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MACRO PRUDENTIAL *analysis*

CROATIAN NATIONAL BANK

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MACROPRUDENTIAL ANALYSIS

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Contents

1 Introduction

The year 2006 saw no events threatening the stability of the Croatian financial system due to mostly favourable developments in the macroeconomic environment, as well as the continuation of institutional reforms on the Croatian path to the EU membership. Still, the external imbalance of the Croatian economy further worsened in 2006. In the long-run, if its several-year growing trend is not halted, it could present a potential risk to the stability of both the financial and overall economic system.

The 2006 real economic growth was the highest growth recorded in the last three years; it was 4.8% according to quarterly data, while available data indicate that its relatively strong upward trend has continued into 2007. As in 2005, this growth was mainly driven by gross fixed capital formation, with the greatest contribution coming from construction. Personal consumption grew by 3.5% in the same period. Given a moderate wage growth, it was mainly influenced by consumer loans as buoyant bank lending continued into 2006 as well. Still, while household loans, 48% of which are consumer loans, continued to account for the largest share of bank loans, the annual growth rate of corporate loans, which was 26.1% in 2006, for the first time surpassed the growth rate of household loans, which was 21.8% in 2006. Corporate and household loans observed together rose to 69.4% of GDP at end-2006, up 8.6 percentage points over end-2005.

Notwithstanding inflationary pressures exerted by rising world market crude oil prices, 2006 was also characterised by relatively low inflation, with the average year-on-year rate of change of the CPI being 3.2%, 10 basis points less than in 2005. Nevertheless, real estate prices continued to surge, spurred by parallel above-average growth rates of home loans extended by banks, which went up 34.4%. In addition to this rise in real estate prices, 2006 was marked by a huge increase in equity securities prices which, in addition to the expected growth in the assets of institutional investors and inflows of risk-bearing capital from abroad, was largely driven by the growing interest of the broad public for investment in the shares on the domestic capital market, boosted also by the finalisation of the Pliva d.d. takeover and the public offering of Ina shares.

The maintenance of low CPI inflation in 2006 was aided by the steady exchange rate of the kuna against the euro. The average daily kuna/euro exchange rate strengthened by 1.0% in nominal terms in 2006 compared with the year before as a result of persistent appreciation pressures fuelled by further net external borrowing of most domestic sectors and the unusually numerous recapitalisations of foreign-owned banks. Favourable developments on both the revenue and expenditure side of the government budget led to a fiscal deficit reduction of almost HRK 2bn in 2006 relative to 2005, so that the consolidated general government deficit on a cash basis was cut to 2.6% of GDP in 2006. Accelerated economic growth also positively affected the domestic labour market; in 2006, the average registered unemployment rate hit its record low (16.9%) since 1997, while registered employment grew compared with the year before.

On the other hand, 2006 saw a worsening of Croatia's external imbalance, which was evident in strong external debt growth and a large widening of the current account deficit, to 7.8% of GDP. Despite continued central bank's efforts to curb external borrowing, external debt of the Republic of Croatia rose by 13.2% and its ratio to GDP by 2.8 percentage points at the end of 2006 from the end of 2005. This was mostly contributed to by non-financial corporations which, as in 2005, continued their strong direct external borrowing. In contrast, the government decreased its debt to foreign creditors in 2006. However, the government's reliance on domestic funding sources indirectly increased external liabilities of other domestic sectors, particularly banks, from which the government borrowed more heavily in the last two years relative to the years before. The long-term unsustainability of such deterioration in the external balance is also observable in the external debt burden indicator which stayed on a steep upward trend in 2006, reaching 37.9% of goods and services exports at the year-end. This indicator for the first time ranks Croatia among countries heavily burdened by external debt. Despite the risks arising from the worsening of the external imbalance, domestic and international institutions held positive expectations regarding Croatia's economic growth, which partly stemmed from continued successful Croatia's EU accession negotiations.

In 2006, the estimated debt of the non-financial corporation sector continued to rise faster than GDP, and the value of its total debt amounted to 58.7% of GDP in late December. The largest portion (56.7%) of total debt was as usual accounted for by debt to banks. The increase in debt to banks was coupled with the rise in interest expense paid to banks, whose growth rate in 2006 was highest ever: 19%. Still, the interest burden continued to grow at a slower rate than the debt burden, and its share in the average debt to banks (5.0% in 2006) was reduced compared with 2005. In the last two years, the rise in debt was accompanied by an increase in liquidity problems of business entities; at end-2006, the number of insolvent legal persons was 9% higher, while the total amount of overdue payment orders was 10% higher than at end-2005. Nevertheless, neither debt growth nor the worsening of certain liquidity indicators in the country had an adverse affect on favourable financial performance ratios of non-financial corporations, which at end-2006 stayed at their last year's level.

Households continued to borrow heavily in 2006, which further increased debt burden indicators of this sector. The estimated household debt to GDP ratio went up from 35.5% at end-2005 to 40.6% at end-2006. Debt to banks, accounting for some 95% of total household debt for quite some time, is still the leading household debt category. In 2006, this was facilitated by additionally expanded supply of increasingly cheaper bank loans, particularly those denominated in Swiss francs. Despite the household debt increase, measured by various indicators, aggregate debt burden indicators at end-2006 gave no cause for concern as the share of the principal repayment with interest in gross disposable income at end-2006 stayed at its end-2005 level (6.0%). However, should global interest rates continue their upward trend, this indicator could easily deteriorate in the next years. This is confirmed by the fact that the downward trend in lending rates on household loans almost halted in the second half of 2006, with some banks even increasing their interest rates on the formerly cheapest loans in Swiss francs.

The Croatian banking sector recorded satisfactory business results in 2006. Notwithstanding fast loan growth, the reported quality of bank placements considerably improved in 2006, with the share of impairment loss and provisions for contingent liabilities in total placements and related contingent liabilities down from 2.3% at end-2005 to 1.8% at end-2006. In the conditions of continued market competition, banks did not raise their lending rates, although deposit rates rose on account of the exogenous increase in the price of external borrowing. The changes in prudential regulations and monetary policy measures also had a major impact on bank operations in 2006. In such circumstances, the achieved faster growth in banks' income, which was mostly due to the rise in their non-interest income, did not improve their aggregate profitability ratios, which were somewhat worse at end-2006 compared with end-2005.

The harmonisation of the Croatian financial legislation with the EU *acquis* continued into 2006. The Croatian Financial Services Supervisory Agency (HANFA) commenced its operation early in 2006 and the Committee for the Operational Supervision of the Financial Sector, whose purpose is to improve the supervision of the entire financial system, was established and comprises representatives of the HANFA, which is responsible for the supervision of non-banking financial institutions, and the CNB, which is responsible for the supervision of the monetary system and banking sector. The amendments to the Securities Market Act, which were adopted late in 2006, were to eliminate some inconsistencies with EU directives, while full harmonisation with EU directives is to be achieved by adopting a new act, which is planned for 2008. The Leasing Act, which was also adopted late in 2006, fully regulates such financial operations. With regard to credit institutions, the harmonisation with the new Directive relating to the taking up and pursuit of the business of credit institutions is to be achieved by the Credit Institutions Act, whose adoption and entry into force are expected in 2008 and early 2009 respectively. Also adopted in late 2006 was the Act on Amendments to the Croatian National Bank Act whose provisions mostly refer to activities of central banks in the EU and EMU so that most of them are not to be applied immediately but as of the date of Croatia's accession to the EU and EMU.

2 Macroeconomic Developments

Macroeconomic developments in Croatia were mostly favourable in 2006, as evidenced by continued positive trends of some basic economic and financial indicators, notwithstanding a parallel further deterioration of the country's external position. The Croatian real economic growth rate in 2006 exceeded that recorded in 2005 and inflation remained moderate despite a slight increase in mid-year. The fiscal deficit was cut thanks to positive developments on both the revenue and expenditure side of the government budget, and favourable trends were also recorded on the labour market where unemployment decreased and the number of the employed increased. At the same time, Croatia's external imbalance deteriorated further, as evidenced by the massive growth in external debt and the current account deficit. In 2006, these developments were additionally fuelled by accelerated growth in bank placements, despite the continued implementation of restrictive monetary policy measures. Although the external debt of the general government decreased due to its borrowing in the domestic market, external debt indicators further deteriorated in 2006 owing to continued excessive external borrowing of banks and a growing number of enterprises borrowing directly abroad. This prompted the central bank to further tighten the monetary policy stance and adopt new measures aimed primarily at reducing the contribution of bank placements growth to the external imbalance, as well as its boost to an overwhelming increase in real estate prices, which has been steady over the last three years. In addition to the rise in real estate prices, 2006 will be remembered as the year of an upsurge in equity securities prices on the Croatian market. Together with bank loans, which directly and indirectly increase the liquidity of market participants, inflation of real estate and equity securities prices in the said period was strongly fuelled by the development of institutional investors and inflows of risk-bearing capital from abroad.

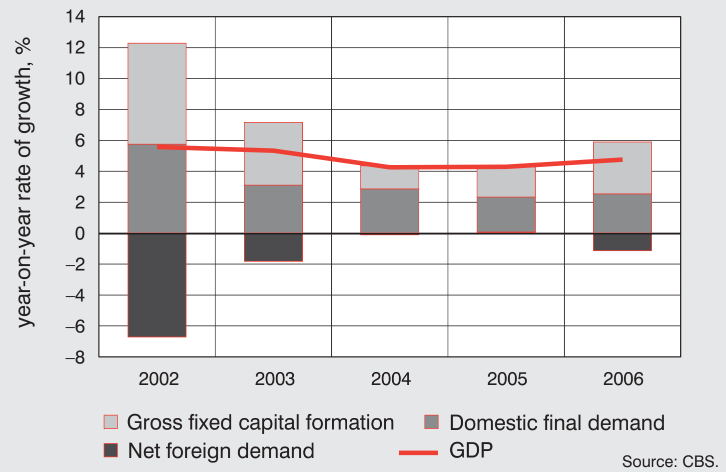
Despite the risks arising from the worsening of the external imbalance, domestic and international institutions held positive expectations regarding Croatia's economic growth, estimating the 2007 GDP growth rate in the range of 4.0% and 4.8%. Such optimistic expectations also stemmed from the continued progress of Croatia's EU accession negotiations.

The year-on-year Croatian economic growth rate in 2006 was the highest rate recorded in the last three years and stood at 4.8% according to quarterly data. Nevertheless, one should note that it was still below the average economic growth rate of Central and Eastern European countries, which was 6.0% in 2006 according to the IMF data. The main driver of the Croatian economy was gross fixed capital formation, growing by 10.9% on an annual basis, mostly on account of strong private sector activities, which were especially pronounced in construction. Growth was also supported by personal consumption, which grew by 3.5% and, given a moderate wage growth, was mostly influenced by consumer loans. In the same period, government consumption grew by 2.2%, with the major portion of this growth being generated in the second half of 2006. In contrast with 2005 when net foreign demand for the first time since 2000 made a positive contribution to growth, its contribution in 2006 was again negative owing to import growth exceeding export growth.

The data collected so far suggest that relatively strong economic growth has continued into 2007, in which personal consumption growth is expected to hold steady due to the upturn in the wage bill and transfers to households, as well as further investment growth and increased government consumption in the pre-election year. Indicators for early 2007 point to a rise in tourism revenues with the positive effects of the continued negotiations on Croatia's EU accession also being expected.

Accelerated economic growth has begun to exert a positive influence on labour market

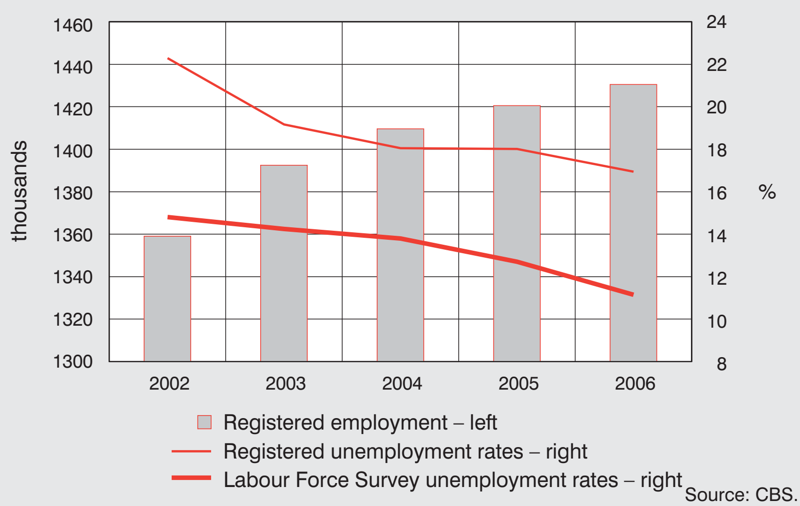
Figure 1 Economic Growth



Source: CBS.

developments, as evidenced in the cut of the average registered unemployment rate from 18.0% in 2005 to 16.9% in 2006 – its lowest level since 1997. In the same period, registered employment increased; it averaged 1.47m in 2006 or 3.3% more than in 2005. These developments were backed by the rise in average employment in legal persons, of 4.2% compared with 2005, which was mostly accounted for by the rise in the number of the employed in the NCEA sections of wholesale and retail sale, real estate activities, renting and business services, and construction. The average number of persons employed in crafts and trades and free-lances grew by 1.7%, while the average number of private farmers continued to fall, being 8.5% down compared with 2005. Average real net and gross wages also increased in 2006 compared with 2005, by 1.8% and 2.7% respectively. Indicators of labour market developments according to the Labour Force Survey data also improved, as confirmed by the Labour Force

Figure 2 Employment and Unemployment Rates, annual average



Source: CBS.

Survey unemployment rate which fell to 11.2% in 2006, the lowest level since 1998.

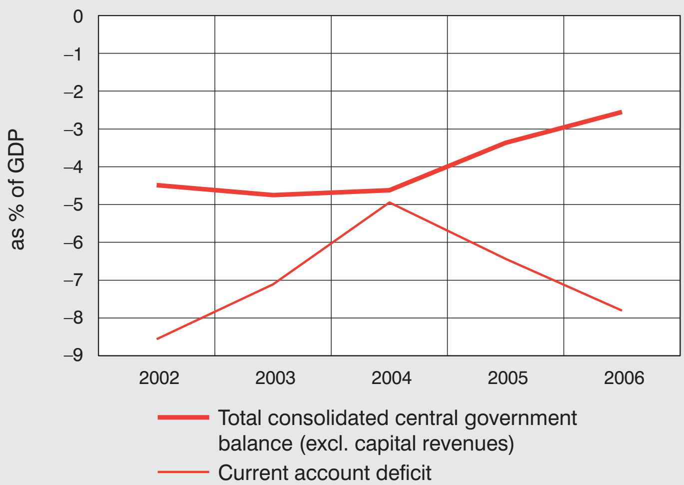
Despite favourable economic growth indicators, the problem of Croatia's external imbalance has become increasingly apparent. In 2006, it was mostly contributed to by a negative foreign trade balance, which grew by 11.2% in 2006 compared with 2005, and stood at EUR 8.4bn. Although the international trade in services remained on a positive trend, this trend could not significantly curb the widening of the annual current account deficit, which rose to a high 7.8% of GDP by end-2006, up 1.4 percentage points over 2005. It resulted from the fact that goods imports were much larger than exports in absolute terms, although the latter grew at a higher rate in 2006. Indicators for early 2007 suggest that the adverse trends recorded in recent years have continued, which is particularly visible in data on the coverage of imports by exports.

In contrast with adverse BOP developments, as a result of positive developments both on the revenue and expenditure side of the government budget, the fiscal deficit was cut by almost HRK 2bn in 2006 relative to 2005. Thus was realised the planned consolidated general government deficit, on a modified accrual basis, of 3.0% in 2006, down 1.1 percentage point and 1.9 percentage points compared with 2005 and 2004 respectively. The consolidated central government deficit on a cash basis also fell, to 2.6% of GDP in 2006, narrowing by 0.8 percentage points from 2005. However, it should be said that fiscal expenditures for 2006 exclude payments of the debt to pensioners,[1] of which the first and second instalments were paid in June and December 2006 respectively. The last two instalments of the debt to those pensioners who opted for a speedy payment within a two-year period are to be paid in 2007 and are also excluded from fiscal expenditures. We point that these are not the only outlays for pensioners as the government should also pay the debt related to survivors' and privileged pensions, whereas additional costs for compensation of "new" pensioners

1 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 with wage movements 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 survivors' pensions who are entitled 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 survivors' 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 and second instalments paid to those who opted for a speedy payment were paid in June and December 2006 respectively, and the other two instalments are to be paid by the end of 2007, each amounting 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 will also witness the beginning of compensation payment to beneficiaries of highest (limited) pensions and beneficiaries of survivors' 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 choose the 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.

are foreseeable in the near future.[2] The outturn of the 2007 consolidated general government deficit target of 2.8% is supported by the early 2007 data showing that fiscal revenues have much exceeded the projections. Expectations for 2007 include the continuation of structural and institutional reforms aimed at improving the business and institutional environment, as well as the reforms of the judiciary, public administration and health systems, which should all together additionally facilitate fiscal adjustment in the medium and long-term period.

Figure 3 Government Finance and External Balance, one-year period



Sources: CNB and MoF.

Described developments in the real, government and external sectors were coupled with very steady and relatively low inflation. Somewhat stronger inflationary pressures recorded in mid-2006, when the year-on-year rate of change of the CPI reached its six-year high of 4.0%, were mostly fuelled by rising world market crude oil prices, subdued towards the year end, so that the average year-on-year rate of change of the CPI was 3.2% in 2006, down 0.1 percentage point compared with 2005. This rate was 2.0% in December 2006, 1.6 percentage points less than in the same month of 2005, and was throughout most of 2006 above the average annual inflation rate in the eurozone, which ranged between 1.6% and 2.5%.

In addition to the impact of rising world market crude oil prices on both import and domestic prices, consumer prices were in the first half of 2006 also affected by unfavourable trends in food and agricultural product prices and a rise in administrative prices. Still, as inflationary pressures were alleviated in the second half of the year, the average inflation rate in 2006 was lower than in 2005. Inflationary pressures

2 A separate problem, which is also to be solved in 2007 according to announcements, is the equalisation of "old" and "new" pensioners. Pensions paid to persons who retired after 1 January 1999 are no longer calculated according to the ten years of service when they received highest average salaries, but on the basis of their salaries in all working years, which put them at a disadvantage relative to the persons who retired prior to that date.

subdued also on account of moderate net wage growth in nominal terms and the nominal strengthening of the domestic currency against the euro and the US dollar. The average annual core inflation rate, which excludes administrative prices and seasonally volatile agricultural product prices, dropped from 3.1% in 2005 to 2.5% in 2006, primarily because of a lesser contribution of meat and meat products' prices.

Nevertheless, despite a relatively low CPI inflation rate, 2006 was marked by the rise in prices not included in the CPI calculation – an upsurge in residential real estate prices was steady throughout the year, and the rise in prices of almost all equity securities further intensified. The hedonistic real estate price index (HREPI),[3] which in addition to the price of a square metre of useful floor area takes into account qualitative characteristics of the real estate, kept on a strong upward trend that began in 2004, recording a year-on-year rate of change of 15.7%. At the same time, the Zagreb Stock Exchange Index, CROBEX, recorded a huge 60.7% upturn in 2006, which placed it among the fastest growing stock indices worldwide. These trends confirm that, despite a restrictive monetary policy stance, liquidity of participants on the demand side of the stock exchange and real estate market was abundant in 2006.

Figure 4 Prices and the Exchange Rate

Source: CNB.

The maintenance of stable consumer prices in 2006 was aided also by a stable exchange rate of the kuna against the euro. Owing to persistent appreciation pressures, which marked almost the entire year, the average nominal kuna/euro exchange rate appreciated by 1.0%, while the average real effective kuna/euro exchange rate appreciated by 1.9%. Boosted by foreign currency inflows resulting from the sale of Pliva d.d. and uncommonly large recapitalisations of banks operating in Croatia by their foreign owners, continued external debt growth, frequent issues of kuna

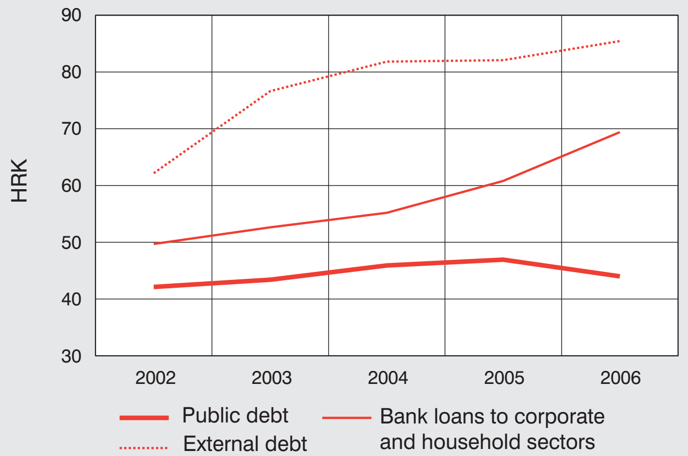
3 CNB calculations based on data of a real estate agency Burza nekretnina d.o.o.

securities by domestic enterprises, and numerous other factors, the average annual kuna/euro exchange rate strengthened from HRK 7.40/EUR in 2005 to HRK 7.32/EUR in 2006. Although the 2006 exchange rate was mostly outside its usual range of HRK 7.4–7.6/EUR, within which it moved in the last seven years, it may be said that it remained stable. As forecast by domestic and international institutions, the average annual kuna/euro exchange rate is to range between HRK 7.27/EUR and HRK 7.40/EUR in 2007.

A major contribution to the said 2006 economic developments was provided by continued buoyant bank lending. On the one hand, it was generated by steady loan demand of the household sector, coupled with increasing loan demand of the corporate sector, and on the other hand, by a strongly growing loan offer of some banks which, in the competition for market shares, opt for lower profitability resulting from restrictive monetary policy measures imposed on rapidly-growing banks. Banks' corporate and household loans reached 69.4% of GDP at end-2006, up 8.6 percentage points over end-2005. Although household loans continued to dominate the structure of bank loans, it should be said that in 2006 the annual pace of corporate loan growth for the first time exceeded the annual pace of household loan growth, the first was 26.1% and the latter was 21.8% at the end of 2006.

To partly finance such loan growth, banks used increasing kuna and foreign currency deposits, which grew by 15.6% by end-December 2006. Kuna deposits rose by a substantial 57.1% (to HRK 45.7bn) and accounted for 34.4% of total deposits at end-2006, up 9.3 percentage points over end-2005. In the same period, foreign currency deposits grew by only 1.7%, amounting to HRK 88.3bn. Relatively strong growth indicates the success of the banks' strategy to accumulate on their liability side as much domestic sources as possible to finance credit growth since foreign sources have become increasingly more expensive due both to the rise in key interest rates on developed markets and monetary measures of the CNB aimed at curbing external debt growth. Nevertheless, even this relatively rapid growth in domestic funding sources failed to thwart the increase in banks' external liabilities, which were 13.4% or almost HRK 9.0bn higher at end-2006 compared with end-2005. Growing by HRK 5.9bn, foreign liabilities in kuna contributed the most to the said increase. In 2006, the CNB continued with the implementation of monetary policy measures aimed at curbing external debt growth. These measures were further tightened early in 2007 with the adoption of the decision which limits the annual growth in bank placements to 12%, under which banks whose placement growth exceeds the limit are obliged to purchase CNB bills bearing a very low remuneration rate.

Figure 5 Main Financial Indicators, as % of GDP



Source: CNB.

3 International Environment

IMF data show real global economic growth of 5.4% in 2006, while the estimates for 2007 are somewhat lower, projecting real economic growth of 4.9%. Although this is a relatively high growth rate, it would probably be even higher if energy and raw materials prices had not reached their record highs ever in 2006. In addition to strong economic growth, 2006 was marked by exceptionally high liquidity on global financial markets, which substantially added to favourable financing terms. Investors were more prone to risks, which sustained a downward trend in the spread between the yield on government bonds issued by well developed countries and the yield on bonds issued by countries with lower credit ratings. In this context, the greatest uncertainty regarding the continuation of favourable real trends still lies in the pronounced global fiscal imbalance where, on the one hand, one finds an enormous US current account deficit, and on the other hand, balance of payments surpluses of Asian countries and oil exporters.

Although developed economies grew relatively fast in 2006, the global economic upturn was mainly driven by emerging markets and developing countries, which continually recorded above average growth rates. Notwithstanding the fact that the US economic growth decelerated in the second half of 2006, it still exceeded that recorded in 2005, whereas economic growth of EMU countries, headed by Germany, recorded the fastest growth pace in the last six years. Owing to stronger inflationary pressures, monetary policy tightening continued in these countries. The situation was similar in Japan whose economic recovery began in 2006. Although economic growth in EMU countries was much stronger in 2006 than in the previous years it still cannot be compared to the annual economic growth in Central and Eastern European countries, which averaged

6% in real terms in 2006. As before, these countries' economies were characterised by soaring domestic demand, strong inflows of foreign investment and high growth rates of bank placements, particularly to domestic private sectors. Among Asian countries, China recorded the highest growth rate, which kept at the level above 10% in real terms in 2006, while the estimated growth rate of India and the Russian Federation exceeded 9% and 6% in real terms respectively. Strong economic growth in these countries provided a boost to the economies of countries in the region but had a negative impact on energy and raw materials prices on the global market, which were pushed up by soaring demand fuelled by brisk industrial production growth in these countries.

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

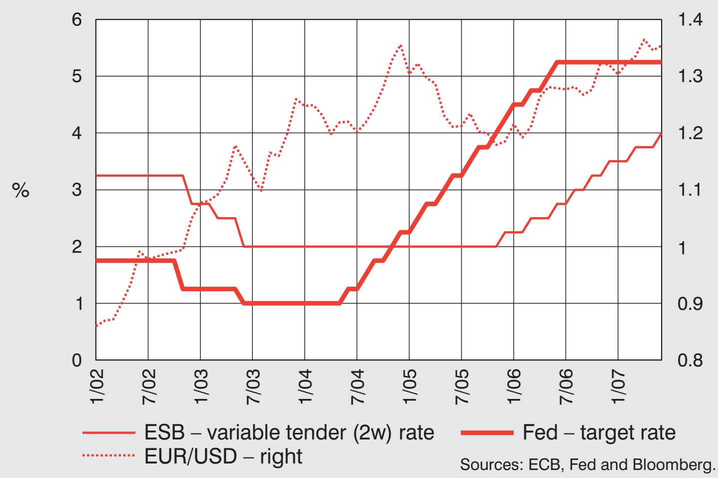
	2003	2004	2005	2006	2007[a]	2008[a]
China	10.0	10.1	10.4	10.7	10.0	9.5
Russian Federation	7.3	7.2	6.4	6.7	6.4	5.9
Central and Eastern Europe	4.8	6.6	5.5	6.0	5.5	5.3
USA	2.5	3.9	3.2	3.3	2.2	2.8
Japan	1.4	2.7	1.9	2.2	2.3	1.9
EU	1.5	2.6	1.9	3.2	2.8	2.7
EMU	0.8	2.0	1.4	2.6	2.3	2.3

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

Exceptionally favourable economic indicators, which in early 2006 heralded a recovery of EMU economies, characterised the rest of the year, as a result of which the annual economic growth rate of countries in the eurozone was 2.6%, the highest growth rate recorded in the last six years. At the same time, positive trends were also recorded on the labour market where the unemployment rate fell to its lowest level in the last fifteen years, to 7.5% in December 2006. The business and consumer confidence indices also implied rising optimism over 2006. In response to mounting inflationary pressures generated by the rise in energy prices, which was particularly evident in the first half of 2006, the gradual tightening of the ECB's monetary policy continued into 2006 as well. The ECB increased its key interest rate five times in 2006, by 25 basis points in March, June, August, October and December respectively, to finally 3.50% at the year-end. Based on the estimates that there is still the risk of growing inflation due to a potential steady growth in oil prices and its impact on other consumer prices, monetary policy tightening continued into 2007 so that the key interest rate reached 4.00%, after growing in March and June. Global analysts forecast another 25 basis point increase in the third quarter of 2007, which would put the key interest rate at the level of 4.25% at the year-end. The average year-on-year inflation rate in the eurozone was 2.2% in 2006, moving within the 1.6%–2.5% range, with a noticeable falling tendency towards the year-end resulting from a decline in crude oil prices on the world market. The targeted 2007 rate of inflation is somewhat below 2.0% and its achievement, apart from movements in crude oil prices, depends on possible wage increases in the eurozone, which may be prompted by strong economic growth in the last several quarters. Also, inflation may be partly affected by the increase in the value-added tax rate in Germany, from

16% to 19% in January 2007. Eurozone economic growth is expected to slow down slightly in the forthcoming period due to the delayed impact of the ECB's interest rate increase, but its pace should still exceed its long-term potential. A possible continued strengthening of the euro against the US dollar, which would adversely affect EMU countries' exports, presents a risk to the attainment of the projected economic growth.

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

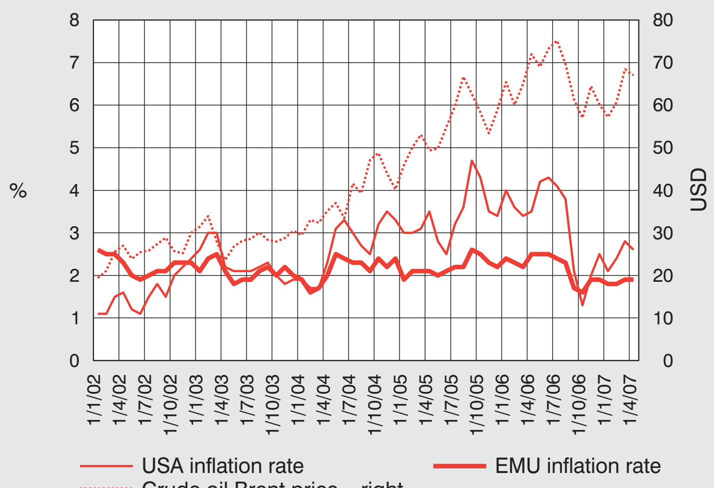


Sources: ECB, Fed and Bloomberg.

Euro and US dollar exchange rate movements in 2006 were primarily under the influence of expectations related to Fed and ECB key interest rate trends.Specifically, the appreciation of the euro against the US dollar, which exceeded 10% in 2006, and generally enhanced investor confidence in the European currency were the direct outcome of the expectations that the Fed would reach its neutral interest rate by raising the key rate, for the seventeenth consecutive time, to 5.25% in June 2006, and that it is less likely that the rise would continue. In contrast, eurozone indicators suggested that the ECB's monetary tightening would continue in the second half of 2006. In addition, the euro strengthening was supported by the data on steady economic growth in the eurozone, while the US economy showed signs of slackening already in the second quarter. The decline in the value of the US dollar is also attributable to the large US current account deficit and adjustment in the US real estate market. This adjustment, which began in the second half of 2006, was accompanied by problems related to mortgage loans whose repayment became more difficult due to the rise in interest rates, which were much lower at the time when loan agreements were concluded. The US bond yield curve was inverse at end-2006, which may imply that the market did not expect the key rate increase in 2007. This was confirmed by the announcement of Fed leaders early in the year so that the exchange rate of the US dollar against the euro is expected to stay on a downward trend.

Rising world market crude oil prices continued to pose the greatest risk to the continued high growth rates of the world's economy. Ranging mostly between USD 60 and USD 70 per barrel in early 2006, crude oil prices continued to grow in the second quarter due to Iranian nuclear activities, crossing the psychological limit of USD 70 per barrel. As a result of the Lebanon war and technical problems with a US oil pipeline, oil prices levelled off through to August 2006 when they fell due to alleviated geopolitical tensions in oil producing countries. The oil price drop was also due to a fall in demand for oil at such steep prices. Thanks to favourable weather conditions, oil prices dipped to even below USD 60 per barrel early in 2007. However, with the OPEC's announcement of December 2006 that it would decrease its daily output by half a million barrel as of February 2007, prices expeditiously returned to the level over USD 60 per barrel. On the supply side, oil prices in the forthcoming period will depend on production capacity limits and unexpected disturbances, as well as the political stability in oil producing countries, particularly Iraq, Iran, Venezuela and Nigeria. Oil demand will mostly depend on the pace of global economic growth. The reason for concern in the long-term is the fact that production growth is mostly the result of increasingly advanced technology used on existing oil fields, whereas the number of new oil sites has been falling.

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



Source: Bloomberg.

Another potential risk to the attainment of projected global growth rates is further tightening of monetary policies in developed markets, particularly in the eurozone. The global financial imbalance still poses a major risk for the world's economy since there are no signs that differences between the US current account deficit and rising BOP surpluses of Asian countries and oil exporters will considerably diminish in the forthcoming period. The danger to fast-developing markets is related to large BOP deficits and robust growth in bank placements in many of these countries. Hence, they are expected to implement appropriate monetary and fiscal policy measures to reduce growing external imbalances that could adversely impact their macroeconomic stability in the long-run.

Table 2 Global Forecast of Key Economic Indicators for 2007

	GDP, real year-on-year rate of growth	Inflation, year-on-year rate	General government account, as % of GDP	Current account, as % of GDP
World	4.9	3.5		
Major advanced countries	2.2	1.7	–2.4	–2.3
EU	2.8	2.2	–1.4	–0.9
EMU	2.3	2.0	–1.2	–0.3
Emerging markets	7.5	5.4		3.3
Central and Eastern Europe	5.5	4.8		–6.5

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

Out of the described global movements, Croatia is expected to be mainly influenced by robust growth in eurozone countries, headed by Germany, as the most important Croatian foreign trade partners. This growth is hence expected to positively affect domestic exports due to increased demand of these countries, as well as the rise in revenues from services, particularly tourism. A potential adverse impact on the Croatian economy in 2007 may be exerted by tighter terms of external financing resulting from the rise in the key eurozone interest rate. In addition, should there be a stronger upturn in world market oil prices, inflationary pressures would mount due to the increase in both import and domestic goods prices.

4 External Debt

External debt stood at EUR 29.1bn at the end of December 2006, an increase of EUR 3.4bn or 13.21% over the end of 2005. The external debt to GDP ratio grew by 2.8 percentage points over 2006, standing at 85.2% at end-December. The external debt to GNI[4] ratio increased by 3.1 percentage point in 2006, reaching 88.1% at the year-end, which places Croatia among highly indebted countries[5] under World Bank criteria. However, external debt as percentage of goods and services exports, which stood at 171.8% at the end of December 2006, was well below 220%, a level that would indicate potential external liquidity problems under the same criteria. However, this indicator has been steadily rising since 2001 when it was 126%, though its growth considerably slackened in 2006. This slackening and a relatively favourable indicator of external debt as percentage of goods and services exports were primarily due to high revenues from services rendered in tourism, which are expected to continue on a steady upward trend in the forthcoming medium-term period. Hence, in the

4 Gross national income (GNI) is calculated as the sum of gross domestic product and the balance of payments' factor income account.

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

conditions when the foreign trade deficit has been widening from one year to the next, a systemic risk for international liquidity of the Republic of Croatia lies in the fact that, of all foreign currency revenues, tourism revenues are most susceptible to negative external factors.

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
External debt as % of GDP	61.9	75.8	80.0	82.4	85.2
External debt as % of GNI	63.4	79.0	81.9	85.0	88.1
External debt as % of goods and services exports	136.1	151.4	161.0	168.6	171.8
Gross international reserves as % of external debt	37.3	33.0	28.1	28.9	29.9
Gross international reserves in months of goods and services imports	4.9	5.2	4.8	5.1	5.3
Debt flow indicators					
Principal and interest payments as % of goods and services exports[a]	28.5	21.0	22.0	24.4	35.0
Interest payments as % of goods and services exports[a]	5.7	4.6	4.5	4.6	4.9

[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.

External debt service burden measured as the ratio of debt repayments to goods and services exports, trending upwards since 2003, sharply increased in 2006, amounting to 35.0% at end-December 2006. This indicated that Croatia allocated a significant portion of its total goods and services export revenues for external principal and interest servicing. Above all, this increase was the outcome of increased principal payments for long-term loans repaid by domestic banks. For example, banks repaid EUR 0.85bn of principal (28.1% of total principal payments) in 2005, while in 2006 they paid EUR 2.27bn (44.4% of total principal payments). The acceptable ceiling on this ratio is set at 30%, which means that according to this indicator, Croatia has joined the group of countries heavily burdened by external debt repayments.

As in 2005, the highest increase, of EUR 2.2bn (29.8%), in the external debt of domestic sectors, both in absolute and relative terms, was recorded by other domestic sectors.[6] Among these sectors, the highest increase in the external debt in absolute terms was recorded by non-financial corporations (including public and mixed enterprises and other companies), which indicates the continuation of a strong upward trend in direct external borrowing of domestic non-financial corporations that began in 2005. Corporations borrowed intensively directly abroad or with the help and intermediation of domestic banks that instructed their clients (mostly legal persons) to borrow directly from their parent banks abroad. In relative terms, non-banking financial institutions recorded the sharpest external debt increase among other domestic sectors; their debt rose by over 60% in 2006. The major portion of the

6 Other domestic sectors include: other banking institutions, non-banking financial institutions, public enterprises, mixed enterprises, other companies, non-profit organisations, craftsmen, as well as households.

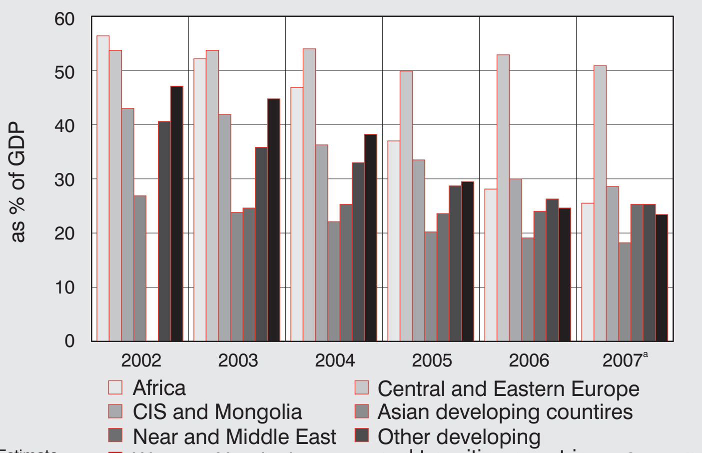
increase related to leasing companies whose once again rapid external borrowing may be related to stronger imports of road vehicles.

The absolute increase in the external debt of banks stayed pronounced in 2006 but its annual growth rate, under the influence of CNB measures implemented throughout the year, fell by 2.3 percentage points relative to 2005, standing at 13.9%.

In 2006, in line with the fiscal policy goal to rely as much as possible on domestic funding sources, the government cut its debt to external creditors by EUR 0.4bn. The major share of government debt decreased primarily in consequence of a decline in outstanding bond repayments: the 2001 Samurai bonds (JPY 25bn), the 1999 eurobonds (EUR 300m) and two regular semi-annual debt repayments to the London Club (USD 81m). However, it is certain that domestic government financing also indirectly increased external liabilities of other domestic sectors, especially banks, from which the government borrowed much larger amounts in the last two years than in the previous years.

The greatest risk for Croatia's external debt servicing in 2007 arises from continued interest rate growth in the EMU. This is because banks' external liabilities are mostly contracted at a variable interest rate based on the EURIBOR, while the market expects the ECB's main interest rate to continue growing and reach 4.25% until the end of 2007 as a consequence of its anti-inflation strategy. A similar effect could be produced by a further increase in the risk premium on the debt of countries like Croatia if the rise in American and European interest rates prompts global investors to redirect their funds into these areas. Such developments could also lead to depreciation pressures on the kuna and, coupled with the continuation of the current external debt growth trend, have an additional negative impact on the accumulated debt repayment burden. Still, in the short-run, this is not a very likely scenario given further liquidity growth on the global financial market in 2006.

Figure 8 External Debt across the World

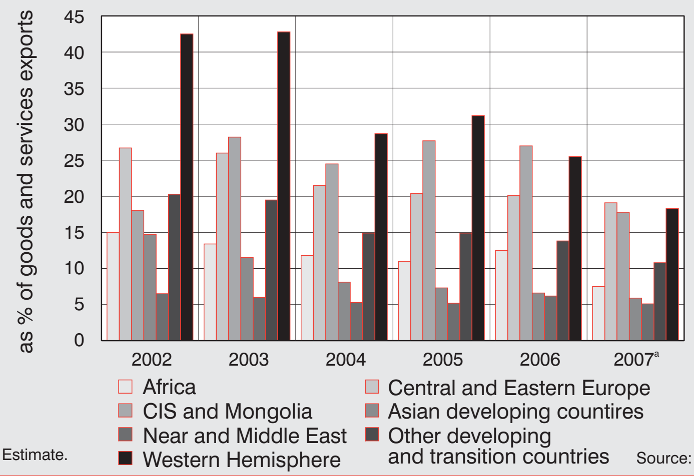


[a] Estimate.

Source: IMF.

The external debt to GDP ratio still places Croatia among the most indebted countries. Specifically, end-2006 data suggest that the external debt to GDP ratio, ranging around 50% for quite a few years, classifies the CEE region as the world's most indebted, and this ratio is considerably lower than Croatia's. Even more important is the fact that the external debt to GDP ratio has been on the decline or stagnant in the last few years in all the observed regions, and is likely to continue the trend in 2007, according to the International Monetary Fund estimates. For such developments to occur in Croatia it is necessary to continue with the economic policy that would support stronger economic growth than that recorded in the last few years, paying special attention to this growth being above the rise in total Croatia's external debt. This is particularly important in the light of the fact that, according to the external debt service burden, Croatia has begun to stand above the average for both CEE countries, to which it belongs, and for all observed regions.

Figure 9 External Debt Burden across the World



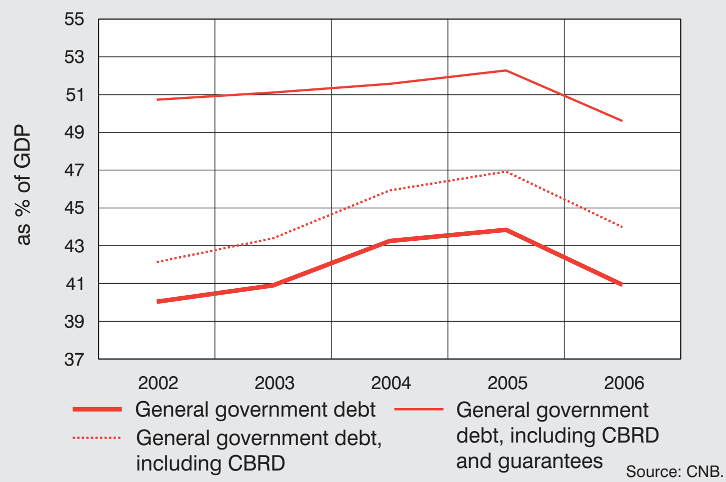
[a] Estimate.

Source: IMF.

5 Public Debt

The ratio of the general government debt, excluding non-exercised guarantees, to GDP stood at 40.9% at end-December 2006, holding steady much below the Maastricht criterion of 60%.[7] Moreover, this indicator fell in 2006, following a several-year increase (it was 43.8% of GDP at end-2005). This was primarily in consequence of general government debt rising by HRK 1.1bn in absolute terms in 2006 (compared with HRK 8.4bn in 2005). This could be attributed to continued fiscal consolidation, but also to a reduction in the total central government deficit and, consequently, lower new borrowing requirements. In addition, the strengthening of the kuna exchange rate versus major foreign currencies in the observed period also had an impact on the nominal general government debt slowdown. Among CEE countries, the highest general government debt to GDP ratios were at the end of 2006 recorded in Hungary (66.0%), Poland (47.8%) and Slovakia (30.7%).

Figure 10 Public Sector Debt



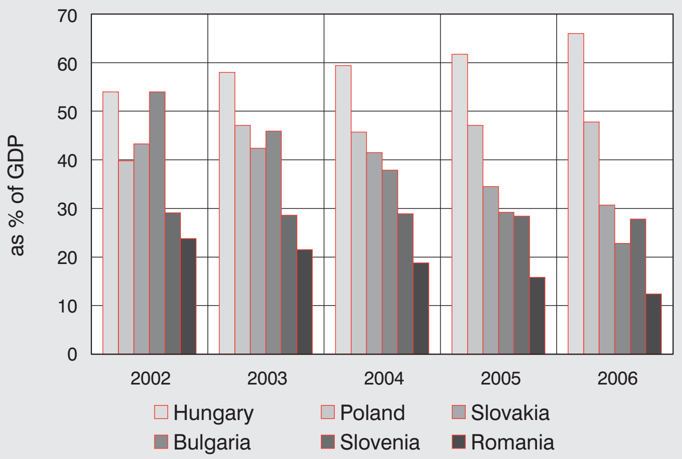
Source: CNB.

Total public sector debt (general government debt and CBRD debt, without non-exercised government guarantees) also drifted slightly higher, reaching HRK 110.2bn at the end of 2006, while its ratio to GDP amounted to 44.0%, dropping for the first time after a several-years' growth. This was also a result of a slight absolute increase of HRK 518.8m in total CBRD debt in 2006 (compared with HRK 1.39bn in 2005). With HRK 14.1bn[8] of issued government guarantees, public debt totalled HRK 124.3bn at the end of 2006 and its ratio to GDP also decreased relative to end-2005, to 49.6%.

7 Under this criterion, public debt includes only general government debt without issued guarantees.

8 This definition of public debt is provided by the *Budget Act* (Official Gazette 96/2003).

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



Source: Eurostat.

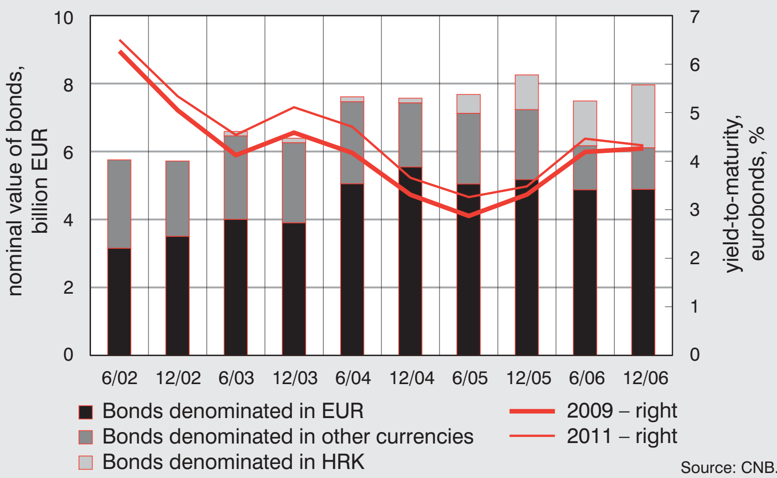
As in 2005, the increase in public sector debt (inclusive of general government debt and exclusive of issued government guarantees) was in 2006 completely generated by borrowing in the domestic financial market. The domestic component of the debt rose by HRK 5.0bn from the end of 2005, with its ratio to GDP standing at 24.35% at the end of December 2006. The foreign debt component also dropped, by HRK 3.9bn, reducing its ratio to GDP to 16.57% at the end of 2006.

Although on the downward trend, the still high external general government debt to total public debt ratio exposes Croatia to interest rate risk in external refinancing, as already confirmed by a rise in Croatian eurobond yields in 2006. Specifically, yields-to-maturity on Croatian eurobonds due in 2009 and 2011 rose from 3.32% to 4.26% and from 3.48% to 4.33% respectively in a2006. This rise in the yield was particularly pronounced in the first half of 2006, whereas it slowed down and halted in the second half of the year. On the other hand, yields-to-maturity on government bonds issued on the domestic market decreased. For example, the yield-to-maturity on the 10-year kuna bond issued in December 2005 was 5.25%, whereas the yield on the bond with the same features, which was issued in February 2007, was 4.91%.

Domestic loan commitments with variable interest rates are also exposed to interest rate risk. Specifically, the share of banks' long-term loans whose interest may vary within a year in total banks' long-term loans to government units grew considerably in the last three years, from approximately 60% to over 80%, although it slightly fell in 2006, from 89.9% to 86.3% of total long-term loans.

In addition to interest rate risk inherent to refinancing, the government also remains exposed to substantial currency risk due to its high external debt to total public debt ratio. However, currency risk is also present in government domestic market 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, although it declined by some 14 percentage points in the last year, was still high at the

Figure 12 Republic of Croatia Bonds and Eurobond Yields



Source: CNB.

end of 2006 (78.1%). The share of the nominal value of government and municipal bonds denominated in foreign currency (pure eurobonds and bonds indexed to the euro) in the total amount of these bonds issued in the domestic market was 59% at end-2006, a decrease of 13 percentage points compared with end-2005.

With an aim to reduce its currency exposure, the government issued no foreign currency denominated bonds in 2006. In February 2006, it floated the second tranche (HRK 2bn) of the first-ever 10-year kuna denominated bond, issued in December 2005, raising the bond's integral nominal value to HRK 5.5bn. In addition to extending the kuna yield curve, this bond is 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. In July 2006, the government issued a domestic seven-year kuna bond, nominally worth HRK 2.5bn. The second tranche of this bond (HRK 1.5bn) was floated in November.

In order to stabilise public debt service expenses, the public debt management strategy for 2007[9] envisages optimizing the structure and reducing the risk of the government debt portfolio, as well as improvement of trading and development of infrastructure on the domestic government securities market. Optimizing the structure of the government debt portfolio primarily relates to its currency and maturity structure. Optimizing the maturity structure implies the reduction of the debt maturing in the next 12 months and debt with a variable interest rate, to 33% of the total debt. As regards the currency structure, it is planned that financing will be directed mostly to kuna sources so as to reduce the share of debt denominated in foreign currency to approximately 40% by 2009.

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

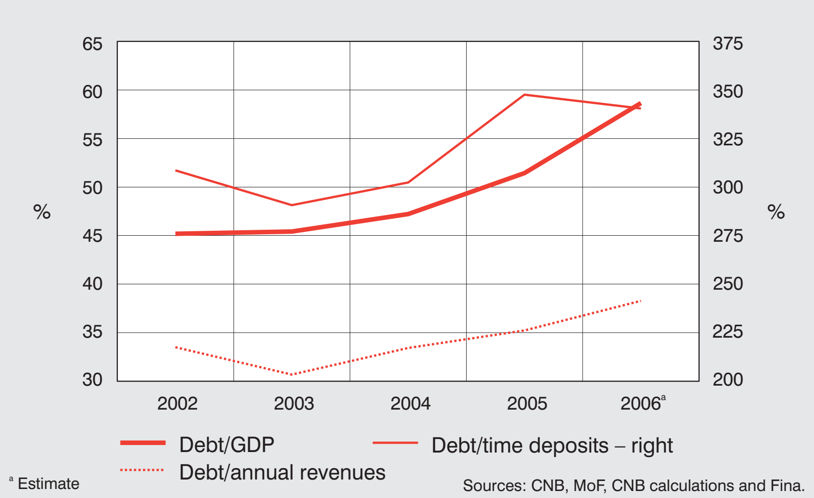
6 Non-Financial Corporations

The estimated[10] debt burden of the non-financial corporation sector continued to grow faster than GDP in 2006, totalling 58.7% of GDP at end-December 2006. The annual growth rate of non-financial corporation debt peaked at an all-time high of 23.5% in the past year. Debt to banks dominates the non-financial corporation debt structure, rising mildly to 56.7% of the total debt in 2006. The growth of debt to banks was coupled with the rise in interest paid to banks, which recorded an all-time record increase of 19% last year. However, the interest burden continued to grow at a slower rate than the debt burden and the share of interest paid to banks in the average debt to banks reduced from 5.22% in 2005 to 5.00% in 2006. The share of non-financial corporation debt to leasing companies also went down slightly (from 5.41% at end-2005 to 5.36% at end-2006). Although the estimated growth rate of this debt component was rather high in the last year, standing at 22.3%, it was considerably below the rate of 70.5% recorded in 2005.

Liquidity problems of business entities have been increasingly present over the last two years. In December 2006, there were 22,349 insolvent legal persons and the amount of overdue payment orders totalled HRK 12.1bn. In comparison, there were 20,446 insolvent firms and overdue payment orders totalled HRK 11.0bn at end-2005. A major share of overdue liabilities (almost 40%) relates to tax and contribution payments, whose share in 2005 stood at approximately 36%. With regard to length, predominant are payment orders overdue for over a year, which stood at HRK 10.7bn (4.3% of GDP) at end-2006 and accounted for 88% of the value of total overdue orders. A potential drop in liquidity of the economy is also indicated by the debt to annual income ratio of non-financial corporations. Specifically, this ratio has been steadily growing since 2003 (when it was 30.7%) and is estimated to reach 38.3% by the end of 2006. On the other hand, the ratio of reported overdue payment orders to money (M1) went down from 0.28 to 0.25 in the last year. Owing to a substantial upturn in corporate demand deposits, money growth outpaced the rise in overdue orders. In comparison, in 2000, which was the time of general illiquidity, the ratio of overdue orders to money was 1.12, i.e. overdue orders exceeded money by 12%. The upturn in corporate deposits has also led to the improvement in the ratio of non-financial corporation debt to time deposits with banks. This indicator, which grew in the last two years, was 351.4% at the end of 2005, but is estimated to fall to 340.1% by the end of 2006. However, over the recent years, Croatian non-financial corporations have had more options to invest in varied types of financial assets (investment funds, securities), so that it is possible that this ratio underestimates their liquidity.

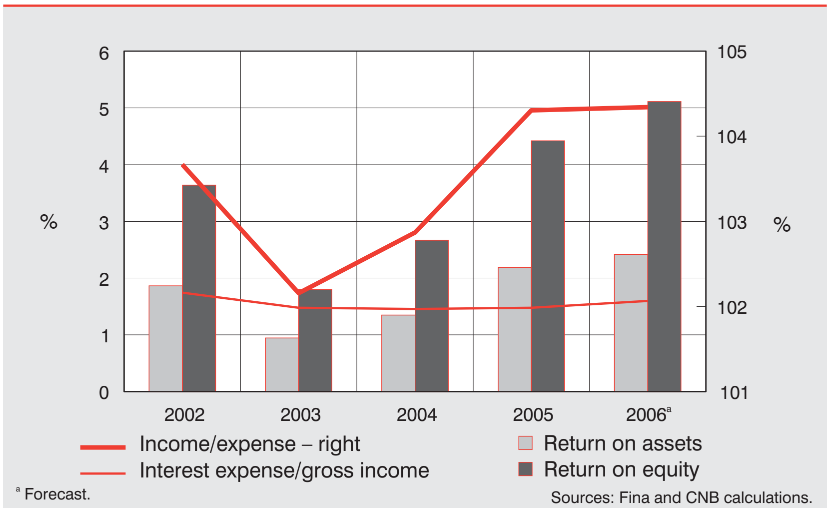
10 The Croatian Bureau of Statistics does not prepare the consolidated balance sheet of the non-financial corporation sector, and the central bank does not prepare a financial survey, but only a monetary survey. Hence, financial assets and liabilities of the non-financial corporation sector can be only 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.

Figure 13 Debt of Non-Financial Corporations



The growth of total debt of non-financial corporations and the deterioration of some of their liquidity indicators did not lead to the deterioration of their financial performance ratios, which stayed at high levels. An estimate based on the Fina data on the business performance of all Croatian entrepreneurs in 2006 shows that the (pre-tax) income to expense ratio of non-financial corporations should reach 104.3% at the end of 2006, thus repeating its all-time high recorded at end-2005. At the same time, this would imply that the two-year strong upward trend of this indicator came to an end. Hence, the ROA and ROE, which according to an estimate based on the Fina data for all entrepreneurs stood at 2.42% and 5.11% respectively at end-2006, could hit their record highs.

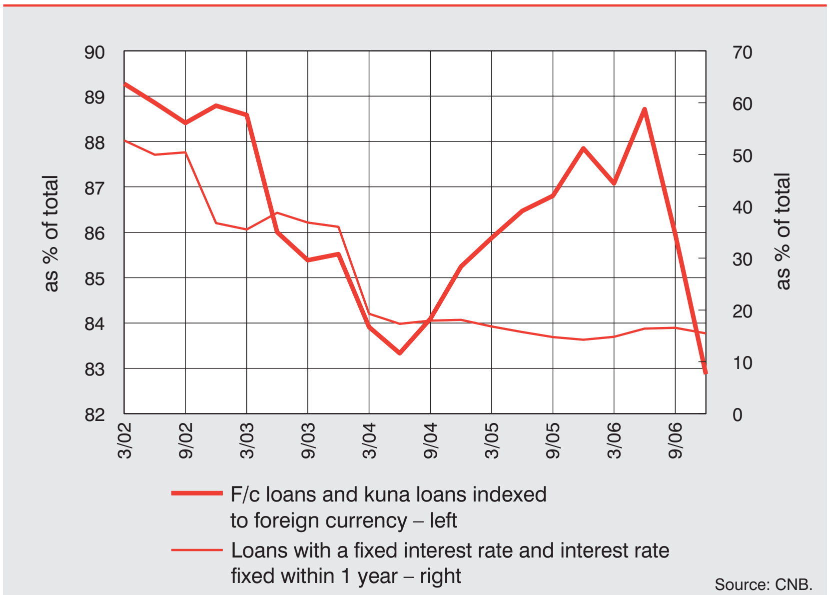
Figure 14 Debt Burden and Profitability of Non-Financial Corporations



Currency risk and interest rate risk have remained the major systemic risks threatening non-financial corporations in Croatia. It may be said that export-oriented corporations with weak financial leverage and underdeveloped practices of financial risk management are presently more exposed to currency risk than corporations with higher debt level that generate their income in the Republic of Croatia. Specifically, although the share of banks' foreign currency loans, inclusive of foreign currency indexed kuna loans, in total long-term corporate loans exceeds 80%, it went down from 87.9% to 82.9% over the last year, to its lowest level ever. In addition, upward pressures on the kuna, which continued in 2006, gradually reduced the kuna/euro exchange rate by mid-2006 to the lowest level since summer 2001. As expected, the kuna did not depreciate significantly in the second half of the year, especially after the tourist season. As concerns the risk related to the global long-term interest rate growth, the related exposure of non-financial corporations slightly declined after a several-year increase, although it stayed at a high level. Specifically, the share of long-term corporate loans whose interest rates may vary within a year fell from 85.7% to 84.5% of total long-term loans in 2006. However, the rise in global long-term interest rates led to an increase in domestic long-term interest rates on corporate loans indexed to foreign currency from 5.18% in December 2005 to 6.21% in December 2006, which is their highest level since mid-2004.

The currency risk exposure of Croatian enterprises may be roughly estimated based on the annual financial statements data for non-financial corporations and CNB's monetary statistics, and with some realistic assumptions. An analysis based on the estimate of such data for end-2006 shows that a currency crisis (a doubling of the kuna price of foreign currency) would cause the aggregate debt amount burden of non-financial corporations to increase from approximately 11% to approximately 18% of their total income. This would in the best case scenario sharply reduce the enterprise income to expense ratio from about 105% to a historical low of about 98%.

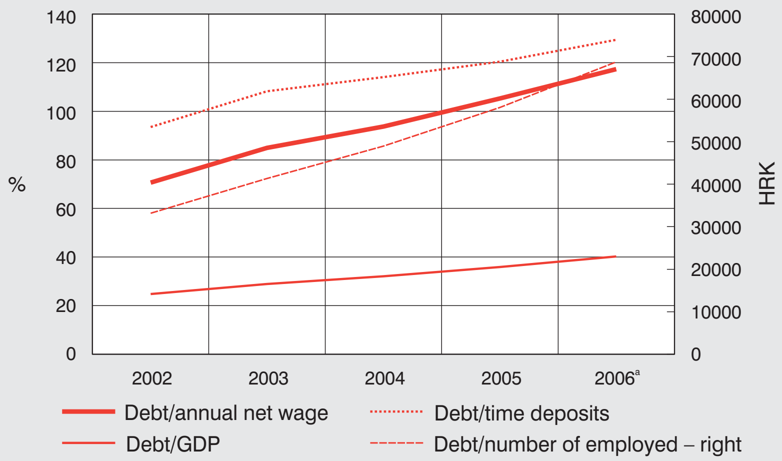
Figure 15 Currency and Interest Rate Risk of Corporate Loans



7 Households

Households continued to borrow heavily in 2006, which led to further growth in household sector debt ratios. 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 35.5% at the end of 2005 to 40.6% at the end of 2006. The ratio of household debt to the estimated annual net wage bill went up from 105.2% at end-2005 to 117.3% at end-2006, while the average debt per employed person rose by over HRK 10,000 in 2006, to about HRK 68,700 at the year-end. At the same time, as household savings held with banks grew slower, the ratio of debt to time deposits with banks rose to about 129% at end-2006. Still, one should bear in mind that household investments in investment funds and directly on the financial market recorded a strong upturn in 2006 so that the household debt-to-financial assets ratio is lower.

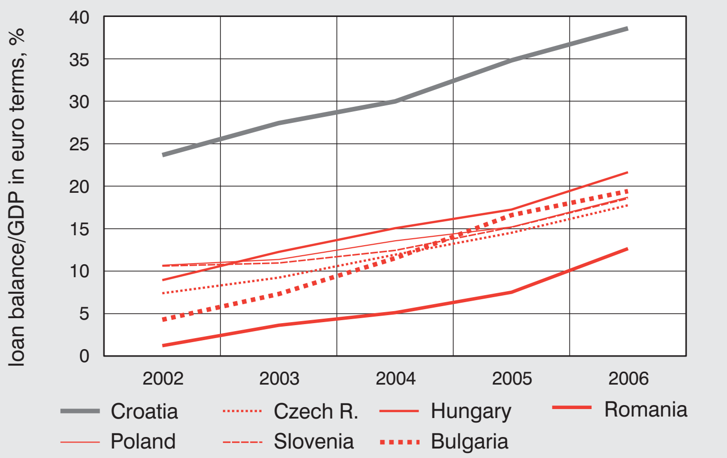
Figure 16 Household Debt



[a] Estimate. Sources: CNB, CBS and CNB calculations.

The estimated total household debt grew by 23% in 2006 compared with end-2005, recording a somewhat brisker growth pace than in the last two years (20% in 2005 and 19% in 2004). Debt to banks remained the most dominant debt category, accounting for about 95% of total household debt for several years. In 2006, this was supported by the continued surge in supply of increasingly cheaper bank loans, particularly those denominated in Swiss francs. While the annual growth rate of household loans is relatively low in Croatia in comparison with most new EU Member States, the ratio of household debt to banks, expressed in euro, to GDP is almost twice higher in Croatia than in these states. At end-2006, the ratio of household loans to GDP (both expressed in euro) was 38.6% in Croatia, while it did not exceed 20% in most comparable countries. Nevertheless, the steady banking system development and a very probable continued annual increase in claims on households in these countries (especially given the similarities between the banking sector ownership structure in these countries and Croatia), could soon decrease the differences between the household debt level in new EU Member States and in Croatia.

Figure 17 Bank Claims on Households in Central and Eastern European Countries

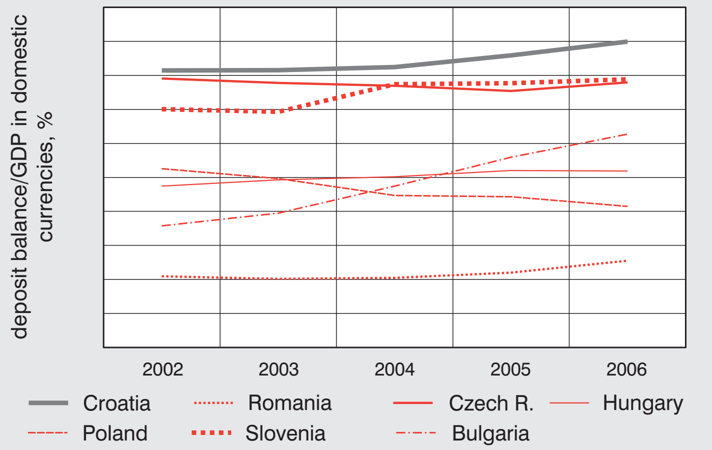


Sources: CNB, central banks of Central and Eastern European countries and CNB calculations.

Together with higher debt, Croatian households hold relatively larger savings with banks than households in comparable CEE countries. The household deposits to GDP ratio in Croatia has grown at modest but steady rate over the last few years. The rate of its growth accelerated slightly in 2005 and 2006, so that this ratio stood at 44.9% at end-2006. At the same time, this ratio ranged between 13% (in Romania) and 40% (in Hungary and Slovenia) in the observed countries. In addition to bank savings, an upsurge in inflows to investment funds in Croatia continued into 2006, among which household investments have become increasingly important. Such developments were equally attributable to the speedy growth and development of the Croatian capital market, general optimism of stock market investors, which is boosted by steady economic growth and reforms in the process of Croatia's accession to the EU, as well as the finalisation of the Pliva d.d. takeover and the public offering of Ina shares, which raised the broad public interest in investing on the domestic capital market.

Household time deposits with housing savings banks rose only HRK 288.9m (to HRK 5.8bn) in 2006, almost three times less than in 2005, and as much as five times less than in 2004. The main reason for this deceleration is the cut in the government incentive rate from 25% to 15% of own funds deposited, coupled with very high yields on other forms of investment in the same period. This adverse effect could not have been offset by the stimulative impact of the inter-financing model, which rules out a minimum two-year saving period as a requirement for home loan and provides for

Figure 18 Household Deposits in Central and Eastern European Countries



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

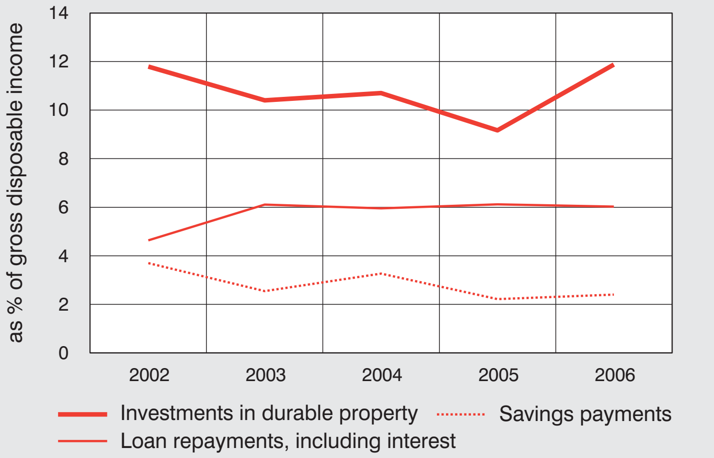
direct loan extension. Also, housing savings for the purpose of home loans have been made less attractive due to a continued downward trend in banks' interest rates on home loans, which fell by 40 basis points on average in 2006 relative to 2005.

In 2006, home loans were again the part of the banks' credit portfolio that recorded the fastest growth. Out of the total 2006 rise in banks' loans to households, more than half (HRK 9.3bn) was accounted for by home loans, which grew by 34.4% relative to end-2005. The share of home loans in total bank loans continued the upward trend that started in mid-2002, reaching 39.5% at end-2006 (a considerable increase relative to 36.0% at end-2005). In addition to banks' home loans, home loans extended by housing savings banks also rose strongly, by 125% in 2006, standing at HRK 1.3bn at the year-end. This upsurge in home loans, which continues from year to year, could be attributed to an excessive demand for flats in the RC, undiminished by ballooning real estate prices, particularly in Zagreb and the coastal area. In addition, the rise in prices of housing space affects the increase in the nominal value of home loans granted.

Despite the rise in household debt, measured by various indicators, aggregate household debt service indicators for end-2006 still give no reason for concern. The share of the principal repayment with interest in gross disposable income was 6.0% at end-2006, the same as at the end of the last several years. The reason why in 2006 this indicator dropped instead of following the rise in this sector's total debt may be found in the steady decline in the weighted interest rate on home loans in the first half of the year, which is largely attributable to the higher share of loans in Swiss francs as well as to a growing supply of loans with increasingly longer terms. However, this situation may easily change in the forthcoming years as the downward trend in lending rates on household loans almost halted in the second half of 2006, with some banks even increasing their interest rates on the formerly cheapest loans in Swiss francs.

The ratio of foreign currency indexed loans to the total gross value of long-term

Figure 19 Use of Household Funds



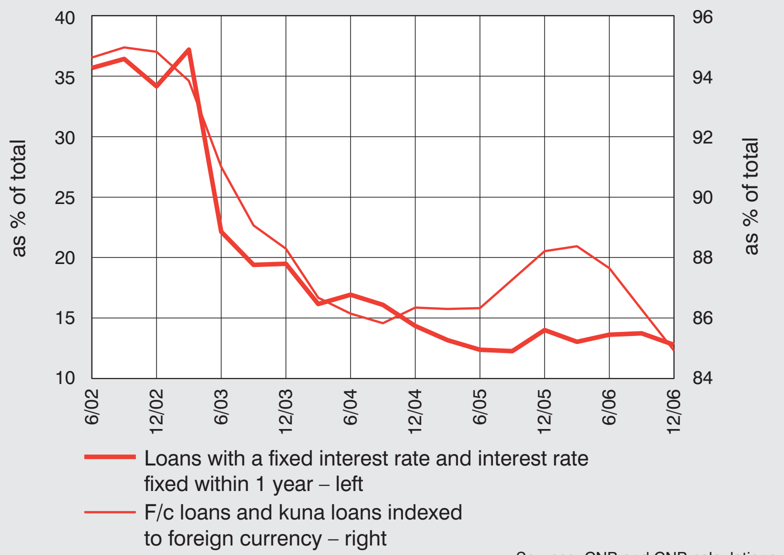
Sources: CBS and CNB calculations.

household loans dropped by 3.3 percentage points at end-2006 compared with end-2005, to stand around 84.9%. Among the reasons for the decline were certainly the central bank's amendments to the Decision on the capital adequacy of banks, which raised the risk weights on foreign currency and foreign currency indexed claims on clients with unmatched foreign exchange positions, as well as the decision broadening the calculation base for the prescribed 32% coverage of banks' foreign currency liabilities by liquid foreign currency claims (under the new definition, kuna liabilities indexed to foreign currency are also included in total foreign currency liabilities). The latter decision prompted the banks to increasingly collect kuna savings, which, due to the balance sheet adjustment, increased the offer of kuna loans. Notwithstanding the steady decline in the ratio of foreign currency indexed loans, the households' exposure to currency risk remained high. Data on banks' exposure to currency induced credit risk, available since June 2006, suggest that the amount of household placements exposed to currency risk rose by HRK 5.3bn in the second half of 2006, to HRK 73.3bn, with the share of unhedged placements standing at as much as 95.4% at end-December 2006. Households' exposure to interest rate risk remained unchanged since the end of 2005 – the ratio of loans with the remaining maturity longer than one year to total household loans, whose contracted interest rate is unalterable in the period shorter than one year, remained at approximately the same level as at end-2005, standing at 12.8% at the end of 2006.

The exposure of the household sector to currency risk was further aggravated by the rising ratio of household loans indexed to Swiss francs, because the kuna/Swiss franc exchange rate fluctuates more than the kuna/euro exchange rate. The ratio of loans indexed to Swiss francs to total foreign currency loans and loans indexed to foreign currency extended to the domestic non-financial sector, the major share of which is

11 Due to the lack of data on the currency structure of household loans indexed to foreign currency and foreign currency loans, data for the total domestic non-financial sector as used as reference.

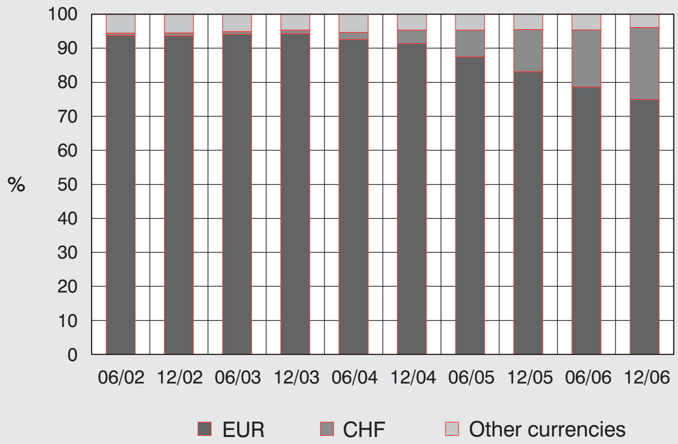
Figure 20 Currency and Interest Rate Risk of Household Loans



Sources: CNB and CNB calculations.

accounted for by household loans[11] according to some information, has been steadily growing since 2004. Being 21.2% at end-2006, this ratio was almost twice higher than at end-2005. Still, the demand for loans indexed to Swiss francs could dwindle to some extent in 2007 due to the announced potential increase in banks' interest rates on loans in that currency and the increased caution of banks.

Figure 21 Currency Structure of Loans Indexed to F/c and F/c Loans Extended to Non-Financial Sector



Source: CNB.

8 Financial Intermediation

The share of bank assets in total financial sector assets declined further in 2006, standing at 76.4% at the year-end. For the third consecutive year, the share of leasing companies was the second highest, holding at 6.9% at the end of 2006. According to preliminary data, the steady decline in the share of insurance companies continued, but they still came third with a share of 4.9% in total financial sector assets at end-2006. A persistent rise in mandatory pension funds' assets continued into 2006, and the share of these intermediaries' net assets reached 4.1% at the year-end. The same share was accounted for by net assets of open-end investment funds, although their share grew strongly in 2006 (by 1.4 percentage points). Having levelled off in 2005, the share of housing savings banks drifted lower in 2006, to 1.6% at the year-end. The share of closed-end investment funds rose in 2006 relative to 2005, to 1.4%, of which more than half was accounted for by the War Veterans' Fund. The estimated share of savings and loan associations kept at the same level as in the last two years, at 0.5%. Voluntary pension funds remained the smallest financial intermediaries according to their share in total financial sector assets, which stood at 0.1%.

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

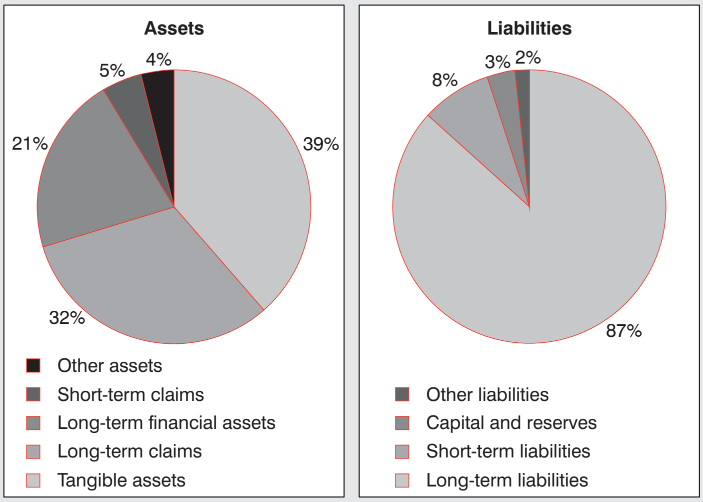
	2003	2004	2005	2006
1. Banks (consolidated gross assets)	83.4	81.5	78.8	76.4
2. Insurance companies[a]	5.4	5.2	5.1	4.9
3. Open-end investment funds (net assets)	1.3	1.6	2.7	4.1
– money	0.8	1.0	1.4	1.1
– equity	0.0	0.1	0.2	1.1
– bond	0.3	0.2	0.4	0.3
– balanced	0.2	0.3	0.6	1.5
4. Closed-end investment funds	0.4	0.4	1.1	1.4
o/w: War Veterans' Fund	–	–	0.7	0.8
5. Mandatory pension funds (net assets)	2.0	2.9	3.6	4.1
6. Voluntary pension funds (net assets)	0.0	0.0	0.1	0.1
7. Leasing companies	5.4	6.0	6.3	6.9
8. Housing savings banks (consolidated gross assets)	1.5	1.8	1.8	1.6
9. Savings and loan associations[a]	0.6	0.5	0.5	0.5
Total	100.0	100.0	100.0	100.0

[a] 2006 – estimate/preliminary data.
Sources: CNB, HANFA and MoF.

According to CNB and HANFA data, the assets of leasing companies stood at HRK 27.0bn at the end of 2006, an increase of 32.7% from the end of 2005. Long-term tangible assets given under operating leasing accounted for HRK 8.6bn (31.8%) of total leasing companies' assets, and claims based on financial leasing accounted for HRK 8.5bn (31.7%). Personal vehicle leasing still predominated in operating leasing and real estate leasing in financial leasing. Approximately half of leasing companies' liabilities are liabilities to associated companies, and somewhat over half of their subscribed capital is held by non-residents.

The assets of insurance companies, having grown at a slower rate than other financial

Figure 22 Leasing Companies' Assets and Liabilities, as at 31 December 2006

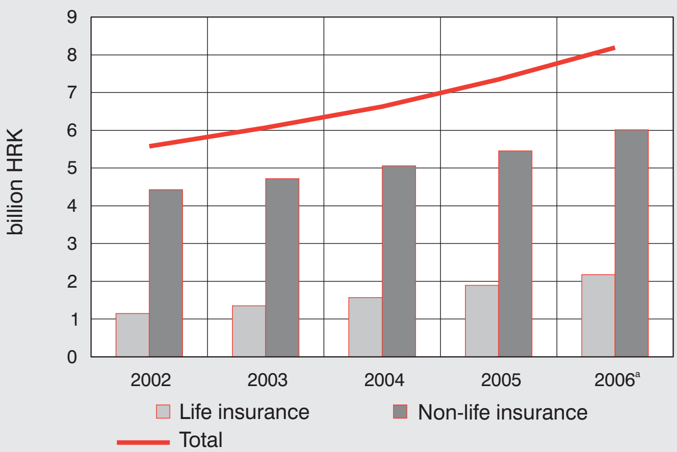


Source: HANFA.

intermediaries' assets, continued to slightly reduce their share in this sector's total assets in 2006. The annual increase in gross insurance premiums collected in the past year was (as in 2005) 11%. The growth rate of life insurance premiums collected (15% in 2006) is usually higher than the growth rate of non-life insurance (10%), but this difference decreased in the last two years. Non-life insurance remained the major form of insurance in Croatia, with 73% of total insurance premiums collected last year relating to this form of insurance.

At end-2006, the number of the insured paying contributions to the second pillar rose to 1.3m and boosted the already steep increase in the net assets of mandatory pension funds, which stood at HRK 15.9bn, recording an annual increase of 35.9%. A lion's

Figure 23 Calculated Gross Insurance Premiums

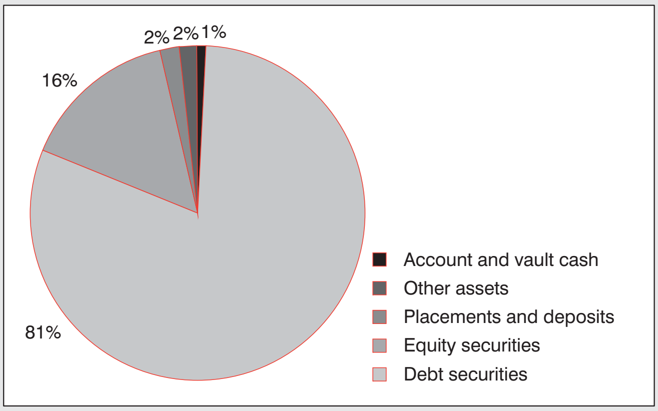


[a] Unaudited data.

Source: HANFA.

share (84.6%) of these funds' assets was invested into debt securities and 74.1% of this in government bonds, which was still below 82.6% and 72.3% respectively at the end of 2005. The share of equity securities went up from 10.8% to 15.6%, and is projected to additionally grow in 2007 and onwards in view of the expected further liberalisation of investment restrictions for these intermediaries.[12] These funds' average nominal return was 6.3% in 2006.

Figure 24 Mandatory Pension Funds' Asset Structure, as at 31 December 2006



Source: HANFA.

Despite the increase in membership and net assets of approximately 50% and 100% respectively in 2006, voluntary pension funds remained the smallest intermediaries on the Croatian financial market, and their net assets accounted for only 0.1% of total financial sector assets. The same as mandatory pension funds, the largest item in the assets of these intermediaries are debt securities, although their share dropped considerably over the last year, from 79.3% to 66.1%, while the share of equity securities expanded from 14.6% to 26.7%. These funds' less conservative investment policy compared with mandatory pension funds resulted also in their higher return compared with mandatory pension funds so that the average return of open-end voluntary funds was 9.3% in 2006. Ten closed-end pension funds, which were in operation in Croatia at the end of 2006, are also included in the group of voluntary pension funds. The average annual return of eight of these funds that operated throughout 2006 was 10.4% at end-December.

12 The investment structure of mandatory pension funds is prescribed by legal provisions, which set the amount and types of domestic and foreign securities in which mandatory pension funds may invest. At least 50% of mandatory pension funds' assets has to be invested in long-term bonds and other long-term debt securities issued by the Republic of Croatia and the CNB, whereas investments into shares of joint stock companies and stakes in domestic closed-end investment funds are allowed up to the amount of 30% of the fund's assets, provided that the said shares are officially listed on the stock exchange. Mandatory pension funds may invest up to 15% of their assets in foreign securities.

Table 5 Pension Funds' Annual Returns, as at 31 December 2006, in %

Mandatory		Open-end voluntary		Closed-end voluntary	
AZ OMF	5.78	AZ benefit ODMF	6.24	AZ VIP ZDMF	12.01
Erste Plavi OMF	8.35	AZ profit ODMF	12.79	AZ Dalekovod ZDMF	11.82
PBZ/CO OMF	7.23	Croatia osiguranje ODMF	7.47	AZ Hrvatska kontrola zračne plovidbe ZDMF	12.15
Raiffeisen OMF	3.98	Erste Plavi Expert ODMF	16.44	CROATIA OSIGURANJE ZDMF	5.38
Mirex[a]	5.74	Erste Plavi Protect ODMF	5.31	Ericsson Nikola Tesla ZDMF	11.13
		Raiffeisen ODMF	7.47	Hrvatski liječnički sindikat ZDMF	14.18
				Sindikat pomoraca Hrvatske ZDMF	4.00
				Novinar ZDMF	12.55
				ZDMF HEP grupe[b]	1.96
				T-HT ZDMF[c]	0.11

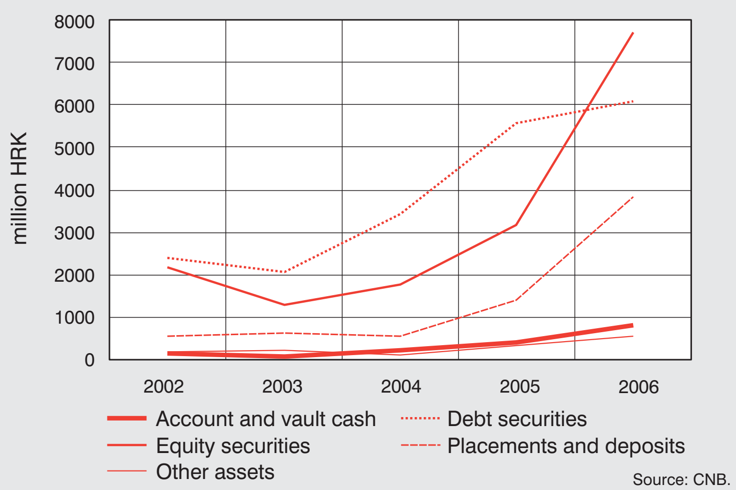
[a] Mirex is the value of an average MPF accounting unit and it is calculated as the weighted arithmetic mean. The weight indicates the share of a fund's net assets in total net assets of all funds.
[b] Commenced operating on 9 May 2006.
[c] Commenced operating on 20 December 2006.
Source: HANFA.

According to HANFA data, there were 62 open-end investment funds with a public offering operating in the Croatian market at the end of 2006, i.e. 18 balanced funds, 15 money funds, 15 equity funds and 14 bond funds. The net assets of all these intermediaries together totalled HRK 16.0bn at end-2006, growing annually by 81.6%. For the first time, balanced funds managed the largest share of the net assets (HRK 6.0bn) of all the funds, and equity funds came second with HRK 4.3bn in net assets. Money funds, which were the most numerous until 2006, managed slightly less net assets than equity funds, whereas the net assets of bond funds dropped to HRK 1.1bn. The sharpest increase in net assets in absolute terms was recorded by balanced funds (HRK 3.9bn), but the net assets of equity funds increased the most in relative terms (as much as 506.2%). At the same time, the net assets of money and bond funds dipped by 8.3% and 21.6% respectively.

The stated changes may above all be attributed to high yields on the Croatian equity market over the last several years. This probably led to the spillover from bond and money funds to balanced and equity funds, which traditionally bear higher yields at greater risks. The waning investor interest in bond funds may be explained by the 2006 decline in bond prices, which resulted in low yields of these funds. Owing to the combination of high yields, long-lasting political stability and a low perceived risk, the Croatian equity market is attractive to both domestic and foreign investors. It should be mentioned that these trends not only continued but even strengthened early in 2007. Specifically, in the period between end-2006 and end-May 2007, the net assets of open-end investment funds increased by 67.5%, with the net assets of equity and balanced funds growing by 182.0% and 62.2% respectively. In the same period, the net assets of bond and money funds dropped by 27.5% and 19.8% respectively. Also, there were 10 open-end investment funds with a private offering operating in the Croatian financial market at the end of 2006, one of which was an open-end venture capital fund, and their assets stood at HRK 319.9m at end-2006.

Classic closed-end investment funds, accounting for 1.4% of the financial sector assets, belong with the group of smaller financial intermediaries. At end-2006, there were seven such funds, two of which were registered as closed-end real estate funds. The share of the War Veterans' Fund in total assets of financial intermediaries slightly increased relative to end-2005, to 0.8%, which implies that all other closed-end investment funds accounted for only 0.6% of the financial sector assets.

Figure 25 Overall Trends in the Asset Structure of Pension Funds (open-end, closed-end and War Veterans' Fund)



Source: CNB.

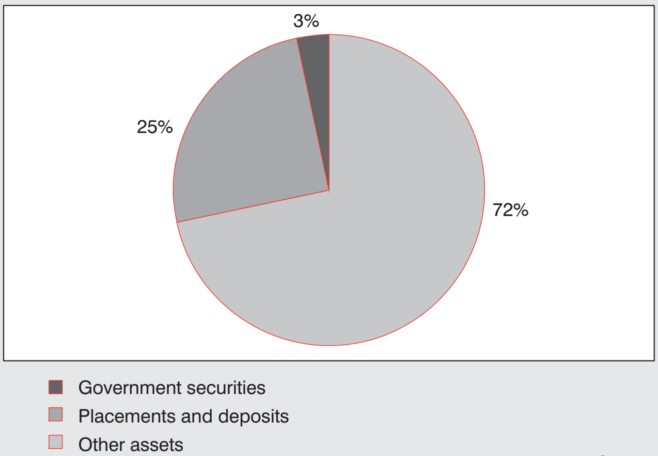
Savings and loan associations are still the most numerous group of financial intermediaries in the Croatian financial market (104 according to the most recent estimate), and the estimated share of their assets in total financial sector assets holds steady at 0.5%. As the concept of savings and loan associations does not exist in EU regulations, they will have to cease operating in 2007. Specifically, mid-May 2007 was the time-limit by which these intermediaries had to choose whether to become savings banks (in which case they had to increase their share capital to HRK 8m), credit unions (and continue operating on the principle of reciprocity, i.e. grant loans solely to their members) or initiate voluntary winding-up proceedings.[13] Preliminary data show that as much as 43 savings and loan associations opted for the transformation into savings banks, 37 for the transformation into credit unions and 20 opted for voluntary winding-up. It is unreasonable to expect that 43 savings and loan associations will manage to transform themselves into savings banks on their own (due to a relatively high capital requirement and more complex infrastructure required for savings bank operation). Hence, their aspirations should be considered in light of the fact that the

13 The MoF is to initiate compulsory winding-up proceedings against savings and loan associations that failed to choose one of the offered options.

time limit for the transformation into a savings bank is somewhat longer than the time-limit for the transformation into a credit union, which may result in acquisitions and mergers of several such institutions into only a few savings banks.

There were five housing savings banks in operation at the end of 2006, one more than at end-2005.[14] As the assets of these intermediaries grew by only 3.7% (to HRK 6.4bn), their share in the financial sector assets went down from 1.8% in 2005 to 1.6% in 2006. Long-term government securities continue to prevail in the asset structure of housing savings banks, with a share that expanded from 54.4% in 2005 to 66.3% in 2006. The share of MoF T-bills declined (from 12.7% to 5.5%), as did the share of placements and deposits (from 27.9% to 24.9%). At the same time, due to changes introduced to the legislative framework for the operations of housing savings banks, the share of household loans in their total assets more than doubled in 2006, amounting to 20.3% at end-December. However, due to investments in government securities, the structure of total placements and contingent liabilities of housing savings banks as at end-2006 was mostly made up of placements carrying the lowest risk.

Figure 26 Housing Savings Banks' Asset Structure, as at 31 December 2006



Source: CNB.

Housing savings banks reported an aggregate loss of HRK 63.5m for 2006. The income of these intermediaries dropped by 23.8% compared with end-2005, while their operating expenses went up 65.0%, which resulted in large operating losses. Housing savings banks had a large net loss based on "non-interest income and expenses" of HRK 85.3m in 2006. The lesser portion of the loss was due to the rise in non-interest expenses (of 10.3%), while the major portion of HRK 54.5m was accounted for by the revaluation of securities not traded in active markets but carried at fair value and the loss on securities trading of HRK 20.6m. Specifically, in terms

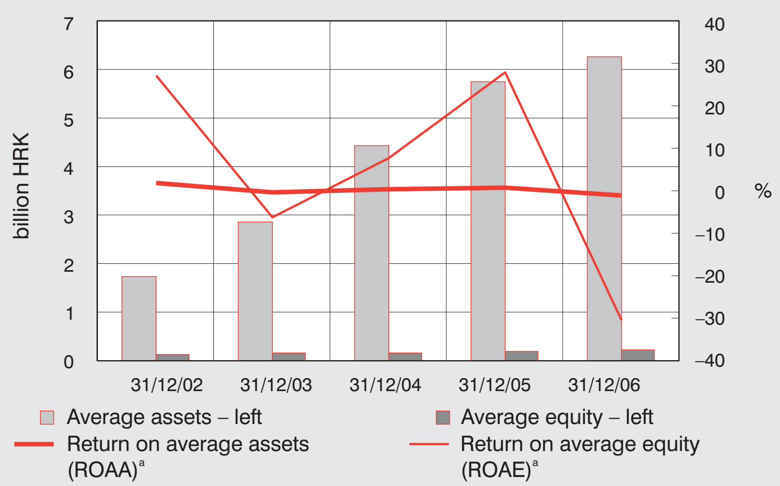
14 HPB stambena štedionica d.d., Zagreb started operating in April 2006.

of accounting, profits of housing savings banks are extremely sensitive to prices of government bonds, which account for a large share of their assets and whose market values plummeted in 2006. Reported losses of housing savings banks that operated throughout 2006 are thus the direct outcome of accounting allocation of securities, so that losses were generated by those housing savings banks that allocated government bonds into their portfolios of securities which are carried at fair value or those which reported losses on securities trading.

An additional hindrance to the operation of housing savings banks is a small range of activities that these intermediaries may carry out under the present legislation. Furthermore, their operation has been negatively affected by the waning public interest in housing savings, as evidenced by slower growth in deposits, which grew by 5.2% in 2006 compared with 16.6% in 2005. On the active side, this should be viewed in the light of the major cut in the government incentive rate for this form of saving, from 25% to 15%, which reduced the annual incentive from HRK 1250 to HRK 750 per person, as provided for by the Act on Amendments to the Act on Housing Savings and Government Incentive to Housing Savings, but also in the light of increased supply and more favourable conditions for home loans extended by banks. On the passive side, although they are not close substitutes, the growing public interest in investing in investment funds also had a definite impact on the weaker demand for housing savings.

In line with weak business results, housing savings banks' financial indicators also worsened. Their return on average assets (ROAA) fell from 0.9% to –1.0% in 2006, whereas the return on average equity (ROAE) experienced a much greater drop, decreasing from 27.9% at the end of 2005 to –30.4% at the end of 2006. These indicators would have been even weaker had their denominators (average assets and average equity) not dropped by 8.8% and 11.4% respectively in 2006.

Figure 27 Housing Savings Banks' Performance



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

Source: CNB.

9 Capital Market

The event that marked the Croatian capital market in 2006 was the takeover of the Croatian pharmaceutical company Pliva d.d., which ended by its final sale in October to Barr Pharmaceuticals, Inc., an American company, whereas the year-end was marked by the continued privatisation of the domestic oil corporation Ina by the public share offering. The 2006 trends on the capital market strongly affected its development, as well as the movements in other segments of the Croatian financial market. The total share turnover on both Croatian stock exchanges, which was more than twice higher in 2006 compared with the year before, was coupled with a steep rise in the number of transactions as well as record high stock exchange indices. Positive trends were also recorded on the debt securities market where corporate securities have become increasingly important. In addition to the corporate bond market, a considerable rise was recorded on the commercial paper market in 2006, increasingly used by large enterprises to raise short-term funds.

Due to the sharp increase in their assets, the influence of institutional investors on the overall capital market became even more important in 2006, especially of pension and investment funds, which play a major role in generating demand on the domestic securities market. The assets of mandatory pension funds stood at HRK 15.9bn at end-2006, up 35.9% over end-2005, whereas the assets of open-end investment funds grew even more relative to the year before, by 81.6%, and stood at HRK 16.0bn, for the first time exceeding the assets of mandatory pension funds.

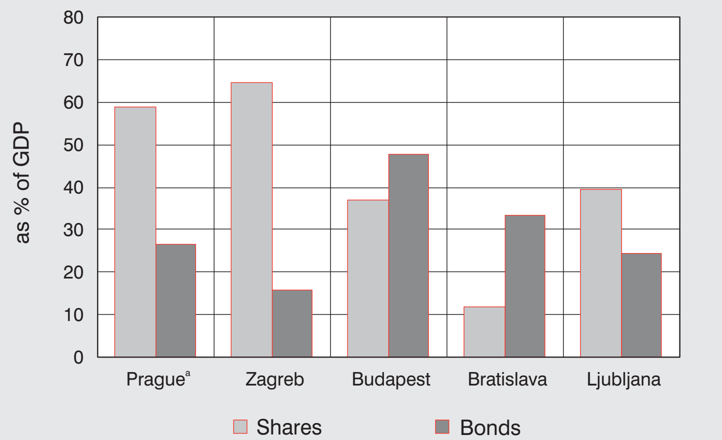
Table 6 Initial Public Offering of Equities and Corporate Bonds, in million HRK

	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

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

No approvals for initial public share offerings were issued in 2006, whereas three equity subscriptions out of the four offerings approved in 2005 were completed in the first half of 2006. In contrast, the HANFA approved as much as nine public offerings of corporate bonds worth a total of over HRK 2.9bn in 2006, eight of which were listed on the stock exchange last year. Although companies increasingly turn to the capital market as one of the funding sources, this market still plays a minor role in financing the economy. It should be said that the positive trends in this capital market segment, which are expected to continue, were somewhat boosted by the central bank measures restricting bank placement growth, as well as by the fact that securities financing provides cheaper, higher quality and more flexible debt management strategies to larger companies, as well as diversification of funding sources.

Figure 28 Market Capitalisation at the End of 2006



[a] Data on market capitalisation of bonds are for June 2006.

Sources: National stock exchanges.

The turnover upsurge was accompanied by a considerable increase in the market capitalisation of shares on the Zagreb Stock Exchange (ZSE), which went up from 35.2% of GDP at end-2005 to as much as 64.5% of GDP in 2006, more than on any other stock exchange observed. However, despite the increased liquidity that characterised 2006 and was prompted by the said developments, share liquidity was still among the lowest in the region. Although the average daily share turnover on the ZSE amounted to 4.6% of GDP at end-December 2006, i.e. considerably more than at end-2005 when it accounted for 1.9% of GDP, it accounted for 43.7%, 28.3% and 26.1% of GDP on the Warsaw, Budapest and Prague Stock Exchange respectively at the end of 2006. Lower average daily share turnover to GDP ratio was recorded only on the Ljubljana and Bratislava Stock Exchange.

The growth rate of the ZSE index was one of the highest year-on-year growth rates recorded worldwide in 2006. Growing by 60.7%, the CROBEX recorded the highest rise of all the observed stock exchange indices. Although not growing as sharply as the CROBEX, the indices of the Warsaw, Ljubljana and Budapest Stock Exchange also rose strongly, by 41.6%, 37.9% and 19.5% respectively. The Prague Stock Exchange index, which grew considerably over the last years, rose by 7.9% in 2006, whereas the Bratislava Stock Exchange index recorded the lowest result compared with 2005, growing by only 0.6%.

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

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

Sources: National stock exchanges.

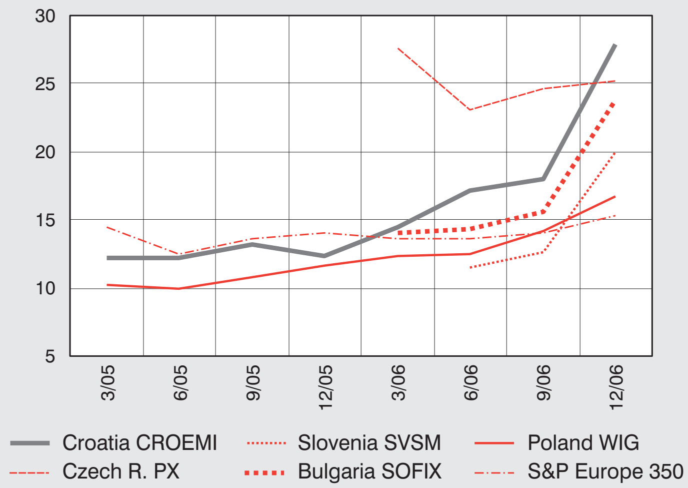
What should be stressed and what characterised most of the observed countries in the region, is that the upsurge in share prices was not accompanied by an equally strong improvement in financial indicators of joint stock companies whose shares are listed on the stock exchange. This is evidenced by the trends in the price/earnings ratio per share (P/E),[15] which increased strongly in 2006 in almost all of the observed countries. At end-2006, the P/E ratio of the CROEMI[16] stood at 27.95 and was twice higher than at the end of 2005. This upsurge in the P/E ratio suggests huge investor expectations regarding future business results of most of the joint stock companies listed on the observed stock exchanges, in view of the fact that this ratio averaged 15 for the indices that include joint stock companies of developed European countries in 2005 and 2006. Thus, it may 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.

The Croatian debt securities market in 2006 was marked by the continued government borrowing on the domestic market through the issuance of kuna bonds, and by the increased interest of companies to raise funds through the issuance of bonds and commercial papers. In addition to the government and companies, bonds were issued by cities whose main purpose was to raise funds for infrastructural projects. In line with the government's domestic borrowing policy, no government bonds were issued in foreign markets in 2006, while the second tranche of the ten-year bond from December 2005, issued in February, nominally worth HRK 2bn, increased the total value of the issue to HRK 5.5bn. In July 2006, the government issued a seven-year bond, nominally worth HRK 2.5bn, with the coupon rate of 4.5%. The second tranche of the bond, which was issued in November 2006, raised the total value of the issue to HRK 4bn.

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

16 Calculated since 20 May 2003, CROEMI (Croatian Equity Market Index), the index of Raiffeisenbank Austria d.d. is the only index that, prior to the unification of the Varaždin and Zagreb Stock Exchanges, monitored the movements in share prices regardless of the stock exchange where the share was listed. In contrast, 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, limiting the weight of an individual share at 15%. In contrast with the CROBEX, for which data on the movements in the P/E ratio for included shares have been calculated no sooner than September 2006, for the CROEMI these data have been calculated since June 2004 and are mutually comparable as its calculation methodology remained unchanged, in contrast with the CROBEX calculation methodology.

Figure 29 Price-Earnings Ratio for Selected Stock Exchange Indices



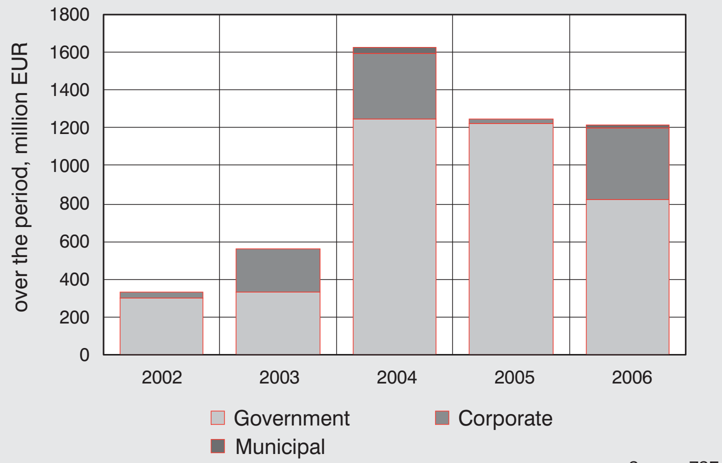
Sources: Bloomberg and RBA.

Due to the delisting of one corporate bond, there were 15 corporate bond issues listed on the domestic capital market at the end of 2006, of which as much as eight were issued in 2006. It should be said that all these bonds were denominated in kuna, and that the total nominal value of newly-issued bonds stood at HRK 2.7bn. In the same period, municipal eurobonds, with the total nominal worth of EUR 16m, were issued by the cities of Rijeka and Split. There were 30 bond issues[17] (10 government bonds, 1 CBRD bond, 4 municipal bonds and 15 corporate bonds) listed on the domestic capital market at end-December 2006, i.e. 1 government bond, 7 corporate bonds and 2 municipal bonds more than at end-December 2005. The share of corporate bonds in the market capitalisation of bonds on the domestic market was 13.8%, while their share in GDP was only 2.2% at the end of 2006. The share of the market capitalisation of all ZSE bonds in GDP increased last year, to 15.8% at end-December, but was still much smaller than on other major stock exchanges of comparable CE countries. However, the share of bond turnover in GDP was higher only on the Bratislava and Prague Stock Exchanges, confirming great investor interest in domestic bonds, which is related to huge growth in the assets of institutional investors on the Croatian capital market.

The required yield on both Croatian eurobonds and bonds on most global markets increased due to the rise in the ECB and Fed key interest rates. Due to the required yield on Croatian eurobonds growing at a slightly brisker pace than the yield on benchmark German bonds, their spread expanded slightly in 2006, from approximately 34 basis points at end-2005, to approximately 40 basis points at end-2006. A slight widening in the yield spread relative to the benchmark German bond was also recorded by the

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

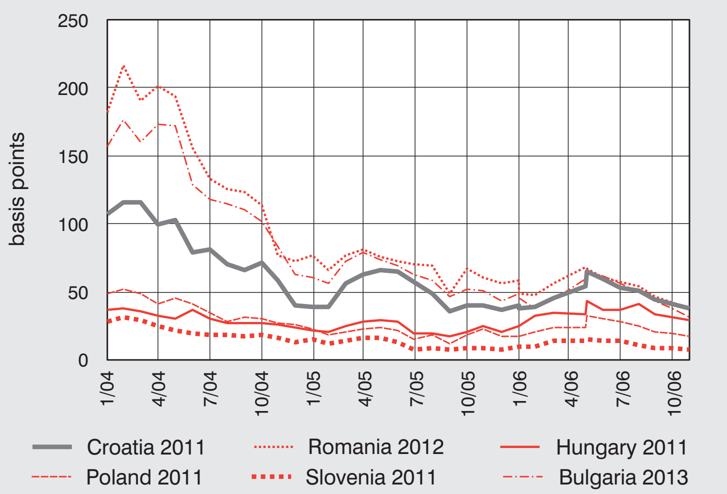
Figure 30 New Bonds Issued in the Domestic Market



Source: ZSE.

bonds of new EU Member States, apart from those issued by Bulgaria and Romania where the difference gradually reduced as the date of their EU accession came closer. At end-December 2006, the yield spread between the Croatian eurobond due in 2011 and the benchmark German bond was the same as at end-December 2005, standing at 37 basis points. In the same period, the yield spread between equivalent Romanian and Bulgarian bonds and the benchmark German bond reduced from 56 and 43 basis points respectively at end-December 2005 to 38 and 32 basis points respectively at end-2006. As this could be directly ascribed to rising investor confidence in these two countries due to their EU accession, it may be reasonably expected that a similar scenario will be repeated with Croatian eurobond yields as the date of Croatia's EU accession comes closer.

Figure 31 Yield Spread between Euro-Denominated Selected Countries' Bonds and the Benchmark German Bond



Source: Bloomberg.

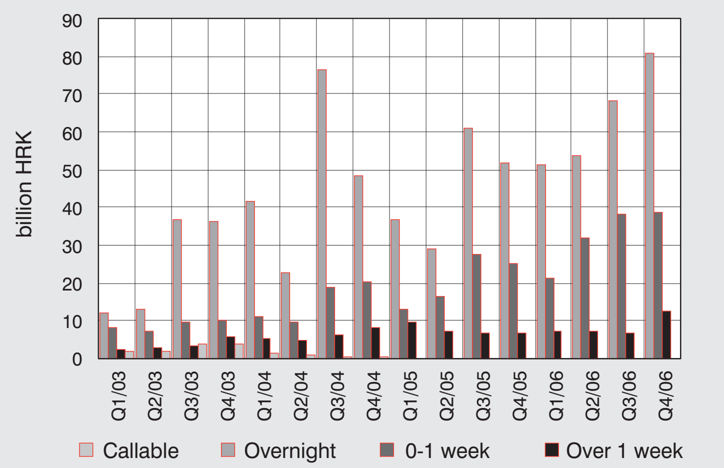
The domestic securities market was marked by the merger of the Varaždin Stock Exchange to the Zagreb Stock Exchange early in 2007, with the introduction of a new trading framework that will support derivatives trading being still expected. The capital market should also be strongly affected by the beginning of pension funds' investment into the shares of joint stock companies included in the JDD quotation of the ZSE, which would thereby additionally reduce their risk exposure and improve the liquidity of such shares. In addition, on the supply side of quality shares, expected are the shares of some companies in the government portfolio, with the major impact expected to be made by the announced continued privatisation of T-HT in autumn 2007. Some of the leading domestic private companies are also expected to opt for the entry into the stock exchange. In addition to the equity securities market, heightened corporate activities are expected to persist on the debt securities market due to the ongoing restrictive monetary policy that will above all affect the slowdown in bank financing in 2007.

10 Money Market

The Croatian money market was marked by the continued high liquidity and relatively low interest rates in 2006. These developments were spurred by the central bank's foreign exchange interventions, which increased system liquidity by HRK 7.3bn, as well as by its January decision to lower the reserve requirement rate from 18% to 17%. Among the reasons for such substantial foreign exchange interventions were large foreign currency inflows arising from the sale of Pliva d.d., recapitalisation of several large banks, as well as external borrowing of enterprises and financial institutions. Favourable kuna liquidity throughout the year was threatened neither by the usual pressures coming from the peak tourist season nor by the demand for kuna that resulted from government and corporate kuna bonds issued, and the public offering of Ina shares late in the year. Despite a relatively high financial system liquidity, the average overnight turnover on the OTC was on average higher in 2006 than in 2005, whereas average CNB's reverse repo placements, of HRK 1.0bn, were significantly lower.

Overnight loans prevailed in the maturity structure of money market loans, with the total turnover of HRK 253.6bn in 2006, or almost HRK 75bn more than in 2005. However, due to the similar increase in the turnover of loans with longer maturities, the share of overnight loans in total money market loans held steady at its 2005 level of 61%. This relatively small share of overnight loans in total loans may be attributed to high liquidity of banks, which prompted the participants having excess funds to longer term lending on the money market; in 2006, this mostly involved loans maturing in up to one week. Money trading related to maturities exceeding one week was at a somewhat higher level in 2006 than in 2005 although their share in the total money market turnover dropped, while callable loans are almost no longer traded on the ZMM.

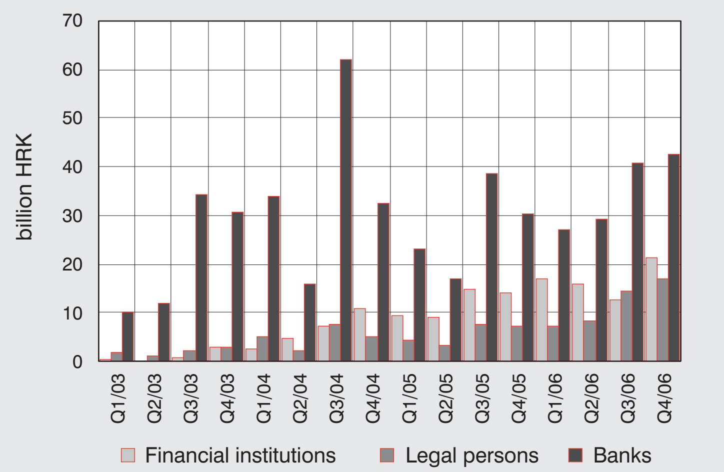
Figure 32 Money Market Turnover by Maturity (excluding direct securities trading)



Source: CNB.

According to the turnover made in demand deposit trading, the most important segment in 2006 was direct interbank trading, although it should be stressed that the share of bank trading with non-banking financial institutions and corporations stayed on the upward trend that began in 2005. The turnover made in this market segment was particularly high in the second half of 2006 due to the developments on the equity securities market. Banks participated in 55% of overnight trading, down 6 percentage points relative to 2005, whereas the share of legal persons went up 6 percentage points in 2006 relative to 2005, standing at 19% in 2006. The share of financial institutions in overnight trading kept at its 2005 level of 26%.

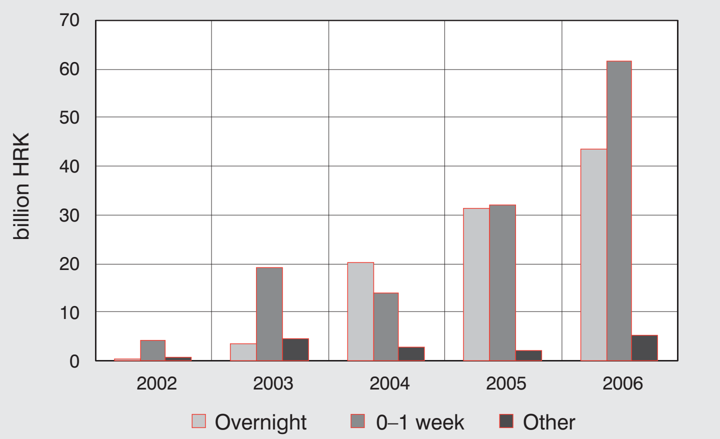
Figure 33 Overnight Turnover in Bank Trading on the Money Market (excluding direct securities trading)



Source: CNB.

Although direct lending continued to dominate money trading on the domestic market, the importance of the turnover in repo operations with securities has been growing from one year to the next. The share of repo operations in total money market transactions went up from 23% in 2005 to 28% in 2006. The sharpest increase relative to 2005, both in absolute and relative terms, was recorded by repo transactions maturing in one week, followed by overnight repo operations. Financial institutions most actively participated in repo operations in 2006, accounting for 49% of total turnover, and were followed by legal persons and banks, accounting for 31% and 21% respectively.

Figure 34 Money Market Repo Turnover by Maturity

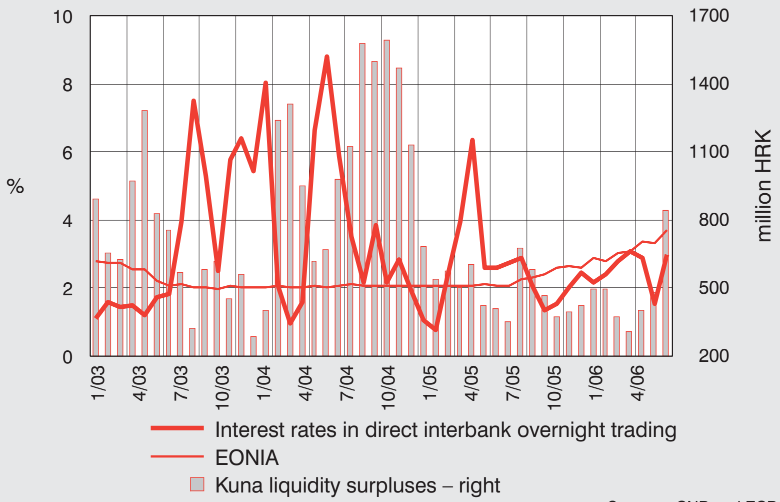


Source: CNB.

In addition to the turnover increase, the Croatian money market in 2006 was characterised by interest rate stabilisation. In that year, the effects of the April 2005 launch of CNB's reverse repo auctions and of additional adjustments in monetary policy measures, which came into force in December 2005, began to show. Thus, overnight interest rates on the money market were much less volatile in 2006 than in the previous years. However, the average interest rate in overnight interbank trading was not as stable as the benchmark overnight interest rate for EMU countries (EONIA) since, in contrast with the ECB's key interest rate, the CNB's reverse repo auction interest rate, which stabilised at 3.50%, does not act as an anchor for the narrow overnight interest rate corridor as this corridor is much wider in Croatia, ranging between 0.5% and 7.5%.

As a consequence of high money market liquidity in 2006 and the fact that MoF T bills are the only form of collateral accepted at reverse repo auctions of the central bank, the stock of subscribed T-bills of all maturities steadily increased, standing at HRK 12.3bn at end-December 2006. At the same time, great demand for T-bills led to a fall in their yields, which were 3.00%, 3.50% and 3.90% respectively on T-bills maturing in 91, 182 and 364 days, i.e. significantly less than 3.70%, 4.15% and 4.40%

Figure 35 Overnight Interest Rates and Bank Liquidity

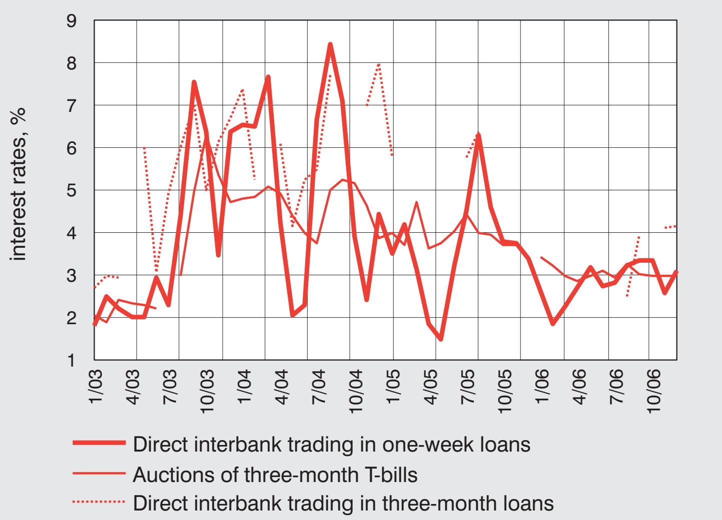


Sources: CNB and ECB.

in November 2005 (there was no T-bill auction in December 2005). Benchmark short-term interest rates on MoF T-bills maturing in three months stabilised at about 3%, with minor monthly oscillations, while three-month interbank loans were mostly traded at somewhat higher interest rates.

In the conditions of high money market liquidity throughout 2006, almost all banks' lending rates continued to gradually trend down. Weighted interest rates on short- and long-term household loans were lower at end-2006 than at end-2005, as were weighted interest rates on short-term corporate loans. The only exception to such trends were weighted interest rates on long-term corporate loans that trended up over most of the year, mostly due to the direct impact of the European interest rate rise,

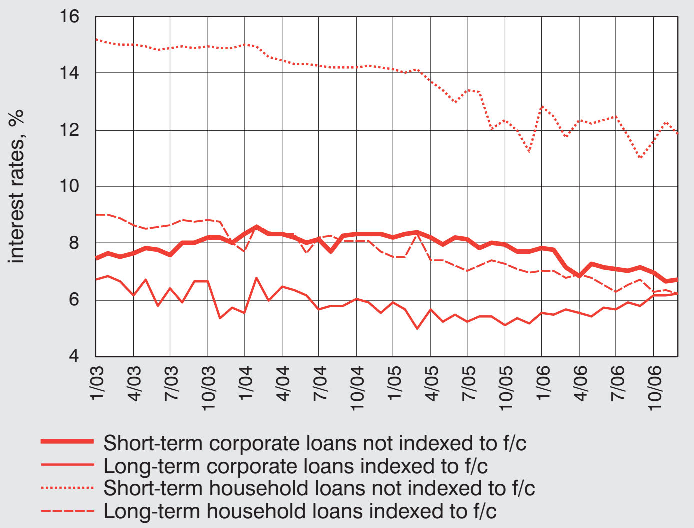
Figure 36 Risk Premium and Liquidity on the Money Market



Sources: CNB and MoF.

which led to the increase in interest rates on those long-term corporate loans whose variable interest rate has been contracted as a fixed premium on the EURIBOR.

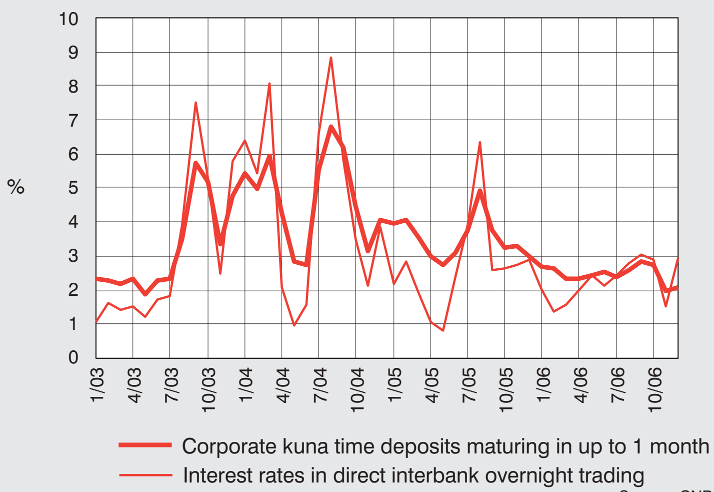
Figure 37 Banks' Lending Interest Rates



Source: CNB.

In contrast, interest rates on short-term foreign currency time deposits continued to trend up, due to the fact that these deposits remained a cheaper financing source for banks than foreign borrowing, made increasingly more expensive both by restrictive monetary policy measures and rising European interest rates. As interest rates on kuna time deposits, especially those on corporate deposits, mostly continued to follow money market interest rate trends, they were also less volatile in 2006 than in the previous years.

Figure 38 Interest Rates on Overnight Loans and Short-Term Corporate Deposits



Source: CNB.

11 Foreign Exchange Market

Pressures on the appreciation of the kuna exchange rate against the euro, present throughout most of 2005, continued in 2006. Among numerous reasons for such developments one should single out abundant inflows of foreign direct investment in Croatia and increased foreign exchange supply on the market due to steadfast external borrowing trends in which, in addition to banks, corporations play an increasing role. The strong demand for kuna was also spurred by domestic capital market developments such as the Pliva d.d. takeover by Barr Pharmaceuticals, Inc., an American pharmaceutical holding, the continued process of Ina privatisation by the public offering of its shares, the government's policy of borrowing on the domestic market by issuing kuna bonds, as well as the substantial increase in the number of issued kuna-denominated corporate securities. Furthermore, the strengthening of the domestic currency was also prompted by recapitalisation of some banks and the payment of the first instalment of the government debt to pensioners.[18] Acting in the opposite direction were the banks' demand for foreign currency needed for their adjustment to the monetary measure requiring that they maintain liquid foreign currency claims in the amount of 32% of external liabilities, as well as the corporate demand related to the payment of goods imports, which continued to grow strongly in 2006. In an effort to alleviate these dominant appreciation pressures, the Croatian National Bank held twelve[19] foreign exchange auctions in 2006, purchasing foreign exchange from banks at eleven auctions and selling euros at one auction. By its foreign exchange interventions, the CNB purchased EUR 995.0m net from banks, EUR 424.2m more than in the whole 2005. If the direct EUR 208.9m purchase arising from the inflows from the Pliva d.d. sale were added to this amount, the central bank issued HRK 8.8bn net in 2006 by purchasing EUR 1.2bn. Such high kuna liquidity was partly sterilised by transactions involving the sale of EUR 438.3m net to the government, whereby HRK 3.2bn was withdrawn from circulation.

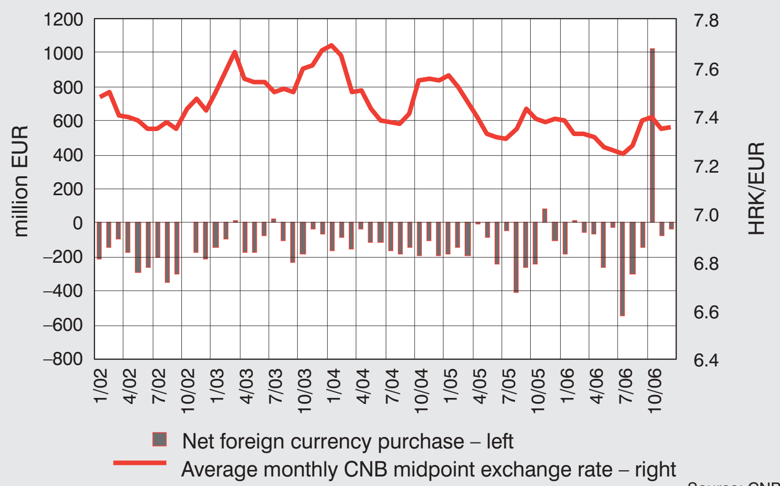
As a result of central bank interventions and favourable macroeconomic environment, upward pressures on the domestic currency did not result in larger fluctuations in the nominal exchange rate of the kuna against the euro either in the daily or in the long-term horizons. The midpoint kuna/euro exchange rate moved between HRK 7.24/EUR and HRK 7.43/EUR in 2006, i.e. within a range of –1.2% below and 1.5% above the average daily exchange rate in 2006, which is a somewhat narrower range compared with the preceding year when the midpoint kuna/euro exchange rate ranged between HRK 7.29/EUR and HRK 7.66/EUR. The average kuna/euro exchange rate variability was relatively low at 0.08% in 2006, and was also lower than

18 For details, see the comment under "Macroeconomic Developments".

19 The monetary effect of the thirteenth foreign exchange auction of the central bank, which was held on 28 December 2006, was recorded in 2007 since its value date was 2 January 2007. A total of EUR 177.0m was purchased from banks by this intervention.

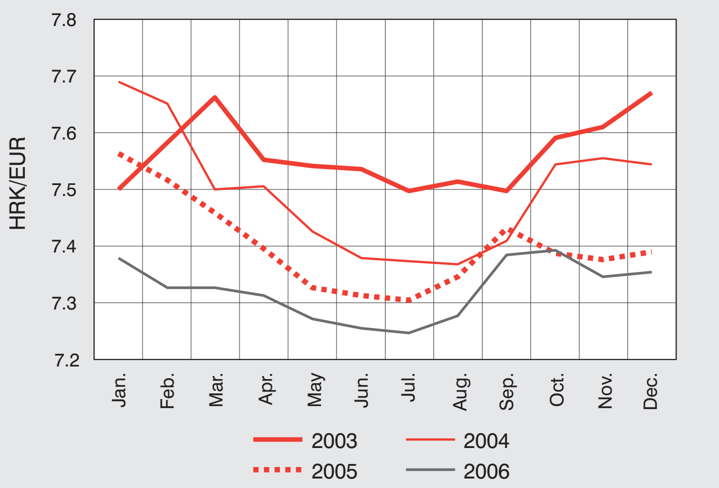
in 2005 when it was 0.11%. The major part of the kuna/euro exchange rate variability was again related to seasonal exchange rate movements.

Figure 39 Banks' Net Foreign Currency Purchase and the CNB Midpoint Exchange Rate



Source: CNB.

Figure 40 Seasonality of the Average Monthly CNB Midpoint Exchange Rate

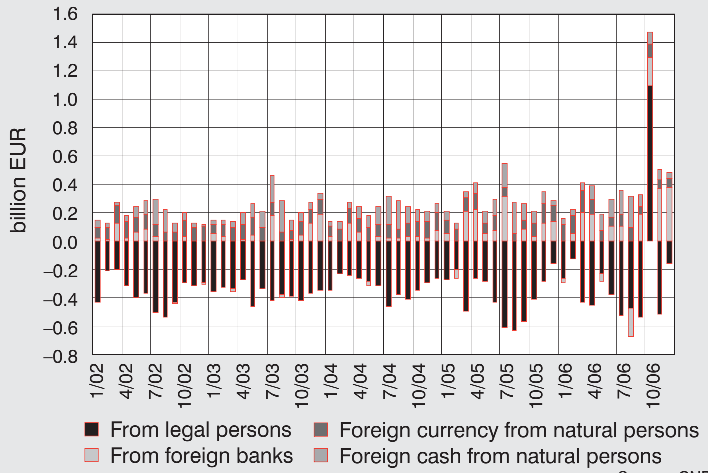


Sources: CNB and CNB calculations.

Transaction volume on the Croatian foreign exchange market continued to increase in 2006 and was particularly boosted by the transactions in the second half of the year. The average monthly turnover in bank intermediated spot foreign currency trading stood at EUR 5.0bn and EUR 8.1bn in the first and second half of 2006 respectively, whereas the average monthly turnover in the entire 2006 was EUR 2.3bn larger than in 2005, standing at EUR 6.6bn. As usual, the major net purchasers of foreign exchange were legal persons, although in October 2006, their euro sale for the first time exceeded their euro purchase in consequence of capital market developments.

For the most part, natural persons and foreign banks were net sellers of foreign exchange. Due to the appreciation pressures on the domestic market prevailing in 2006, the central bank was a purchaser of foreign exchange, with the exception of September when it sold euros. The share of total goods and services exports in total spot transactions, which dropped from 33.6% in 2005 to 24.5% at end-2006, also indicates that the 2006 trading was more the result of the strong demand for kuna and less the result of the demand for foreign exchange.

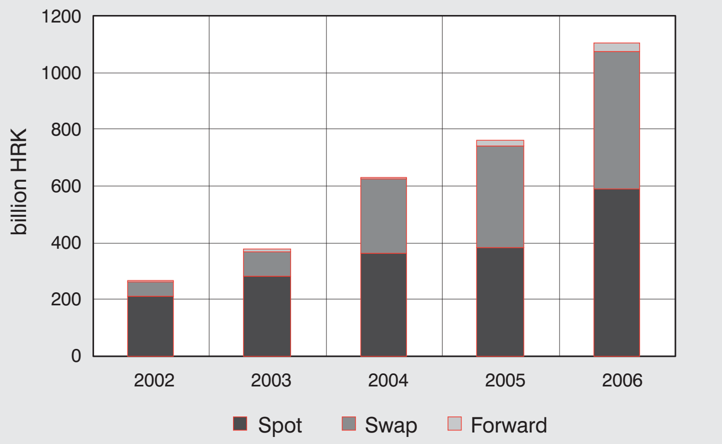
Figure 41 Monthly Spot Net Foreign Currency Purchase



Source: CNB.

The 2006 rise in the foreign exchange market turnover led to a substantial 53% increase in the volume of spot transactions, while the turnover in foreign exchange swap transactions rose by 37%, with forward foreign exchange transactions recording the slightest turnover increase of 28%. Substantial growth in spot transactions halted the downward trend in their share in total foreign exchange trading, present over the last years, which went up from 50% in 2005 to 53% in 2006. Within the structure of spot foreign currency trading of domestic banks, the greatest increase in absolute terms was recorded in trading with other domestic banks and legal persons. Due to the fastest relative increase in spot foreign currency trading, the share of domestic banks' foreign currency swap transactions in total foreign exchange trading, which augmented substantially in recent years, went down 3 percentage points in 2006, to 44%, while the share of domestic banks' trading in foreign exchange forward contracts also dropped, to below 3%. More than 64% of domestic banks' foreign exchange swaps related to trading with foreign banks, while the shares of trading with other domestic banks and legal persons in the total turnover in foreign exchange swaps were 18.6% and 16.5% respectively. Although on a rising trend, trading in foreign exchange forward contracts on the domestic foreign exchange market is still underdeveloped, and its relatively slow development may be attributed to the kuna exchange rate remaining stable over several years. Although domestic banks' trading in foreign exchange forward contracts mostly involves legal persons, which accounted for over 58% in this segment of trading in 2006, the major increase was recorded in trading with foreign banks where the turnover doubled compared with the year before, amounting to 28% of the total turnover in foreign exchange forward contracts at end-2006. Some information suggest that this increase in the turnover may be attributed to the replacement of kuna liabilities with a currency clause by liabilities without a currency clause with a parallel setting of a forward exchange rate at the same value date.

Figure 42 Foreign Currency Turnover by Transaction Type



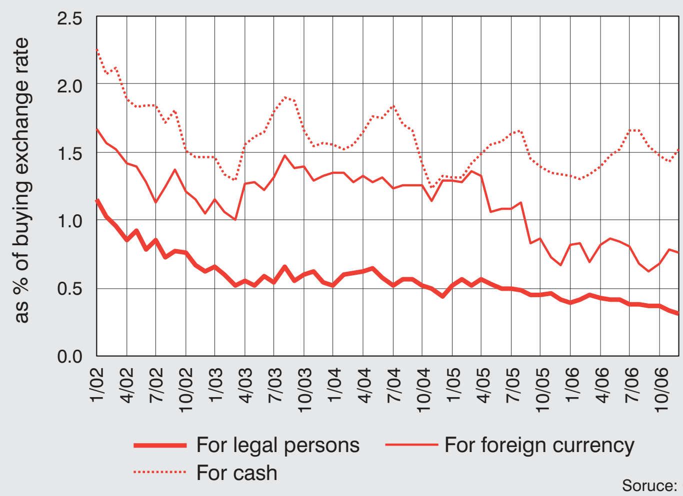
Source: CNB.

The result of the steady increase in the foreign exchange market turnover and enhanced competition was the continued downward trend in spreads in foreign exchange trading with legal and natural persons. The spread between the selling and buying exchange rate in trading with legal persons drifted slightly lower in 2006 relative to the year before, averaging about 0.4% of the buying rate, whereas the narrowing of the average spread in foreign exchange trading with natural persons was somewhat more significant, as evidenced by the data that it decreased from 1.1% in 2005 to 0.8% in 2006. Although the average spread in foreign cash trading was 1.4% in the first half of 2006, due to seasonally larger spreads over the summer months, the average 2006 spread was slightly larger, standing at 1.5%, i.e. the same as in 2005.

In 2006, the index of exchange market pressure, which shows the relation between changes in central bank international reserves and domestic currency exchange rate trends, mostly remained moving below the critical level that would indicate foreign exchange market disturbances.

Expected new foreign direct investment in Croatia, continued bank recapitalisation and new kuna issues of government and corporate bonds could lead to further appreciation pressures on the domestic currency in 2007. These pressures could

Figure 43 Difference between the Average Monthly Selling and Buying Exchange Rates



Soruce: CNB.

be somewhat alleviated by new central bank measures restricting banks' placement growth; the measures are to slow down the pace of banks' external borrowing to such an extent that it does not lead to the rise in direct corporate borrowing abroad. The demand for euro will be spurred by the September 2006 decision that broadened the calculation base for the minimum required amount of liquid foreign currency claims of banks, with the continued increase in eurozone interest rates providing an additional boost to the euro strengthening.

12 Institutional Framework

Over the last several years, Croatian financial regulations have undergone significant changes related to their alignment with the EU *acquis communautaire*. Although this alignment continued into 2006, major changes in financial regulations are yet to be made prior to Croatia's accession to the EU. Early 2006 saw the enforcement of the Act on the Croatian Financial Services Supervisory Agency (HANFA), the agency which integrates the operation of the former Croatian Securities Commission, Agency for Supervision of Pension Funds and Insurance (HAGENA) and Directorate for the Supervision of Insurance Companies. Cooperation between the HANFA and CNB needs to be strengthened in order to improve supervision of the financial sector. Bearing in mind the importance of this cooperation, the stated institutions concluded a cooperation agreement and the Committee for the Operational Supervision of the Financial Sector was established subsequently. After extensive preparations, the HANFA is also to take over the entire statistics of investment and pension funds, as well as insurance and leasing companies.

The Act on Amendments to the Securities Market Act, which was enacted in late 2006, eliminated some inconsistencies with EU directives. The amendments mostly relate to operational requirements for companies authorised for securities trading and regulated public financial markets, investor protection, market transparency and the ability to trade in derivatives. Full harmonisation with the EU *acquis* is still to be achieved by adopting a new securities market act, which is planned for 2008, and whose draft and relevant subordinate legislation is to be prepared by the HANFA. A complete scheme of investor insurance within the framework of the Central Depository Agency is to be established in Croatia for the first time. The new act will also regulate the sensitive area of public disclosure requirements, as well as exceptions from the obligation to prepare a prospectus for the issue of securities, the inclusion of a summary in the prospectus and the time limits for HANFA's approval of the prospectus. The enactment of the new securities market act will eliminate the remaining inconsistencies related to investment counselling and sanctions for market manipulation.

The Leasing Act was also adopted late in 2006, which means that such financial operations have been fully regulated by law. The Act governs the conditions for the establishment, operation and dissolution of leasing companies, contracting of leasing transactions and rights and obligations of parties to leasing transactions. Also regulated are financial reporting of leasing companies, supervision of their operations and their risk management. However, only a few months after its enactment, the Lasing Act faced criticism from the academic and professional public that stated its several weaknesses, all of which could result in future amendments to this act. For example, referring to the Property Act, the Leasing Act stipulates that the objects of leasing may be movable and immovable assets, thus eliminating leasing of intangible assets (e.g. leasing of computer applications). In addition, the Act sets the initial capital of leasing companies at HRK 1 million, which is a small amount for a financial institution dealing in financial leasing and a large amount for an institution dealing in property leasing (operating leasing). Still, the major objections to the new act refer to accounting issues. Since the Leasing Act has not been fully harmonised with IAS 17, bookkeepers, accountants and auditors will have to choose between applying the provisions of the Leasing Act or IAS 17, in view of the fact that the application of IAS 17 is required by the Accounting Act now in force. In addition, the concept of leasing is very narrowly defined under the Act, particularly regarding financial leasing, which is more narrowly defined than in IAS 17. This means that the effects of some forms of financial leasing that are not covered by the Act will have to be treated as operating leasing, although they are not operating leasing transactions either actually or under IAS 17.

With regard to credit institutions, it should be said that the Banking Act of 2002 was for the most part harmonised with the EU *acquis*, while the alignment with the new Directive relating to the taking up and pursuit of the business of credit institutions is to be implemented by the Credit Institutions Act whose adoption and entry into force are expected in 2008 and early 2009 respectively. Under this act, credit institutions shall be defined as companies whose business is to: receive deposits and other repayable funds from the public, grant loans for own account and/or issue electronic money.

The problem of inconsistency between these regulations and operations of savings and loan associations was temporarily solved in 2006 by the adoption of the Credit Unions Act and the amendments to the Banking Act now in force. By mid-May 2007, savings and loan associations had to decide on whether they were to continue operating by providing a considerably narrower range of services as credit unions in line with the Credit Unions Act, or increase their capital and adjust their operations with certain prudential requirements and continue operating as savings banks, as regulated by the provisions of the Act on Amendments to the Banking Act that will be in force until the adoption of the Credit Institutions Act. Supervision of the stated institutions is to be exercised by the CNB. The business of electronic money institutions will be regulated by the Act on Electronic Money Institutions whose adoption is planned for 2008.

Late 2006 also saw the adoption of the Act on Amendments to the Croatian National Bank Act. Since these amendments mostly relate to the alignment of central bank's activities with the operating methods of EU and EMU central banks, most of them are not to be applied immediately but as of the date of Croatia's accession to the EU and EMU or as of the date of the introduction of the euro as the legal tender in the Republic of Croatia. The provision to be applied immediately is the one under which the CNB, on a semi-annual basis, informs the Croatian Parliament of its financial condition, the level of price stability achieved and monetary policy implementation. After the EU accession, the CNB Council shall consist of nine CNB employees – the Governor and eight Vicegovernors – and the office of external members of the Council shall terminate as of the day of Croatia's accession to the EU. The amendments also regulate the CNB's status following the integration into the ESCB and ECB and its objectives after the introduction of the euro as the monetary unit of the Republic of Croatia.

In May 2007, almost all banks that founded the Croatian Registry of Credit Obligations (HROK) began to use reports on their clients' credit obligations. The Registry contains data on 2.5 million bank clients, loan users and guarantors, as well as data on 6.5 million current loan relations. Five large banks have stated that they had only positive experience with the HROK functioning, and no complaints have been received so far from the citizens regarding the accuracy of their debt reports. In addition, relatively few citizens refused to give an approval for the preparation of such a report. The Registry also comprises the data on credit card loans, but only for cards issued by banks. This means that although there are presently no independent card issuers in Croatia (all of them are in bank ownership), data on loans granted by possible future independent card issuers would not be comprised in the registry of credit obligations. This failure could be rectified by new legal regulations on card operations and credit card loans that are currently being drafted. This is in line with the CNB's position that this form of borrowing should also be taken into account, particularly when considering that credit card loans granted by banks stood at HRK 3.8bn at end-2006, accounting for 2.0% of total loans granted.

A boost to transparency of the Croatian financial market is also expected to come from the land registry and cadastral reform project, which has proceeded as planned, with the running of the "Organized Land" campaign aimed at raising public awareness of the importance of checking real estate data in the land registry. An agreement on the design and introduction of a common information system of land registry and cadastre data, which should provide for long-distance communication with users and authorised experts, was signed in May 2007.

The alignment of Croatian financial regulations with the EU *acquis* is expected to pick up speed in the next two to three years. The Draft Securitisation Act has been completed and should soon be submitted to parliamentary procedure, suggesting that the plan, under which this act should come into force on 1 January 2008, should be realised. Although opinions on the future impact of securitisation on the dynamics and level of the country's external debt remain divided, it will undoubtedly spur further development of the Croatian capital market. An additional boost to the Croatian capital market development is also expected from the amendments to the Act on Mandatory and Voluntary Pension Funds, which will probably liberalise the investment policy of pension funds, abolish the regulation on the minimum required number of pension funds' members, and liberalise transfer between funds. At the same time, although the harmonisation with EU regulations in the field of life and non-life insurance, which relates to the taking up and pursuit of the business of insurance companies, separation of life and non-life insurance, and reporting and auditing, has for the most part been transferred to the Insurance Act now in force, full harmonisation, including the provisions on the coverage of technical reserves, is to be achieved by the amendments to the Insurance Act expected to be made in 2008.

Croatia's approaching accession to the EU has raised the need for higher quality preparations of the entire domestic payment system for its integration into the Single Euro Payment Area (SEPA). To ease this adjustment, the CNB and banks agreed to exchange SEPA-related information on an ongoing basis. In addition, at its last session, the National Payment System Committee changed its field of operation so that, in addition to domestic payment operations, it also includes international payment operations as of March 2007. It should be mentioned that a new Payment System Act, whose drafting is an integral part of these activities, is to be adopted by end-2008.

The issue of financial collateral, currently governed by several regulations (which creates certain problems of a legal nature), is to be solved by the adoption of a uniform Financial Collateral Act in 2007 so as to simplify the transposition of EU legislation provisions and facilitate their future implementation, whereas current regulations related to deposit insurance are to be brought in line with the Directive on deposit insurance schemes by the adoption of a new Deposit Insurance Act in 2008. Specifically, the current *ex ante* deposit insurance scheme does not include deposits of legal persons, there are neither rules for determining depositors' claims against a bank, nor are there definitions of joint accounts and insurance coverage based on joint accounts. Also, procedures on the reorganisation and winding-up of banks are now stipulated by the Banking Act, Bankruptcy Act, Companies Act and the Act on Resolution of Conflicts of Law with Regulations of other Countries in Certain Relations. A separate Act on the Reorganisation and Winding-up of Financial Institutions, which is to be adopted in 2008, should stipulate in detail the procedures for the winding-up of credit institutions, financial institutions, insurance companies and investment firms. Croatia lacks the legal framework that governs the supervision of financial conglomerates (although the Insurance Act and the Act on the Croatian Financial Services Supervisory Agency contain certain provisions on the cooperation and exchange of information between domestic and foreign supervisory authorities). This issue should be solved in 2008 by the adoption of a special Act on Financial Conglomerates.

13 Banking Sector[20]

In 2006, banks adopted a more aggressive approach to competition for a share in the credit market compared with the year before when they operated with a degree of caution due to announced central bank measures. Credit growth was 24% in 2007 with the deposit base increase of only 18%, so that banks, in contrast with the preceding years, used non-resident loans and fresh capital as additional funding sources. Unceasing market competition led to the narrowing of the interest rate spread as deposit rates grew due to the rise in European interest rates, whereas lending rates did not grow due to competition pressures. Narrower spreads, coupled with an upsurge in bank assets and capital, resulted in the deterioration of aggregate bank profitability ratios in 2006.

The banking sector operation in 2006 was largely influenced by regulatory changes, particularly in the field of prudential regulations. Several prudential regulations were amended due to the need to quantify and monitor currency induced credit risk (CICR), and adjust the regulations to the revised IASs and IFRS. These amendments raised the former risk weights on foreign currency and foreign currency indexed claims on clients with unmatched foreign exchange positions. Amended were also regulations on the calculation of open currency positions of banks and requirements for the use of internal models in evaluating the options book.

Monetary policy measures also exerted a strong influence on bank operations in 2006. With a view to curb the rise in banks' external liabilities in the first half of 2006, the marginal reserve requirement rate was raised and introduced was a special reserve requirement on liabilities based on securities issued, at the same rate as the marginal reserve requirement. Major changes were also introduced by the inclusion of deposits

20 All the indicators were calculated based on banks' unconsolidated data. As regards the indicators having either 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.

indexed to foreign currency in the calculation base for the minimum foreign currency liquidity to be maintained (32% of total foreign currency liabilities of banks) in the second half of 2006. The very end of 2006 saw the adoption of the Decision on the purchase of compulsory CNB bills aimed at curbing banks' annual placement growth to 12% in 2007.

There were 33 banks in operation on the Croatian market at the end of 2006. The most numerous were still small banks (23), with the number of medium-sized banks (4) and large banks (6) holding steady since 2004.[21] Medium-sized banks recorded the largest increase in assets in 2006 (around 35%), and their market share went up from 10.4% to 12.0%.[22] The asset share of small banks remained virtually the same, while the asset share of large banks in the total assets of the banking sector kept at above 80%. The two largest banks accounted for 42.0% of total bank assets at the end of 2006.

As regards the ownership structure, the number of banks in majority domestic ownership fell from 20 to 18 in 2006, and the number of banks in majority foreign ownership grew from 14 to 15, with 90.8% of total bank assets controlled by banks in majority foreign ownership. In addition, it should be noted that all the large banks and three of the four medium-sized banks were owned by foreign shareholders and that the largest share of bank assets (about 44%) continued to be controlled by Italian shareholders in 2006.[23]

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

						Change 31/12/2006 / 31/12/2005	
	31/12/2002	31/12/2003	31/12/2004	31/12/2005	31/12/2006	Amount	Percent
Number of banks	46	41	37	34	33	–1	–3
Total assets	174,139	204,043	229,305	260,278	304,874	44,597	17
Money assets, deposits, MoF T-bills and CNB bills	51,651	67,010	71,823	73,064	83,698	10,634	15
Securities portfolio	21,094	18,241	24,036	26,314	24,177	–2,137	–8
Loan portfolio	92,293	110,052	125,202	151,960	187,785	35,826	24
Other assets	9,102	8,740	8,244	8,940	9,214	274	3
Liabilities and capital	174,139	204,043	229,305	260,278	304,874	44,597	17
Short-term liabilities	52,893	57,174	59,642	70,860	81,613	10,753	15
Long-term liabilities	95,181	118,809	139,001	154,314	179,785	25,471	17
Subordinate and hybrid instruments and other liabilities	9,557	9,977	10,980	11,660	12,115	455	4
Capital	16,509	18,083	19,681	23,443	31,361	7,918	34

Source: CNB.

21 According to their shares in the total banking sector assets, banks are classified as small banks (with a share in total bank assets lower than 1%), medium-sized banks (with a share in total bank assets larger than 1% and smaller than 5%) and large banks (with a share in total bank assets exceeding 5%).

22 In 2006, Hrvatska poštanska banka increased its share in the total banking sector assets from 2.8% to 3.7%, mostly due to the payment of the first instalment of the government debt to "old" pensioners. The funds needed for the purchase of accounts receivable from the associated enterprise HPB Invest, which was in charge of debt repayment, were raised by a repo loan from the CNB. The resulting HRK 1.2bn in the bank's credit portfolio was recorded as an increase in claims on the government, and on the liability side as an increase in short-term loans received.

23 One large bank changed its owner in 2006 (from Austrian to French). This considerably reduced the share of banks in majority Austrian ownership (from 43% to 35%).

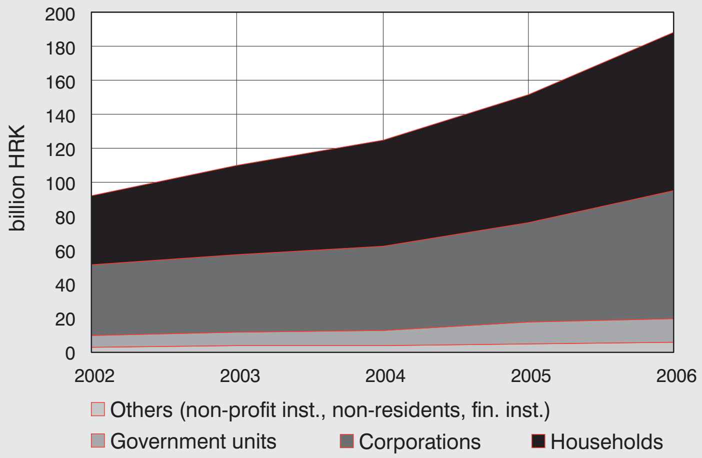
At end-December 2006, the total banking sector assets stood at HRK 304.9bn, up 17.1% over the end of December 2005. Almost half of the total increase in overall bank assets in 2006 occurred in December, which may be attributed to banks' preparations for the application of the Decision on the purchase of compulsory CNB bills for placement growth exceeding 12% in 2007. At the very end of the year, banks raised their calculation base for credit growth in 2007. Among asset items, the highest annual rise was recorded in household and corporate loans (totalling HRK 33.4bn or 93% of the total credit portfolio increase), and half of this increase occurred at the close of the year. Deposits with the CNB went up by 15% or HRK 6.1bn in 2006, mainly due to the rise in the allocated marginal reserve requirement after the broadening of its calculation base. In the same period, deposits with banking institutions rose by 12% or HRK 2.8bn, which may be attributed to the implementation of the Decision on the minimum required amount of foreign currency claims, which broadened the calculation base for the coverage of banks' foreign currency liabilities by liquid foreign currency claims to include also kuna liabilities indexed to foreign currency.

On the liability side of banks' balance sheets, the largest increase in absolute terms was recorded by deposits (HRK 31.2bn or 18%), of which more than 70% was accounted for by time deposits. Loans received also recorded a sharp increase (HRK 3.6bn or 9.9%, with the rise in short-term and long-term loans each accounting for half of the increase), while the highest relative growth, of 34% or HRK 7.9bn, was recorded by bank capital, HRK 5.1bn of which was accounted for by share capital. Specifically, due to several new prudential measures of the central bank, banks had to report higher risk exposure, which obliged them to increase their regulatory capital and thus maintain a satisfactory capital adequacy ratio. In addition, some banks increased their capital to ease their further competition for a market share.

At end-2006, the share of loans in Croatian banks' assets stood at 61.7%, which corresponds with the highest shares of loans in bank assets among the EU-25 banking sectors. As their share remained constant, household loans (accounting for 49.2% of the total), of which 39.5% related to home loans, still prevailed in the structure of Croatian bank loans. The share of corporate loans slightly increased, to 39.9%, whereas the share of loans to financial institutions slightly dropped, to 2.1%. At the same time, the share of loans to government units decreased, standing at 7.7% (8.4% at the end of 2005). According to the currency, 71.7% of total bank loans at end-2006 were granted in foreign currency or indexed to foreign currency. The share of euro loans and euro-indexed loans in total loans stood at 53.7%, the share of loans indexed to the Swiss franc was 15.0%, with all other currencies accounting together for 3.0% of total loans.

In 2006, none of the banks reported accounting losses, with pre-tax profit of all banks increasing by 5.6% (after-tax profit increased by 7.3%) relative to 2005. As banks' assets rose approximately three times faster than their pre-tax profit, the annual ROAA for Croatian banks fell from 1.65% to 1.51%. At the same time, the annual ROAE (after-tax) dropped from 15.0% to 12.7%. The reason for this decline was an exceptionally sharp increase in bank capital in 2006. Increased capital not only raised the denominator in the calculation of this indicator, but it also grew the most in the second half of the year, so that banks had no time to profitably place fresh capital by the year-end.

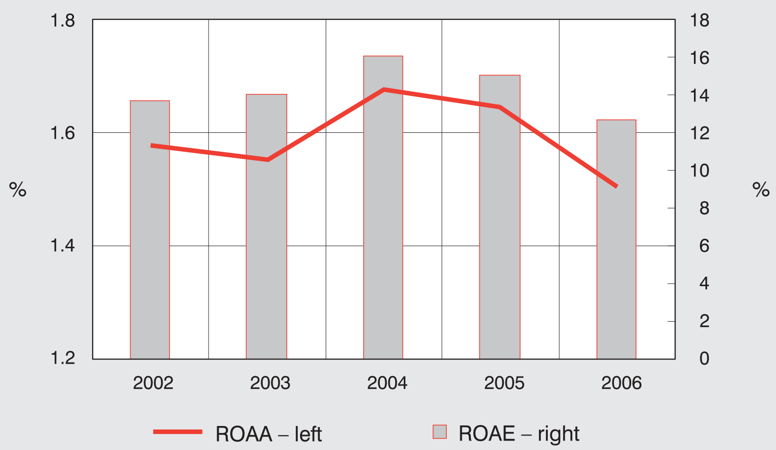
Figure 44 Bank Loan Portfolio by Debtor Sector, end of period



Source: CNB.

The continuation of relatively favourable business performance of the Croatian banking sector in 2006, notwithstanding the decline in relative profitability ratios, was mostly due to large banks, which managed 81.0% of average bank assets in 2006 and accounted for 83.1% of the total net profit of all banks over the year. The reasons for improved performance of these banks mostly relate to the rise in assets per employee and the smaller operating expenses to net income ratio.

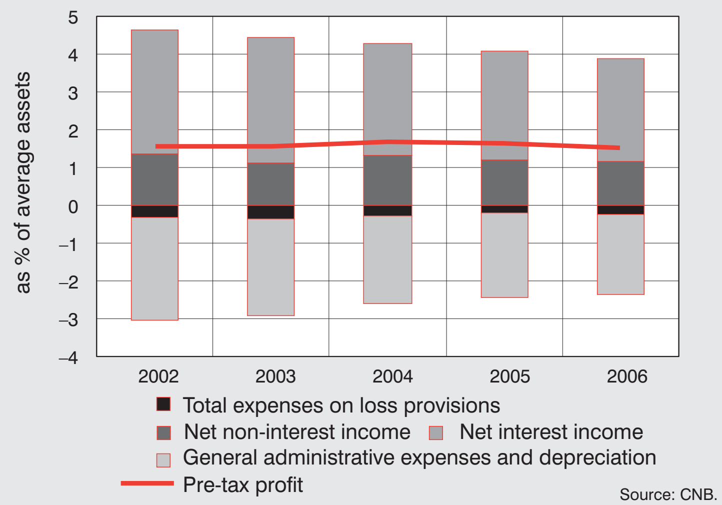
Figure 45 Banks' Return on Average Assets and Average Equity



Source: CNB.

The observed slowdown in the rise of total bank profit in 2006 may be explained in several ways. Although net interest income grew by 9.9%, its ratio to average bank assets continued to decline, standing at 2.7% in 2006. General administrative expenses and depreciation rose faster than net interest income (10.4%), but their ratio to average bank assets diminished, to 2.1%. Owing to a speedy rise in expenses on provisions (40.8%), their ratio to average bank assets grew to 0.2% in 2006. Net non-interest income went up 8.4% in 2006, partly due to large losses reported by banks in 2005 on account of adjusting balance sheet items with a currency clause to the contracted exchange rate (of HRK 2.8bn). This item was exactly the reason why financial indicators for Croatian banks deteriorated in 2005 compared with 2004, whereas this item decreased by 67.2% in 2006. Nevertheless, the ratio of net non-interest income to average bank assets was also somewhat lower in 2006, standing at 1.1% at the year-end. Finally, net interest and net non-interest income of banks, accounting for 3.8% of their average assets, together with general administrative expenses and impairment loss, accounting for 2.3% of bank assets, decreased the total (pre-tax) net income of banks to 1.5% in 2006.

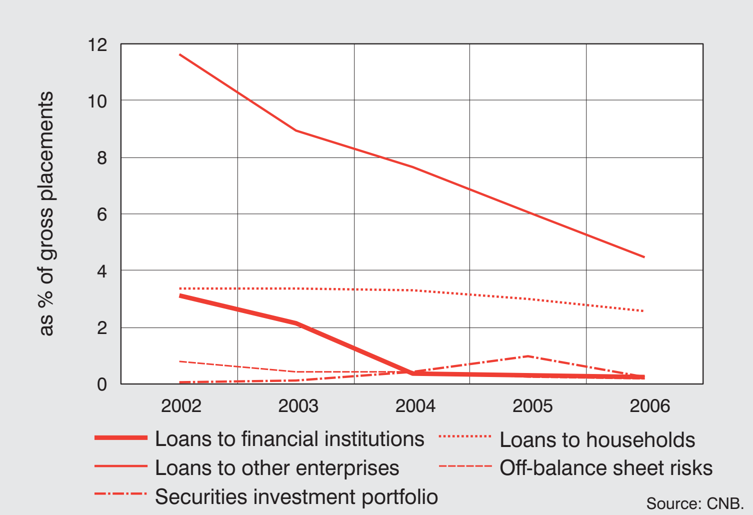
Figure 46 Profitability of Banks' Assets



Source: CNB.

The 2006 drop in bank profitability would have been even greater save for the continued several-year downward trend in relative bank costs for the coverage of credit risk in their portfolios. The share of impairment loss and provisions for contingent liabilities in total placements and related contingent liabilities stood at 1.8% at end-2006, which is considerably less than at end-2005 when it was 2.3%. To an extent, this decline was due to banks' improved ratings on their loans to other enterprises and non-residents. However, the developments in this indicator were much more affected by the inclusion of available-for-sale debt securities into the portfolio subject to credit risk assessment, in accordance with IAS 39. Specifically, this portfolio is almost entirely composed of risk-free MoF T-bills and Republic of Croatia bonds, so that its reallocation to assets for which banks have to assess credit risk resulted in a one-off increase in these assets of HRK 14.4bn or 5.2%. Also, the value of assets in the available-for-sale portfolio of debt securities grew by as much as 23.9% in 2006, additionally contributing to the reduction of overall assessment of credit risk in the Croatian banks' portfolio due to the described accounting change.

Figure 47 Impairment Loss (Specific Provisions), end of period



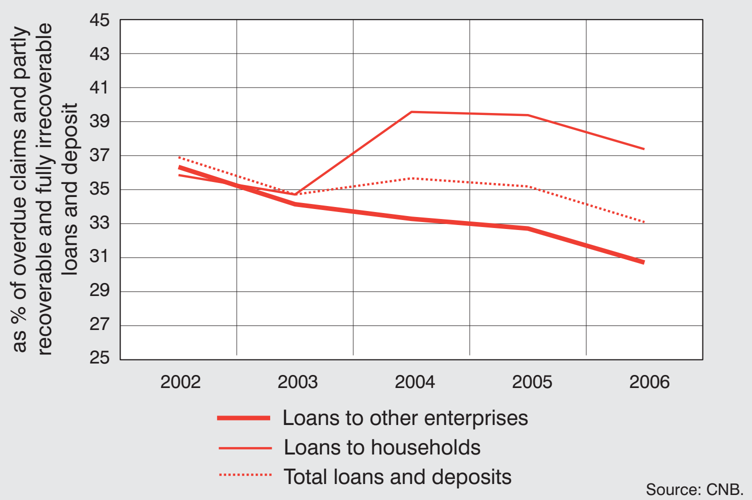
The reported quality of total bank placements considerably improved in 2006. The share of best quality placements was 96.8% at the end of December (compared with 96.0% at the end of 2005). This was due to a sharp 26.4% increase in fully recoverable placements, whereas the total amount of partly recoverable and fully irrecoverable placements rose slightly. These data indicate that the Croatian banking sector is capable of absorbing considerable losses in case of a negative shock in the macroeconomic environment. However, a recently published IMF analysis[24] shows that Croatian banks should make an effort to build up capital reserves during good times in order to get better prepared for the next slowdown period.

The overall credit risk assessment should also include total overdue claims (more than 90 days) arising from fully irrecoverable placements, which somewhat increased in 2006, standing at HRK 8.7bn at the year-end. Still, their share in risky placements went down in 2006, from 3.0% to 2.5%, which also suggests a decrease in total credit risk in the Croatian banks' portfolio. However, the coverage of partly recoverable and fully irrecoverable placements plus overdue claims (more than 90 days) by fully recoverable placements has been steadily declining, with the exception of 2004 when due to major

24 IMF Mission on the Consultations with the Republic of Croatia under Article IV of the IMF's Articles of Agreement, 2006: *Selected Issues – Bank Stability and Credit Risk in Croatian Banks.*

accounting changes banks had to make a one-off increase in their impairment loss on household placements. Thus, the coverage of partly recoverable and irrecoverable placements plus overdue claims (more than 90 days) by fully recoverable placements fell from its record high in the observed period of 36.9% at the end of 2002 to 33.1% at the end of 2006.

Figure 48 Impairment Loss on Banks' Loans and Deposits, end of period



Source: CNB.

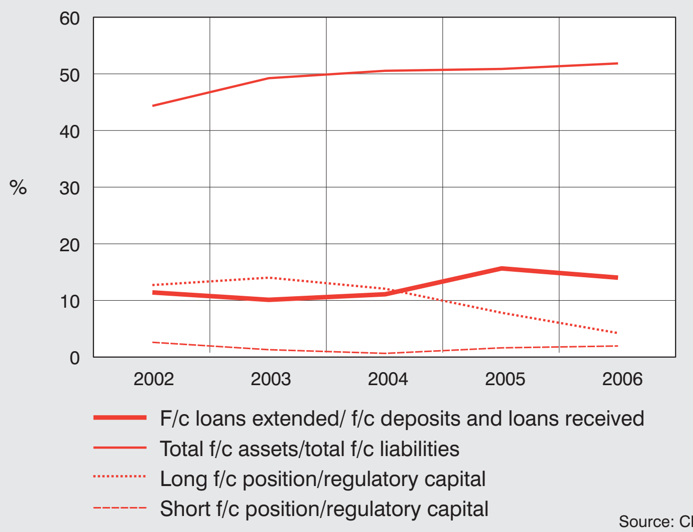
In highly euroised countries like Croatia, there is also a constantly present systemic exposure of banks to currency risk. That is why Croatian banks' direct currency exposure measured by their total open foreign exchange position is limited to 20% of their regulatory capital. At end-2006, the ratio of banks' aggregate short positions to the sum of their regulatory capital was 2.1%. The ratio involving banks' long positions was 4.3% at the end of June, which is a substantial decrease, compared with 7.7% at the end of 2005.[25] These values suggest that a direct impact of a hypothetical exchange rate change on banks' capital adequacy would be only minor.

Nevertheless, due to a large share of foreign currency indexed loans, Croatia is more exposed to currency induced credit risk (CICR), that is, indirect currency risk. At the end of 2006, 25.5% of total Croatian banking sector assets was denominated in foreign currency and even much more (39.4%) was indexed to foreign currency. On the liability side, predominant were foreign currency denominated liabilities (49.2%), whereas the share of liabilities indexed to foreign currency was smaller (10.8%). While this risk was hard to measure till June 2006 due to the lack of required data, the central bank, having recognised its significance for the banking sector, enacted regulations, applicable as of 30 June 2006, requiring banks to ascertain, measure,

25 As of April 2003, the prescribed calculation of a bank's open foreign exchange position also includes the equivalent values of open foreign exchange positions in classic and embedded options.

monitor and control their exposure to CICR. Although the period in which data on CICR are collected is too short for a detailed analysis, the data imply that this risk is inherent in placements to all sectors (except placements to non-residents). Total exposure to CICR was HRK 210.2bn at end-2006, accounting for 61.2% of total placements. Out of this amount, only 22.8% of placements are hedged according to the banks' own estimates. This risk is particularly pronounced in the household sector. In addition, also unhedged are the sectors of government units, non-profit institutions and companies, whereas the sectors of non-residents and financial institutions are hedged.

Figure 49 Main Indicators of Banking Sector Exposure to Currency Risk, end of period



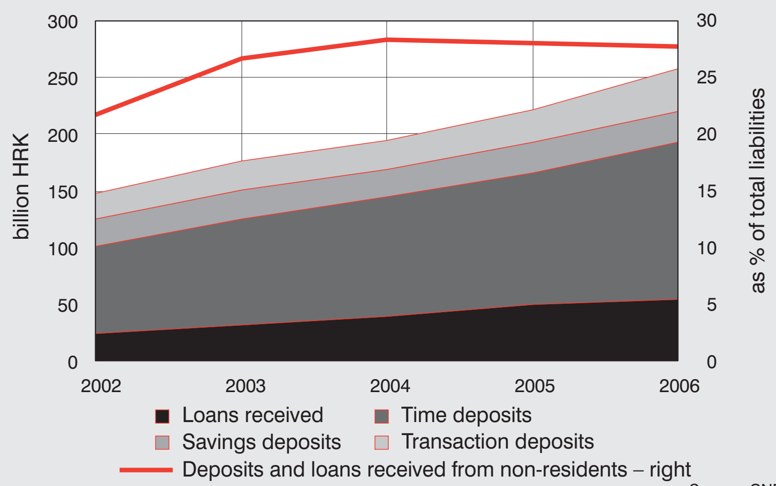
Source: CNB.

As of June 2006, banks are required to make a detailed assessment of quality loan collateral. According to the first available data, 33.5% of net bank placements are secured by quality collateral, with the secured amount accounting for 87.9% of collateralised claims. Real property is the most prominent collateral instrument used (58.5%) – residential real property for home loans and business real property for corporate loans. With regard to loans to the government and financial institutions, mostly used are quality collateral instruments, such as securities and unconditional guarantees. Only loans to non-residents are fully secured by quality collateral. Another important change introduced into bank reporting is risk monitoring of derivatives embedded in placements, by clients, placements types and sectors, which are included in risk assessment in addition to the basic contract. The first data collected indicate that the share of embedded derivatives in total bank placements has been negligible.

Within risks inherent to international operations, cross-border credit risk is practically negligible due to the share of loans to non-residents in total loans standing below 0.6% since 2000. However, the share of foreign securities in total debt securities more than doubled in 2004, standing at 39.0%, and grew further, to 40.3% at the end of 2006.

Still, even more important is financing risk, given the fact that the share of loans received from non-residents in banks' total liabilities stood at 14.4% at end-2006, and was similar to that recorded at the end of the two preceding years. This means that, together with deposits received from non-residents, foreign sources account for 27.8% of banks' total liabilities.

Figure 50 Banks' Liabilities by Instruments, end of period

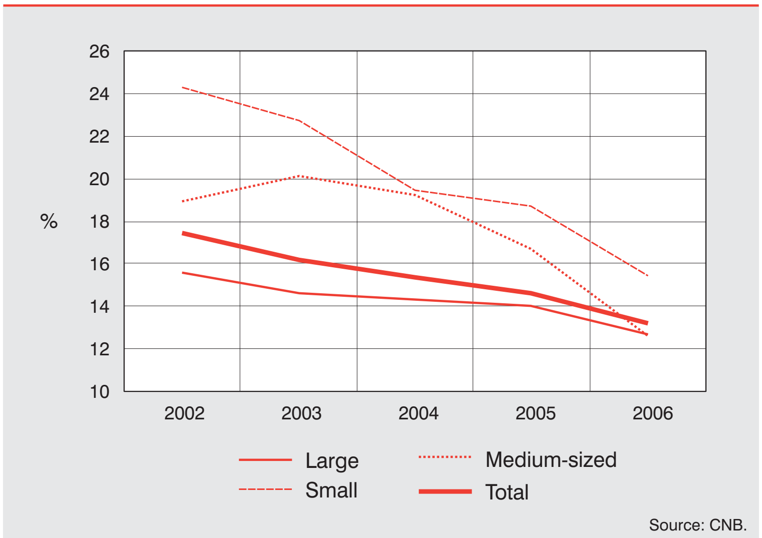


Source: CNB.

Notwithstanding a decline in banks' exposure to financing risks, the banks' aggregate capital adequacy ratio continued a several year decline in 2006, hitting a historical low of 13.2% at the year-end. At the end of June, this ratio was even lower (12.9%), but some banks increased their regulatory capital in the second half of the year (mostly by recapitalisation). Large banks, traditionally having lower capital adequacy ratios than smaller banks, had the greatest impact on trends in the aggregate capital adequacy ratio. At end-2006, the group of medium-sized banks had the lowest capital adequacy ratio, lower than the aggregate ratio for the entire banking sector, which may be related to strong loan growth that these banks recorded in 2006. In contrast with 2005, none of the banks reported a capital adequacy ratio below the prescribed 10%. However, since as many as 4 banks had a capital adequacy ratio below 11%, the wave of recapitalisation, which marked 2006, may be expected to continue into 2007.

In the last few years, banks' regulatory capital grew at a slower pace than their total risk exposure, leading to a steady decline in the capital adequacy ratio. In 2006, this decrease was primarily due to regulatory changes. Specifically, due to the impact of new regulations, under which first financial reports were compiled as of 30 June 2006, the former weights on foreign currency and foreign currency indexed loans to clients with unhedged foreign exchange positions were raised by 25 percentage points. As a result, asset items that used to be weighted by 50% in the calculation of risk-weighted assets (the most important component in the denominator of the capital adequacy ratio) were

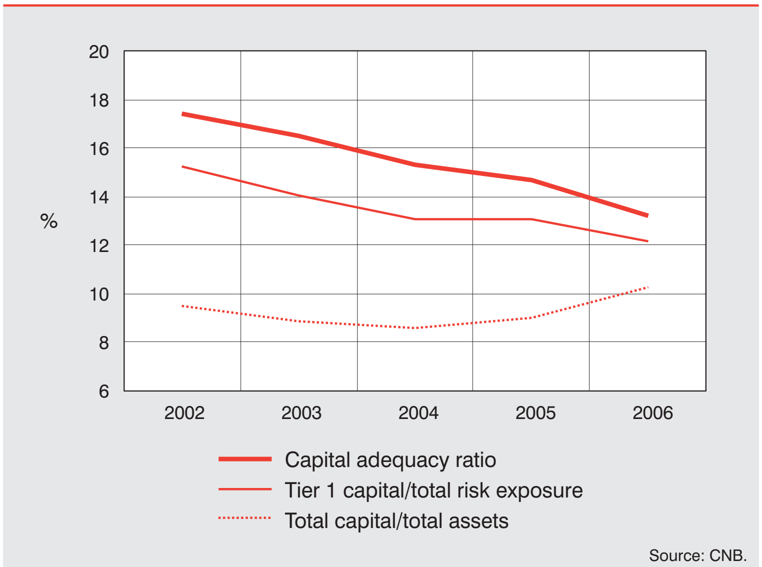
Figure 51 Capital Adequacy Ratios by Bank Peer Groups



at the end of June 2006 almost completely weighted by 70%. This could be attributed to the fact that almost all foreign currency indexed loans, which are fully secured by mortgages on residential property, were extended to clients with unhedged foreign exchange positions. Due to regulatory changes in 2006, the aggregate capital adequacy ratio plunged while the banks' total capital to total assets ratio grew strongly.

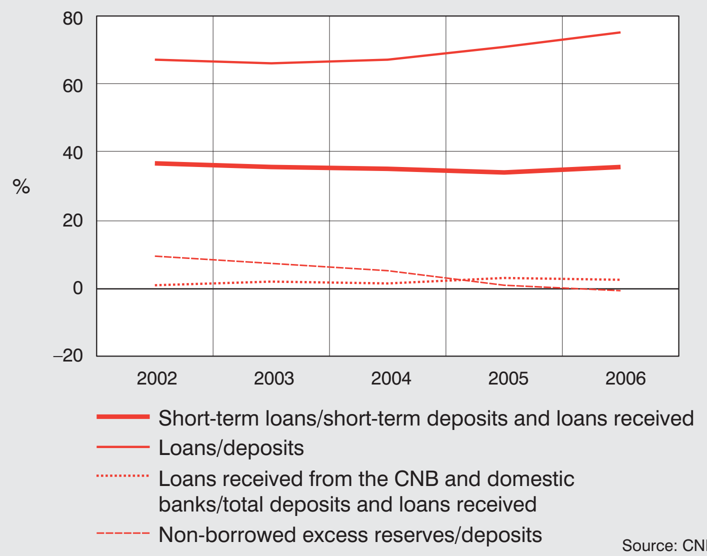
In addition to a decline in most capital adequacy indicators, the last two years were also characterised by a downturn in most liquidity indicators of the banking sector, although still relatively satisfactory liquidity marked 2006 as well. Mid-2005 saw the beginning of bank participation in central banks' reverse repo auctions (of which 51 were held in 2006). In addition, the central bank supported banking sector liquidity in 2006 by 13 interventions in the foreign exchange market to purchase large foreign

Figure 52 Leverage



exchange inflows from abroad. The still favourable level of banking sector liquidity is also evident in the drop in the relative share of loans received from the CNB and domestic banks in total received deposits and loans, from 2.8% at end-2005 to 2.5% at end-2006. Nevertheless, other bank liquidity indicators suggest a drop in bank liquidity in 2006: kuna liquidity measured by surplus kuna liquidity of the banking sector relative to its deposit base went down from 1.1% at end-2005 to –0.5% in 2006, with the banks' loan to deposit ratio going up from 67.3% in 2004 to 71.2% in 2005, and finally to 75.1% at the end of 2006.

Figure 53 Main Indicators of Banking Sector Liquidity

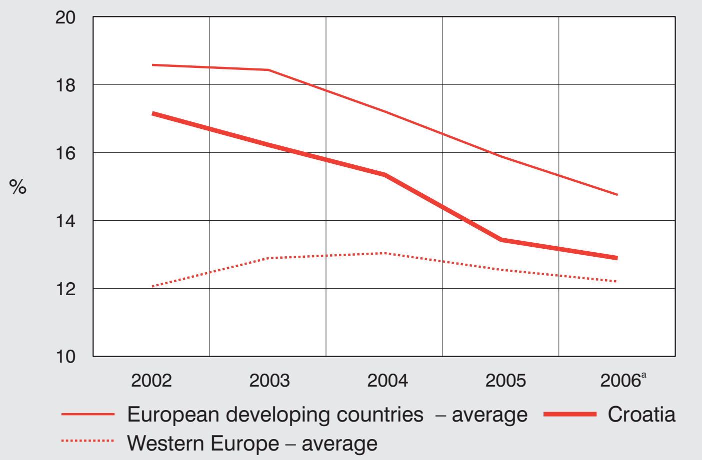


Source: CNB.

Notwithstanding the described trends that in 2006, the second consecutive year, led to a drop in relative profitability and capital adequacy ratios of banks operating in Croatia, international comparisons suggest solid profitability and capitalisation of the Croatian banking sector. According to preliminary IMF data for 2006 (which classify European countries into European developing countries and Western Europe), the aggregate capital adequacy ratio of the Croatian banking sector is among the lower ratios within the group of European developing countries, but is higher than the aggregate capital adequacy ratio of the banking sectors in developed European countries. Still, the capital adequacy ratio of the Croatian banking sector has in recent years come closer to that in West European countries.

Furthermore, ROA and ROE are traditionally lower in more developed than in less developed banking sectors, so that Croatia is according to these indicators traditionally positioned between these two groups of countries. Apart from methodological changes, this may be attributed to the maturing of the Croatian banking sector and a decrease in its perceived risk. At the same time, according to the same source, the Croatian banking sector has extremely high gross earnings per unit of assets relative to West European countries, but also higher than the average for European developing countries.

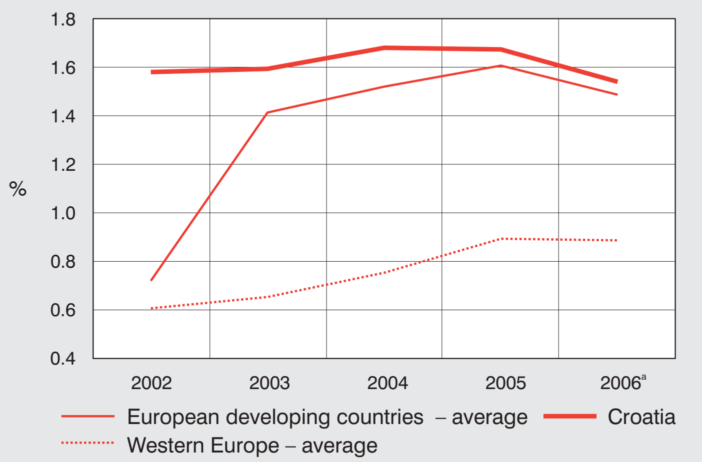
Figure 54 Capital Adequacy Ratio in Croatia and Selected Groups of European Countries



[a] Data for 2006 refer to the most recent available data from this source (June 2006 for Croatia).

Source: IMF.

Figure 55 Return on Banking Sector Assets in Croatia and Selected Groups of European Countries



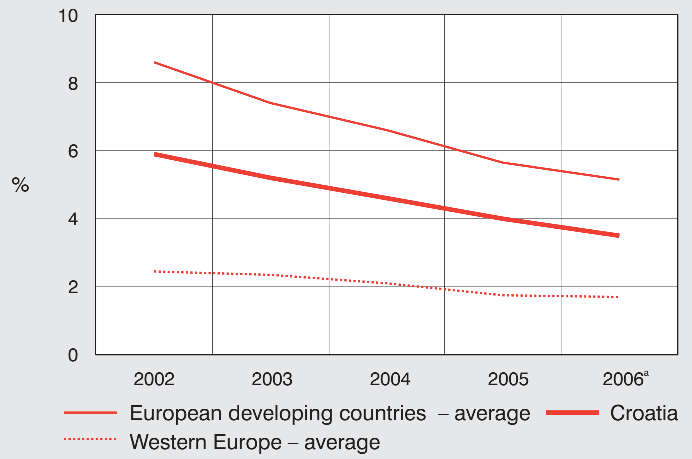
[a] Data for 2006 refer to the most recent available data from this source (June 2006 for Croatia).

Source: IMF.

The ratio of non-performing loans to total loans shows that based on risk in banking operations Croatia can be placed somewhere between West European countries and European developing countries. Together with its higher return on assets compared with European developing countries, this makes the Croatian banking sector continuously very attractive to foreign investors. This is the very context in which one should view the steady entry of EU banks into the ownership structure of Croatian banks, which continued into 2007 as well.[26]

26 Foreign owners took over Banka Sonic and Gospodarsko-kreditna banka in 2006 and Banka Kovanica in the first half of 2007.

Figure 56 Ratio of Non-Performing Loans to Total Loans in Croatia and Selected Groups of European Countries



[a] Data for 2006 refer to the most recent available data from this source (June 2006 for Croatia).

Source: IMF.

To conclude, it may be said that the performance of the Croatian banking sector was satisfactory in 2006 taking into account that banks faced several challenges hindering their operations. Owing to strong competition, banks did not increase lending rates, while deposit rates were spurred by the price of external borrowing. In addition, monetary policy measures aimed at curbing credit growth and external borrowing of banks, coupled with prudential measures, directly led to the decline in banks' relative profitability ratios. Banks' response to all this was to increase non-interest income and strongly expand loan growth. However, they failed to cut total operating expenses, which, together with a further narrowing of the interest rate spread, led to a mild decline in relative profitability ratios.

Table A
Selected Indicators of Banking Sector Operations[27] (in %, unless otherwise noted)

Indicator	2002	2003	2004	2005	2006
Size					
Number of banks	46	41	37	34	33
Assets (in million HRK)	174,139	204,043	229,305	260,594	304,874
Profitability					
Return on average assets (ROAA)[a]	1.6	1.6	1.7	1.6	1.5
Return on average equity (ROAE)[b]	13.7	14.1	16.1	15.0	12.7
Adjusted ROAA[c]	1.6	1.5	1.7	1.6	1.5
Net operating income indicator[d]	1.9	1.9	2.0	1.9	1.7
Net interest income indicator[e]	3.3	3.4	3.0	2.9	2.7
Indicator of general administrative expenses and depreciation[f]	2.7	2.6	2.3	2.2	2.1
Ratio of interest income from loans to average loans	9.6	8.7	8.1	7.7	7.2
Ratio of interest expense on deposits to average deposits	2.8	2.5	2.4	2.5	2.6
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
Credit risk					
Share of impairment loss in total loans to financial institutions	3.1	2.0	0.3	0.3	0.3
Share of impairment loss in total loans to households	2.2	1.8	2.6	2.2	2.0
Share of impairment loss in total loans to other enterprises	6.2	4.2	4.3	3.6	2.6
Share of specific provisions in total off-balance sheet risks	0.4	0.1	0.0	0.0	0.0
Liquidity					
Share of deposits and loans received from non-residents in total liabilities	21.7	26.7	28.4	28.1	27.8
Ratio of short-term loans extended to total short-term deposits and loans received	37.0	35.5	35.0	34.3	35.7
Ratio of loans extended to deposits and loans received	67.0	66.2	67.3	71.2	75.1
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
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
Ratio of total f/c assets to total f/c liabilities	44.5	49.3	50.5	50.7	51.9
Long f/c position to regulatory capital ratio	12.8	13.9	12.1	7.7	4.3
Short f/c position to regulatory capital ratio	2.7	1.4	0.8	1.6	2.1
Capitalisation					
Capital adequacy ratio[g]	17.4	16.5	15.3	14.6	13.2
Total capital to total assets ratio	9.5	8.9	8.6	9.0	10.4
Tier 1 to total risk exposure ratio	15.2	14.1	13.1	13.0	12.2

[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.

27 According to unconsolidated preliminary Bank Statistical Reports at 31 December 2006 and unconsolidated revised Bank Statistical Reports for the previous periods, available on 30 March 2006 (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. This methodology results in less volatile, that is, less seasonally sensitive indicators, but also generates slight discrepancies in their values from those of similar indicators in other CNB publications.

Table B
Selected Debt Indicators of Non-Financial Sectors[28]
(in %)

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

[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] $$\frac{\text{Banks' interest income from houshold loans}}{\text{Total household debt to banks}} \times \text{Total household debt}$$

28 Expert estimate based on data of the CNB, CBS, Fina, HANFA and MoF, available on 18 June 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
CAR	– capital adequacy ratio
CBRD	– Croatian Bank for Reconstruction and Development
CBS	– Central Bureau of Statistics
CCE	– Croatian Chamber of Economy
CICR	– currency induced credit risk
CNB	– Croatian National Bank
CPI	– consumer price index
HROK	– Croatian Registry of Credit Obligations
CROSEC	– Croatian Securities and Exchange Commission
DAB	– State Agency for Deposit Insurance and Bank Rehabilitation
DINADOS	– Directorate for the Supervision of Insurance Companies
EBRD	– European Bank for Reconstruction and Development
ECB	– European Central Bank
EMU	– Economic and Monetary Union
EONIA	– Euro Overnight Index Average
EU	– European Union
EUR	– euro
Fed	– Federal Reserve System
f/c	– foreign currency
Fina	– Financial Agency
GDP	– gross domestic product
GVA	– gross value added
HAGENA	– Agency for Supervision of Pension Funds and Insurance
HREPI	– hedonistic real estate price index
HRK	– Croatian kuna
hybr.	– hybrid
IAS	– International Accounting Standards
IBRD	– International Bank for Reconstruction and Development
IMF	– International Monetary Fund
instr.	– instruments
m	– million
MoF	– Ministry of Finance
OTC	– over-the-counter market
R.	– Republic
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
SAA	– Stabilisation and Association Agreement

S&Ls	– savings and loan associations
subord.	– subordinated
USD	– US dollar
ZMM	– Zagreb Money Market
ZSE	– Zagreb Stock Exchange

Symbols

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

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