first six months of 2007 was issued in late 2006, so that only one corporate bond issue, worth HRK 125m in nominal terms, was approved in 2007. Despite such a small number of corporate bond issues compared with the previous year, the increase in the number of commercial papers signifies that companies have been more and more often raising the required funds on the capital market, although it still plays a relatively minor role in financing the economy.

Figure 29 Market Capitalisation at the End of the First Half of 2007



Sources: National stock exchanges.

Share trading also intensified and stock exchange indices increased on almost all major stock exchanges in CEE countries in the first half of 2007. The index of the Ljubljana Stock Exchange rose at the highest rate from the end of December 2006 (65.5%), and was followed by the indices of the Zagreb, Warsaw, Prague and Budapest stock exchanges, rising by 50.7%, 31.1%, 17.0% and 16.4% respectively. The only index reducing in value in the observed period was that the Budapest Stock Exchange, which was down by 1.4%. Recording similar trends as stock exchange indices, market capitalisation of shares rose on all the observed stock exchanges at the end of the first half of 2007 relative to the end of 2006, while the average daily share turnover increased on all the observed stock exchanges in July 2007 relative to December 2006, except on the Bratislava Stock Exchange. The share market capitalisation to GDP ratio remained the highest on the Zagreb Stock Exchange, while its bond market capitalisation to GDP ratio was still the lowest among the ratios of reference CEE countries, despite a growing number of debt securities issues.

Table 7 Selected Stock Exchange Indices' Annual Yields, in %

	2002	2003	2004	2005	2006	1-6/2007
Bratislava – SAX	15.9	26.9	83.9	26.5	0.6	–1.4
Budapest – BUX	0.9	30.3	57.2	41.0	19.5	16.4
Ljubljana – SBI20	55.2	17.7	24.9	–5.7	37.9	65.5
Prague – PX50	16.8	43.1	56.6	42.7	7.9	17.0
Warsaw – WIG	3.2	44.9	27.9	33.7	41.6	31.1
Zagreb – CROBEX	13.3	1.1	32.1	27.6	60.7	50.7

Sources: National stock exchanges.

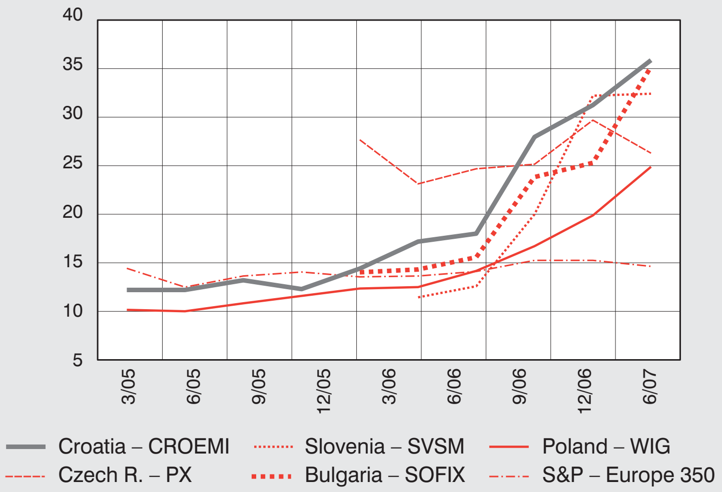
In Croatia and most of the reference countries in the region the upsurge in share prices was not accompanied by an equally strong improvement of listed joint stock companies financial indicators. This is illustrated by trends in the price/earnings ratio,[17] which was in all the observed countries higher at the end of June 2007 than at the end of 2006. According to the CROEMI,[18] this indicator stood at 35.9 at the end of the first half of 2007 in Croatia and was more than twice as high as at the end of the same period in 2006. This surge in the price/earnings ratio suggests high investor expectations regarding future business results of most of the joint stock companies listed on the observed stock exchanges, since this ratio averaged 15 for the indices which include joint stock companies of developed European countries in 2006 and in

17 The price-earnings (P/E) ratio for the CROEMI is calculated as the weighted mean of the ratio between the share price and earnings per share in the observed calendar year for joint stock companies included in the index, using the weights assigned to these shares in the index.

18 Calculated since 20 May 2003, the CROEMI (*Croatian Equity Market Index*) is a Raiffeisenbank Austria d.d. index and the only index that, prior to the unification of the Varaždin and Zagreb Stock Exchanges, monitored share price movements regardless of the stock exchange where the shares were listed as the CROBEX and VIN components were only the shares listed on either the Zagreb or Varaždin Stock Exchange. The CROEMI is weighted on the basis of the market capitalisation of available-for-sale shares, with the weight of an individual share limited to 15%. In contrast with the CROBEX, for which data on the movements in the P/E ratio for the constituent shares have been calculated no sooner than from September 2006, these data have been calculated for the CROEMI since June 2004 and are mutually comparable as its calculation methodology remained unchanged, in contrast with the CROBEX calculation methodology.

the first half of 2007. It may thus be assumed that share prices on the observed markets will decline in the medium-term in case such high expectations are not justified by the rise in the earnings per share.

Figure 30 Price-Earnings Ratio for Selected Stock Exchange Indices



Sources: Bloomberg and RBA.

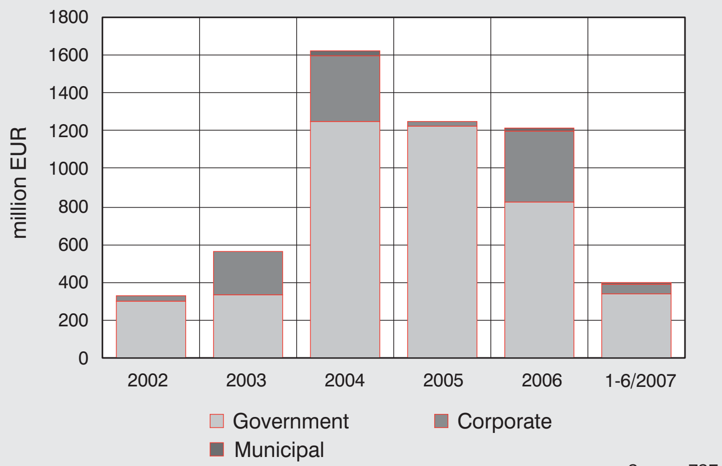
In the first six months of 2007, the Croatian debt securities market was marked by up to then the highest semi-annual bond turnover and by continued government and corporate borrowing through kuna securities issuance on the domestic market. New government and corporate bond issues were accompanied by the issue of the second tranche of a municipal bond. In line with the government's domestic borrowing policy no government bonds were issued in foreign markets in the first half of 2007, whereas in February the MoF issued a ten-year kuna bond, nominally worth HRK 2.5bn, with a yield-to-maturity at issue of 4.91%, in the domestic market. Also in February, Optima telekom d.o.o. issued a seven-year kuna bond, worth a nominal HRK 250m and carrying a yield to maturity at issue of 9.22%, while Jadran – Galenski laboratorij d.d. issued a ten-year bond, nominally worth HRK 125m and with a yield to maturity at issue of 5.65% in June. In May, the City of Rijeka issued the second tranche of its ten-year bond, nominally worth EUR 8.2m, doubling the total value of the issue.

With two corporate bonds (Podravka d.d. in February and Agrokor d.d. in April) falling due in the first half of 2007, there were 32 bond issues listed on the domestic capital market at the end of June 2007.[19] These include 11 government bonds, 4 municipal bonds, 1 CBRD bond and 16 corporate bonds, i.e. 1 government and 1 corporate bond more than at the end of 2006. Also listed were 26 commercial paper issues by 16 issuers, up to then the highest number of commercial paper listings on the Zagreb Stock Exchange, having a total nominal value of just below HRK 1.0bn.

19 Neither this figure nor market capitalisation calculations include the bonds of the Fund for Indemnification of Seized Property.

Corporate bonds accounted for 13.7% of the market capitalisation of bonds issued in the domestic market at the end of the first half of 2007, while their share in GDP[20] was only 2.1%. The bond market capitalisation to GDP ratio on the Zagreb Stock Exchange drifted lower from the end of 2006, standing at 15.8% at the end of June 2007, still well below such ratios on the main stock exchanges of the reference CEE countries.

Figure 31 Bonds Issued in the Domestic Market, over the period



Source: ZSE.

Croatian eurobond yields and benchmark German bond yields were influenced by expectations regarding trends in key American and European interest rates. Yield spreads between Croatian eurobonds and benchmark German bonds changed only slightly in the first quarter 2007 from the end of 2006 because required yields on domestic eurobonds and yields on developed countries' bonds increased at the same pace. However, benchmark German bond yields rose considerably, as the ECB increased its key rate owing to inflationary pressures in the eurozone member countries. As required yields on domestic eurobonds also rose in that period, but to a slightly smaller extent, the spread between these bond yields and the yields on comparable German bonds narrowed significantly. Specifically, yield spreads between Croatian eurobonds due in 2009, 2011 and 2014 and comparable German bonds narrowed to 21, 25 and 31 basis points respectively by the end of June 2007, which is a sharp decrease compared with 39, 40 and 42 basis points at the end of December 2006.

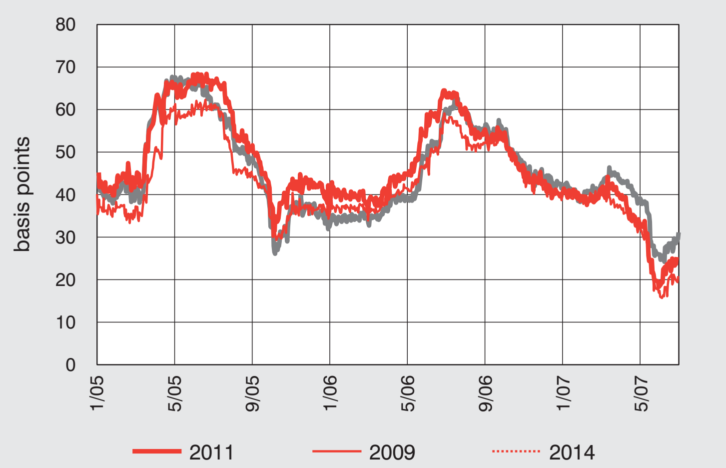
In the first half of 2007, yields on eurobonds issued by the new EU member states showed similar trends as Croatian eurobond yields. Yield spreads between eruobonds of the new EU member states and benchmark German bonds thus did not change

20 GDP is calculated as the sum of outturns in the last two quarters in 2006 and the first two quarters in 2007.

considerably in the first quarter of 2007, but reduced in the second quarter due to a slower growth of yields on eurobonds of new EU members compared with benchmark German eurobond yields.

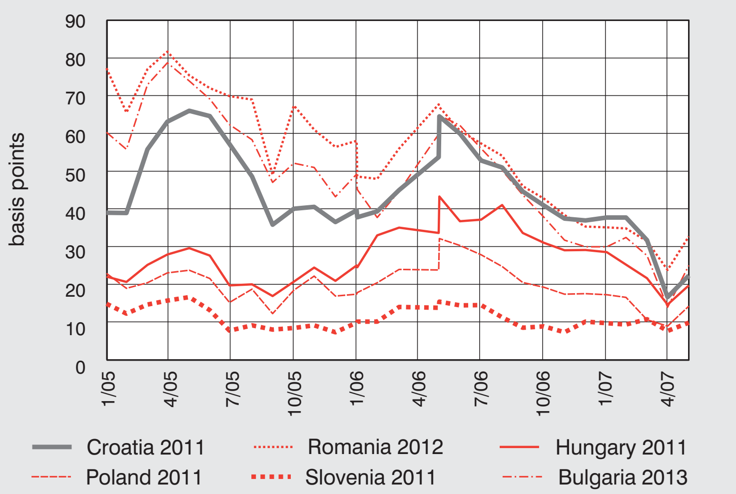
The domestic securities market was early in the second quarter of 2007 marked by the completion of the IPO of Magma d.d. and by the IPO of T-HT, with several more privately owned companies announcing their initial public offerings by the end of the year. In addition, the ZSE is expected to put into service a new trading system, the OMX, by the end of the year, which will process a considerably higher number of transactions and provide for trading in more complex financial instruments. The capital market will also feel a significant impact from the announced start of pension

Figure 32 Croatian Eurobond Spread 2009, 2011 and 2014, Compared with Benchmark German Bonds



Source: Bloomberg.

Figure 33 Yield Spread between Euro-Denominated Selected Countries' Bonds and the Benchmark German Bond



Source: Bloomberg.

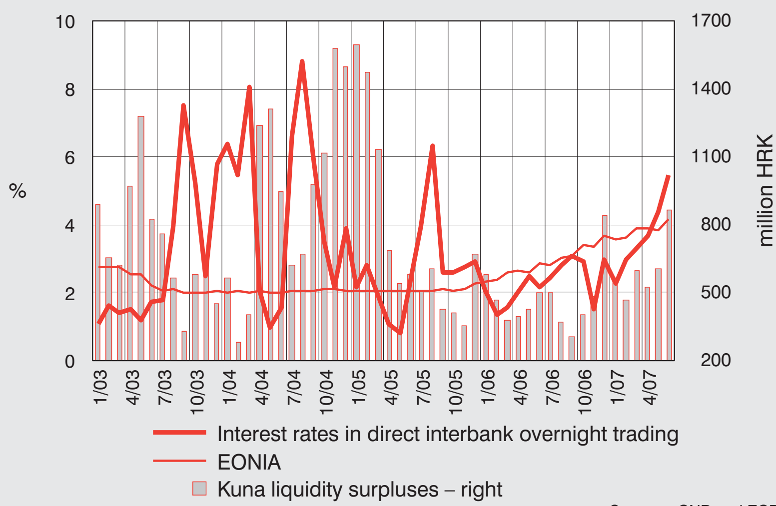
funds investments in the public stock companies quotation (JDD),[21] which will further reduce their risk exposure and increase share liquidity. Besides being active on the equity securities market, companies are also expected to intensify activities on the debt securities market by the end of 2007.

10 Money Market

In early 2007, the money market was dominated by the effect of the CNB's foreign exchange intervention from late December 2006 which injected an additional HRK 1.3bn of liquidity into the banking system. Although this was the only foreign exchange intervention in the first half of 2007, liquidity remained good in that period, boosted additionally by substantial placements at central bank reverse repo auctions. The CNB placed an average of HRK 2.7bn at each of the 26 reverse repo auctions carried out in the first half of 2007, HRK 1.6bn more per auction than in the previous half of the year. Nevertheless, with pressures on demand for the kuna intensifying from month to month, money market interest rates increased, at first modestly and then very sharply near the end of the first half of the year, and became more volatile.

Specifically, after being relatively low and stable for over one year, during which period interest rates on overnight interbank loans showed a moderate upward trend, rising from below 2% towards 4%, money market interest rates unexpectedly

Figure 34 Overnight Interest Rates and Bank Liquidity



Sources: CNB and ECB.

21 Pursuant to the Act on Amendments to the Act on Mandatory and Voluntary Pension Funds, enacted in late June 2007, pension funds may, in addition to shares listed on the Official Market, also invest in shares in the public stock companies quotation (JDD). In December 2007, HANFA issued the Ordinance on additional investment criteria and investment limitations for pension funds.

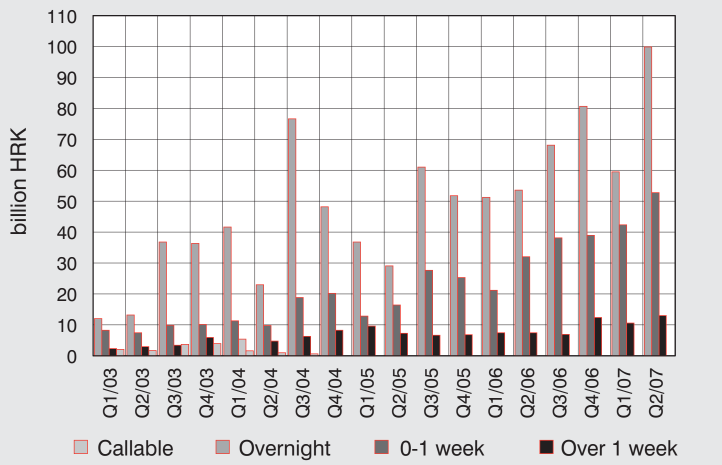
increased and became more volatile late in the first half of 2007. The sharp decrease in their volatility compared with previous years was recorded in the period following the introduction of reverse repo auctions in April 2005 and further adjustments of monetary policy measures, which took effect in December that year, although they still could not be compared in that respect to the EONIA rate, a benchmark rate for the EMU countries. Given the good banking sector liquidity suggested by the available data, money market interest rate developments late in the first half of 2007 could be attributed to an uncommon imbalance between supply and demand, involving a small group of banks creating considerable demand for the kuna on the one hand, and, on the other, market participants unwilling to place their excess funds at regular prices but requiring higher interest rates.

Overnight loans prevailed in the maturity structure of money market loans in the first half of 2007 with the turnover of HRK 159.3bn, up by 52.0% over the same period in 2006. However, favourable liquidity conditions in the banking sector in the first six months of 2007 prompted market participants having excess funds to longer term lending, with a result that the share of overnight loans in total money market loans dropped by 3.3 percentage points from the first half of 2006, to 57.3%. Loans maturing in up to one week had a share of 18.2%, while the share of loans with maturities longer than one week was 8.5%.

Direct interbank trading accounted for the largest share in the turnover from overnight trading in reserve money, 52.2%. Overnight bank trading with financial institutions accounted for 26.0% of the total and with legal persons for 21.8%.

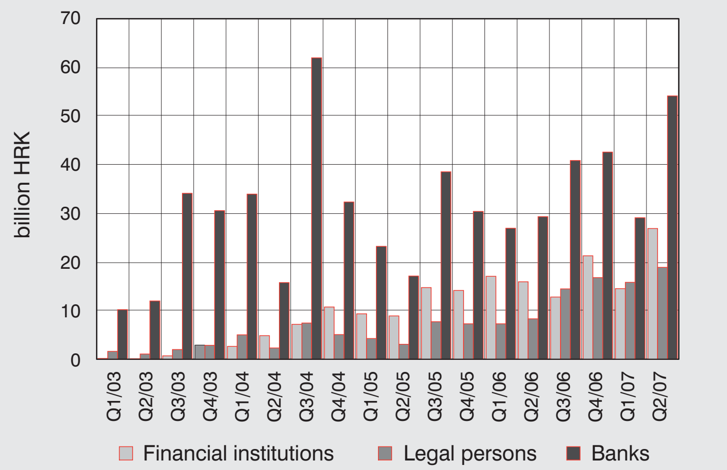
The share of repo operations in total transactions on the money market was 23.1% in the first six months of 2007, a decrease of 4.9% compared with the same period in the previous year. This largest share in this trading segment was taken by repo operations with one-week maturity and the second largest by overnight repo operations. Legal

Figure 35 Money Market Turnover by Maturity (excluding direct securities trading)



Source: CNB.

Figure 36 Overnight Turnover in Bank Trading on the Money Market (excluding direct securities trading)

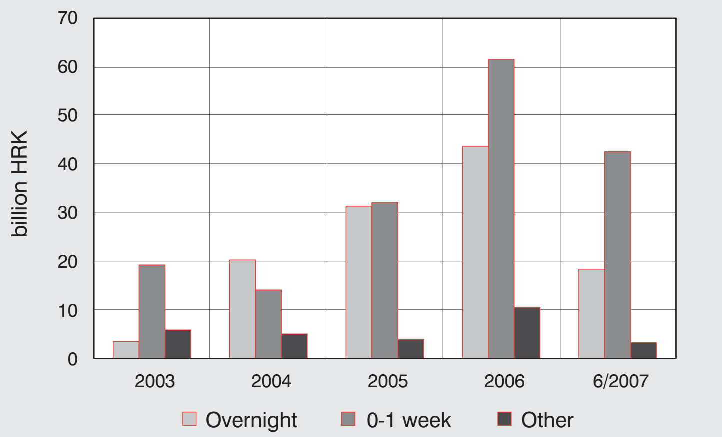


Source: CNB.

persons most actively participated in repo operations with banks in the first half of 2007, accounting for 56.3% of total turnover, and were followed by financial institutions, accounting for 22.3%, while the share of repo operations with other banks was 21.5%.

The stock of subscribed MoF T-bills increased from HRK 12.3bn at the end of December 2006 to HRK 12.6bn at the end of June 2007. The weighted interest rate on 91-day bills held steady at 3.00% in June 2007 from December 2006, while the weighted interest rate on 182 and 364-day bills stood at 3.20% and 3.54% respectively in June compared with 3.50% and 3.90% respectively in December 2006, due to reduced yields on these bills. Benchmark short-term interest rates on T-bills maturing in three months stabilised at about 3% in the period from the end of June 2006 to

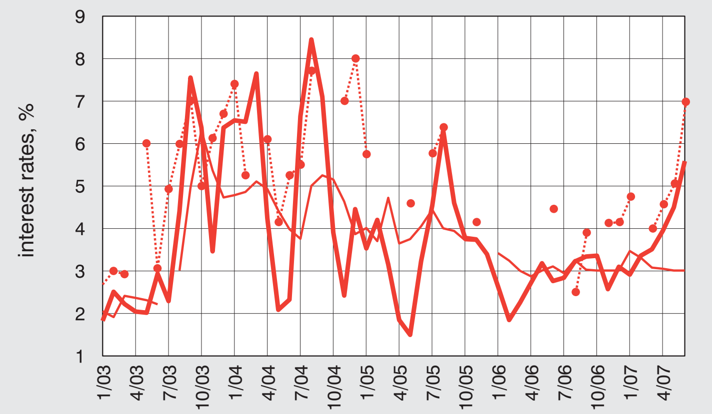
Figure 37 Money Market Repo Turnover by Maturity



Source: CNB.

the end of June 2007, with minor monthly oscillations, while three-month interbank loans were mostly traded at considerably higher interest rates in the first six months of 2007.

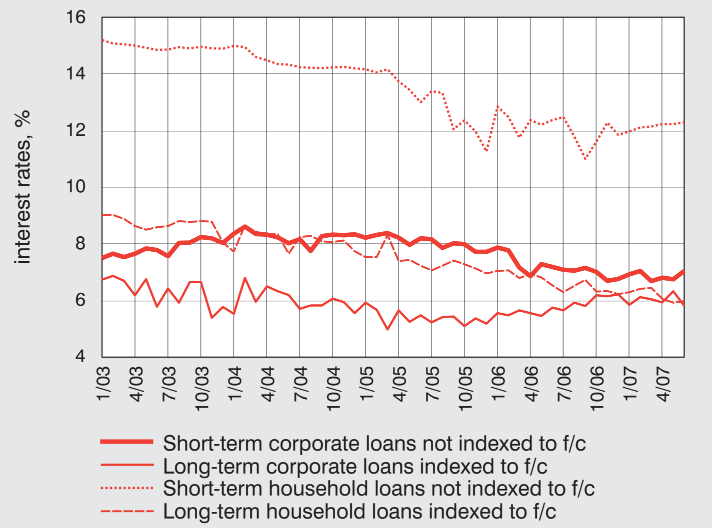
Figure 38 Risk Premium and Liquidity on the Money Market



Sources: CNB and MoF.

The several-year downward trend in banks' interest rates on short-term loans halted in early 2007. The weighted interest rate on short-term corporate loans remained close to its average level in late 2006, while the weighted interest rate short-term household loans not indexed to foreign currency drifted slightly upwards.

Figure 39 Banks' Lending Interest Rates

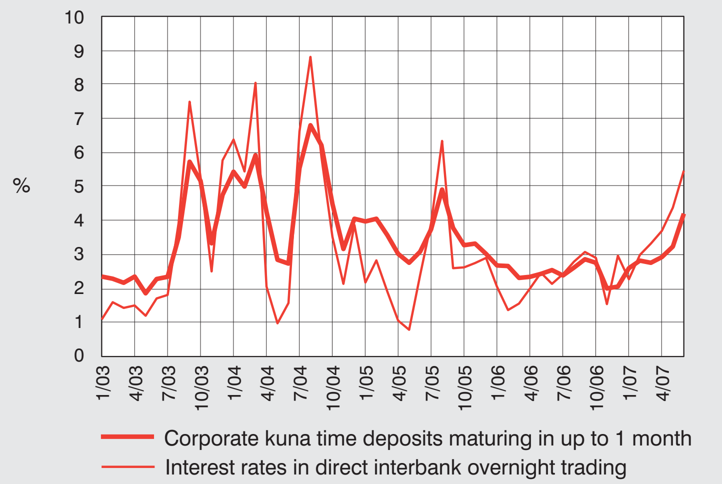


Source: CNB.

Trending up over most of 2006, interest rates on long-term corporate loans indexed to foreign currency mainly held steady in the first part of 2007. A long-lasting downward trend in interest rates on long-term household loans indexed to foreign currency continued in the first half of 2007.

Interest rates on foreign currency deposits continued a several-month upward trend, while interest rates on kuna deposits not indexed to foreign currency increased sharply due to banks' efforts to finance their placements from generally cheaper domestic kuna deposits. These interest rate trends resulted from the increase in European interest rates continuing in 2007 and from the anticipated adjustment of banks to CNB measures.

Figure 40 Interest Rates on Overnight Loans and Short-Term Corporate Deposits



Source: CNB.

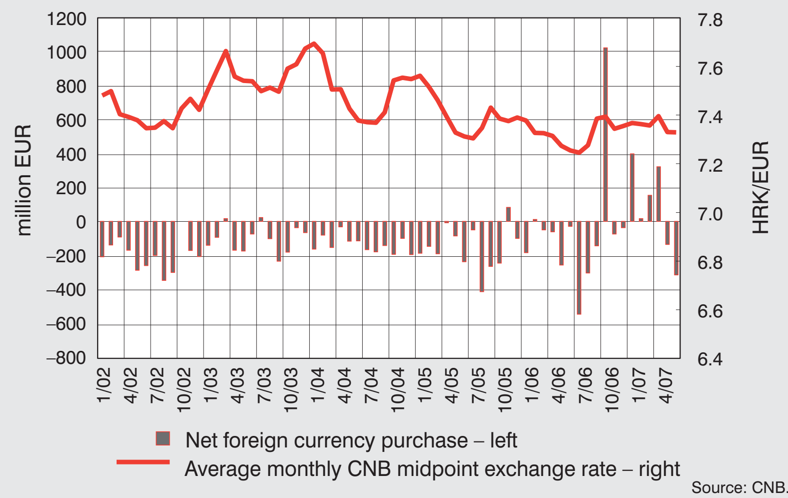
11 Foreign Exchange Market

Due to weaker than expected appreciation pressures, the central bank held no foreign exchange auctions in the first half of 2007.[22] The beginning of the year was marked by a relatively strong enterprise demand for the euro, which was required for the payment of imports made during the holiday season, but also because of a generally very low coverage of imports by exports. In consequence, the domestic currency slightly depreciated against the euro in the first quarter of 2007, falling from HRK 7.35/EUR at the end of December 2006 to HRK 7.38/EUR at the end of March 2007. However, due to upward pressures on the kuna against the euro prevailing in the latter part of the first half of 2007, the kuna/euro exchange rate stood at HRK 7.30/EUR at the end of June. These trends were also due to a growing demand for the kuna,[23] influenced, in addition to seasonal factors, by capital market events. On the supply side, the kuna was boosted by the strong inflow of foreign direct investments into Croatia (EUR 2.1bn in the first six months of 2007) and continued foreign borrowing by enterprises.

The appreciation pressures on the domestic currency triggered neither daily nor longer term oscillations in the nominal kuna/euro exchange rate in the first six months of 2007.

The kuna/euro midpoint exchange rate ranged between HRK 7.30/EUR and HRK 7.41/EUR in the first half of 2007, fluctuating from –0.7% to 0.8% around the

Figure 41 Banks' Net Foreign Currency Purchase and the CNB Midpoint Exchange Rate



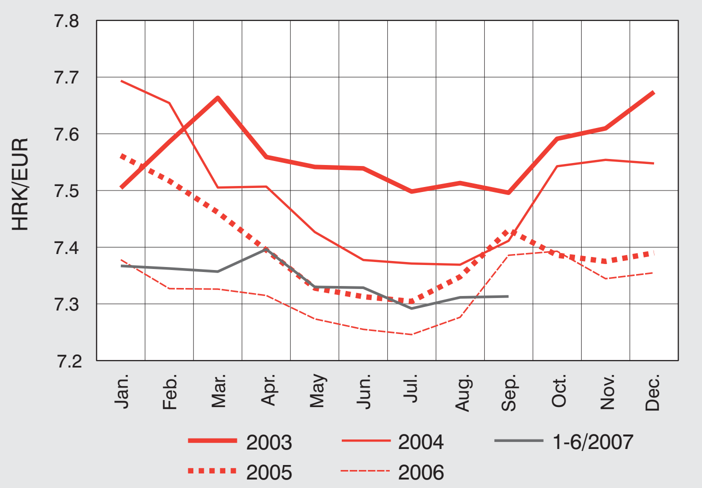
Source: CNB.

22 The central bank foreign exchange auction held on 28 December 2006 produced a monetary effect as late as in 2007 since its value date was 2 January 2007.

23 For details see the note in Chapter 2 Macroeconomic Developments.

average daily exchange rate of HRK 7.36/EUR. This was a slightly narrower range compared with the same period in the previous year, when the midpoint exchange rate ranged between HRK 7.25/EUR and HRK 7.39/EUR, fluctuating from –0.9% to 1.1% around the average daily exchange rate of HRK 7.31/EUR. The average absolute change in the daily kuna/euro exchange rate stood at a relatively low 0.07% in the first half of 2007, which was only slightly below the figure for the same period in 2006.

Figure 42 Seasonality of the Average Monthly CNB Midpoint Exchange Rate

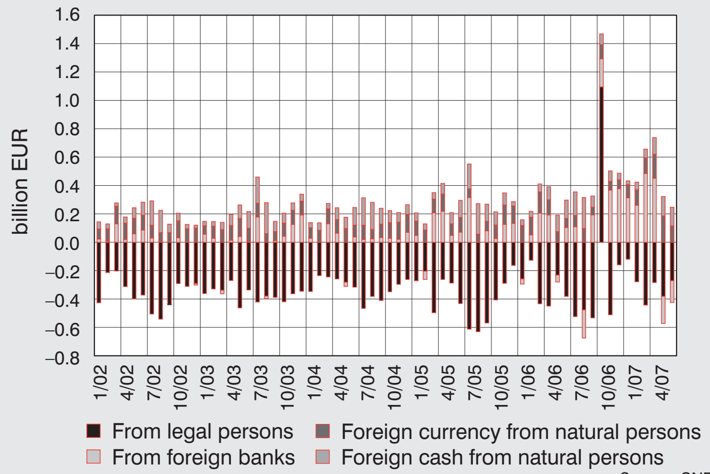


Source: CNB.

In the first six months of 2007, spot foreign currency trading through banks generated an average monthly turnover of EUR 7.8bn, a significant increase over the average monthly turnover of EUR 5.0bn in the same period in 2006. As it is usual on the Croatian market, the most significant net buyers were legal persons, while natural persons and foreign banks were mainly net sellers of foreign currency.

Due to a rise in foreign exchange market turnover in the period from July 2006 to June 2007, the volume of spot transactions increased to HRK 707.5bn, which is 20% more than in the whole 2006. However, despite this increase, a several year downward trend in the share of these transactions in total foreign exchange trading, briefly interrupted in 2006, continued in the observed period, so that this share reduced from 53.3% in 2006 to 42.7% at the end of June 2007. The same as in 2006, the highest increase in spot foreign currency trading by domestic banks, both in absolute and relative terms, was in the period from July 2006 to June 2007 recorded in trading with legal persons and other domestic banks, while a decrease was recorded only in trading with domestic natural persons. Turnover in foreign exchange swaps rose by a high 85% in the observed period, to HRK 900.9bn, increasing its share in total foreign exchange trading turnover to 54.3% and for the first time exceeding the share of spot transactions. Although decreasing from 2006, trading with foreign banks made up 60.8% of the total turnover in domestic banks' foreign exchange

Figure 43 Monthly Spot Net Foreign Currency Purchase

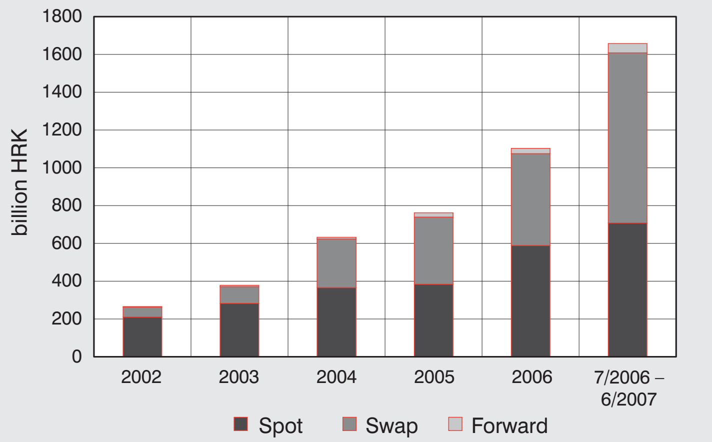


Source: CNB.

swap trading, while the shares of trading with other domestic banks and legal persons expanded by 20.6% and 18.5% respectively. Turnover in foreign exchange forward contracts was up 72% to HRK 49.1bn in the observed period, but its share in total foreign exchange turnover remained low at 3.0%. As most of domestic banks' trading in foreign exchange forward contracts was with legal persons, the related turnover almost doubled from 2006, reaching 66.2% of total turnover in foreign exchange forwards.

The continued growth of foreign exchange market turnover and sharpened competition resulted in a drop in spreads in trading with legal persons. The average spread between the selling and buying exchange rate in trading with legal persons reduced from slightly over 0.4% to 0.3% of the buying rate in the first six months of 2007 compared with

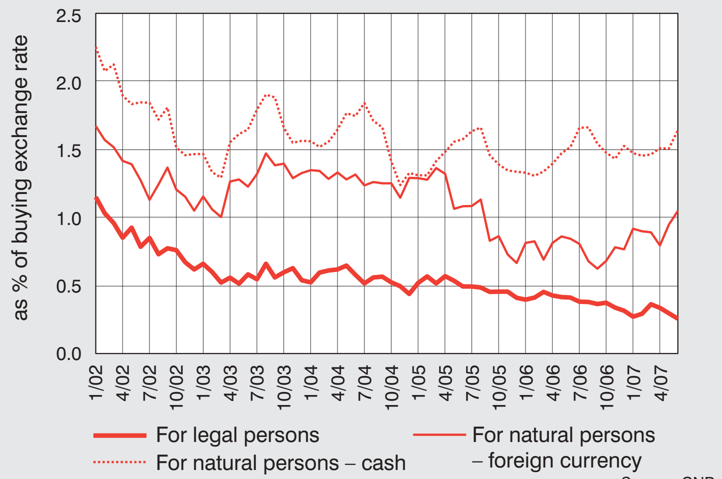
Figure 44 Foreign Currency Turnover by Transaction Type



Source: CNB.

the same period in the previous year. In contrast, the average semi-annual spreads in trading with natural persons in foreign currency and foreign cash increased slightly in the observed period, from 0.8% and 1.4% of the buying rate respectively to 0.9% and 1.5%.

Figure 45 Difference between the Average Monthly Selling and Buying Exchange Rates



Soruce: CNB.

12 Institutional Framework

The alignment of Croatia's financial regulations with the EU *acquis* continued in the period from the end of June 2006 to the end of July 2007 and it is to continue in the forthcoming few years. Full alignment with Directive 2006/48/EC (on the taking up and pursuit of the business of credit institutions) will be achieved by the Credit Institutions Act, expected to be enacted in 2008, which will define credit institutions as banks, housing savings banks, savings banks and electronic money institutions. Among the more important provisions of this Act, which will start to be applied once Croatia achieves full EU membership, is the one related to the introduction of a single EU passport for the provision of financial services. This means that upon entry to the EU, a financial institution authorised to provide financial services in an EU member state will be permitted to perform these services in Croatia without any additional approval from competent authorities. Consequently, it is to be expected that foreign banks will open sub-branches (to perform financial services in a small range or in a limited period) or branches (in other cases) in Croatia. The new Act will more precisely and comprehensively regulate risk management, and the prescribed capital adequacy will enable the application of Basel II. One of the new requirements of this Act is that each bank must have at least one independent member sitting on its supervisory board, while another relates to the release of a range of information on the operations of credit institutions, which is to increase operational transparency and improve market discipline. The stability and safety of the banking system are to be maintained by the provisions on the supervision of credit institutions, especially on a consolidated basis, under which the scope of a group of credit institutions is expanded to include undertakings linked by management on a unified basis. A preparatory step for the enactment of the Credit Institutions Act was to resolve the issue of savings and loan associations. As savings and loan associations' operations were not aligned with these regulations, this problem was, pending the enactment of the Credit Institutions Act, temporarily addressed in late 2006 by enacting the Credit Unions Act and amending the Banking Act currently in force to include savings banks. The supervision of credit unions and savings and loan associations will be carried out by the CNB, which has already contacted these intermediaries.

The issues of special administration, compulsory winding-up and bankruptcy proceedings of credit institutions will be regulated by a special act, which is expected to be passed by the end of 2008. This area is currently regulated by a number of acts (the Banking Act, Bankruptcy Act, Companies Act and the Act on Resolution of Conflicts of Law with Regulations of Other Countries in Certain Relations), so that a single act regulating the reorganisation and winding-up of financial institutions will increase its transparency. In addition, and in relation to the Credit Institutions Act, an act on electronic money institutions, which is expected to be passed in 2008, will regulate the business of electronic money institutions. The major challenge for the preparation of this act is the application of regulations on electronic money institutions to mobile operators.

The Act on Amendments to the Act on Mandatory and Voluntary Pension Funds, providing for a further liberalisation of pension funds' investment policy, was adopted in June 2007. Specifically, the ceiling on foreign investments was lifted from 15% of fund assets to 20% for mandatory and 25% for voluntary pension funds. Pension funds may, in addition to shares listed on the official market, also invest in the shares of the public stock companies quotation (JDD), using a maximum of 5% of fund assets and 5% of the capital of a single issuer. Until Croatia's accession to the EU, pension funds will remain obliged under the provisions of this Act to invest a minimum of 50% of their assets in the securities of the Republic of Croatia and Croatian National Bank and to restrict investments in assets outside Croatia. These Amendments also loosened the requirements for the establishment of pension funds and abolished the provision on the minimum number of pension fund members, while facilitating and expediting the transfer of members from one fund to another. In addition, voluntary pension funds are allowed to manage other voluntary pension funds, which was not envisaged by law before. The Act on Amendments to the Pension Insurance Act, passed in July 2007, provides for the implementation of a single coefficient for minimum pensions and alleviates the disadvantages of early retirement pension schemes. This application of this Act will begin in early 2008.

The Financial Insurance Act, adopted in July 2007 with a view to enhancing legal security, facilitating cross-border transactions and creating conditions for the further strengthening of the capital market, came into effect in early 2008, setting forth the rules for the insurance of contractual financial obligations. The enactment of the Securitisation Act, scheduled for 2007, was postponed until 2008, but it is not directly related to Croatia's EU accession. The Markets in Financial Instruments Directive (MiFID) will also bring about significant changes for the capital market, but it will be introduced gradually, due to its complexity. A related act is expected in 2008, while the provisions in connection with the MiFID will become applicable only after Croatia's accession to the EU. The liberalisation of capital flows has been carried out in three phases. The initial phase, undertaken in late 2006, involved the liberalisation of residents and non-residents' investments in securities (including CNB bills and MoF T-bills) by lifting the requirement that resident natural persons purchase and sell foreign securities solely through domestic authorised companies. The second phase involves lifting the requirement to report on a capital transaction as a precondition for making related payments and transfers, which formally comes into force on 1 January 2008. The third phase, in which capital transactions will be fully liberalised, will begin automatically in 2009 (the starting date is defined by the Foreign Exchange Act from 2003) by lifting the prohibition of the short-term financing of non-residents, use of foreign financial loans via accounts in domestic banks, opening of non-residents' accounts abroad, as well as of restrictions on cash transactions between residents and non-residents and on taking cash in and out of the country.

One of the major challenges for the operation of insurance companies in recent years has been the price liberalisation of compulsory insurance in traffic. Specifically, the Compulsory Insurance in Traffic Act, which came into force on 1 January 2006, requires that this market segment be liberalised, giving insurance companies two years to lay the required regulatory groundwork. The importance of these changes is best illustrated by the fact that there are 1.9 million policies for this type of insurance in Croatia, which, worth a total of about HRK 2.5bn, account for one third of the insurance companies' portfolio. In the first stage of the liberalisation, starting as of 1 January 2008, insurance companies will individually set the conditions and tariffs for compulsory insurance premiums, submitting them 60 days prior to their application to the supervisory authority, HANFA, for the assessment of their compliance with regulations, professional standards and actuarial principles. The forthcoming liberalisation will strengthen market competition. A new insurance act, which will bring regulatory requirements into compliance with EU regulations, is expected to be passed in 2008.

Business performance of housing savings banks declined after 2005, partly owing to regulatory restrictions imposed on their operations. This was the reason for setting up the Housing Savings Committee in late September 2007, composed of the representatives of the five housing savings banks operating in Croatia. Among the aims of the Committee is to initiate an amendment to the Act on Housing Savings and State Incentives for Housing Savings that would provide for investment liberalisation by allowing investments into several kinds of debt and equity securities, financial derivatives, as well as housing construction investments. Another aim of the Committee is to introduce amendments to the Deposit Insurance Act which would either abolish or reduce the rate of the insurance premium on deposits reinvested into government securities, typically held on housing savings banks' balance sheets. By the amended Act, which is currently being drafted, this area will be brought in line with the Directive on deposit insurance schemes and the insurance coverage for households and legal persons' deposits set at EUR 20 000.

What should also be mentioned in the context of other changes made to the institutional framework is that the banks that founded the Croatian Registry of Credit Obligations (HROK) started to use reports on their clients' credit obligations in May 2007. The banks' experiences with the functioning of HROK have only been positive so far, and no complaints have been received from citizens regarding the accuracy of their debt reports. In addition, relatively few citizens have refused to give approval for the preparation of such reports. So far, the Registry does not contain data received from credit card companies, which should be resolved by legal regulations on credit card operations and credit card loans that are currently being drafted.

The issue of the supervision of financial conglomerates should be addressed by a special act in 2008 (although both the Insurance Act and the Act on the Croatian Financial Services Supervisory Agency contain some provisions related to the cooperation and exchange of information between domestic and foreign supervisory authorities). In addition, a new Act on the Prevention of Money Laundering and Terrorism Financing should come into force in 2008, as well as a new Act on the Croatian Bank for Reconstruction and Development, which is to define the Bank as a development and export financing bank of the Republic of Croatia, with an aim to stimulate the development of the Croatian economy.

13 Banking Sector[24]

Competition among banks remained sharp in the period between the end of June 2006 and the end of June 2007. As the increase in deposit rates was not matched by a corresponding rise in lending rates, the interest rate spread declined further in that period. However, gross profit of the banking sector rose, primarily thanks to good business performance of large banks. CNB measures prompted banks to start altering their balance sheet currency structure in order to increase the share of kuna-denominated assets and reduce the share of foreign currency indexed kuna assets. As banks restructured considerable portions of their balance sheets in the first half of 2007, currency induced credit risk at the banking sector level decreased sharply. In addition, the series of recapitalisations (also triggered by central bank measures) led to a considerable increase in bank capital and, consequently, a sharp drop in related profitability ratios.

There were 33 banks in operation on the Croatian financial market at the end of June 2007. The structure of the banking sector concerning the size of banks remained the same as at the end of 2006, so that small banks were still the most numerous (23), while the number of medium-sized (4) and large (6) banks held steady since 2004.[25] In the first half of 2007, the asset share of large banks in total banking sector assets dropped by 0.88 percentage points to 79.77%, while the asset shares of medium-sized and small banks increased. However, the Croatian banking sector remained highly concentrated, with the two largest banks accounting for 41.2% of total banking sector assets at the end of June 2007.

The ownership structure of the Croatian banking sector changed considerably in the year from June 2006.[26] The number of banks in majority domestic ownership fell by 4 to 17 relative to the end of June 2006 (with two of these banks in majority government ownership), while the number of banks in majority foreign ownership rose from 13 to 16. At the end of June 2007, banks in majority foreign ownership controlled 90.8% of total banking sector assets, which is understandable considering that all large and three of the four medium-sized banks are foreign owned. As regards

24 All the indicators were calculated based on banks' unconsolidated data. For the indicators having the item "assets" or "equity" in the denominator, the average assets or equity in the past year was used: half of the amount at the beginning of the period and half at the end of the period. The data exclude banks in winding-up proceedings. Due to the said methodological specifics, some indicator values may differ from the values of similar indicators in other CNB publications.

25 Based on their share in total banking sector assets, banks are divided into three groups: small banks (with an asset share lower than 1%), medium-sized banks (with an asset share of between 1% and 5%) and large banks (with an asset share exceeding 5%).

26 The ownership structure underwent the following changes since the end of the first half of 2006: following its acquisition by foreign shareholders, Banka Sonic became Banco Popolare Croatia; Gospodarsko-kreditna banka became Veneto banka, while Banka Kovanica was also acquired by foreign shareholders, but kept its name. Požeška banka was acquired and merged into Podravska banka.

the owners' domicile, Austrian and Italian shareholders account for the largest share of total banking sector assets (59.62% and 19.89% respectively).[27]

Table 8 Main Data on Banks in the Republic of Croatia, in million HRK and %

	31/12/2002	31/12/2003	31/12/2004	31/12/2005	30/6/2006	31/12/2006	30/6/2007	Change 30/6/2006 / 30/6/2007 Amount	Change 30/6/2006 / 30/6/2007 Percent
Number of banks	46	41	37	34	34	33	33	–1	–3
Total assets	174,139	204,043	229,305	260,278	277,764	304,605	325,200	47,436	17
Money assets, deposits, MoF T-bills and CNB bills	51,651	67,010	71,823	73,064	70,175	83,698	86,200	16,026	23
Securities portfolio	21,094	18,241	24,036	26,314	23,515	24,181	23,360	–154	–1
Loan portfolio	92,293	110,052	125,202	151,960	174,657	187,775	206,311	31,654	18
Other assets	9,102	8,740	8,244	8,940	9,418	8,951	9,328	–89	–1
Liabilities and capital	174,139	204,043	229,305	260,278	277,764	304,605	325,200	47,436	17
Short-term liabilities	52,893	57,174	59,642	70,860	71,853	81,613	83,507	11,654	16
Long-term liabilities	95,181	118,809	139,001	154,314	167,691	179,787	190,869	23,178	14
Subordinate and hybrid instruments and other liabilities	9,557	9,977	10,980	11,660	12,010	11,946	13,564	1,554	13
Capital	16,509	18,083	19,681	23,443	26,209	31,260	37,260	11,050	42

Source: CNB.

Total banking sector assets stood at HRK 325.2bn at the end of June 2007, up 17.1% from the end of the same period in 2006. Due to the said currency restructuring, banks' kuna-denominated assets rose by as much as 42.0%, while foreign currency denominated and foreign currency indexed assets increased only by 6.7% and 4.0% respectively. The highest increase on the assets side of banks' balance sheets was in loans (HRK 31.6bn or 18.1%), with HRK 17.9bn of this amount coming from household loans (up at an annual rate of 21.5%) and HRK 16.3bn from corporate loans (up at an annual rate of 24.4%). Housing loans, accounting for 49.1% of total household loans, rose at the highest rate of 29.0%. In contrast, most of the increase in corporate loans was accounted for by loans to other enterprises, prevailing among corporate loans with a share of 89.9%, which increased annually by HRK 15.2bn (25.7%). Deposits with other banking institutions also rose considerably (by HRK 11.5bn or 85.8%) and deposits held with the CNB went up by HRK 3.3bn, that is by 7.3%. Banks' trading and investment portfolios decreased only slightly, and so did their other assets.

The highest rise on the liabilities side was in time deposits, which were up by HRK 28.0bn (22.3%), with HRK 9.6bn of the rise accounted for by household time deposits. Banks' short-term liabilities grew by HRK 11.6bn (16.2%), primarily due to giro and current account deposits, rising by HRK 8.2bn (26.5% from the end of June 2006). Short-term loans from financial institutions increased by 91.6% (HRK 5.6bn), while

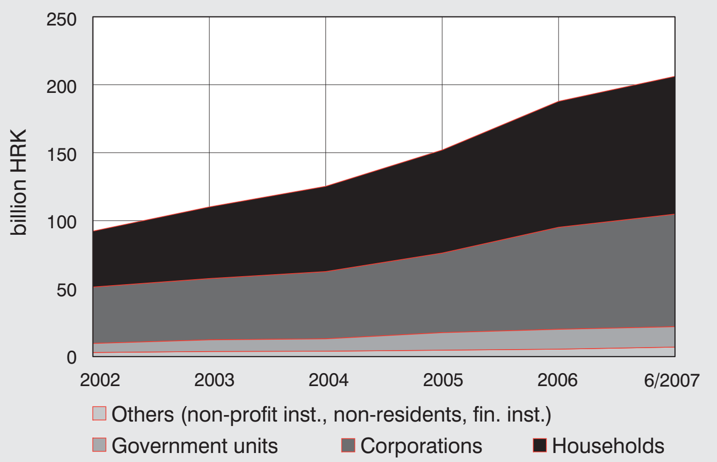
27 At the end of 2006, Italian shareholders accounted for the largest share in Croatian banking sector assets (approximately 44%). However, before the end of the semi-annual reporting period in June 2007, a large Croatian bank's parent bank, previously Italian owned, came into Austrian ownership.

short-term loans from other creditors dropped by 30.7% (HRK 2.8bn). Subordinate and hybrid instruments and other liabilities rose by HRK 1.5bn, up at annual rate of 12.9%.

Total bank capital rose by HRK 11.1bn (42.2%) in the year from June 2006, with share capital increasing the most, by HRK 8.0bn (60.7%). Most banks were recapitalised in response to central bank measures which increased their overall risk exposure[28] and, consequently, reduced capital adequacy ratios, while some banks were infused with additional capital in order to expand their operational scope and acquire larger market shares.

The share of loans in bank assets, which is commonly high in Croatia compared with the banking sectors of EU 25 countries, increased by almost 2 percentage points in the first half of 2007, standing at 63.4% at the end of June. The share of household loans in total net loans expanded from 47.7% to 49.1% in the year from the end of June 2006, and the share of corporate loans increased from 38.1% to 41.1%. The share of loans to financial institutions in total net loans held steady at 2.6%, while the share of loans to government units dropped from 10.6% to 7.3%, primarily because of a noticeable decrease in loans extended to the central government. The currency structure of loans at the end of June 2007 was as follows: 64.9% of total loans was granted in or indexed to foreign currency, which is a decrease of 11.5 percentage points compared with the end of June 2006. The increase in kuna loans (HRK 18.9bn) was higher than the increase in total loans (HRK 18.5bn) in the first half of 2007.[29]

Figure 46 Bank Loan Portfolio by Debtor Sector, end of period



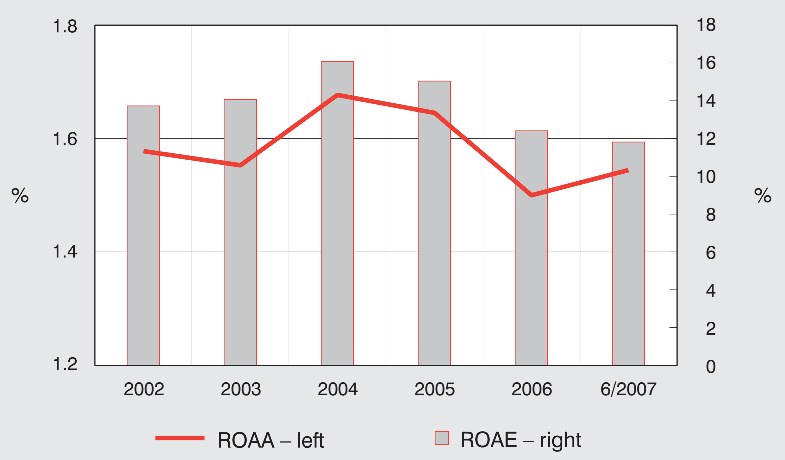
Source: CNB.

28 These amendments to prudential regulations raised the risk weights on foreign currency and foreign currency indexed claims against clients with unmatched foreign exchange positions.

29 More precisely, the share of euro-denominated or euro-indexed loans reduced from 53.7% to 47.4% in the first half of 2007, while the share of loans denominated in or indexed to Swiss francs rose slightly from 15.0% to 15.8% and the share of kuna loans surged from 28.5% to 35.1%.

Pre-tax profit of the Croatian banking sector increased at an annual rate of 9.9% at the end of the first half of 2007 relative to 2006 and net profit grew by 10.4% in the same period. With gross profit growing slightly faster than average assets in the one-year period from June 2006, the annual return on average assets went up from 1.50% (at the end of June 2006) to 1.54% (at the end of June 2007).

Figure 47 Banks' Return on Average Assets and Average Equity



Source: CNB.

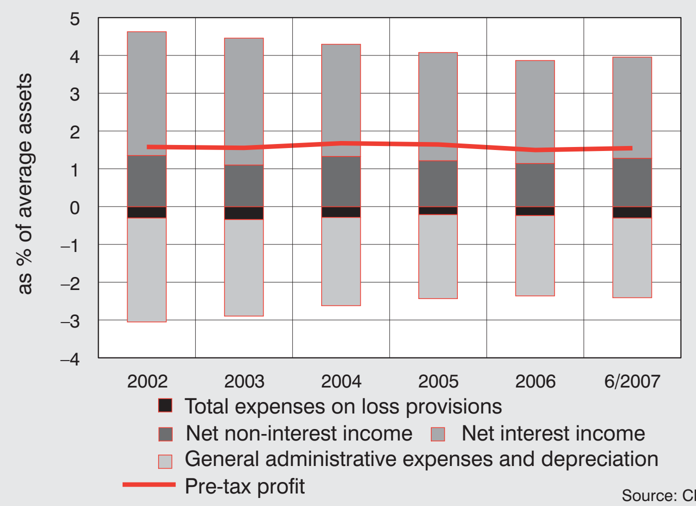
However, it should be borne in mind that the Croatian banking sector has in the past few years had a better ROAA at the end of the first half of the year than at the year-end. This indicator rose annually only for large banks, from 1.56% at the end of 2006 to 1.66%, while it decreased for medium-sized and small banks, down from 1.14% and 1.50% respectively to 0.90% and 1.31%.

Despite an increase of 10.4% in net profit, banks' annual return on average equity dropped to 11.8% at the end of June 2007 from 12.4% at the end of 2006, due to average bank capital rising at a high annual rate of 16.0% compared with 2006. As usual, trends in the business performance of the Croatian banking sector were primarily determined by large banks, whose share in annual gross profit at the end of June 2007 was 86.4%.

Compared with 2006, net profit of banks grew at an accelerated rate in the period from the end of 2006 to the end of June 2007. Net interest income increased by 4.9%, but due to a somewhat sharper increase in average assets (6.7%), the ratio of net interest income to average assets decreased slightly to 2.7%. Net non-interest income rose at a much sharper rate of 19.5% relative to the end of 2006, with the result that its ratio to average bank assets increased from 1.1% to 1.3%.

As general administrative expenses and depreciation grew at a slightly faster rate than net interest income (6.0%), their ratio to average assets remained the same at 2.1%. Total loss provision expenses increased sharply and their ratio to average bank

Figure 48 Profitability of Banks' Assets



Source: CNB.

assets went up from 0.2% to 0.3%. Accordingly, it was the considerable rise in net non-interest income, coupled with the moderate increase in net interest income, that enabled banks to generate net income totalling 4.0% of their average assets, which sufficed, despite the increase in general administrative expenses and depreciation and the rise in total provision expenses to 2.4% of bank assets, to push up the share of pre-tax profit in average assets relative to 2006.

Relative values of interest income from loans and interest expenses on deposits showed continued adverse trends in this segment of bank operations. Standing at 7.0% at the end of the first half of 2007, the ratio between interest income on loans and average loans continued the several-year downward trend, while the ratio between interest expenses on deposits and average deposits went up to 2.9%. Due to these trends, the difference between the interest income from loans to average assets ratio and the interest expense on deposits to average assets ratio reduced further.

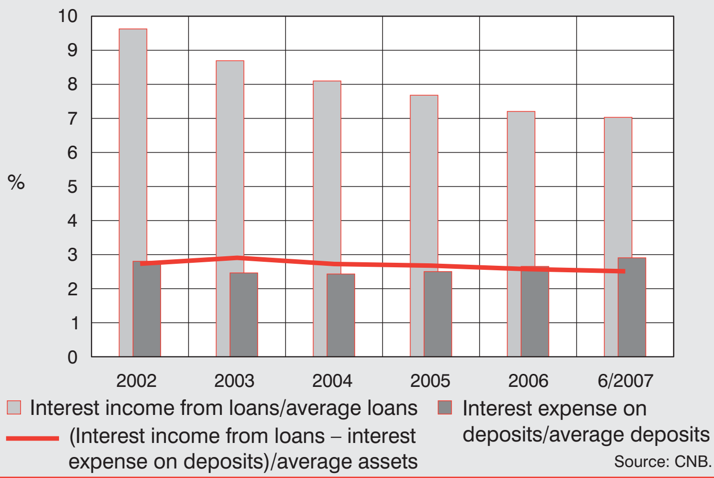
The slight increase in annual profitability of banks at the end of June 2007 was definitely due to the continued decrease in relative bank expenses for the coverage of credit risk in their portfolios. The share of impairment loss for placements and contingent liabilities in total placements and related contingent liabilities was 1.7% at the end of June 2007, compared with 1.8% at the end of 2006. The improvement is primarily related to the continuation of a several-year decrease in assessed risk of loans to other enterprises, whereas assessed risk of households remained at approximately the same level as at the end of 2006.

The reported quality of total bank placements has increased since 1999. Although it slightly diminished in the first half of 2007 compared with the end of 2006, it remained at a high level of 96.7%. This change occurred because of the rise in the share of partly recoverable (B) placements in total placements from 2.0% to 2.2%, while the share of fully irrecoverable (C) placements fell to a historical low of 1.1%.

The ratio of impairment loss on bank loans and deposits to total overdue claims and partly recoverable and fully irrecoverable placements fell by almost two percentage points at the end of the first half of 2007 from the end of 2006. This was a result of the decrease in this ratio regarding loans to other enterprises due to a decrease in impairment loss coupled by an increase in overdue claims and partly recoverable and fully irrecoverable placements in absolute terms. These data, and some other central bank analyses, suggest that the Croatian banking sector is capable of absorbing considerable losses in case that asset risk increases, that is, a negative shock occurs in the macroeconomic environment.

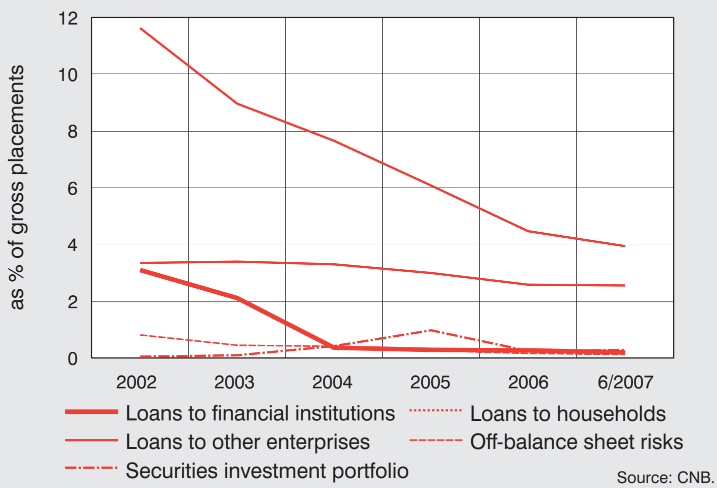
As Croatia is a highly euroised country, banks are constantly systemically exposed to currency risk. At the end of June 2007, the ratio of banks' aggregate short positions to the sum of their regulatory capital was 6.1%, while this ratio relating to long positions

Figure 49 Interest Income from Loans and Interest Expense on Deposits



Source: CNB.

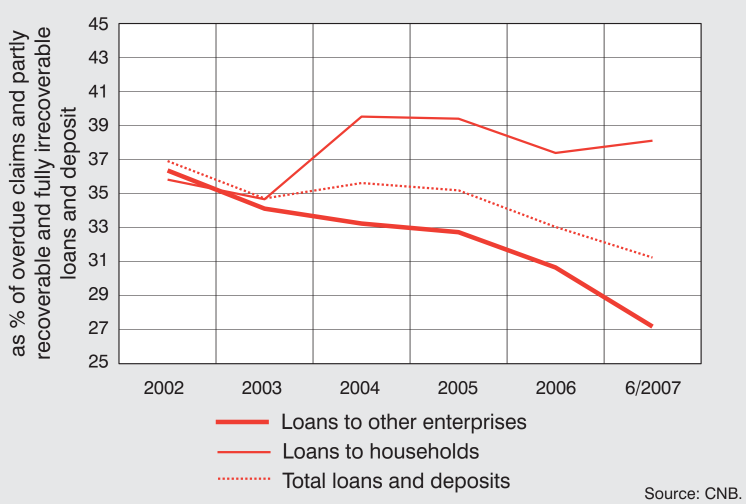
Figure 50 Impairment Loss (Specific Provisions), end of period



Source: CNB.

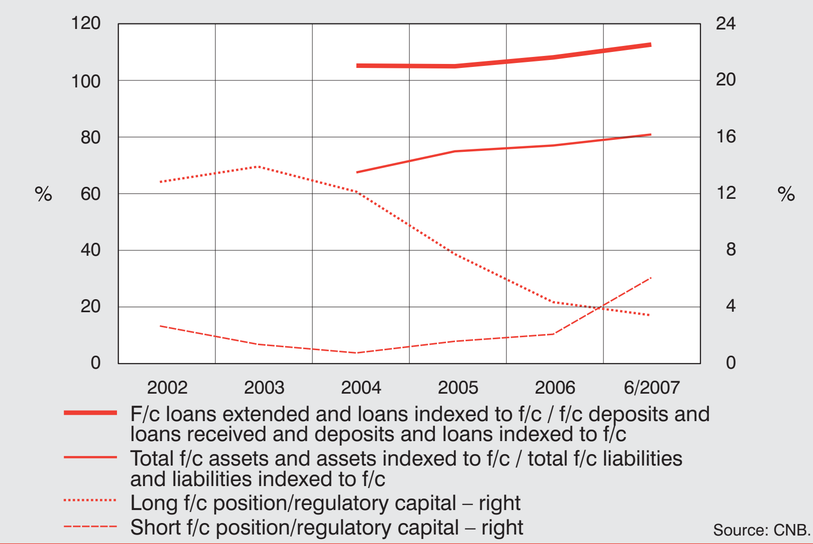
was 3.4%, which is an indication that direct currency risk is negligible in the Croatian banking sector (banks' exposure to direct currency risk, measured by their aggregate open foreign exchange position, is limited to 20% of their regulatory capital). A considerably more serious risk to the stability of the Croatian banking sector is posed by currency induced credit risk (CICR). Total exposure to CICR was HRK 206.7bn (55.4% of total placements) at the end of June 2007, which is a decrease from HRK 210.3bn (60.2% of total placements) at the end of 2006. Expectedly, the household sector is most exposed to this risk. Notwithstanding the decrease in total exposure to this risk in the first half of 2007, it should be borne in mind that, at the end of this period, banks assessed that only 24.3% of placements were hedged from CICR.

Figure 51 Impairment Loss on Banks' Loans and Deposits, end of period



Source: CNB.

Figure 52 Main Indicators of Banking Sector Exposure to Currency Risk, end of period



Source: CNB.

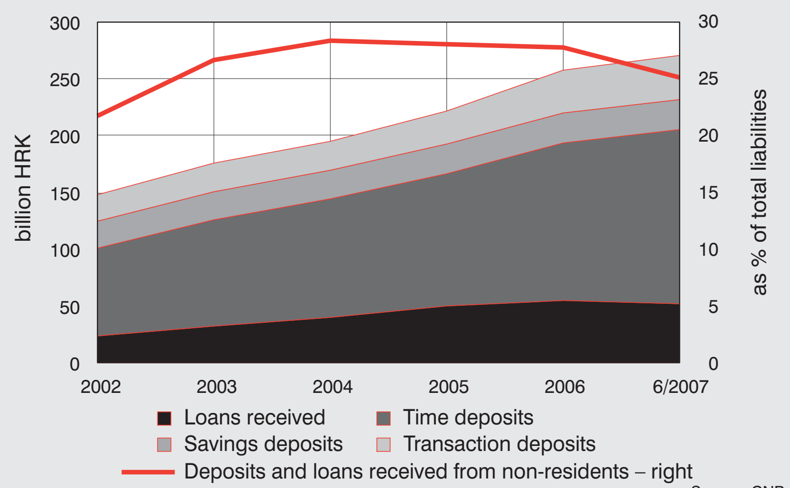
As regards the quality collateral instruments, banks' assessment from the end of June 2007 was that 34.8% of total placements were secured by quality collateral instruments, with the secured amount amounting to 86.4% of the amount of secured claims. Real estate continued to be the most used collateral instrument (60.2%). More than half of this figure (35.13%) was accounted for by housing real estate, the most often used collateral instrument for household loans, while the remaining portion was related to commercial real estate, commonly used as collateral instrument for corporate loans. As for loans to the government and financial institutions, the most often used are other quality collateral instruments, e.g. securities and unconditional guarantees. Loans to non-residents are the only type of loans fully secured by quality instruments.

What should be noted in connection with risks in international bank operations and possible banking sector contagion is that the share of loans to non-residents in total loans has since 2000 remained below 0.6%, while the share of foreign securities in total debt securities stood at 37.7% in June 2007. These securities were mostly the securities of foreign financial institutions and foreign governments that suit the definition of foreign currency claims from the Decision on the minimum required amount of foreign currency claims.

The Croatian banking sector is also exposed to so-called financing risk, arising from banks' direct borrowing from foreign persons. The share of liabilities on loans received from non-residents was 10.9% at the end of June 2007, which is a marked decrease compared with 14.4% at the end of 2006. Given the small turnover in interbank money trading (a type of non-collateralised trading) there is no risk of contagion within the Croatian banking sector, but the only risk comes from abroad, through affiliated foreign companies.

Having dropped to a historical low at the end of 2006, the banking sector capital adequacy ratio increased by one percentage point to 15.0% by the end of June 2007.

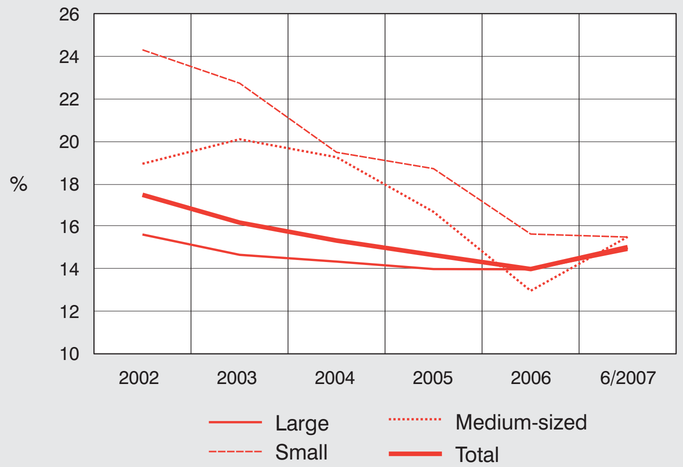
Figure 53 Banks' Liabilities by Instruments, end of period



Source: CNB.

After additional capital was infused, as expected, to medium-sized banks, their capital adequacy ratio equalled that of small banks, whose ratio is usually the highest. The capital adequacy ratio of large banks was also higher than at the end of 2006, but remained at its lowest point for the whole peer group. As at 30 June 2007, capital adequacy ratios of all banks exceeded 10%, but three banks reported a ratio lower than 11%, and as many as 12 banks had a ratio ranging between 10% and 13%.

Figure 54 Capital Adequacy Ratios by Bank Peer Groups



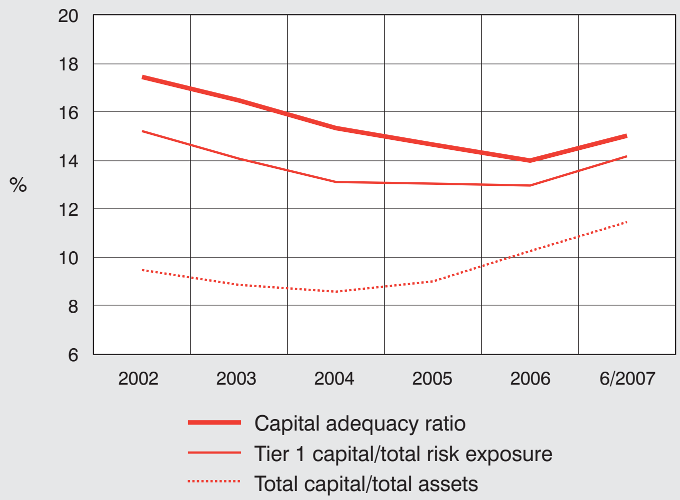
Source: CNB.

The capital adequacy ratio of the Croatian banking sector mainly reduced due to the faster growth of total risk exposure compared with regulatory capital. However, the changes in this ratio in the second half of 2006 and the first half of 2007 primarily resulted from the changes in the calculation method for total risk exposure. The new regulations, under which the first financial statements were compiled as at 30 June 2006, provided for an increase in the weights on foreign currency loans and foreign currency indexed loans of clients with unhedged foreign exchange positions. As almost all the foreign currency indexed loans fully secured by mortgages on housing real estate were extended to persons with unhedged foreign exchange positions, following this regulatory change some asset items were placed in the class carrying a higher weight, which considerably reduced the banking sector capital adequacy. While the capital adequacy of every bank remained above the prescribed minimum, some banks decided to increase their capital. After the capital infusions, the ratio of banks' total capital to total assets increased by 1.2 percentage points (to 11.5%) compared with the end of 2006.

The banking sector has mostly maintained good liquidity in the year from the end of June 2006. Kuna liquidity measured by surplus banking sector kuna liquidity relative to its deposit base rose from –0.5% to 0.8% in that period, which indicates a liquidity increase. Other indicators suggest a slight drop in liquidity.

Although its annual profitability ratios have been on the decline since 2004, the

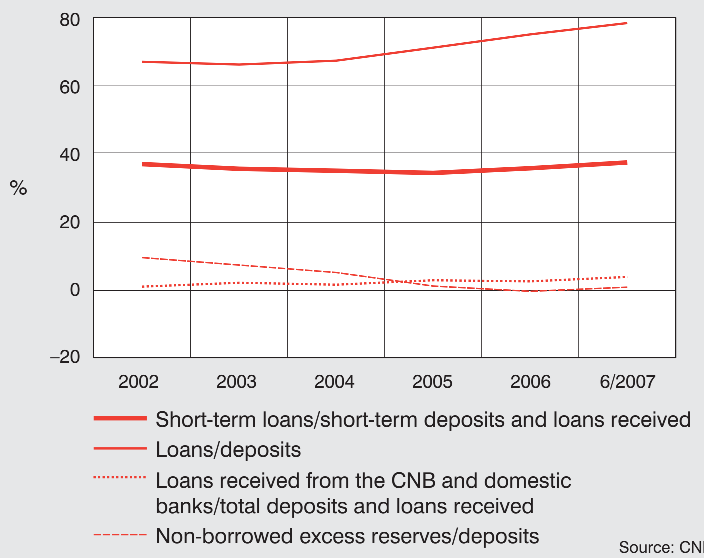
Figure 55 Leverage



Source: CNB.

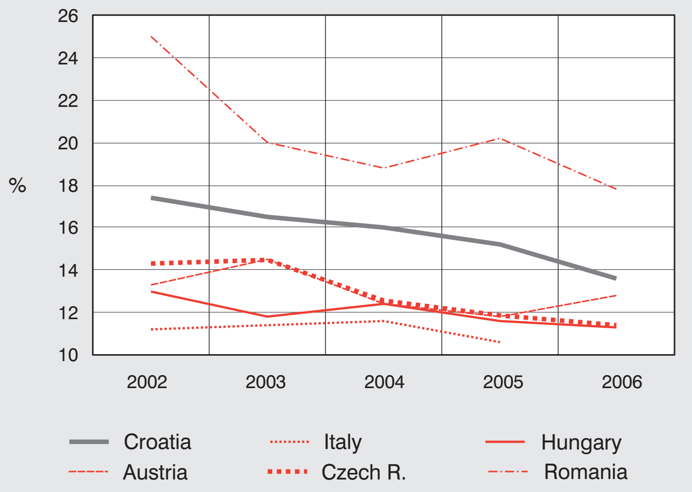
Croatian banking sector has remained attractive to foreign investors, as proved by the fact that three more domestic banks have been acquired by foreign owners in the year since June 2006. According to the ratio of risk to profit, the Croatian banking sector is in the middle between developed European banking sectors and banking sectors of developing European countries. While the aggregate capital adequacy ratio of the Croatian banking sector has for some time been between the ratios of these two groups of European countries, it has recently come closer to the ratio of developed countries. This could be attributed to a steady decrease in perceived risk and the banking sector consolidation process.

Figure 56 Main Indicators of Banking Sector Liquidity



Source: CNB.

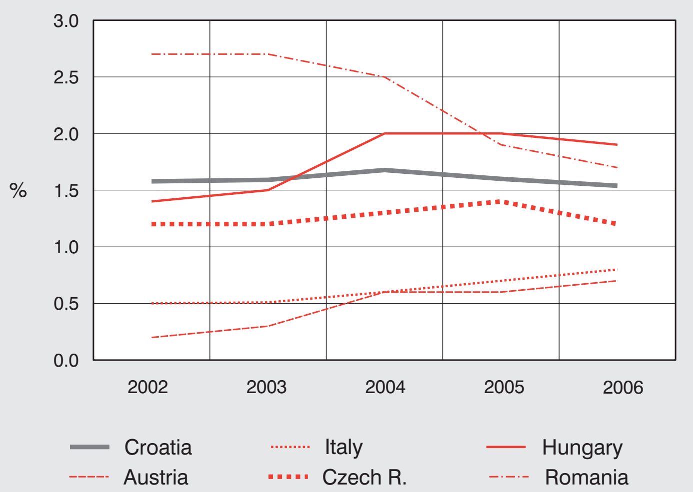
Figure 57 Capital Adequacy Ratio in Croatia and Selected European Countries



Source: IMF.

Besides the long-standing downward trend in perceived risk, the Croatian banking sector has also been characterised by relatively high gross earnings per unit of assets. Asset profitability ratios for the Croatian banking sector have always been considerably higher than the average ratios for the banking sectors of the domicile countries of the largest Croatian banks' parent banks, as banks manage to generate considerable earnings in Croatia despite sharp competition on the domestic market, increasing regulatory restrictions and adverse trends in global financial markets. However, capital profitability of Croatian banks has reduced in the last few years, so that foreign investors' interest in the Croatian banking sector could wane if this trend continues.

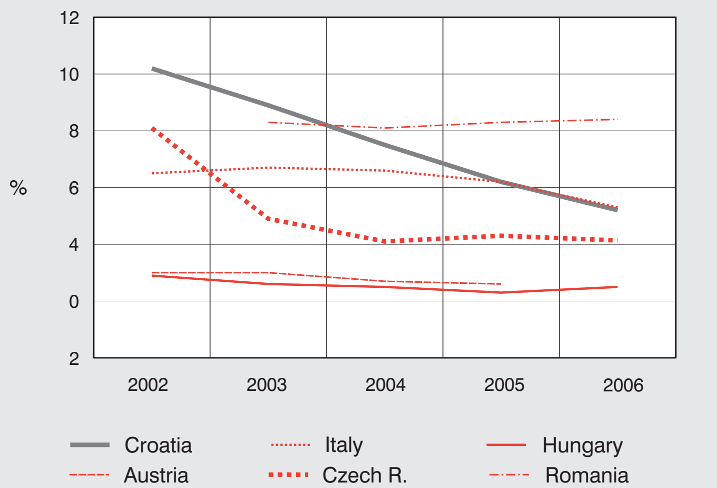
Figure 58 Return on Banking Sector Assets in Croatia and Selected European Countries



Source: IMF.

As regards the ratio between risk and profitability, the share of non-performing loans in total loans should also be taken into account, since this indicator has steadily decreased in Croatia in the last few years. According to this indicator, the Croatian banking sector has in the last few years considerably approached the domicile countries of some largest Croatian banks' parent banks (Austria and Italy), which is understandable as Croatian banks use the know-how and technology of their parent banks.

Figure 59 Ratio of Non-Performing Loans to Total Loans in Croatia and Selected European Countries



Source: IMF.

Table A

Selected Indicators of Banking Sector Operations[30]
(in %, unless otherwise noted)

Indicator	2002	2003	2004	2005	2006	6/2007
Size						
Number of banks	46	41	37	34	33	33
Assets (in million HRK)	174,139	204,043	229,305	260,594	304,605	325,200
Profitability						
Return on average assets (ROAA)[a]	1.6	1.6	1.7	1.6	1.5	1.5
Return on average equity (ROAE)[b]	13.7	14.1	16.1	15.0	12.4	11.8
Adjusted ROAA[c]	1.6	1.5	1.7	1.6	1.5	1.5
Net operating income indicator[d]	1.9	1.9	2.0	1.9	1.7	1.8
Net interest income indicator[e]	3.3	3.4	3.0	2.9	2.7	2.7
Indicator of general administrative expenses and depreciation[f]	2.7	2.6	2.3	2.2	2.1	2.1
Ratio of interest income from loans to average loans	9.6	8.7	8.1	7.7	7.2	7.0
Ratio of interest expense on deposits to average deposits	2.8	2.5	2.4	2.5	2.6	2.9
Share of difference between interest income from loans and interest expense on deposits in average assets	2.7	2.9	2.7	2.7	2.6	2.5
Credit risk						
Share of impairment loss in total loans to financial institutions	3.1	2.1	0.4	0.3	0.3	0.2
Share of impairment loss in total loans to households	3.4	3.4	3.3	3.0	2.6	2.6
Share of impairment loss in total loans to other enterprises	11.6	9.0	7.7	6.1	4.5	3.9
Share of specific provisions in total off-balance sheet risks	0.8	0.4	0.4	0.3	0.2	0.1
Liquidity						
Share of deposits and loans received from non-residents in total liabilities	21.7	26.7	28.4	28.1	27.8	25.1
Ratio of short-term loans extended to total short-term deposits and loans received	37.0	35.5	35.0	34.3	35.7	37.4
Ratio of loans extended to deposits and loans received	67.0	66.2	67.3	71.2	75.1	78.3
Share of loans received from the CNB and domestic banks in total loans and deposits received	0.9	2.1	1.5	2.8	2.5	3.7
Currency risk						
Ratio of f/c loans extended to f/c deposits and loans received	11.3	10.2	11.2	15.6	14.1	13.9
Ratio of total f/c assets to total f/c liabilities	44.5	49.3	50.5	50.7	51.9	50.8
Long f/c position to regulatory capital ratio	12.8	13.9	12.1	7.7	4.3	3.4
Short f/c position to regulatory capital ratio	2.7	1.4	0.8	1.6	2.1	6.1
Capitalisation						
Capital adequacy ratio[g]	17.4	16.5	15.3	14.6	14.0	15.0
Total capital to total assets ratio	9.5	8.9	8.6	9.0	10.3	11.5
Tier 1 to total risk exposure ratio	15.2	14.1	13.1	13.0	13.0	14.2

[a] Percentage share of pre-tax profit in average assets.
[b] Percentage share of after-tax profit in average equity.
[c] Pre-tax profit excludes extraordinary income and 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.
[g] Regulatory capital to total risk exposure ratio.

30 According to unconsolidated preliminary Bank Statistical Reports at 30 June 2007 and unconsolidated audited Bank Statistical Reports for the previous periods, available on 30 September 2007 (excluding banks undergoing winding-up proceedings). All the indicators were calculated based on aggregate unconsolidated banking sector data on a net basis (with the values of asset items reduced by corresponding specific provisions). For indicators calculated on the basis of an average balance of an item, the averages were calculated as the arithmetic mean of the balance at the beginning and at the end of the period for which the indicator is calculated.

Table B
Selected Debt Indicators of Non-Financial Sectors[31]
(in %)

Indicators	2002	2003	2004	2005	2006	6/2007
Household debt						
– as % of GDP	24.8	28.9	31.8	35.6	40.3	42.2
– as % of gross disposable income[a]	49.3	63.5	68.5	81.7	96.2	103.5
– as % of household bank deposits	60.8	71.0	77.2	82.9	89.6	94.9
– year-on-year rate of growth	42.5	27.9	19.2	20.2	22.6	22.4
Debt of non-financial corporations						
– as % of GDP	45.2	45.4	47.2	51.4	58.7	62.2
– as % of corporate bank deposits	308.5	290.7	302.4	347.6	340.5	366.9
– year-on-year rate of growth	15.2	10.0	12.6	17.2	23.5	24.5
TOTAL – non-financial private sector						
– as % of GDP	70.0	74.4	79.1	87.0	98.9	104.4
– year-on-year rate of growth	23.6	16.4	15.2	18.4	23.2	23.6
General government debt[b]						
– as % of GDP	42.1	43.3	45.9	46.9	44.0	43.2
– year-on-year rate of growth	8.5	12.6	15.0	9.9	1.5	3.5
– interest paid as % of GDP	2.0	2.0	2.0	2.2	2.2	2.0
TOTAL – non-financial sector						
– as % of GDP	112.0	117.6	125.0	133.9	142.9	147.6
– year-on-year rate of growth	17.4	15.0	15.1	15.3	15.6	17.0
Implicit interest payments[c]						
– households, as % of gross disposable income	4.5	5.7	5.9	6.5	7.0	7.4
– non-financial corporations, as % of GDP	3.2	3.0	2.8	2.9	3.1	3.4

[a] Household gross disposable income was estimated based on data from the Survey of Household Consumption in the RC and data from the Statistical Yearbook of the RC, both CBS publications. Data on households after 2001 were estimated based on migration data.
[b] According to an internally consistent broadest coverage of the general government, inclusive of CBRD debt and exclusive of non-exercised government guarantees. Any discrepancies from the indicators calculated on the basis of the official statistics of the CNB or MoF are ascribable to the difference in the coverage of the general government
[c] Estimate based on existing data on interest paid to banks.

31 Expert estimate based on data of the CNB, CBS, Fina, HANFA and MoF, available on 22 October 2007. Data may be subsequently revised within the regular revision of external debt statistics. Debt data exclude debt to issuers of non-bank cards – indicators may be revised upwards 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 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
CBRD – Croatian Bank for Reconstruction and Development
CBS – Central Bureau of Statistics
CEE – Central and Eastern European
CICR – currency induced credit risk
CNB – Croatian National Bank
CPI – consumer price index
CROEMI – Croatian Equity Market Index
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
fin. – financial
Fina – Financial Agency
GDP – gross domestic product
GNI – gross national income
HANFA – Croatian Financial Services Supervisory Agency
HREPI – hedonic real estate price index
HROK – Croatian Registry of Credit Obligations
HRK – Croatian kuna
IFS – International Financial Statistics
IMF – International Monetary Fund
inst. – institution
m – million
MoF – Ministry of Finance
R. – Republic
RBA – Raiffeisenbank Austria d.d.
RC – Republic of Croatia
ROA – return on assets
ROAA – return on average assets
ROAE – return on average equity
ROE – return on equity
S&Ls – savings and loan associations
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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