



CROATIAN NATIONAL BANK

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# Semi-annual Report

for the first half of 2010

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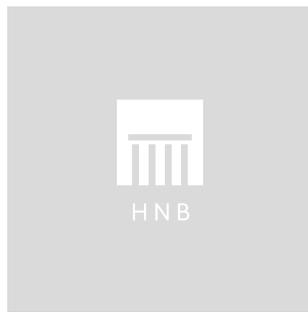




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# SEMI-ANNUAL REPORT

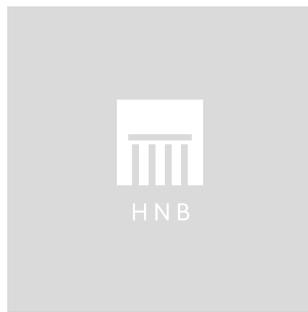
for the 1st half of 2010



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## 1 Summary

The global economy continued to grow in the first half of 2010. However, the pace of growth was very uneven; it was slightly slower in developed countries than in emerging economies, but there were countries in both groups that grew strongly as well as those in which the recovery was markedly slower or had not even started. Croatia falls in the latter group, as its overall economic activity weakened further in the first half of the year.

The overall economic activity decreased sharply by 5.8% in 2009 and adverse trends continued in the first half of 2010. According to original data from the CBS, real GDP decreased at an annual rate of 2.5% in the observed period, a continuation of the two-year downturn, as suggested by seasonally and calendar adjusted data. Negative annual trends in aggregate demand in the observed period primarily resulted from a decrease in gross capital formation, i.e. a continued fall in gross fixed capital formation and changes in stocks. Changes in household consumption also made a significant negative contribution to these negative trends, although it should be mentioned that seasonally adjusted data for the April to June period suggest that it began to recover. Government consumption also contributed negatively to the change in economic activity in the observed period.

By contrast, the recovery of foreign demand on the back of improved economic trends in Croatia's main export markets boosted exports of goods and services in the observed period. The weakening domestic demand put further downward pressures on exports, with the result that the current account deficit continued to contract, to some extent also due to a decrease in the negative income account balance. No significant changes were recorded in the current transfer account.

Driven by the real economic downturn, negative trends in the labour market continued in the first half of the year. According to seasonally adjusted data, employment decreased and unemployment increased in the observed period. Concurrently, wage adjustments intensified, with nominal wages falling annually in the observed period. Trends in nominal gross wages, and a slight increase in consumer prices, led to a significant annual decrease in real gross wages in almost all of the activities, while the decrease in real net wages was even more pronounced due to the impact of the special tax on salaries, pensions and other income.

The annual consumer price inflation rate ranged between 0.6% and 1.1% in the first half of 2010 as a result of the weakening of domestic demand and reduced unit labour costs. The reduction in unit labour costs was caused by adjustments in the labour market related to a sharper decrease in employment than in output and an annual drop in compensation per employee. Furthermore, due to the relatively weak demand, most foreign and domestic producers, instead of passing increases in world prices of energy and other raw materials on to consumers, had to cut other expenses and/or profit margins in order at least partially to cover higher import costs. This is confirmed by the relatively low annual rates of change in producer prices of durable and non-durable consumer goods.

The monetary environment was stable in the first half of 2010; the banking system's kuna liquidity was very high, the domestic currency exchange rate stable and inflation low. The

central bank continued to boost the already high liquidity, generated by the conversion of foreign currency inflows, in order for excess free reserves to create a stronger impact on the revival of bank lending. In line with this goal, the CNB cut the reserve requirement rate from 14% to 13% in early February, hence freeing up funds for the Government and CBRD programme aimed at stimulating lending and economic recovery. Out of these funds, a bank loan in the amount of HRK 2.0bn was granted to the CBRD, which used this loan and the funds of banks for lending according to predetermined criteria. The quotas allocated at the auctions held in the first half of 2010 totalled HRK 836.7m, an amount that, together with the funds of banks, accounted for a credit potential in the amount of HRK 2.1bn. However, out of this amount, only HRK 463m worth of loans had been granted by the end of June.

Most monetary and credit aggregates increased slightly, notwithstanding the continued negative trends in the economy in the first half of 2010. Most bank loans were channelled to central government financing; corporate sector lending increased slightly, whereas household loans, if the exchange rate effect is excluded, continued to stagnate. This increase in lending was coupled with a corresponding recovery of money (M1), while total savings and time deposits edged down.

The sharp slowdown in lending, accompanied by a slight drop in interest rates and changes in the asset structure, led to a decrease in bank profits, which was also due to banks' credit portfolio quality having deteriorated since the end of 2008. All sectors recorded an increase in partly recoverable and fully irrecoverable placements, this increase being especially marked in the corporate sector.

The capitalisation of the banking sector remained high. The capital adequacy ratio increased by an additional 2.6 percentage points in the first half of 2010, standing at 19% at the end of the first half of the year. The key factor behind this is the application of the new methodology (Basel II) which does not require that higher weights be assigned for currency-induced credit risk, with the result that the average credit risk weight has significantly decreased. Despite the higher minimum prescribed capital adequacy ratio (12% instead of 10%), total capital requirement for credit risk was reduced.

Net foreign capital inflows (excluding changes in international reserves) amounted to EUR 0.3bn in the first half of 2010, which is a sharp decrease from the same period in 2009 and especially from the periods before the crisis when net capital inflows had sometimes exceeded EUR 2bn. Foreign investors remained reserved in the first half of 2010, as they had been since early 2009, so that direct equity investments barely reached half of the previously recorded amount. In addition, as a result of insecurity in global financial markets and the economic slowdown, returns from debt investments also remained at very low levels and were sufficient only for the settlement of outstanding liabilities. A decrease was recorded in foreign assets of all domestic sectors, and especially in those of the banking sector, while investment funds increased their investments in foreign capital markets.

According to recorded net external debt transactions, foreign liabilities of domestic sectors declined by EUR 0.5bn in the first half of 2010, but their debt grew by the same amount

because of the negative effect of cross-currency changes. Croatia's gross external debt thus rose by about EUR 1bn, with most of these changes caused by the strengthening of the US dollar and Swiss franc, in which approximately 16% of total debt is denominated and which strengthened against the euro by about 12% in the first half of the year. Excluding the exchange rate effect, the highest reduction was observed in foreign liabilities of the central government, and a slightly smaller one in liabilities of enterprises, while banks' withdrawal of new loans slightly exceeded their outstanding debt repayments. As a result of these net transactions and the effects of exchange rate changes, Croatia's gross external debt stood at EUR 43.7bn at the end of June 2010, equivalent to 96.2% of GDP for the previous year.

Croatia's international reserves remained at their level from late 2009 in the first half of 2010 (EUR 10.3bn), whereas net reserves continued to grow, reaching EUR 9.3bn at the end of June. The international reserve management was in the first half of 2010 influenced by an increase in demand for government bonds of the countries usually considered the safest and a corresponding growth in their prices, which reflected the uncertainty related to the debt crisis in some European countries. Under such circumstances, the annual rates of return on the CNB's net euro and net dollar portfolios were 1.79% and

0.96% respectively in the first six months in 2010, which generated a total income of HRK 0.5bn.

The economic downturn and ensuing adverse labour market trends, coupled with rising illiquidity of economic entities, led to a continued decrease in consolidated general government revenues in the first six months of this year, although a higher basic VAT rate and the relatively substantial special tax on salaries, pensions and other income were applied in the same period. Expenditures decreased slightly, including all main expenditure items except interest and social benefits; the acquisition of non-financial assets also decreased. However, operating expenses and capital investments are planned to increase at the annual level in 2010. As consolidated general government revenues were considerably lower than expenditures and the disposal of non-financial assets several times lower than the acquisition, net borrowing (GFS 2001, on a cash basis) stood at EUR 7.3bn. The government financed the deficit and refinanced the obligations using the funds deposited with the CNB, raised through a late 2009 bond issue, but the bulk of the required funds were ensured by new borrowing. As a result, general government debt reached HRK 122.5bn at the end of June, increasing by HRK 4.8bn from the end of the previous year.

## 2 International environment

Economic recovery accelerated further over the first half of 2010, and the annual rate of growth in the world economy was assessed<sup>1</sup> at 5.3%. This was primarily due to an increase in inventories and stronger gross fixed capital formation, which led to the strengthening of industrial output and world trade. However, there were again sharp differences in recovery dynamics: the recovery was slightly slower in developed countries than in emerging economies, whereas there were countries in both groups that grew strongly, but also those in which the recovery had not even started.

Financial markets were marked by heightened risk aversion of global investors, which adversely affected the movements of share prices and increased volatility in the capital markets. Moreover, the public debt-related problems of some EU member states added to uncertainty about the global economic recovery and contributed to the erosion of confidence in financial and capital markets, as well as to sharp changes in the foreign exchange rates of the world's leading currencies. Thus, in the period May-June 2010, the euro depreciated markedly against a basket of other world's currencies, whereas the currencies of the USA, Japan and China, as well as many other emerging economies appreciated. The strengthening of the US dollar against the euro on the global foreign exchange market was primarily due to strong risk aversion of investors on account of the huge budget deficits in some eurozone members, whereas appreciation pressures on the dollar exchange rate weakened in mid-June, as a result of a growing perception that these countries would manage to service their liabilities. At the end of June, the exchange rate was USD 1.22/EUR, suggesting an appreciation of the euro by 15.0% from end-2009.

Following its recovery that had started in mid-2009, the US economy continued to grow in the first half of 2010. However, this recovery slowed down gradually, so that after a sharp increase during the last quarter of 2009 (by 1.2% at the quarterly level), real GDP growth slowed down to a low of 0.4%

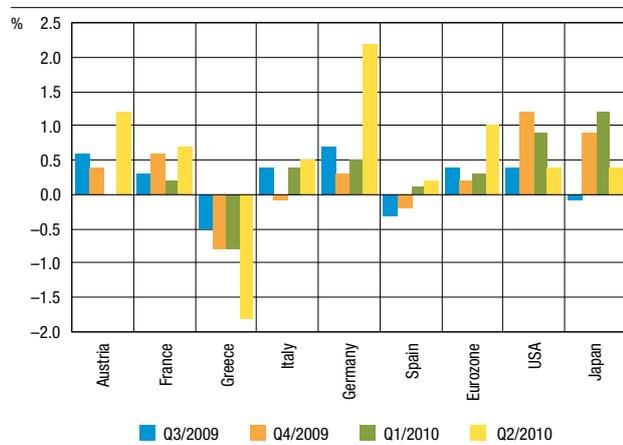
in the second quarter of 2010. Economic growth was mostly inhibited by still relatively weak household consumption, determined by the high unemployment rate (9.6%), the only slight growth of income, a drop in the value of household financial assets and more restrictive lending policies. This period also saw an increase in imports, which outdid strong positive movements in exports. As there have been no signs of inflationary pressures building up, the Fed is still applying its decision of December 2008, according to which its key interest rate is kept at the lowest end of the 0% to 0.25% band, and is continuing to carry out unconventional measures of monetary policy.

Economic recovery that started all over Europe as early as mid-2009 accelerated further in the first half of 2010. In the second quarter of 2010, real economic activity in both the eurozone and the entire EU strengthened by a considerable 1.0%, following a slow growth at an average quarterly rate of 0.3% since the third quarter of 2009. Favourable movements were observed in almost all EU Member States, only Greece showing no signs of economic recovery.

Strong growth in GDP in the eurozone during the second quarter of 2010 was spurred by domestic demand, particularly gross fixed capital formation, due to the softening of the earlier observed negative effects of weak demand, more restrictive lending terms and low confidence, which resulted in a continuous fall in investments over the previous eight quarters. Personal consumption began to rise as early as end-2009, but its slightly smaller contribution to economic growth could be accounted for by the still noticeable weaknesses in the labour market and, consequently, a reduced level of disposable income. By contrast, favourable trends in foreign trade, which spurred the economic recovery in the middle of 2009, strengthened in the first half of 2010 in both exports and imports, driven by an accelerated recovery of both the global and the European economy. In the first half of 2010, inflation in the eurozone continued its upward trend, mostly due to accelerating annual growth in energy prices. However, the annual rate of overall inflation remained relatively low (standing

Figure 1 GDP in selected countries

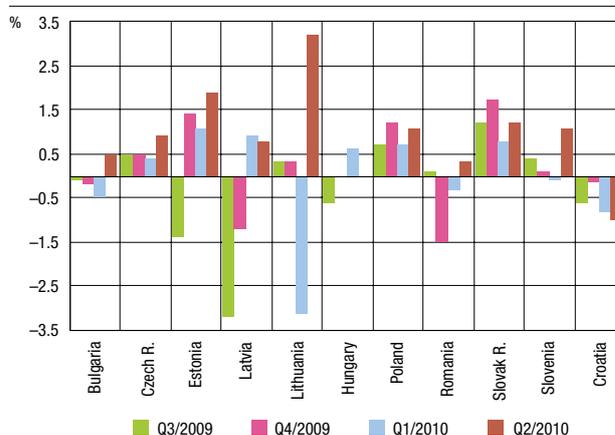
quarterly real growth rates, seasonally adjusted data



Source: Eurostat.

Figure 2 GDP in selected CEE countries

quarterly real growth rates, seasonally adjusted data



Sources: Eurostat and CBS.

1 Source: *World Economic Outlook*, IMF, October 2010.

at 1.4% in June). In line with this, the ECB decided to keep its key interest rate at 1%.

CEE economies, severely hit by the crisis last year, were also on the upturn in the first half of 2010. An exception among them was the group of countries that included Poland, Slovakia and Czech Republic, the recovery of which started slightly earlier and was relatively strong compared with a much more volatile recovery in other economies. The economic improvements in all these countries were mostly the result of growing foreign demand driven by stronger economic activity dynamics in old member states of the European Union, particularly in Germany, a key export market.

The Japanese economy also continued to grow during the first half of 2010, although at a slightly slower pace towards mid-year. This was again due to a positive contribution of strong exports, stimulated by demand for capital goods imports from China, while domestic demand made no significant impact on growth in GDP. Economic growth was insufficient to relieve deflationary pressures, so that the annual rate of inflation stood at -0.7% in June.

Developing countries and emerging markets continued to grow strongly during the first half of 2010, at an annual rate of approximately 8%. The most noteworthy among them were Asian and Latin American economies whose domestic demand

continued to be the strongest growth generator. However, as the effects of the incentives gradually wore off, the growth increasingly relied on the recovery of private demand, particularly investments. Moreover, the growth in these countries, as in other developing countries, was also due to the strengthening of global trade.

Global inflationary pressures remained rather muted in the first half of 2010. Relatively low inflation rates were mostly recorded in developed countries, whereas inflationary pressures increased slightly in some emerging economies. World prices of crude oil went up in the first four months of 2010, driven by rising optimism and expectations that global economic recovery would increase demand for crude oil. Moreover, world market prices of other raw materials also rose, notably those of iron ores and coal. However, due to financial market turbulence, this trend reversed in early May, so that crude oil prices declined until end-June. Overall, the prices of raw materials did not differ much from those early in the year, but sharper changes were still observed in the prices of some raw materials; in the period from early January to end-June, the crude oil price per barrel<sup>2</sup> dropped from USD 80.1 to USD 74.2, whereas the prices of iron and steel reached their all-time high in June.

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2 The average crude oil price (UK Brent, West Texas Intermediate and Dubai Fateh).

## 3 Economic activity

### 3.1 Demand

After having declined by 5.8% in 2009, overall economic activity continued its downward trend during the first half of 2010. According to original CBS data, real GDP fell by 2.5% annually during the reference period.<sup>3</sup> Seasonally and calendar adjusted data point to a continuation of the two-year economic downturn.<sup>4</sup> Negative annual trends in aggregate demand resulted primarily from reduced gross fixed capital formation, i.e. a continued fall in fixed capital formation and the changes in inventories category. A considerable negative contribution came also from changes in household consumption, despite that signs that it was recovering suggested by the seasonally adjusted data for the April-June period. Government consumption also contributed negatively to trends in economic activity. Due to such movements in the domestic demand components over the first half of 2010, the annual rate of change in goods and services exports was negative. In contrast to this, the recovery of foreign demand, furthered by favourable economic trends in Croatia's main export markets, led to an increase in the exports of goods and services during the reference period.

Household consumption fell by 3.3% annually in the first half of 2010. Personal consumption dynamics in the January-June period were primarily the result of negative labour market movements and low consumer optimism. In the first semi-annual period, the real net wage bill, the main source of personal consumption financing, was influenced by a fall in employment (according to the CPIA data<sup>5</sup>), paralleled with a decline in real net wages. The still high level of consumer pessimism led to further weakening of household demand for consumer loans.

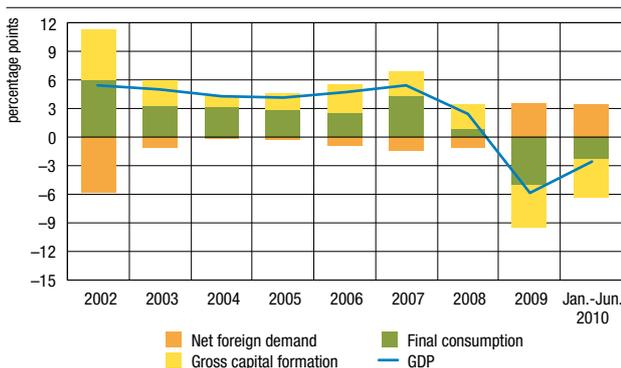
By contrast, movements in income from transfers, predominantly pensions, child allowances, unemployment benefits and social assistance benefits, to some extent alleviated the negative effect of a drop in the real net wage bill on disposable income. Data on retail trade turnover in the reference period show that households rationalised their consumption of both income-elastic goods (durable consumer goods and vehicles) and income inelastic goods (i.e. most non-durable goods). It is noteworthy, however, that seasonally adjusted data suggest an increase in personal consumption during the second quarter of 2010 relative to the beginning of the year.

Among the domestic demand components, government consumption declined at the slowest annual rate (1.5%) in the January-June 2010 period. It should be mentioned that employment in government administration and public services held steady at the annual level, showing that the negative annual rate of change in government consumption was mainly due to an annual decline in expenditures for the use of goods and services.

Following an exceptionally sharp fall in investment activity during 2009, negative trends continued into the first half of 2010, resulting in a fall in this aggregate demand component of 13.6% on an annual level. Negative changes were observed in all categories of gross fixed capital formation. Investments in machinery and equipment decreased due to weak aggregate demand and insecurity regarding its recovery dynamics. Concurrently, investments in construction works (accounting for about a half of gross fixed capital formation) slumped, as a result of weak investment activity in all business sectors. Various demand-related factors contributed to such movements in construction. One of the most important was a decline in household demand for residential real estate, caused by a drop in disposable income, the relatively high prices of housing loans and, in the case of some potential buyers, expectations of a further decrease in dwelling prices. Moreover, a large contribution to the plunge in construction activity also came from general government, as its investments in infrastructure were slowed down or postponed due to financing problems. Corporate investments in the construction of business premises and production facilities also dropped markedly.

Favourable movements in goods and services exports (which rose by 5.5%) and a continued sharp contraction of total exports (-4.5%) marked international trade in the first half of 2010. The growth of goods and services exports was due to economic activity expansion observed in all major domestic economy export markets. It should also be noted that the increase in foreign demand had a more pronounced impact on the growth of Croatian goods exports than of services exports. On the other hand, a fall in total imports was caused by further weakening of domestic demand for foreign products intended for final consumption and investment.

Figure 3 Contributions of domestic and foreign demand to real GDP growth<sup>a</sup>



<sup>a</sup> Due to the method used for the calculation of real rates of growth of GDP and its components, the sum of component contributions in one quarter diverges from the GDP dynamics.

Note: Final consumption includes personal and government consumption, while gross capital formation is composed of gross fixed capital formation and changes in stocks.  
Source: CBS.

<sup>3</sup> GDP data from the first quarter of 2006 onwards are preliminary data.

<sup>4</sup> By seasonal adjustment, the effects of events of an economic or a non-economic character that commonly take place during the year (e.g. holiday consumption) are excluded from the economic data time series. Some series also require calendar adjustment, which implies elimination of differences in the number of business days which can, to some extent, account for differences in the levels of these series (e.g. a fall in the number of hours worked). The adjusted data are used for the analysis of the trend in data changes during consecutive periods, whereas the changes from the same period in the previous year are analysed on the basis of original data, or a data time series adjusted only for the difference in the number of business days.

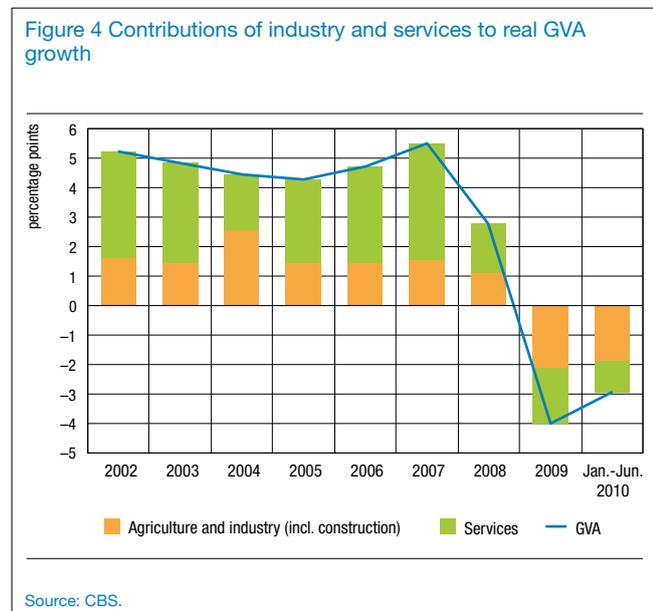
<sup>5</sup> The number of persons insured with the CPIA is a more reliable short-term indicator of employment because recent CBS employment data by activity are only preliminary data (final data will be released in April 2011).

## 3.2 Output

GDP by the production approach shows that gross value added<sup>6</sup> in the economy, generated in the first half of 2010 decreased by 2.9% in real terms relative to the same period last year. A slowdown in GVA formation, a consequence of the sizeable weakening of domestic demand, spread broadly across economic sectors. The rate of change in GVA was negative in all activities except agriculture and financial intermediation and public sector services, while an especially strong fall in GVA was observed in construction. The services sector contributed –1.0 percentage points to the real change in GVA during the reference period, while the contribution of other activities (agriculture, industry and construction) totalled –1.9 percentage points.

### Industry and construction

In the first half of 2010, gross value added in industry dropped by 1.9% from the same period last year. Given that GVA in industry accounts for about one fifth of total GVA, the

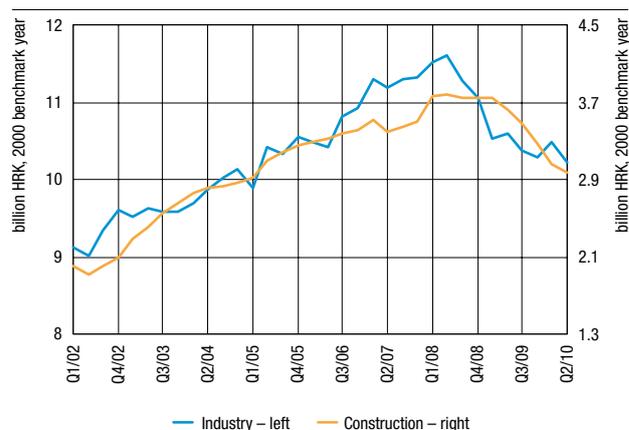


described movements, coupled with the GVA contraction in construction and trade, were among the main causes of total gross value added decline in the first half of the year.

As suggested by CBS data on the movements of real industrial turnover and inventories, the described negative trend in industrial production, as concerns value added generated in the first half of the year, can be partly explained by the adjustment of producers' inventories to their optimum level. It should be noted that the turnover structure by market (domestic and foreign markets) and nominal data on the movements in foreign goods trade suggest a recovery of foreign demand for domestic industrial goods. Broken down by main industrial groupings, the current production of intermediate goods (especially products used in construction, non-metallic mineral

<sup>6</sup> In the national accounts, gross value added (GVA) in the economy is expressed at so-called basic prices, whereas gross domestic product (GDP) is expressed at market prices. The difference between these two values is the total amount of tax on products reduced by subsidies (net indirect taxes). The CBS does not publish data on GDP by activity. It should be noted that the real GDP and GVA growth rates are not normally the same.

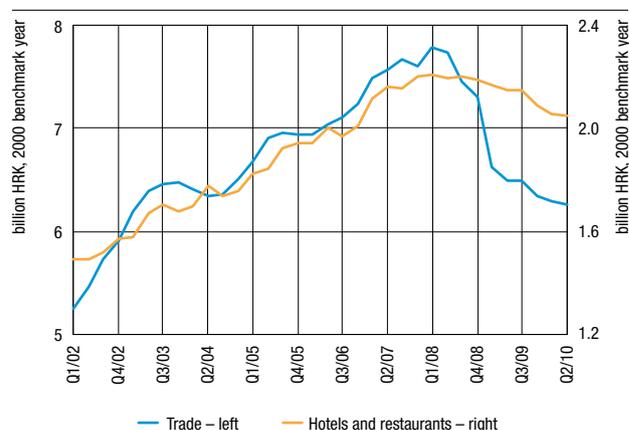
**Figure 5 Gross value added in industry and construction**  
seasonally adjusted



goods and finished metallic products) dropped sharply in the first quarter, whereas the changes in the current production during the April-June period mainly consisted in the reduction of consumer and capital goods production.

According to original data, GVA formation in construction contracted sharply during the first two quarters of 2010 relative to the same period last year (–17.7%). Poor performance in construction activity was due to reduced investments in construction projects observed in all sectors. Government efforts to restrain budget spending due to financing difficulties resulted in reduced infrastructure investments, whereas the absence of any significant recovery of demand and insecurity about its movements in the short run led to the weakening of corporate investment in construction projects. Furthermore, the uncertainty regarding future movements in household income, coupled with expectations of continuing high prices of residential real estate and relatively high prices of housing loans reduced household demand for residential units. Although the share of value added in construction accounts for less than a tenth of overall GVA, this activity contracted so strongly that it made

**Figure 6 Gross value added in trade and hotels and restaurants**  
seasonally adjusted



the largest negative contribution to total decline in value added during the first half of 2010.

#### Non-financial services

In the first six months of 2010, gross value added in trade dropped by 4.3% from the same period in 2009, resulting in a pronouncedly negative contribution of trade to the fall in total real GVA during the reference period. This was supported by unfavourable movements in wholesale and retail trade. Retail trade turnover fell due to negative movements in the labour market and the absence of any recovery in consumer optimism, whereas a decline in wholesale trade largely resulted from a drop in goods imports.

In the first half of 2010, value added in hotels and restaurants fell by 4.7% in real terms from the same period in 2009. These developments resulted from a drop in foreign tourist nights and arrivals and reduced average tourist consumption. On the other hand, domestic households and enterprises reduced their demand for catering services. While changes in this activity largely depend on demand for tourist services, it is noteworthy that the impact of tourism on the domestic economy considerably exceeds the statistical share of this sector in GVA, for tourist consumption has a considerable influence on changes in other economic sectors as well, such as retail trade and transport. Storage, transport and communications recorded a negative rate of change identical to that in GVA.

## 4 Labour market

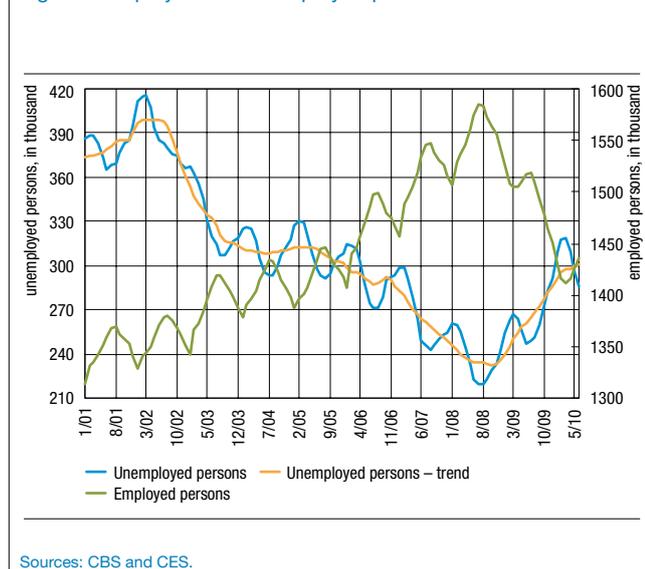
Unfavourable labour market movements that had marked the end of 2008 and the whole of 2009, continued into the first half of 2010, resulting in a decrease in registered employment and an increase in unemployment, as suggested by seasonally adjusted data. Concurrently, wage adjustments intensified, with nominal wages going down annually in the reference period. As a result of the nominal gross wage movements and a slightly higher annual level of consumer prices, real gross wages declined markedly in almost all economic activities. Under the impact of the special tax on salaries, pensions and other income, the annual decrease in real net wages was even sharper.

### 4.1 Employment and unemployment

According to seasonally adjusted labour market data for the first half of 2010, the number of employed persons continued to fall, whereas the number of unemployed persons rose still further. This was only a continuation of the negative trends from end-2008, when the economic downturn started to affect the labour market movements. Given its largest share in total employment, employment in legal persons was the strongest negative contributor to this trend. However, the decline in employment was more pronounced in crafts, trades, and freelance occupations, as well as in individual farmers insured with the CPIA. These movements, suggested by preliminary CBS data, are also corroborated by the number of persons insured with the CPIA, a reliable short-term indicator of employment.

Broken down by economic activity, employment declined in all sectors, excluding public administration. The services sector was the largest negative contributor to overall employment movements, as almost half of the workers who lost their jobs in 2009 were employed in trade. Construction saw the highest annual rates of change in employment over the reference period, but poor performance was recorded in industry as well.

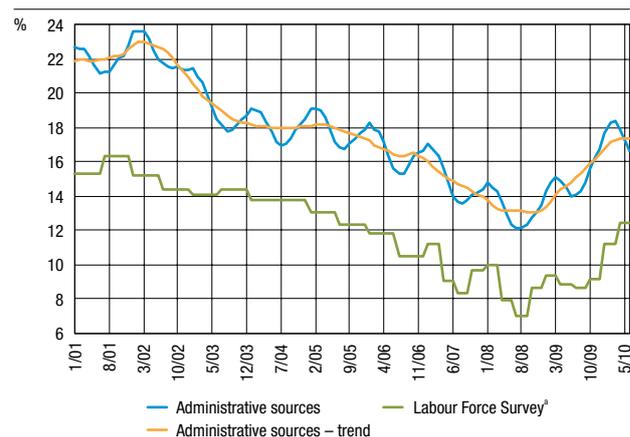
Figure 7 Employed and unemployed persons



While the CBS and CPIA data suggest a decline in employment during the first half of 2010, the CES data point to a rise in employment over the same period; CES-mediated hiring increased by 18.4% annually in the reference period (this rate was also due to a low employment rate in the same period in 2009). Apart from growing outflows from the CES register, the number of unemployed job seekers also increased (by 12.1% from the first six months of 2009), most of them coming directly from employment after having been laid off.

An increase in workplace closures, i.e. a sharp rise in inflows of unemployed persons into the CES register, coupled with a decline or an insufficient increase in outflows from the register, led to a boost in registered unemployment that exceeded 300 thousand during the first half of 2010. As with employment indicators, the second quarter saw slightly more favourable movements, thanks to the seasonal effects common

Figure 8 Administrative and Labour Force Survey unemployment rates



<sup>a</sup> The Labour Force Survey is published quarterly since the beginning of 2007.  
Source: CBS.

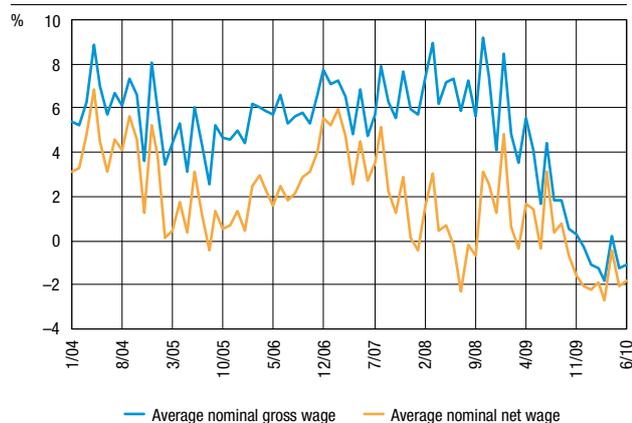
for this time of the year. Despite its slight annual slowdown in the April-June period, unemployment continued its upward trend from early 2008.

In line with these labour market trends, the average registered unemployment rate stood at 17.7% in the first six months of 2010 (14.6% in the same period in 2009). As in the previous periods, the Labour Force Survey unemployment rate was lower than the registered rate, dropping from 11.2% at the beginning of the year to 11.2% in the second quarter of 2010, as shown by the latest Labour Force Survey results.

### 4.2 Wages

Unfavourable economic movements started to have an increasingly strong impact on wages at the end of 2009, much later than on employment and unemployment. Monthly net wages started to fall as early as August 2009, following the introduction of the special tax on salaries, pensions and other income.<sup>7</sup> Nominal wages declined by 1.0% and 0.9% in gross

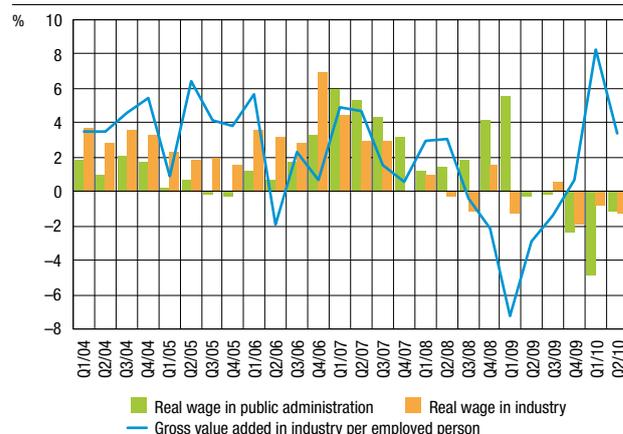
**Figure 9 Average nominal wages**  
year-on-year rate of change



Note: Data relate to wages paid in the current period.

Source: CBS.

**Figure 10 Average real gross wage in public administration and industry and gross value added in industry per employed person**  
year-on-year rate of change



Note: Data relate to wages calculated in the current period.

Source: CBS.

and net terms, respectively, from the same period in 2009. According to a CBS calculation, the special net wage tax led to a decrease of 2.8% in the average net wage paid in the first half of 2010, with the greatest impact of the special tax on net wages recorded in financial and insurance activities, and the smallest in administrative and support service activities. The effect of the special tax included, nominal net wages declined by 3.6% over the first half of 2010.

As a result of the nominal gross wage movements and a slightly higher annual level of consumer prices, real gross wages declined markedly in almost all economic activities. This fall was even more pronounced in real net wages, due to the impact

of the special tax on salaries, pensions and other income.

The strongest negative contribution to the nominal gross wage movements came from the public sector activities, as the result of their negative performance observed at end-2009. As for private sector activities, the largest negative contributors (as with employment) were construction and manufacturing. Employment contraction in industry, more pronounced than would have been suggested by the decline in production measured by GVA, led to an increase in labour productivity in this branch during the first half of 2010. It should be noted that the data for 2010 are preliminary and that a correction of them will affect labour productivity.

7 According to the Act on the Special Tax on Salaries, Pensions and Other Income (OG 94/2009), the special tax at a rate of 2% is paid on a total monthly amount of income between HRK 3,000 and HRK 6,000, and at a rate of 4% on a total monthly amount of income exceeding HRK 6,000.

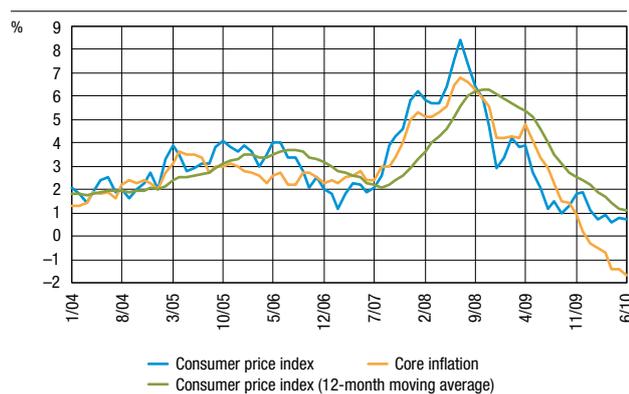
## 5 Prices

Consumer price inflation in Croatia was low in the first half of 2010, ranging between 0.6% and 1.1%. This was against a background of a drop in domestic demand and unit labour costs, resulting from changes in the labour market related to the decrease in employment exceeding the decrease in output and to an annual drop in compensation per employee. Furthermore, due to relatively weak demand, most foreign and domestic producers, instead of passing on to consumers the price increases in energy and other raw materials in the world market, cut other costs and/or profit margins in order to cover higher import costs. This is confirmed by relatively low annual rates of change in producer prices of durable and non-durable consumer goods. However, the increase in raw material prices points to mounting imported inflationary pressures in this period, which could, with a time lag, result in a rise in consumer price inflation.

products and other raw materials in the world market and the marked depreciation of the euro versus the US dollar. Despite this, the prices of oilseeds and cereals (in euro terms) remained lower than in the same period last year, making a positive impact on food price trends, in contrast with the prices of energy products, textile fibres and metals, which were considerably higher. Upward pressures on consumer prices in the first half of the year hence stemmed from energy prices, whose annual growth rate exceeded 10.0% in the last four months, primarily due to the high annual growth rate of gas and refined petroleum product prices.

Notwithstanding the increase in energy prices, consumer price inflation has remained low and stable, with its trends dominated largely by domestic factors, especially by weak domestic demand. This is corroborated by the generally steady trends of monthly inflation indicators. While they increased

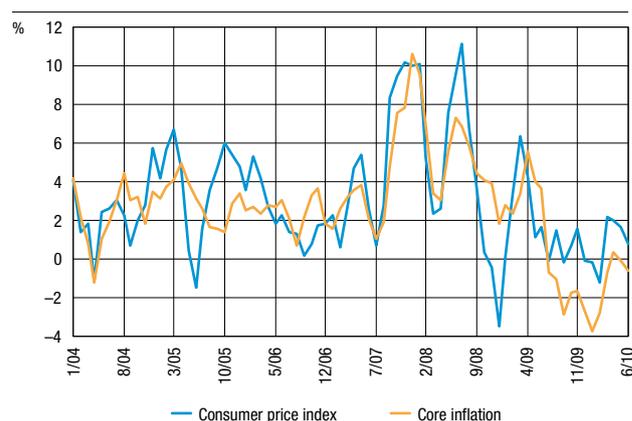
**Figure 11 Consumer price index and core inflation<sup>a</sup>**  
year-on-year rate of change



<sup>a</sup> Core inflation is calculated by excluding agricultural product prices and administrative prices (which include, among others, electricity and refined petroleum product prices) from the CPI basket of goods and services.

Source: CBS.

**Figure 12 Consumer price index and core inflation**  
annualised rate of change



Note: Annualised rate of change is calculated based on the monthly change in the moving quarterly average of seasonally adjusted base price indices.

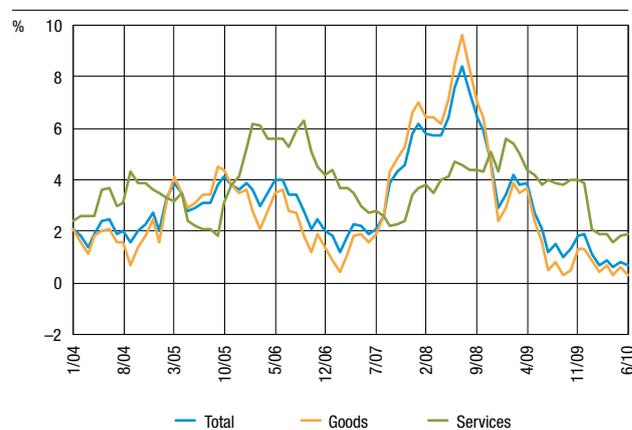
Sources: CBS and CNB calculations.

### 5.1 Consumer prices

The annual consumer price inflation rate decelerated from 1.9% in December 2009 to 0.7% in June 2010. An analysis of CPI components shows that the largest contribution to the deceleration came from a decrease in the annual rate of change in processed food product prices, which was due to the fact that the contribution of a sharp increase in tobacco product prices in April 2009 was no longer included in their calculation. Concurrently, the prices of services rose at a slower pace, whereas the prices of non-processed food and industrial products (excluding food and energy) decreased faster at the annual level. The slowdown in consumer price inflation in the first half of 2010 was also due to the base effect related to the disappearance of the impact of a sharp increase in administrative prices in the same period in the previous year.

In the first half of 2010, however, imported inflationary pressures grew on the back of a price increase in energy

**Figure 13 Consumer price index, total and by components**  
year-on-year rate of change



Source: CBS.

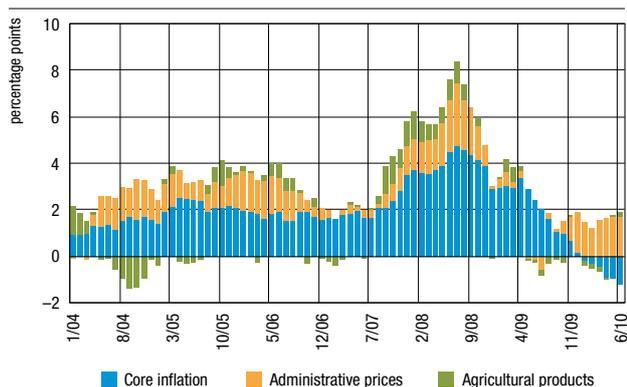
Table 1 Consumer price index and its components

year-on-year rate of change

	Weight 2010	12/2009	3/2010	4/2010	5/2010	6/2010
Total	100.0	1.9	0.9	0.6	0.8	0.7
Energy	13.8	7.9	10.1	10.8	11.9	10.4
Unprocessed food	14.2	-1.6	-4.7	-3.9	-3.8	-2.7
Processed food (incl. alcoholic drinks and tobacco)	23.2	1.8	0.3	-1.8	-1.5	-1.8
Industrial non-food without energy	27.7	-0.5	-0.5	-0.5	-0.6	-1.1
Services	21.2	3.9	1.9	1.6	1.8	1.9

Source: CBS.

annually in the first six months of 2010, monthly overall and core inflation rates remained relatively low. This confirms the impact of a drop in personal consumption and adverse developments in the domestic labour market on current consumer price trends and especially on the trends in core inflation, which mainly recorded a negative growth rate.

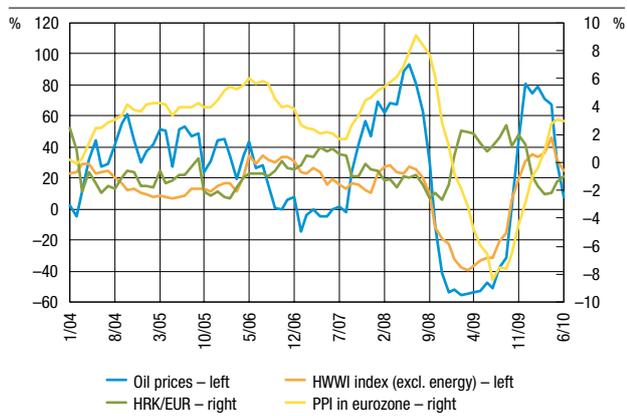
Figure 14 Contribution<sup>a</sup> of CPI components to year-on-year inflation rate

<sup>a</sup> The contribution is defined as the relative importance of a CPI component for total inflation. The sum of contributions of all components expressed in percentage points in a relevant month is the amount of the annual consumer price inflation rate.

Sources: CBS and CNB calculations.

Figure 15 Imported inflation: oil prices, the HWWI index,<sup>a</sup> the average kuna/euro exchange rate and producer prices in the eurozone

year-on-year rate of change



<sup>a</sup> The index is calculated on the basis of raw materials prices expressed in US dollars.

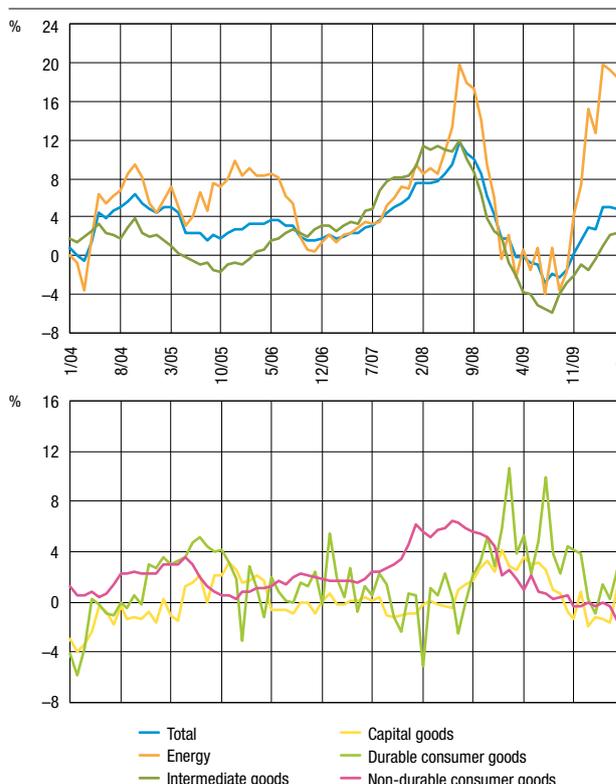
Sources: Bloomberg, HWWI, Eurostat and CNB.

Core inflation had negative annual rates of change in the first half of 2010; standing at -1.7% in June, it had dropped sharply from 0.2% in December. The major contribution to this drop was made by a decrease in the annual rate of change in tobacco product prices, which was primarily due to the contribution of a sharp increase in these products' prices in April 2009 being no longer included in their calculation. In contrast, the contribution of some food product prices, especially meat prices, decreased considerably.

Administrative prices were a CPI component that continued to make the largest contribution to annual consumer price inflation. As already mentioned, the annual growth rates of gas and refined petroleum product prices were especially high. However, the contribution of administrative prices slightly decreased in the first half of 2010, primarily because a marked

Figure 16 Producer prices of industrial products by main industrial groupings

year-on-year rate of change



Source: CBS.

price increase in medical and hospital services in early 2009 disappeared from their calculation.

## 5.2 Industrial producer prices

Developments in industrial producer prices in the first half of the year were strongly influenced by external factors. Due primarily to the price increase in raw materials on the world market, the annual rate of change of producer prices grew from 1.6% in December 2009 to 4.4% in June 2010. Broken down by the main industrial groupings, the highest increase was recorded by energy and intermediate product prices. The increase in energy prices was primarily accounted for by the growth of prices in the extraction of crude petroleum and natural gas. In the group of intermediate goods, metal production prices rose at the highest annual rate, due to a current increase in world metal prices and the base effect related to a sharp decrease in these prices in the same period in the previous year. In contrast, the annual rates of change in the prices of other major PPI components fell in the observed period. The prices of non-durable consumer goods were, on average, lower than in the same period in the previous year, while the prices of durable consumer goods increased slightly.

## 5.3 Residential property prices

Due to a drop in the residential property demand, caused by a fall in real household disposable income, an increase in

(nominal) interest rates on home loans, tightened lending conditions and waning consumer optimism, residential property prices in Croatia fell by 4.1% in 2009 from the previous year. Expecting a further slowdown in domestic real estate prices, prospective buyers postponed their purchases. The downward trend in residential property demand continued in the first half of 2010, albeit at a much slower pace. Since the supply remained abundant, the prices fell by 3.3% from the same period in the previous year. Residential property prices in Zagreb went down at an annual rate of 5.9% and the prices of residential property on the Adriatic coast edged up by 0.5%.

The total amount of home loans granted in the first half of 2010 decreased by 10.4% in real terms compared with the same period in the previous year. This rate of decrease, considerably lower than the rate of over 40% recorded in the previous two semi-annual periods, is a sign that the negative trends in the demand for residential property might have subsided. The factors contributing to this include the stabilisation of nominal interest rates charged on home loans and promotional activities by the banks. In contrast, the accessibility of residential property decreased despite the price fall because of the concurrent sharp drop in household disposable income. In addition, consumers tend to postpone their residential property purchases, being pessimistic about the adverse trends and uncertainty in the labour market.

Table 2 Croatian residential real estate price index

year-on-year rate of change

	Weight	2003	2004	2005	2006	2007	2008	2009	2008		2009		2010
									1st half	2nd half	1st half	2nd half	1st half
Croatia	100.0	0.6	13.0	8.7	16.5	13.1	5.6	-4.1	5.7	5.6	-5.3	-3.0	-3.3
Zagreb	65.3	0.6	11.6	9.9	17.0	11.9	2.1	-5.3	1.8	2.3	-3.0	-7.5	-5.9
Adriatic Coast	22.0	8.6	9.1	17.2	15.9	16.3	10.3	-3.6	13.2	7.4	-9.5	2.7	0.5

Note: The methodology used for compiling the hedonic real estate price index in Croatia is such that each calculation of the new value of the index (at the end of a semi-annual period) involves a reassessment of all the parameters of real estate prices achieved by the given equations, which, in turn, results in a revision of the real estate price index for the previous semi-annual and annual periods. Therefore, the indices from the previous years are altered with each update, but are also more precisely measured, being calculated by a larger number of data.

Sources: *Burza nekretnina* and CNB calculations.

## 6 Exchange rate

The kuna/euro exchange rate was stable in the first half of 2010, and especially in the first five months, moving within a range of  $-1.0\%$  to  $0.2\%$  around its average value of HRK 7.27/EUR. Exchange rate stability was particularly noticeable in the first five months of the year. Appreciation pressures on the exchange rate of the domestic currency mounted in June, due, among other things, to expectations of a new foreign currency-indexed government bond issue in the domestic market and additional capital inflows from the announced foreign borrowing of some public enterprises and the government. The appreciation of the kuna was also due to the start of the tourist season and a decrease in demand for foreign currency by enterprises. Against the backdrop of strengthening appreciation pressures, the CNB intervened twice in the foreign exchange market in late June (on 24 and 29 June), purchasing a total of EUR 244.3m from banks.<sup>8</sup> In foreign exchange transactions

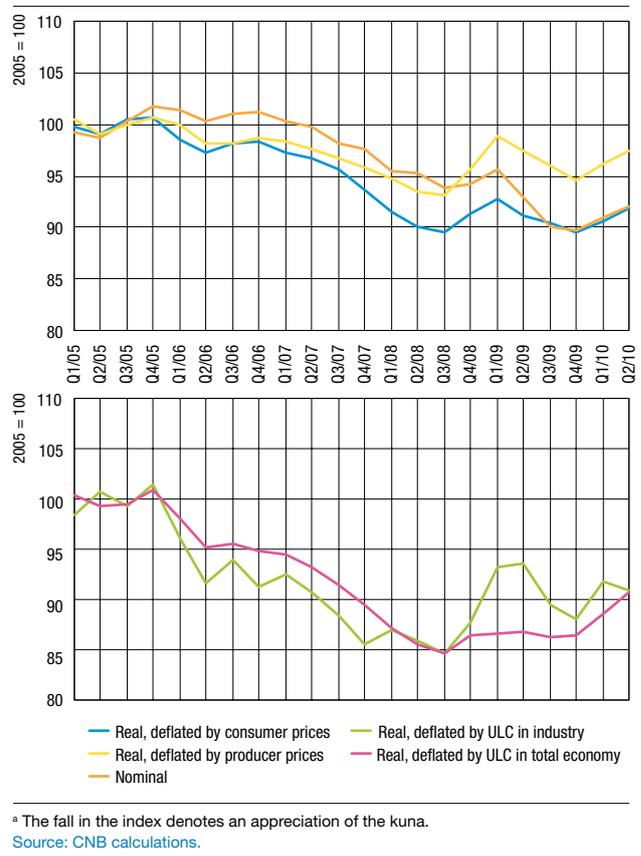
Figure 17 Daily nominal exchange rate – HRK vs. EUR and USD



with the MoF, the CNB sold EUR 224.7m net in the first six months of 2010.

The kuna strengthened by 1.5% against the euro from 31 December 2009 to 30 June 2010, while it weakened considerably versus the pound sterling (9.9%), the Swiss franc (10.4%) and the US dollar (15.9%). The kuna's weakening against these currencies reflected developments in the global foreign exchange market. The index of the daily nominal effective exchange rate of the kuna depreciated at a much lower rate of 2.0% against a basket of currencies due to the mentioned appreciation of the kuna versus the euro, the currency with the

Figure 18 Indices<sup>a</sup> of the nominal and real effective kuna exchange rate deflated by consumer prices, producer prices and unit labour costs



highest weight in the calculation of the effective exchange rate.

Data on the trends in the real effective exchange rate of the kuna in the first half of 2010 suggest a slight improvement of the price and cost competitiveness of imports compared with the previous half of the year. That is, the index of the real effective exchange rate of the kuna depreciated by 1.4% deflated by consumer prices and by 1.8% deflated by producer prices, due primarily to the nominal depreciation of the kuna versus a currency basket. The index of the real effective kuna exchange rate deflated by unit labour cost in industry and that deflated by unit labour cost for the whole economy depreciated at even sharper rates (2.8% and 3.8% respectively) as a result of the nominal effective depreciation of the kuna and more favourable developments in unit labour costs in Croatia than in its trading partners.

<sup>8</sup> As foreign exchange payments are executed within a two-day period, payment transactions related to the second foreign exchange intervention were completed on 1 July.

## 7 Monetary policy and monetary developments

In the first half of 2010, the monetary environment was stable and characterised by very high levels of kuna liquidity in the banking system, a stable exchange rate for the kuna and low inflation. Striving to increase the contribution of excess free reserves to the recovery of bank lending, the central bank continued to support the high liquidity that was generated by the conversion of foreign currency inflows in the last quarter of 2009. For that purpose, the CNB decided to lower the reserve requirement rate from 14% to 13% in early February, thereby freeing up funds for the government and CBRD programme to spur lending and economic recovery. Out of these funds, banks granted a HRK 2.0bn loan to the CBRD. Together with bank assets, these funds were used for corporate loans in accordance with the predetermined criteria.

Despite continued adverse economic developments, most monetary and credit aggregates grew slightly in the first half of 2010. A substantial portion of bank placements was directed to the financing of central government needs, corporate loans recorded moderate growth, while household loans continued to stagnate, excluding the exchange rate effect. Moderate lending activities were accompanied by the recovery of money (M1), while total savings and time deposits decreased slightly.

### 7.1 Monetary policy instruments and flows of creating and withdrawing reserve money

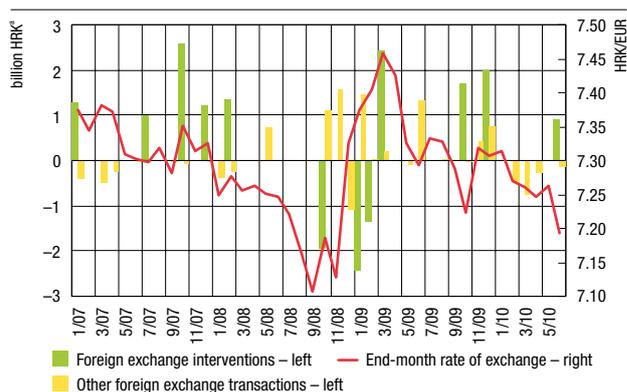
The use of monetary policy instruments was determined by the satisfactory level of kuna liquidity in the first half of 2010. The average liquidity surplus in bank accounts, including bank overnight deposits with the CNB, was HRK 4.9bn in that period. Due to a comfortable liquidity position, there were no reverse repo auctions and banks had no need for Lombard loans. In contrast, banks made use of the overnight deposit facility with the CNB on a daily basis and the average daily balance of overnight deposits was HRK 4.5bn in the first six months of 2010. In such conditions, the interest rate on overnight loans

in the interbank market was very low throughout the entire first half of the year, which somewhat affected bank interest rates as well.

The exchange rate of the kuna was stable until June when, responding to seasonal appreciation pressures that were additionally fuelled by the announced foreign exchange borrowing of the government, the CNB intervened in the foreign exchange market by purchasing EUR 125.6m from banks, thus creating HRK 0.9bn of additional liquidity. In contrast, in its foreign exchange transactions with the central government, the CNB sold a net worth of EUR 224.7m and thus withdrew HRK 1.6bn from the system, but it did not seriously affect the comfortable kuna liquidity in the first half of the current year.

In the first six months of 2010, reserve money (M0) remained at the high end-2009 level, standing at HRK 55.9bn at end-June. However, the structure of the monetary aggregate

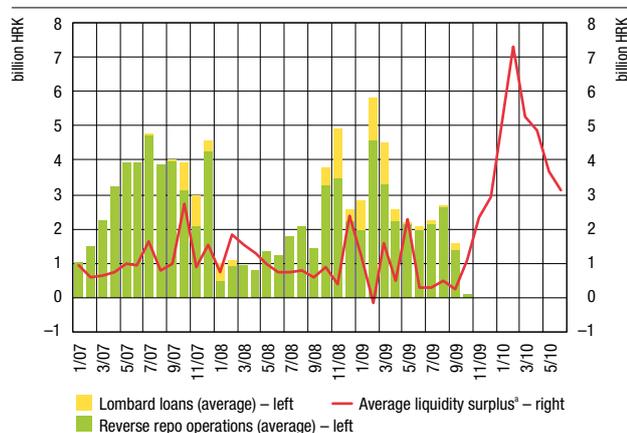
Figure 20 Foreign exchange transactions of the Croatian National Bank and midpoint HRK/EUR rate of exchange



\* The positive value of foreign exchange interventions and foreign exchange transactions relates to the repurchase of foreign exchange by the CNB. Other foreign exchange transactions include the purchase of foreign exchange from and the sale of foreign exchange to the MoF and foreign currency swaps with banks.

Source: CNB.

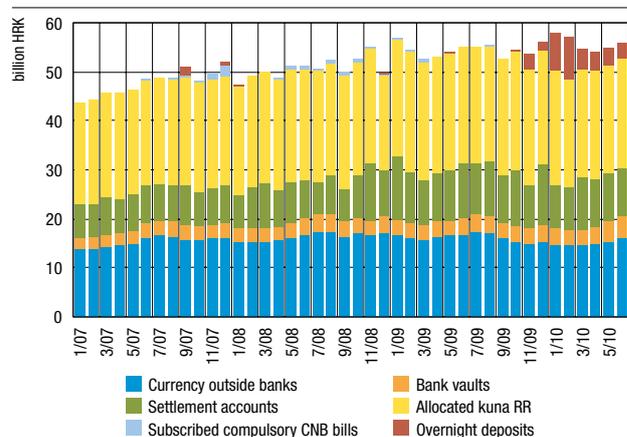
Figure 19 Kuna liquidity, reverse repo operations and Lombard loans



\* Overnight deposits with the CNB included.

Source: CNB.

Figure 21 Structure and developments in reserve money



Source: CNB.

M0 changed in that period due to the cut in the reserve requirement rate, allocation of CBRD funds in a special account with the CNB and seasonal developments. Reserve requirements set aside decreased, while banks' vault cash and currency in circulation increased. In addition to the change in the structure, substantial funds from the domestic bond issue were deposited in the government deposit account with the CNB late in the first quarter, which temporarily reduced reserve money.

In addition to the good kuna liquidity, the first half of 2010 was characterised by a very comfortable foreign currency liquidity in the banking system. The ratio of liquid foreign currency claims to total foreign currency liabilities of banks did not fall below 22.0% in that period, standing at 23.2% at the end of June. As the minimum stipulated foreign currency liquidity ratio is 20%, banks' foreign currency liquidity surpluses came to almost EUR 0.9bn at the end of the first half of the year.

In the first half of 2010, Croatia's international reserves managed by the central bank remained at the end-2009 level (EUR 10.3bn). International reserves decreased in the first

quarter due to the sale of foreign currency to the Ministry of Finance and a drop in government foreign currency deposits. However, they increased in the second quarter owing to the purchase of foreign exchange from banks (foreign exchange intervention in June). In contrast, net usable reserves continued to grow in the first half of 2010, standing at EUR 9.3bn at the period-end. It should be noted that both gross and net usable reserves were positively affected by the US dollar strengthening against the euro in the global financial market in the period under review.

## 7.2 Developments in monetary and credit aggregates

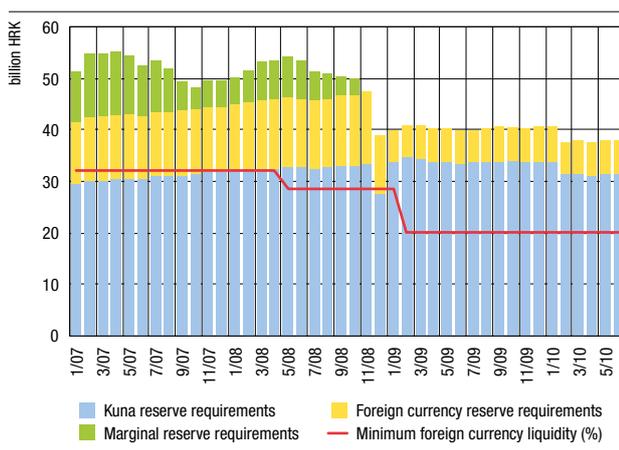
Monetary developments in the first half of 2010 were marked by a mild recovery in almost all monetary and credit aggregates. In that period, the central government obtained substantial funds from domestic banks. Some of the bank funds went to the corporate sector, while household loans continued to stagnate. In addition to a moderate recovery in corporate loans, corporate demand deposits also grew, which led to an increase in money (M1). As savings and time deposits decreased slightly, banks used foreign sources to finance a portion of domestic loans.

Money (M1) increased by 5.4% in the first half of 2010. The biggest contribution to this increase came from demand deposits, which grew by 5.5% in that period, though currency outside banks also recorded an increase (5.0%). The increase in money was also due to the base period effect as this monetary aggregate, which dropped by 14.6% in 2009, reflected negative economic developments most.

The HRK 1.2bn decline in savings and time deposits in the first six months of 2010 was entirely due to the drop in corporate deposits (HRK 4.1bn), while household deposits, as in the first half of 2009, continued to grow moderately (HRK 2.6bn). Such trends in corporate deposits are in line with persistently negative economic trends that prolong the depletion of liquidity reserves in the corporate sector.

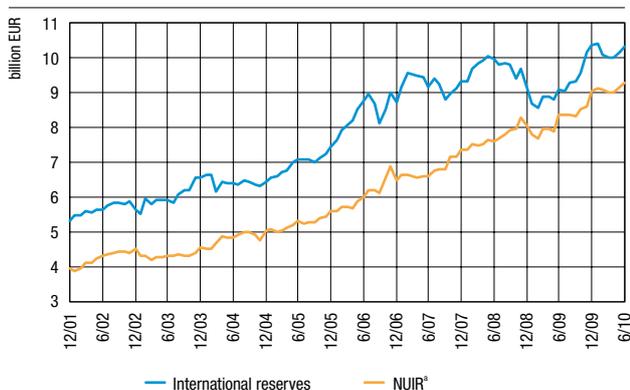
There were no significant changes in the currency structure of deposits: households continued to prefer foreign currency

Figure 22 Calculated reserve requirements and minimum foreign currency liquidity of banks



Source: CNB.

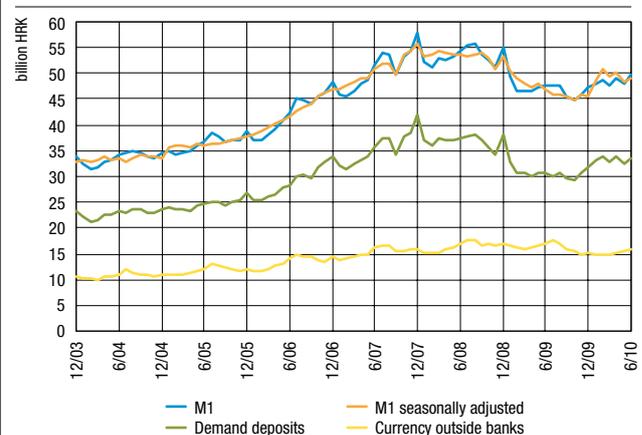
Figure 23 International reserves of the CNB at current rate of exchange



\* Net usable international reserves are defined as international reserves net of foreign liabilities, reserve requirements in f/c, general and special SDR allocations in 2009, government foreign currency deposits and off-balance sheet liabilities (swaps).

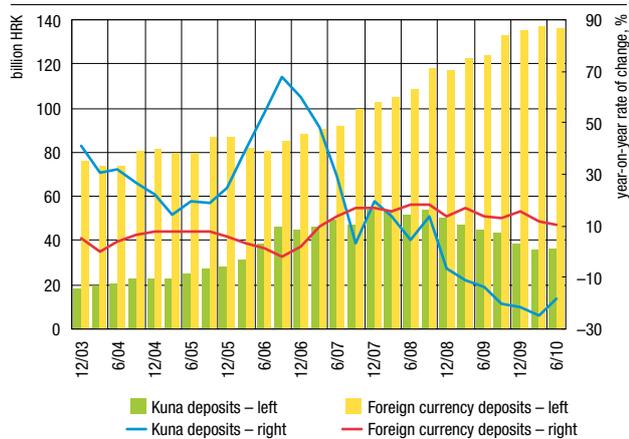
Source: CNB.

Figure 24 Money (M1)



Source: CNB.

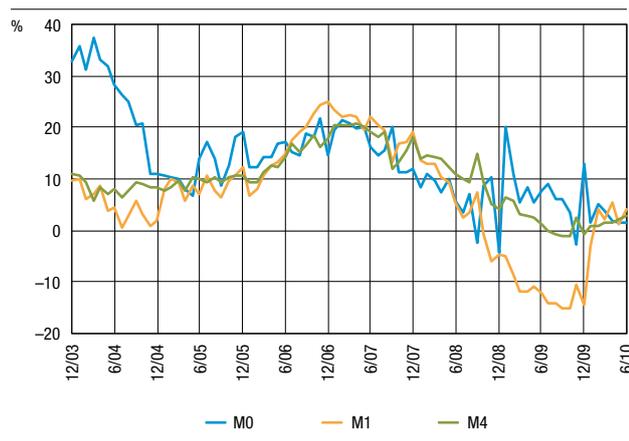
Figure 25 Kuna and foreign currency deposits



Source: CNB.

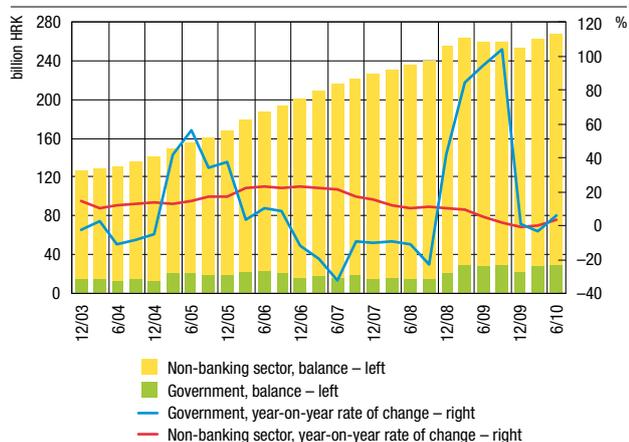
Figure 26 Monetary aggregates

year-on-year rate of change



Source: CNB.

Figure 27 Bank placements to the non-banking sector and net claims on the government



Source: CNB.

deposits, while the decrease in corporate deposits was largely due to withdrawals of kuna deposits. Total foreign currency deposits grew by 10.1% and kuna deposits decreased by 18.0% from end-June 2009 to end-June 2010. The degree of euroisation of the domestic banking system thus stayed high: measured as the share of deposits denominated in or indexed to foreign currency in total savings and time deposits, it was 80.7% at the end of June 2010.

Notwithstanding the drop in total savings and time deposits, the M1 recovery in the first six months of 2010 triggered an increase in total liquid assets (M4) of HRK 1.5bn. Coupled with a favourable base effect, the year-on-year increase in the broadest monetary aggregate (M4) accelerated slightly, to 2.8% at the end of June (0.9%, excluding the exchange rate effects).

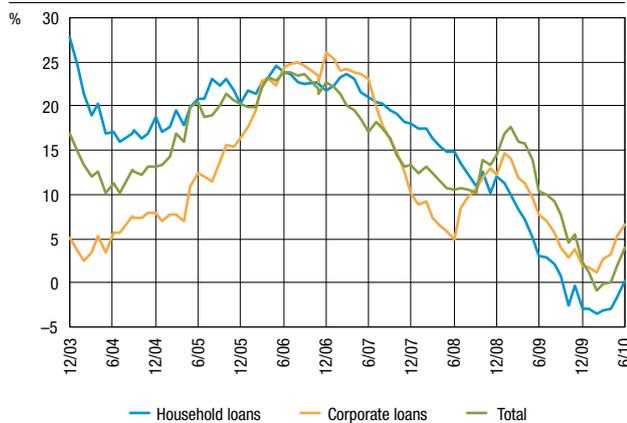
Bank placements to the private sector grew marginally in the first half of 2010 (2.8%, or 2.2%, excluding the exchange rate effects). The bulk of their total increase (HRK 6.4bn) was due to the rise in corporate loans (HRK 4.7bn), while household loans grew much less (HRK 1.2bn). Still, excluding the exchange rate effects, above all the strengthening of the Swiss franc against the kuna, corporate loans grew by 3.9%, while household loans were actually stagnant in the first six months of the current year. Exchange rate changes most affected the balance of home and car loans, which account for the largest share of Swiss-franc indexed loans. The stagnation in household loans confirms the persistently diminished supply as well as low household demand for loans, due predominantly to negative developments in the labour market.

The recovery in corporate loans in the first half of 2010 can partly be attributed to the programme of the Croatian government and the CBRD. At end-January 2010, the government adopted measures aimed at stimulating economic growth through two models to spur lending in the economy (model A and model B). Both models have been implemented through the CBRD, while the required funds have been provided by commercial banks – after the February reduction of the reserve requirement rate.

Under model A, the government (through the CBRD) directly participates in the funding of economic projects with 40% of the total amount of loans, which banks grant to end users, while banks provide the remaining 60% from their own sources. Funds within this model are intended to finance working capital and are placed at regular CBRD auctions where the criterion for quota allocation is the offered interest rate on the portion of loan that a bank provides from its own sources. At five auctions under model A, which were held between February and June, bank demand was good, but the realisation and approval of loans to end users (enterprises) proceeded at a slow pace. The total amount of quotas allocated at auctions was HRK 836.7m in the first half of 2010. Together with bank funds, this made the credit potential of HRK 2.1bn. However, of that amount, only HRK 463m in loans were disbursed by the end of June, accounting for slightly less than 10% of the total increase in corporate loans in that period.

Under model B, the government undertakes to cover some of the risks associated with new bank loans. Guarantees are also issued by the CBRD – commercial banks bid at auctions for available guarantee quotas, which the CBRD then assigns to the best bidders (banks ready to take on a higher percentage of risk). Loans within model B are intended for financing investments and working capital, and rescheduling of loans

**Figure 28 Bank loans**  
year-on-year rate of change



Source: CNB.

and some arrears. Only one auction was held so far, at which a mere HRK 36.9m worth of guarantees was granted. This

means that around a third of the HRK 106.9m bank loans was covered by government guarantees. It may be said that due to relatively unfavourable borrowing terms and the lack of investment projects model B has not taken off.

Bank placements to the government increased by HRK 5.0bn in the first six months of 2010. The largest share of this amount was taken by loans granted (HRK 4.1bn), of which HRK 2.0bn was accounted for by a syndicated bank loan to the CBRD. Apart from bank loans, the government raised substantial funds by issuing bonds in the domestic market in March, most of which were used for refinancing. Non-banking institutions subscribed the largest share of these bonds, so that bank claims on the government arising from bonds increased only moderately (HRK 0.5bn) in the first half of 2010. As bank placements to the government increased, while government deposits with the CNB and banks decreased by HRK 3.0bn in the first six months, the government's net position in relation to banks changed by a total of HRK 7.9bn in that period.

Banks' net foreign assets decreased by a total of HRK 6.3bn in the first half of 2010, due notably to seasonal effects. In that period, their foreign liabilities grew by HRK 2.1bn, due entirely to the funds obtained from majority foreign owners, while their foreign assets dropped by HRK 4.3bn.

## 8 Money market

In the first half of 2010, the domestic financial system retained a high level of liquidity, as a result of which banks' needs for financing primary liquidity through the money market were lower, as was the total money market turnover. At the same time, money market interest rates fell to below 1.0%, their record low in the past five years.

In the first half of 2010, the government relied for its financing mainly on loans from domestic banks and on the issue of new tranches of government bonds on the domestic market, or on using own funds previously raised on the capital market. This has reduced the government needs for issuing short-term securities, so that HRK 12.2bn were raised at 15 regular auctions of the Ministry of Finance in the first and second quarter. That amount was considerably smaller than at the end of the previous year (in the last quarter of 2009 alone, the government issued T-bills in the amount of HRK 9.2bn) and it was primarily used for refinancing of debt arising under short-term securities. Interest rates on T-bills of all maturities remained rather low and stable until June, following a considerable decline at the very beginning of the year. At the end of June, the stock of total subscribed T-bills stood at HRK 24.0bn (58% accounting for kuna and 42% for euro T-bills), which is an increase of approximately two billion kuna compared to the end of 2009.

In the first and second quarter of 2010, a fall in bank lending and deposit interest rates, which started in mid-2009, continued due to the very high financial system liquidity and a weaker demand for loans. This primarily related to deposit interest rates and interest rates on short-term corporate loans.

### 8.1 Interest rates on the money market

In such a stable monetary environment, banks' needs for primary liquidity financing through the money market were relatively modest, tending to keep the total money market turnover at a low level. In the first quarter and in the second quarter, the trading volume amounted to HRK 83.3bn and HRK 65bn, respectively, which is a considerable decrease relative to the end of the previous year, when money market turnover stood at approximately HRK 129bn, as a result of which the trading volume continued its downward trend, which started as early as at end-2008.

The beginning of 2010 saw evident changes in the structure of money market trading. Loans in demand deposit trading continued to be the dominant lending channel, although their share in total lending fell to below 80.0%, whereas the remaining financing involved mainly repo transactions. Demand deposit trading of banks fell the most (by approximately HRK 24bn), while non-banking financial institution trading and bank trading with other legal persons were also reduced. Similar movements were also recorded in the second quarter: demand deposit trading fell by HRK 11.2bn relative to the first quarter, but it retained its leading position in the trading structure, its share again exceeding 80.0%. Non-banking financial institution trading decreased the most (by HRK 12.6bn relative to the first quarter) and a fall was also recorded in bank trading with other persons (by HRK 1.0bn). In contrast, interbank

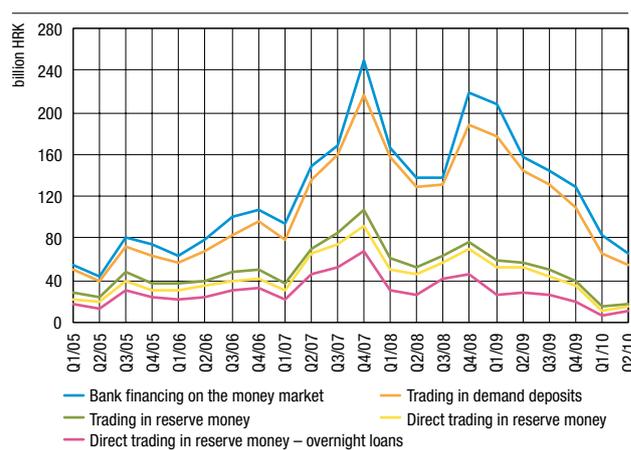
trading recorded an increase in demand deposit trading of HRK 2.4bn compared to the first quarter.

Interbank trading in reserve money in the first half of 2010 was as usual dominated by direct interbank trading, despite a fall in turnover. Following a decrease of almost HRK 25.0bn in direct demand deposit trading in the first quarter of 2010, it rose mildly in the second quarter – by approximately HRK 3.0bn. Direct interbank trading accounted for more than 90% of this segment of trading in reserve money, reflecting the concentration of trade in a small number of large banks. Interbank trading with Zagreb Money Market intermediation, although of considerably weaker intensity, usually closely follows the dynamics of direct trading, but in the observed period, it was on a continuous decline (of less than one billion kuna on average).

The most liquid instrument in direct interbank trading in reserve money in the first half of 2010 was again overnight

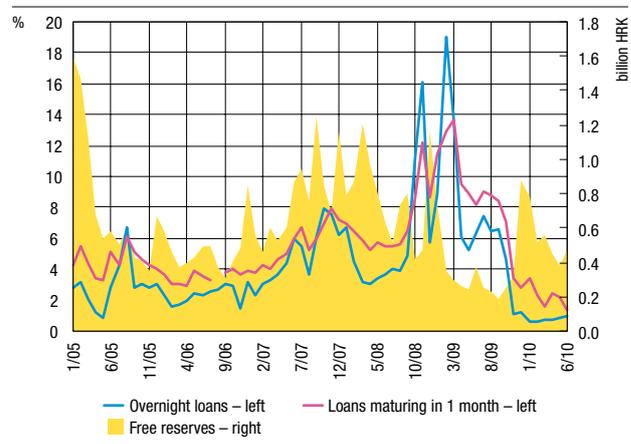
Figure 29 Money market turnover

quarterly data



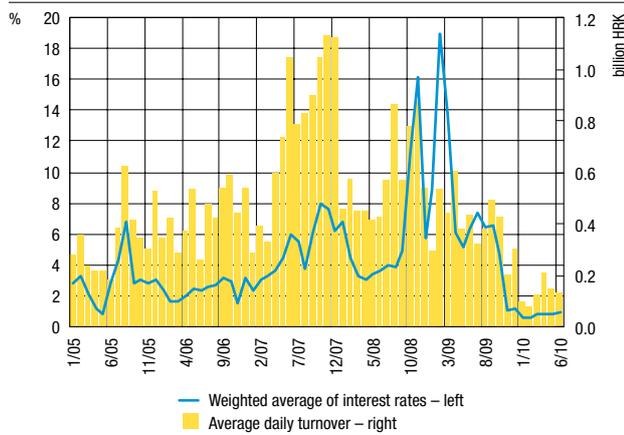
Source: CNB.

Figure 30 Interest rates in direct interbank trading and bank free reserves



Source: CNB.

**Figure 31 Direct interbank trading in overnight loans**  
monthly data on the basis of daily data



Source: CNB.

loans. Trading in this segment was reduced from HRK 19.9bn in December of the previous year to HRK 6.3bn in the first quarter, but it went up to HRK 10.1bn in the second quarter. A decline in the trading volume in the first half of the year was also evident in the segment of longer maturity loans, primarily in the segment of 1 or 2-week loans, the share of which increased in the previous years as a result of stabilisation of CNB repo auctions. Since the central bank did not use that instrument in the first half of 2010, the interest in longer maturity loans declined, which partly contributed to a reduction in their turnover in that period (of HRK 2.2bn on average).

As a result of abundant financial system liquidity in the first quarter 2010, the weighted interest rates on overnight loans in direct interbank trading decreased additionally. After reaching their five-year low of almost 1.0% at the end of the previous year, these interest rates fell even below that level in the first three months of this year: to 0.62% in January, 0.55% in February and 0.77% in March. A mild increase in the rates in March could partly be explained by changes in liquidity after funds of commercial banks granted to the CBRD were deposited in accounts at the CNB as part of the government's incentive programme aimed at reviving bank credit placements. Those interest rates went up mildly (to 0.94%) by end June, also as a result of usual seasonal volatility of demand for the kuna.

## 8.2 Interest rates in the short-term securities market

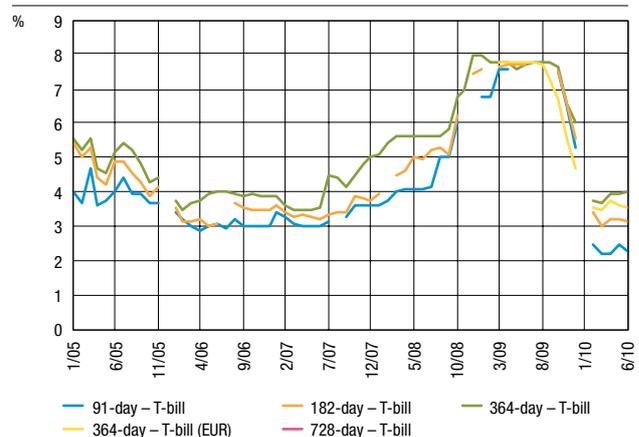
At the beginning of 2010, the government mainly relied on borrowing from domestic banks and on issuing new tranches of government bonds on the domestic market or on using the funds raised by means of previously issued bonds to finance its budget deficit. For that reason, its needs for additional liquidity were reduced and no T-bill auctions were held in January. However, investor interest in these short-term debt securities did not wane, which can be explained by the high level of banking system liquidity. Accordingly, investor bids at the auctions held in the remaining months of the first quarter 2010, as a rule, exceeded considerably the planned amounts of the T-bill

issues. In the first quarter, eight MoF auctions were held, a total of HRK 6.2bn being raised, mostly by a subscription of kuna T-bills (HRK 5.0bn). In the second quarter, seven additional auctions were held, where the same amount of funds was raised, equally on the basis of kuna and euro T-bills.

The described supply and demand ratios at T-bill auctions contributed to an evident decrease in the required yields on T-bills of all maturities at the beginning of the year. T-bills of the shortest maturity (91 day) were at the lowest level in March 2010, falling from 5.30% in December to 2.20% in March, only to rise mildly in June (to 2.32%). Interest rates on longer maturity T-bills fell somewhat less in the observed period. The weighted interest rates on 182-day T-bills fell to 3.04% in March 2010 from 5.55% in December 2009, while they stood at 3.14% in June. Interest rates on one-year bills in euros fell from 4.72% in December 2009 to 3.52% in March 2010, afterwards remaining rather stable at that level. Government borrowing on the basis of a one-year kuna T-bill issue was somewhat more expensive, although interest rates at this year's first auction in February were also reduced compared to December of the previous year (from 6.60% to 3.74%), followed by a mild increase until June (when they reached 4.05%).

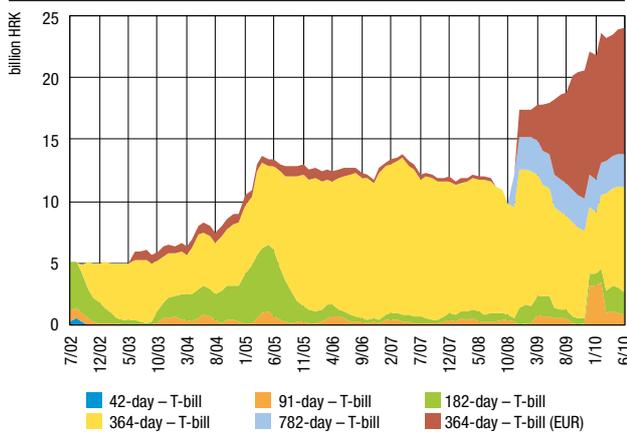
Since in the first half of 2010 the government needs for budget deficit financing were mainly met by taking loans from domestic banks or by issuing new tranches of government bonds, the funds raised at these auctions were primarily used for the refinancing of maturing T-bills (their net use exceeds only one billion kuna in each quarter). This has significantly slowed down growth of debt arising from T-bills, which amounted to HRK 24.0bn at the end of the first half of the year, which is a HRK 1.9bn increase on December 2009. The debt stock under kuna T-bills rose by HRK 1.7bn in December 2009 to June 2010 period, whereas the debt stock under euro T-bills went up by only HRK 200m. The currency structure of debt under T-bills stabilised, so that euro T-bills accounted for slightly more than 40.0% of the total debt in the first half of 2010. Longer maturity T-bills also dominated the remaining debt: one third of debt under all T-bills (euro and kuna) related to one-year kuna bills and one tenth of debt related to two-year kuna T-bills. At the end of June this year, the share of debt under 91-day T-bills was 3.4% and under 182-day T-bills 7.6%.

**Figure 32 Interest rates on T-bills and in direct interbank trading**



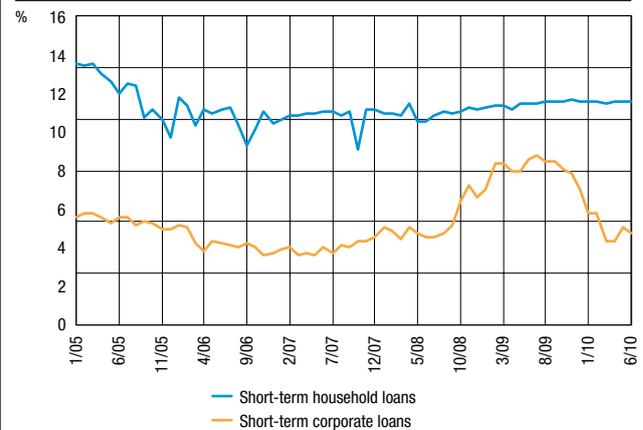
Sources: MoF and CNB.

Figure 33 T-bill stock maturity structure



Sources: MoF and CNB.

Figure 34 Average bank interest rates<sup>a</sup> on short-term loans not indexed to foreign currency



<sup>a</sup> The average weighted interest rate on newly granted loans in the reporting period.  
Source: CNB.

### 8.3 Bank interest rates

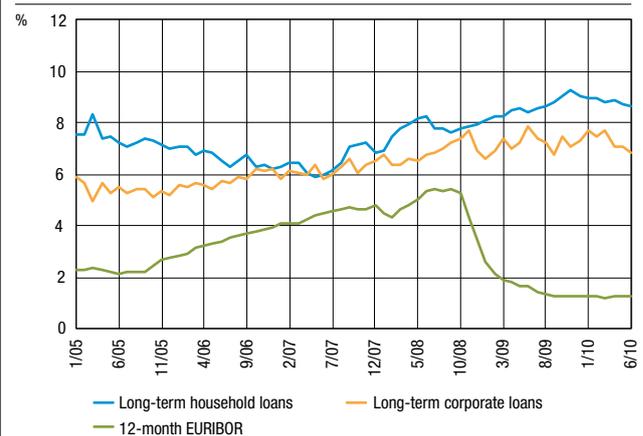
Good banking system liquidity, a fall in money market interest rates and decreased demand for loans were conducive to a decline in bank interest rates in the first half of 2010. This primarily relates to deposit interest rates and short-term corporate loans, while interest rates on short-term household loans remained almost unchanged. In the same period, interest rate spread also remained rather stable.

The weighted interest rates on corporate loans, which have been so far more risky than household loans, were sizeably reduced in the first half of this year and were more volatile than interest rates on household loans. A downward trend in the weighted interest rates on short-term kuna corporate loans without a currency clause, particularly noticeable in early 2010, continued, though at a somewhat slower rate. These interest rates thus increased from 7.24% in March to 7.76% in May, only to fall again in June, to 7.52%. Accordingly, in the first half of the year the said interest rates fluctuated at a relatively low level, unusually close to the level of interest rates on long-term loans with a currency clause to the same sector. In March they were even a little lower than interest rates on long-term loans with a currency clause. Two main components in the structure of short-term interest rates on household loans, those on payment cards and credit lines remained very stable. As a result, interest rates on short-term loans to that sector without currency clauses stagnated, amounting to 12.65% at end June.

Interest rates on long-term household loans with a currency clause have been on a continuous decline since the end of the previous year, falling from 9.02% in December 2009 to 8.82% in March 2010, down to 8.65% in June. Although interest rates on all types of long-term household loans with a currency clause were reduced, other long-term household loans had the greatest impact on that reduction. The weighted interest rate on long-term corporate loans with a currency clause moved in a similar direction, falling from 7.31% in December 2009 to 6.82% in June 2010.

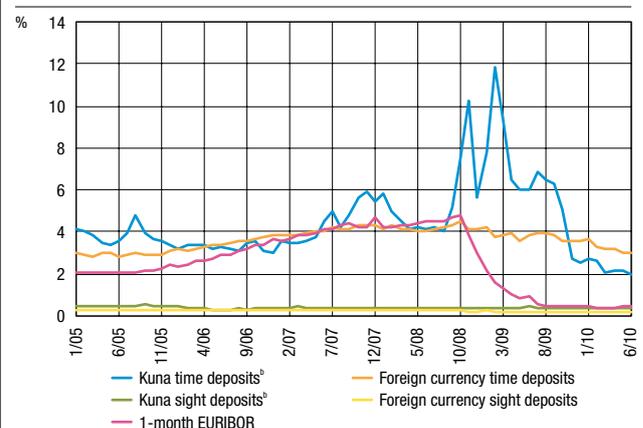
The reduction of interest rates on kuna time deposits without a currency clause, which marked the largest part of 2009, continued into 2010, so that they reached 1.94% in June (they

Figure 35 Average bank interest rates<sup>a</sup> on long-term loans indexed to foreign currency



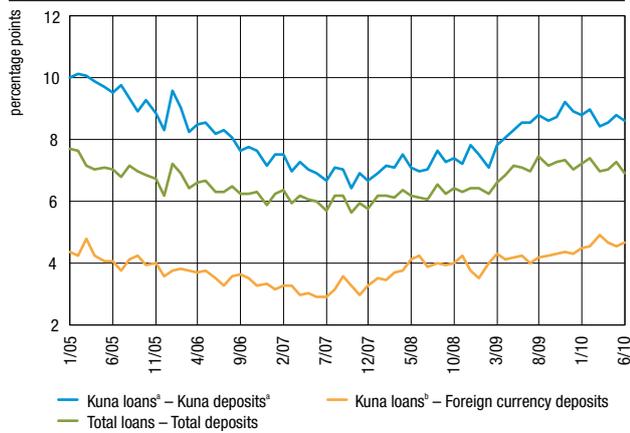
<sup>a</sup> The average weighted interest rate on newly granted loans in the reporting period.  
Source: CNB.

Figure 36 Average bank deposit interest rates<sup>a</sup>



<sup>a</sup> The average weighted interest rate on newly received deposits in the reporting period.  
<sup>b</sup> Non-indexed to f/c.  
Source: CNB.

**Figure 37 Spread between average bank interest rates on loans and deposits**



<sup>a</sup> Non-indexed to f/c. <sup>b</sup> Indexed to f/c.

Source: CNB.

stood at 2.52% in December 2009). The developments in these interest rates are primarily a consequence of the fall in interest rates on 1-month kuna corporate time deposits, the dynamics of which is closely correlated with the developments on the money market. The interest rates on foreign currency time deposits continued to fall (from 3.58% in December 2009 to 3.17% and 2.99% in March and June 2010, respectively), while interest rates on foreign currency sight deposits and kuna deposits without a currency clause remained relatively stable and stood at 0.39% and 0.18% , respectively, at the end of June.

The described developments in lending and deposit rates led to a very mild fall in the interest rate spread in the middle of the year. The interest rate spread on foreign currency (and indexed) loans narrowed from 4.88 percentage points in March to 4.67 percentage points in June. At the same time, the interest rate spread on the so-called “pure” kuna loans and deposits widened from 8.40 percentage points in March to 8.63 percentage points in June, which partly offset the narrowing of the interest rate spread on foreign currency (and indexed) loans.

## 9 Capital market

In early 2010, the European and world's capital markets were marked by the negative trends induced by uncertainty about the sustainability of the Greek budget deficit. As the crisis threatened to deepen and possibly spread to other euro-zone countries affected by government debt, global investor concerns increased additionally in the second quarter of 2010, concerning the recovery dynamics of the global economy, increasing at the same time investor aversion to risky investments. Although positive trends were recorded on the domestic capital markets, as well as on other regional markets, in the first months of 2010, the negative signals from the global financial markets spilled over onto the domestic market movements in the second quarter. The value of the ZSE share index, CROBEX, was thus reduced by 7.4% in the first half of 2010. At the same time, positive trends were mostly recorded on the domestic debt securities market, which were reflected in a considerable growth in semi-annual bond turnover and a mild rise in bond index, CROBIS, which went up by 0.3% at end-July compared to the end of 2009.

In the first half of 2010, securities transactions on the CEE capital markets were rather divergent.<sup>9</sup> The average daily share turnover went up on the Budapest and Warsaw stock exchanges, whereas it went down on the Ljubljana, Prague and Zagreb stock exchanges in the observed period relative to the second half of 2009. At the same time, the average daily bond turnover increased on the Ljubljana, Warsaw and Zagreb stock exchanges, whereas it fell on the Budapest and Prague stock exchanges. The ZSE share turnover to GDP ratio remained very weak, only the Bratislava and Ljubljana stock exchanges having a lower turnover, while other stock exchanges realised much higher turnovers. At the same time, the bond turnover to GDP ratio was higher only on the Prague and Bratislava stock exchanges.

As a result of a drop in value of all reference stock exchange indices, the market capitalisation of shares decreased at the

end of June 2010 relative to the end of the previous year on the Budapest, Ljubljana and Zagreb stock exchanges, whereas other reference stock exchanges saw an increase in market capitalisation of shares. Market capitalisation of bonds rose on the Ljubljana and Zagreb stock exchanges in that period, whereas it was reduced on the Budapest stock exchange. At the end of the first half of 2010, the ZSE's share market capitalisation to GDP ratio continued to outperform all other reference stock exchanges in the region except for the Warsaw stock exchange, while the bond market capitalisation to GDP ratio continued lagging behind those of reference CEE countries.

As a result of their risk aversion, the global investors have turned towards government bonds, primarily those of the USA and Germany. At the same time, the required yields on bonds of the emerging market countries increased considerably. As a result, the spread between the yield on Croatian eurobonds and yields on benchmark German and American bonds widened in the observed period.

### 9.1 Equity securities market

In the first half of 2010, share turnover in the Croatian capital market decreased, totalling HRK 2.7bn in end-June, which was HRK 0.7bn or 19.5% less than in the second half 2009. Decreased demand for equity securities is primarily a consequence of negative movements on the global financial markets and uncertainty about the beginning and intensity of the recovery of the Croatian economy.

In early 2010, the share prices on the domestic capital market were mainly on the increase, but that increase was curbed as early as in February. The value of the ZSE stock exchange index, CROBEX,<sup>10</sup> recovered again mildly in April. However, May and June saw a new fall in its value as a result of negative

Table 3 Comparison of capital market indicators

1st half 2010	Bratislava	Budapest	Ljubljana	Prague	Warsaw	Zagreb
Average daily turnover, shares (in million EUR)	1.16	96.54	1.52	66.75	455.16	3.02
Average daily turnover, bonds (in million EUR)	29.63	2.23	0.52	85.20	2.42	4.15
Share turnover/GDP <sup>a</sup> , annual level (%)	0.45	25.01	1.07	11.90	34.13	1.68
Bond turnover/GDP <sup>a</sup> , annual level (%)	11.57	0.58	0.37	15.19	0.18	2.30
Turnover velocity <sup>b</sup>	8.85	124.10	5.07	33.82	65.41	4.38
Market capitalisation of shares (in million EUR), end of June	3,303.33	19,605.09	7,541.06	49,739.84	175,353.75	17,379.75
Market capitalisation of bonds (in million EUR), end of June	22,351.07	34,430.28	13,111.01	...	...	5,788.28
Market capitalisation of shares/GDP <sup>a</sup> , end of June (%)	5.12	20.15	21.15	35.20	52.18	38.30
Market capitalisation of bonds/GDP <sup>a</sup> , end of June (%)	34.64	35.39	36.77	...	...	12.76
Share index movement from the beginning of the year (%)	-19.99	-0.83	-12.93	-1.20	-1.48	-7.43
Share index movement from the beginning of June (%)	2.36	-4.76	-0.68	-6.19	-5.15	-6.61

<sup>a</sup> The sum of the GDP realised in the last two quarters of 2009 and the first two quarters of 2010.

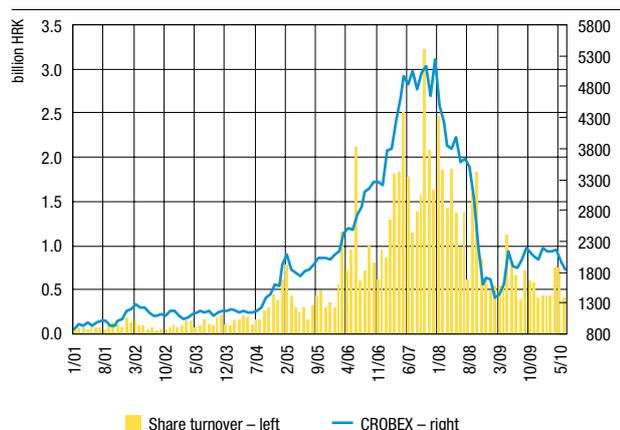
<sup>b</sup> Annualised monthly share turnover × 100 / market capitalisation of shares.

Sources: Bloomberg, BSSE, BSE, PSE, LJSE, WSE and ZSE.

<sup>9</sup> As a result of incomplete data, comparison of share and bond turnover on the Bratislava stock exchange in the first half of 2010 relative to the second half of 2009 is not possible.

<sup>10</sup> Following its regular revision in March 2010, CROBEX constituents counted 25 shares. As compared to September 2009 the share of Tankerska plovdba d.d. and Đuro Đaković Holding d.d. were delisted and the shares of the following joint stock companies were included in the index: Jadranski naftovod, Kraš and Beliše.

Figure 38 ZSE monthly share turnover and end-month CROBEX



Source: ZSE.

developments on the world's capital markets due to escalation of the crisis related to the government debt in the eurozone. The CROBEX thus fell by 7.4% by end-June 2010 relative to end-December 2009, and stood at 1855.2 points.

Since the prices of most of the shares listed on the ZSE decreased in the second quarter of 2010, market capitalisation of shares<sup>11</sup> dropped by 7.9% compared to the end of the previous year, i.e. it stood at HRK 125.0bn in end-June or 37.8% of the realised GDP.<sup>12</sup> At the end of June, T-HT shares had the largest

Table 4 Initial public offering of shares<sup>a</sup>

in million HRK

Year	Number of successful issues	Total value of issues
1997	17	839.4
1998	6	247.1
1999	3	29.0
2000	1	20.0
2001	1	13.0
2002	1	11.8
2003	1	1.2
2004	2	11.0
2005	4	231.0
2006	0	0.0
2007	4	46.9
2008	2	24.2
2009	1	30.0
Jan. – Jun. 2010	1	11.0

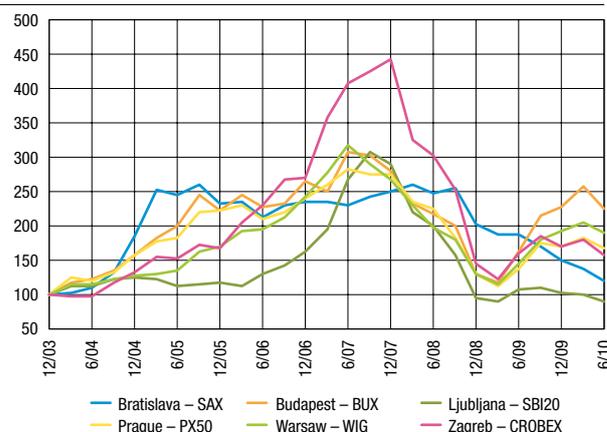
<sup>a</sup> The number of successful share issues through initial public offering includes only those that have HANFA approval.

Note: Public offerings are recorded according to the date of HANFA's decision.

Source: HANFA.

Figure 39 Selected stock exchange indices

end of period, December 2003 = 100



Source: Bloomberg.

market capitalisation (HRK 21.4bn or 17.1% of the total market capitalisation), followed by INA shares (HRK 16.8bn or 13.5% of the total market capitalisation).

In mid 2009, new ZSE rules were introduced in the capital market, changing the structure of the securities market. The rules are in line with the new Capital Market Act, which governs trading in financial instruments in the regulated market<sup>13</sup> and via an alternative, less demanding market, the so-called multilateral trading platform<sup>14</sup> (MTP). In addition to the already listed common shares of Atlantic grupa d.d., Belišće d.d., Dalekovod d.d., Genera d.d., T-HT-a, Institut IGH d.d., INA, Ingra d.d., Istraturist Umag d.d., Magma d.d., Medika d.d., OT-optima telekom d.d., Petrokemija d.d., Podravka d.d., Varteks d.d., Viro tvornica šećera d.d. and the common and preferential shares of Croatia osiguranje d.d., also listed in the Official Market during the first half of 2010 were the common shares of Uljanik plovodba d.d. During the period in question, the most traded shares were T-HT shares, accounting for 33.1% of the total semi-annual turnover, followed by Zagrebačka pivovara d.d. (7.3%) and Atlantska plovodba d.d. (6.0%). At the end of June 2010, 268 shares were listed on the ZSE, 12 less than the total number of shares listed on the domestic capital market at the end of 2009.

Following a mild recovery of share prices in the first three months of 2010, they fell again on most of the major CEE stock exchanges in the second quarter, offsetting thus the positive trends in the first quarter. The greatest fall in the first half of 2010 was registered by the Bratislava stock exchange index, which went down by 20.0% from end-December 2009, followed by the Ljubljana (-12.9%), Zagreb (-7.4%), Warsaw (-1.5%), Prague (-1.2%) and Budapest (-0.8%) stock exchange indices.

11 The ZSE market capitalisation is calculated by multiplying the last price of each share by its issue number. However, the calculation also includes the share's liquidity so that the market capitalisation of a share not traded in the previous month is halved. For the shares not traded in the previous three months, the calculation includes only one fourth of its market capitalisation.

12 The sum of the GDP realised in the last two quarters of 2009 and the first two quarters of 2010.

13 The regulated market is divided into the Regular Market, the Official Market and the Prime Market.

14 It is a multilateral trading system that matches supply of and demand for financial instruments by multiple interested parties according to prearranged rules and is run by an investment firm or a market operator. The ZSE is at the moment the only operator of such a trading platform, but turnover in that market is not reported as a part of total ZSE turnover.

## 9.2 Debt securities market

At the end of the first half of 2010, 35 bonds were listed on the domestic debt securities market,<sup>15</sup> nine of which were government bonds, eight were municipal bonds, one was a CBRD bond and seventeen were corporate bonds. This was one corporate and one government bond more than at the end of December 2009. On the last day of June 2010, 41 commercial bills were listed on the ZSE, issued by a total of 22 issuers, or 2 commercial bills and two issuers more than at the end of December 2009. Their total nominal value stood at HRK 1.1bn in end-June 2010.

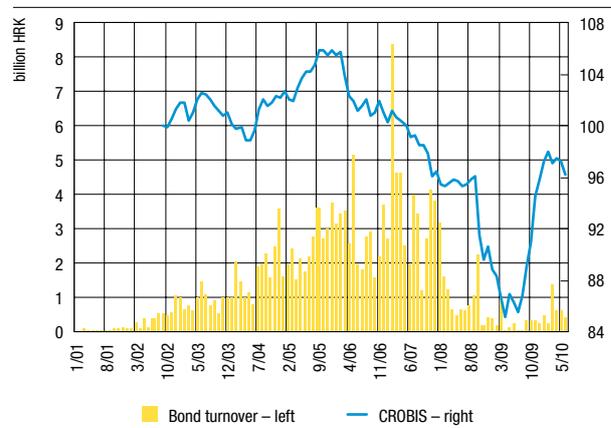
Three new debt issues were listed on the domestic debt securities market in the first half of 2010. Kuna government bonds issued in 2005, of a nominal value of HRK 3bn, fell due in March 2010. In order to refinance that issue and secure new funding, the Ministry of Finance issued new ten-year bonds in early March: kuna bonds of HRK 3.5bn and a yield of 6.95% and kuna bonds with a currency clause in euro of EUR 350m and a yield of 6.7% at issue. In addition, a corporate bond of Hrvatska pošta d.d., with a nominal value of EUR 41m, issued in July of the previous year, was also listed in the domestic capital market.

Bond turnover<sup>16</sup> in the first half of 2010 stood at HRK 3.7bn, up HRK 2.4bn or 172.2% on the second half of 2009.<sup>17</sup> A considerable growth in activities on the domestic debt securities market is a consequence of listing of two new ten-year government bond issues. A kuna government bond maturing in 2020 (22.6% or HRK 840.5m), followed by the kuna government bond with a currency clause and of the same maturity (21.9% or HRK 815.2m) accounted for the largest share of the total turnover. A large turnover was also recorded in trading of kuna government bond maturing in 2017 (16.3% or HRK 606.4m). Since demand for debt instruments was

predominantly focused on government bonds in the first half of 2010, their share in total debt securities turnover amounted to 91.7% (compared to 79.5% in 2009).

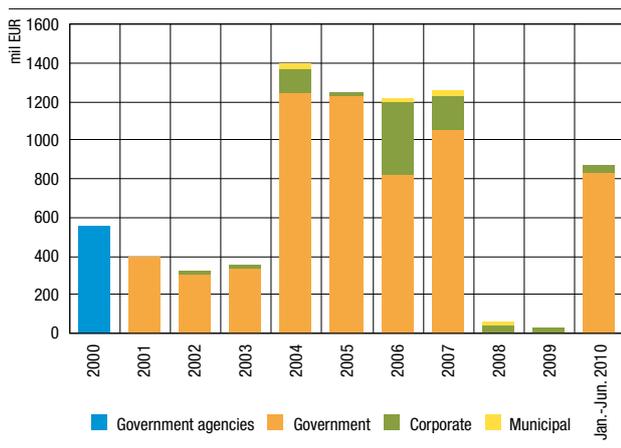
Increased demand for government bonds in the first quarter of 2010 increased the value of the ZSE CROBIS index,<sup>18</sup> which stood at 97.0 points at the end of March 2010. However, the instability that characterised the global market in the following three months had a negative impact on domestic capital market movements, as a result of which the CROBIS fell to 96.2 points by the end of June 2010, almost off-setting the positive trend in the first quarter. Accordingly, the CROBIS increased by only 0.3% at the end of the first half of 2010 relative to the end of December 2009. The growth in the prices

Figure 41 ZSE monthly bond turnover and end-month CROBIS



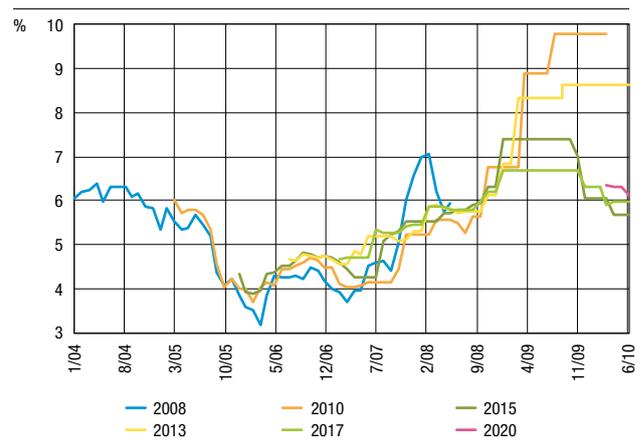
Source: ZSE.

Figure 40 Bond issues in the domestic market



Source: ZSE.

Figure 42 Trends in yields to maturity of kuna government bonds on the domestic market



Source: ZSE.

15 This figure and the market capitalisation calculations exclude the bonds of the Fund for Compensation of Expropriated Property.

16 The data on the total bond turnover from January 2004 to February 2007 are the sum of the respective bond turnovers on the VSE and ZSE, with the unified ZSE data used since the VSE and ZSE merger in March 2007. It needs emphasizing that the bond turnover on the VSE had been negligible, standing below 0.4% of the total turnover on both stock exchanges in all the observed years.

17 A very large percentage growth of the semi-annual ZSE bond turnover is a consequence of intensified activities on the domestic debt securities market in the first half of 2010, along with an exceptionally low bond turnover in the base period (in the second half of 2009, a record low bond turnover was recorded since 2002).

18 At the end of June 2010, the CROBIS included nine Republic of Croatia bonds.

of some RC bonds traded regularly on the ZSE during the period in question reflected itself in the decrease in their yields to

maturity in the first half of 2010 relative to their yields at the end of the previous year.<sup>19</sup>

**Table 5 Bond issues in the domestic market**  
stock as at 30 June 2010

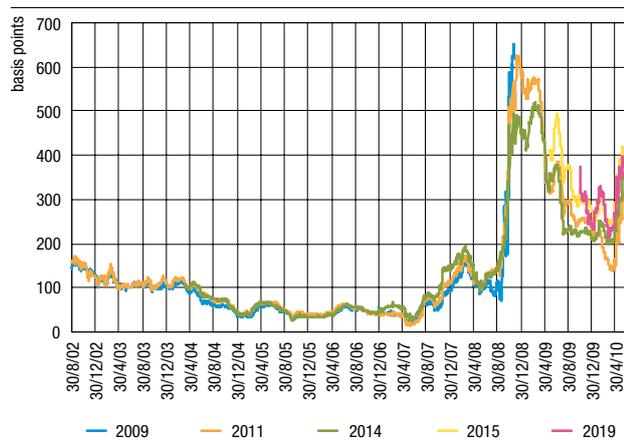
Series	Issuer	Issue date	Maturity	Currency	Issue nominal value	Nominal interest rate	Last price <sup>a</sup>	Current yield 30/6/2010
RHMF-O-125A	Republic of Croatia	23/5/2002	23/5/2012	EUR	500,000,000	6.875%	104.30	6.592%
RHMF-O-142A	Republic of Croatia	10/2/2004	10/2/2014	EUR	650,000,000	5.500%	100.10	5.495%
RHMF-O-19BA	Republic of Croatia	29/11/2004	29/11/2019	EUR	500,000,000	5.375%	89.10	6.033%
RHMF-O-157A	Republic of Croatia	14/7/2005	14/7/2015	EUR	350,000,000	4.250%	89.45	4.751%
RHMF-O-15CA	Republic of Croatia	15/12/2005	15/12/2015	HRK	5,500,000,000	5.250%	97.90	5.363%
RHMF-O-137A	Republic of Croatia	11/7/2006	11/7/2013	HRK	4,000,000,000	4.500%	86.95	5.175%
RHMF-O-172A	Republic of Croatia	8/2/2007	8/2/2017	HRK	5,500,000,000	4.750%	93.20	5.097%
RHMF-O-203A	Republic of Croatia	5/3/2010	5/3/2020	HRK	3,500,000,000	6.750%	104.40	6.466%
RHMF-O-203E	Republic of Croatia	5/3/2010	5/3/2020	EUR	350,000,000	6.500%	98.75	6.582%
GDKC-O-116A	City of Koprivnica	29/6/2004	29/6/2011	HRK	60,000,000	6.500%	93.52	6.950%
GDZD-O-119A	City of Zadar	1/9/2004	1/9/2011	EUR	18,500,000	5.500%	98.10	5.607%
GDRI-O-167A	City of Rijeka	18/7/2006	18/7/2016	EUR	24,574,513	4.125%	–	–
GDST-O-137A	City of Split	24/7/2006	24/7/2013	EUR	8,000,000	4.563%	101.30	4.504%
GRVI-O-17AA	City of Vinkovci	23/10/2007	23/10/2017	HRK	42,000,000	5.500%	–	–
GROS-O-17AA	City of Osijek	30/10/2007	30/10/2017	HRK	25,000,000	5.500%	–	–
GDST-O-15BA	City of Split	27/11/2007	27/11/2015	EUR	8,100,000	4.750%	–	–
GDST-O-177A	City of Split	8/7/2008	8/7/2017	EUR	8,200,000	6.000%	–	–
HBOR-O-112A	CBRD	11/2/2004	11/2/2011	EUR	300,000,000	4.875%	–	–
RBA-O-112A	Raiffeisenbank Austria d.d.	10/2/2006	10/2/2011	HRK	600,000,000	4.125%	100.36	4.110%
PODR-O-115A	Podravka d.d.	17/5/2006	17/5/2011	HRK	375,000,000	5.125%	96.20	5.327%
NEXE-O-116A	Nexe grupa d.d.	14/6/2006	14/6/2011	HRK	750,000,000	5.500%	87.25	6.304%
HEP-O-13BA	Hrvatska elektroprivreda d.d.	29/11/2006	29/11/2013	HRK	500,000,000	5.000%	91.70	5.453%
ATGR-O-11CA	Atlantic grupa d.d.	6/12/2006	6/12/2011	HRK	115,000,000	5.750%	87.82	6.547%
INGR-O-11CA	Ingra d.d.	6/12/2006	6/12/2011	HRK	200,000,000	6.125%	74.99	8.168%
OPTE-O-142A	Optima telekom d.o.o.	1/2/2007	1/2/2014	HRK	250,000,000	9.125%	61.00	14.959%
JDGL-O-126A	Jadran Galenski laboratorij d.d.	11/6/2007	11/6/2012	HRK	125,000,000	5.650%	–	–
JDRA-O-129A	Jadranka d.d.	13/9/2007	13/9/2012	HRK	75,000,000	6.475%	99.07	6.536%
JRLN-O-12AA	Jadrolinija d.d.	25/10/2007	25/10/2012	HRK	70,000,000	6.500%	100.50	6.468%
OIV-O-14BA	Odašiljači i veze d.o.o.	20/11/2007	20/11/2014	HRK	100,000,000	7.250%	95.00	7.632%
HEP-O-17CA	Hrvatska elektroprivreda d.d.	7/12/2007	7/12/2017	HRK	700,000,000	6.500%	94.88	6.851%
RPRO-O-181A	Rijeka promet d.d.	25/1/2008	25/1/2018	HRK	192,000,000	6.813%	–	–
PLOR-O-133A	Plodine d.d.	4/3/2008	4/3/2013	HRK	100,000,000	9.000%	85.00	10.588%
MTEL-O-137A	Metronet telekomunikacije d.d.	17/7/2009	17/7/2013	EUR	19,800,000	12.000%	–	–
SCVI-O-14CA	Športski centar Višnjik d.o.o.	23/12/2008	23/12/2014	EUR	9,600,000	8.813%	–	–
HP-O-127A	HP – Hrvatska pošta d.d.	1/7/2009	1/7/2012	EUR	41,000,000	9.000%	–	–

<sup>a</sup> Regularly traded shares.

Source: ZSE.

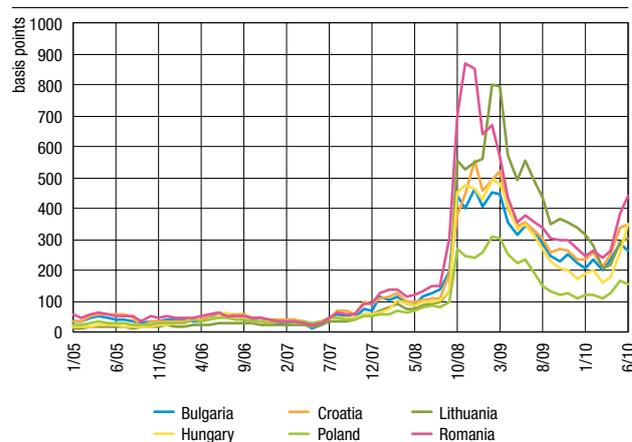
<sup>19</sup> Yields on kuna government bonds, maturing in 2010 and 2013, did not narrow, since these bonds were not traded regularly on the ZSE during the period in question.

Figure 43 Croatian eurobond spread 2009, 2011, 2014, 2015 and 2019, compared with benchmark German and American bonds



Source: Bloomberg.

Figure 44 Spreads on emerging market sovereign debt



Sources: Bloomberg and JPM.

Market capitalisation of all the bonds<sup>20</sup> on the domestic market at the end of the first half of 2010 amounted to HRK 41.6bn (EUR 5.8bn), or 12.6% of the realised GDP.<sup>21</sup> Market capitalisation of government bonds, municipal bonds and CBRD bonds stood at HRK 37.3bn (EUR 5.2bn) or 11.3% of the realised GDP, whereas market capitalisation of corporate bonds amounted to HRK 4.4bn (EUR 610.4), accounting for 1.3% of the realised GDP.

There were no new bond issues of the Republic of Croatia on the international capital markets in the first half of 2010. Since the international government bond, nominally valued at EUR 500m, fell due at the end of February 2010, a total of five Croatian bond issues were listed on foreign markets, three of which were denominated in euros and two in US dollars. The total nominal value of these bonds was HRK 28.3bn (or EUR 3.9bn) in end June 2010, down HRK 2.0bn (EUR 209.4m) compared to end December 2009.

The fall in the required yields on Croatian eurobonds that started in the second quarter of 2009 continued into the first three months of 2010. However, this trend was halted and a

significant growth in almost all emerging market countries was spurred by the culmination of the Greek crisis and uncertain recovery of the largest European economies at the end of the first quarter of 2010. Thus, at the end of the first half of 2010, the spreads between required yields on Croatian eurobonds maturing in 2011, 2014 and 2015 and yields on benchmark German bonds totalled 277, 331 and 409 basis points respectively, which was much more than at the end of December 2009, when these spreads stood at 233, 215 and 274 basis points respectively. The yield spread between the Croatian international USD-denominated bond maturing in 2019 and the benchmark American bond stood at 389 basis points at the end of June 2010, which is also a significant increase compared to the end of December 2009, when this spread stood at 239 basis points.

The EMBI yield spread on government bonds continued to trend downwards<sup>22</sup> in most of the observed emerging market countries in the first quarter of 2010, in line with a trend that started in early 2009 with a changed perception of risk by foreign investors. Nevertheless, in the second quarter a downward

Table 6 Republic of Croatia international bond issues

stock as at 30 June 2010

Bonds	Issue date	Currency	Amount	Nominal interest rate	Yield on issue date	Spread on issue date	Spread <sup>a</sup> 30/9/2009	Spread <sup>a</sup> 31/12/2009	Spread <sup>a</sup> 31/3/2010	Spread <sup>a</sup> 30/6/2010
London Club A, 2010	31/7/1996	USD	857,796,000	6-month LIBOR + 81.25 b.p.			234	302	162	
Eurobonds, 2011	14/3/2001	EUR	750,000,000	6.75%	6.90%	215	258	233	150	277
Eurobonds, 2014	15/4/2004	EUR	500,000,000	5.000%	5.11%	101	226	215	205	331
Eurobonds, 2015	27/5/2009	EUR	750,000,000	6.500%	6.57%	406	300	274	251	409
Eurobonds, 2019	5/11/2009	USD	1,500,000,000	6.750%	7.01%	324		239	231	389

<sup>a</sup> In relation to benchmark bond.

Source: Bloomberg.

20 Excluding the bonds of the Fund for the Compensation of Expropriated Property.

21 The sum of the GDP realised in the last two quarters of 2009 and the first two quarters of 2010.

22 Yield spreads on the JP Morgan Euro EMBI Global indices are indicators of yield movements and total returns for bonds of emerging market countries.

trend of risk premium on eurobonds of all the countries included in the analysis was halted as a result of financial markets' concern about budget deficit and sustainability of the Greek public debt and the recovery dynamics of the global economy. An increase in the EMBI yield spread on public debt of all the observed countries, except Lithuania, was thus recorded by the

end of June 2010 compared to its value at the end of 2009. The largest growth in risk premium on public debt in the observed period was recorded by Hungary, followed by Romania and Croatia, while Poland and Bulgaria recorded a slightly milder growth.

## 10 International transactions

The first half of 2010 was marked by a continued contraction of the balance of payment current account deficit, the main characteristic of which, as in the previous year, was a reduction in extreme imbalance in the trade in goods. This was a result of recovery of goods exports, which increased mildly, while goods imports continued to fall at the same time, although at somewhat slower pace than in the previous period. An additional contribution to current account deficit contraction was made by a smaller negative balance in the income account, whereas no significant changes were recorded in the balance of services and current transfers accounts.

A reduced volume of the capital and financial account transactions, recorded in the first half of 2010, points to the continued reservations of foreign investors, relating to both direct equity investments and the debt financing of domestic sectors. Direct equity investments amounted to only a half of the value recorded in the period before the economic crisis, while capital inflows based on debt instruments were used only to refinance due foreign liabilities. Although the balance of debt liabilities decreased, according to balance of payment data, gross external debt balance increased by as much as EUR 0.5bn, exclusively due to the unfavourable effect of cross-currency changes caused by weakening of the euro against other currencies.

### 10.1 Current account

In the first half of 2010, the current account deficit amounted to EUR 1.7bn, a decrease of 38.8% relative to the same period of 2009. The contraction of the trade in goods deficit, evident since the beginning of the economic crisis, was mainly determined by a narrowing imbalance in foreign trade, and similar trends were also present in the observed six months. The goods deficit fall of almost a fourth was thus a consequence of exports recovery, which has been on the increase

since the beginning of the year, while imports continued to fall. A lower negative balance was also recorded in the income account, as a consequence of smaller expenditures, primarily due to a fall in interest expenses of domestic sectors, since interest rates on the global market were lower. At the same time, the balances in the services and current transfers accounts were at approximately the same level as in the previous year.

A positive balance in the services account in the first six months of 2010 was identical to the balance in the same period of 2009, which is a consequence of an almost equal fall in both revenues and expenditures. The largest contribution to the fall in revenues was made by tourism revenues, which were reduced by 4.9% relative to the first half of 2009. In addition, revenues from transportation services were also reduced mildly, notably revenues from air passenger transport, whereas the described negative developments were mitigated by an increase in revenues from other services, research and development services and architectural and other services being predominant. As regards expenditures reduction, it was mainly a result of smaller expenditures on travel services and, to a somewhat lesser extent, expenditures on other business services.

A fall in tourism revenues in the observed half of the year was primarily a consequence of developments in the second quarter, when the bulk of them is usually generated; although revenue growth was recorded in the first three months of the current year, a 7.3% fall was recorded at the annual level in the April – June period, mainly on account of a fall in revenues from guests staying in paid accommodation. According to CBS data, encompassing exclusively arrivals in that accommodation category, an almost equal number of foreign tourist arrivals was recorded in the second quarter as in the same three months of the previous year. Accordingly, the fall in total revenues is mostly a consequence of their poorer average consumption. Viewing the guest structure by country of residence, in the first half of the year, tourist arrivals from Slovenia, Russia

Table 7 Current account

in million EUR

	1st half 2009	2009	1st half 2010 <sup>a</sup>	Indices		
				1st half 2009/1st half 2008	2009/2008	1st half 2010 <sup>a</sup> /1st half 2009
Current account	-2,737	-2,477	-1,674	62.3	57.1	61.2
1 Goods	-3,743	-7,387	-2,849	66.0	68.4	76.1
1.1 Credit (f.o.b.)	3,830	7,703	4,288	81.2	78.5	111.9
1.2 Debit (f.o.b.)	-7,573	-15,090	-7,137	72.9	73.2	94.2
2 Services	1,537	5,676	1,535	81.2	81.6	99.9
2.1 Credit	2,895	8,454	2,845	85.5	83.8	98.3
2.2 Debit	-1,358	-2,778	-1,310	91.0	88.7	96.5
3 Income	-1,032	-1,802	-900	93.1	114.6	87.2
3.1 Credit	416	782	434	59.9	57.8	104.2
3.2 Debit	-1,449	-2,584	-1,333	80.3	88.4	92.1
4 Current transfers	502	1,036	540	101.0	96.8	107.6
4.1 Credit	780	1,608	845	102.4	95.5	108.3
4.2 Debit	-278	-572	-305	104.9	93.1	109.6

<sup>a</sup> Preliminary data.

Source: CNB.

and Spain increased most, whereas the most pronounced negative change was the one involving visitors from Italy and the Czech Republic.

A reduction of the negative balance in the income account of 12.8% in the observed half of the year relative to the first half of 2009 was primarily caused by smaller expenditures. More specifically, lower levels of benchmark interest rates, especially on the EU market, had an impact on a reduction of interest expenses of banks and other domestic sectors. It should be noted that this interest rate reduction was reflected not only in the amount of interest expenses, ascribable to the new debt, but also in the overall debt contracted at a variable interest rate. On the other hand, the described interest rate movements also contributed to a decrease in interest income from foreign assets investment, especially of the central bank and commercial banks. Nevertheless, the said interest income decrease was compensated by an increase in revenues from direct equity investment, and especially from reinvested earnings of domestic owners of foreign enterprises, which, in contrast to the previous year, earned profit.

A moderate increase in the positive balance was recorded in the current transfers account, primarily owing to the growth in revenues being larger than that in expenditures. Revenue growth was a consequence of an increase in transfers to other domestic sectors, mostly gifts and donations. On the other hand, increase in revenues resulted from the central government transfers.

## 10.2 Trade in goods

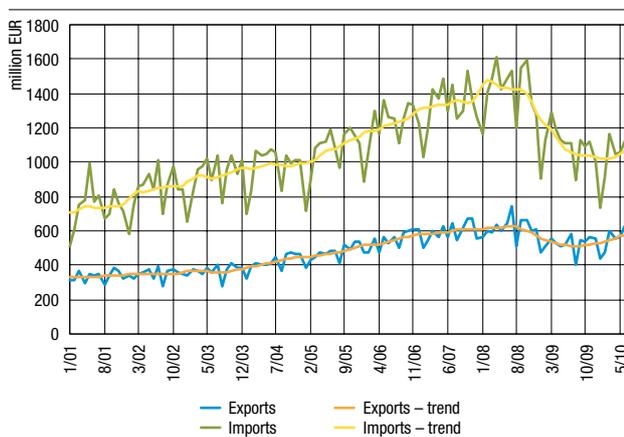
According to the CBS data, total exports of goods increased by 13.9% in euro terms in the first half of 2010 compared to the same period of the previous year. Following a sharp decline, which started at end 2008, exports growth at the annual level was recorded for the first time in January 2010, similar positive movements continuing later in the observed period. Recovery has been recorded in most of the SITC divisions, primarily in the division of other transport equipment (mostly ships), which almost doubled relative to the first six months of 2009. If we exclude from total exports ships and oil and refined petroleum

products, whose volatility also significantly determines aggregate movements, exports growth is somewhat weaker (5.5%). In such defined aggregate, the largest growth was recorded in the division of metalliferous ores and metal scrap (especially steel and lead scrap), plastics in primary forms and medical and pharmaceutical products. On the other hand, a decline in individual divisions continued at the annual level: primarily in natural and manufactured gas and electricity, and a noticeable decrease in exported fish and preparations was a consequence of the base period effect, i.e. extremely large exports of tuna in Japan in early 2009.

In contrast to exports, total imports of goods in the observed six months continued to fall (–6.1% at the annual level), although this fall was considerably milder than in the same period of the previous year (–27.2%). The value of imported oil increased by one third, which can, to a large extent, be accounted for by the price factors, i.e. higher price levels of oil on the global market, while only a moderate growth was recorded for imports of ships at the annual level. A fall in total imports is thus a consequence of the negative developments in other SITC divisions, primarily the division of road vehicles, which has been on a decline since end-2008. However, the downward trends markedly slowed down relative to the previous year when that division accounted for a half of the amount for which total imports were reduced. Imports of individual capital goods (machinery and transport equipment, excluding ships and road vehicles) moved in a similar direction, their annual rate of change still being negative, but the downward trend decelerating. Nevertheless, as in exports, a fall was also recorded in the division of electricity and natural and manufactured gas. However, a growth was evident in certain divisions relative to the comparable period of the previous year, which primarily relates to the following SITC divisions: organic chemicals, non-ferrous metals and artificial fertilisers.

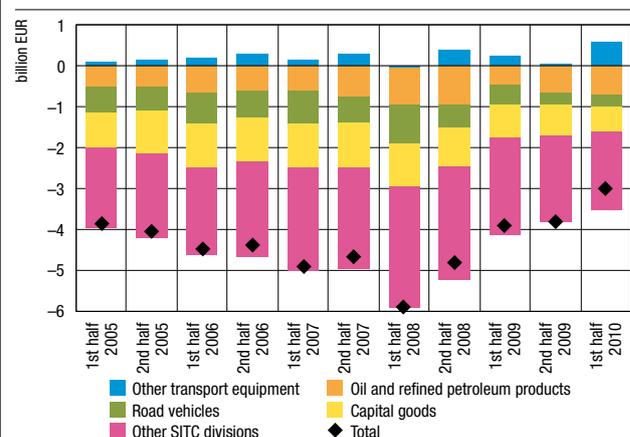
In contrast to several previous years when a downward trend in the share of the EU countries in Croatian goods exports was predominant, an increase in that share was evident in the first half of 2010. The largest contribution to this was made by exports of ships to Italy and, to a somewhat smaller extent, to Luxembourg, whereas exports to other EU member states remained almost unchanged. Exports to CEFTA countries

Figure 45 Goods exports (f.o.b.) and goods imports (c.i.f.) other transport equipment, oil and refined petroleum products excluded



Sources: CBS and CNB.

Figure 46 Contributions of selected SITC divisions to trade in goods



Source: CBS.

Table 8 Exports and imports by economic classification of countries

in %

Economic classification of countries	Exports				Imports			
	2008	2009	1st half 2009	1st half 2010 <sup>a</sup>	2008	2009	1st half 2009	1st half 2010 <sup>a</sup>
EU-27	60.9	60.5	61.4	63.9	64.1	62.7	62.9	60.5
Austria	5.8	5.4	5.3	5.3	4.9	5.0	5.1	4.6
Italy	19.2	19.1	19.1	22.1	17.1	15.4	14.9	15.3
Germany	10.7	11.0	11.7	11.0	13.4	13.5	14.0	12.7
Slovenia	7.8	7.4	7.3	7.7	5.6	5.7	5.7	5.7
EFTA	1.2	1.7	1.8	1.2	1.7	2.6	2.8	2.0
CEFTA	23.5	21.3	20.0	17.2	5.0	5.1	4.8	5.0
Bosnia and Herzegovina	15.3	12.9	12.6	10.6	2.7	2.7	2.5	2.8
Serbia	5.5	5.3	4.8	3.7	1.4	1.3	1.3	1.4
Montenegro	1.3	1.6	1.2	0.9	0.0	0.2	0.0	0.0
Other	14.3	16.5	16.8	17.7	29.1	29.6	29.5	32.5
Russia	1.3	1.5	1.6	1.5	10.3	9.5	10.0	8.1
China	0.3	0.4	0.4	0.3	6.2	6.8	6.9	7.2

<sup>a</sup> Preliminary data.

Source: CNB.

decreased considerably in the same period, which can be accounted for by weaker economic activity and a later onset of recovery in that group of countries. The most pronounced decline in the share was recorded by exports to Bosnia and Herzegovina, mainly as a result of a fall of exports of non-metallic mineral manufactures (mostly cement), power-generating machinery and equipment and electricity. On the imports side, trends from the previous year continued, the share of EU member states further decreasing. A large contribution to this was made by a fall in imports from Germany, especially of road vehicles and capital goods. At the same time, the share of imports from CEFTA countries stagnated, while the share of

other countries increased owing to imports growth, which can mostly be accounted for by the increase in the value of imports of oil and refined petroleum products, especially from Turkey and, to a smaller extent, from Azerbaijan.

### 10.3 Capital and financial account

In the first half of 2010, a net foreign capital inflow (excluding changes in international reserves) of only EUR 0.3bn was recorded. This inflow was considerably smaller than in the same period of the previous year, and especially relative to the

Table 9 Capital and financial account

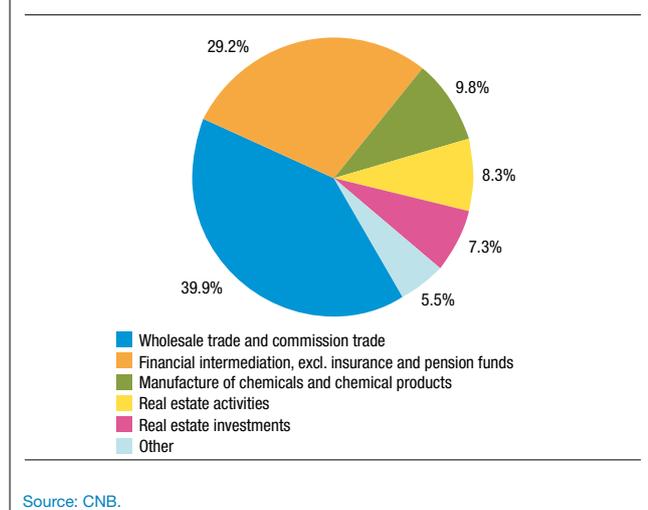
in million EUR

	1st half 2009	2009	1st half 2010 <sup>a</sup>	Indices		
				1st half 2009/ 1st half 2008	2009/2008	1st half 2010 <sup>a</sup> / 1st half 2009
Capital and financial account	2,860	3,305	669	76.9	55.6	23.4
1 Capital account	2	43	26	14.9	286.7	-
2 Financial account, excl. reserves	2,778	4,159	247	61.8	74.3	8.9
2.1 Direct investment	887	1,210	436	44.9	37.4	49.1
2.1.1 Abroad	-64	-919	-210	258.6	94.4	330.1
2.1.2 In Croatia	950	2,129	646	47.5	50.6	67.9
2.2 Portfolio investment	-37	186	-647	-	-	-
2.2.1 Assets	87	-793	-70	27.4	284.4	-80.8
2.2.2 Liabilities	-124	980	-577	55.1	-	463.9
2.3 Financial derivatives	0	0	-103	-	-	-
2.4 Other investment	1,929	2,762	562	79.5	92.3	29.1
2.4.1 Assets	993	760	603	215.4	-	60.7
2.4.2 Liabilities	935	2,003	-41	47.6	43.4	-
3 Reserve assets (CNB)	79	-896	396	-	-271.3	499.0

<sup>a</sup> Preliminary data.

Source: CNB.

Figure 47 Structure of direct equity investment and reinvested earnings in the Republic of Croatia in the first half of 2010



periods before the crisis, when net capital inflow would exceed EUR 2bn in the first half of the year. The reservations of foreign investors, present from early 2009, continued into the first half of 2010, as a result of which direct equity investment reached only a half of the amount of previous investments. In addition, as a result of insecurity in global financial markets and the economic slowdown, inflows from debt investment, also remaining at very low levels, were sufficient only to settle outstanding liabilities. On the other hand, a decrease was also recorded in the foreign assets of all domestic sectors, and especially in the banking sector, while investment funds increased their investments in foreign capital markets.

Since the conditions on the domestic and foreign markets were unfavourable, inflow of foreign direct investment in the Republic of Croatia stood at EUR 0.6bn in the first half of 2010. The greatest part of direct equity investment was generated in trade activities, financial intermediation, chemical industry and real estate transactions. The amount of direct equity investment was also increased by the amount of debt related to round-tripping transactions which was partly transformed into equity. Reinvested earnings of enterprises and banks owned by non-residents was also reduced as compared to the previous years, both as a result of foreign owners' increased propensity to pay out dividends in individual activities, and lower

profitability in most of the activities (in some cases even losses). Broken down by country of origin, investors from the Netherlands, Austria and France predominated. A modest amount was also recorded in the category of other direct investments (excluding the said transformation of round-tripping transactions into equity), i.e. foreign borrowing from affiliated enterprises abroad.

As regards debt investment, i.e. net external debt transactions, domestic banks did not have a need for more vigorous borrowing abroad in the first half of 2010 since they managed to meet most of their financial needs from domestic sources. Enterprises borrowed abroad even less than they needed for refinancing due liabilities. The central government redeemed EUR 500m worth of eurobonds, which was the most significant transaction that had an impact on a reduction of its foreign liabilities in the first half of the year.

According to the balance of payment data, which do not include cross-currency changes, international reserves went down by EUR 0.4bn in the first six months of 2010. This was the result of foreign exchange transactions with the central government and lower allocations by banks, while the contribution of the central bank interventions in the foreign exchange market was positive. Weakening of the exchange rate of the euro against the US dollar also had a positive effect on the balance of international reserves, increasing the value of reserves denominated in the US dollar in the reporting currency (the euro). According to the monetary statistics data, international reserves declined by only EUR 0.1bn in the first six months of 2010, ending June 2010 at EUR 10.3bn.

## 10.4 External debt

Foreign liabilities of domestic sectors, according to the recorded net external debt transactions, declined by EUR 0.5bn in the first half of 2010, but their debt grew by the same amount because of the negative effect of cross currency changes. Croatia's gross debt thus rose by about EUR 1bn, with most of these changes caused by the weakening of the euro against the US dollar and Swiss franc, currencies in which approximately 16% of the total debt was denominated and which strengthened against the euro by about 12% in the first half of the year. Excluding the exchange rate effect, the highest reduction was observed in foreign liabilities of the central government, followed by those of enterprises, while the withdrawal of new

Table 10 Gross external debt by domestic sectors

end of period, in million EUR and %

	Stock			Structure			Absolute growth <sup>a</sup>		
	2008	2009	Jun. 2010	2008	2009	Jun. 2010	2008	2009 <sup>b</sup>	Jun. 2010
1 Government	4.197	5.165	5.026	10,7	12,0	11,5	-1.241	998	-139
2 Croatian National Bank	2	1	1	0,0	0,0	0,0	0	-1	0
3 Banks	10.079	10.680	11.100	25,8	24,8	25,4	1.161	616	420
4 Other sectors	19.836	21.358	21.561	50,7	49,6	49,4	4.899	1.225	203
5 Direct investment	5.010	5.891	5.963	12,8	13,7	13,7	1.052	767	72
o/w: Hybrid and subordinated instruments	218	378	399	0,6	0,9	0,9	162	160	21
<b>Total (1+2+3+4+5)</b>	<b>39.125</b>	<b>43.095</b>	<b>43.650</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>5.871</b>	<b>3.604</b>	<b>555</b>

<sup>a</sup> The increase in debt is calculated in relation to the debt balance reported at the end of the previous year.

<sup>b</sup> Comparable data have been used to calculate the debt growth (the application of the new system of reporting would increase the external debt balance as at end-2008 by EUR 366m or to EUR 39.5bn).

Source: CNB.

Table 11 Current and contingent external debt of the public sector and private sector debt

end of period, in million EUR and %

	Stock			Structure			Absolute growth <sup>a</sup>		
	2008	2009	Jun. 2010	2008	2009	Jun. 2010	2008	2009 <sup>b</sup>	Jun. 2010
1 Public sector debt	10,248	12,201	12,439	26.2	28.3	28.5	848	1,775	239
2 Publicly guaranteed private sector debt	80	9	10	0.2	0.0	0.0	-58	-55	1
3 Non-publicly guaranteed private sector debt	28,797	30,885	31,201	73.6	71.7	71.5	5,081	1,884	316
<b>Total (1+2+3)</b>	<b>39,125</b>	<b>43,095</b>	<b>43,650</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>5,871</b>	<b>3,604</b>	<b>555</b>

<sup>a</sup> The increase in debt is calculated in relation to the debt balance reported at the end of the previous year.<sup>b</sup> Comparable data have been used to calculate the debt growth (the application of the new system of reporting would increase the external debt balance as at end-2008 by EUR 366m or to EUR 39.5bn).

Source: CNB.

loans by banks slightly exceeded the repayment of outstanding foreign liabilities. As a result of these net transactions and the effects of exchange rate changes, Croatia's gross external debt stood at EUR 43.7bn at end-June, accounting for 96.2% of GDP for the previous year.

Debt of domestic enterprises (including CBRD) increased by EUR 0.2bn in the first half of 2010. That increase is a consequence of the exchange rate changes, with repayments of due liabilities of domestic enterprises even outstripping their new loan withdrawals (by approximately EUR 0.2bn). Viewing net transactions of individual categories of enterprises, the largest decrease in liabilities was recorded by non-banking financial institutions, especially leasing companies. CBRD, which belongs to this category of institutions, decreased its foreign liabilities by EUR 0.1bn. Public enterprises took out EUR 0.3bn of new loans, which led, along with unfavourable exchange rate effects, to an increase in their gross debt by EUR 0.5bn. Other enterprises, in majority private ownership, withdrew loans in the amount sufficient to repay their due liabilities, but their debt nevertheless increased by EUR 0.2bn, as a result of a change in the euro exchange rate. The corporate liabilities to affiliated enterprises, which also did not record significant transactions or changes, were in line with the growth dynamics of corporate liabilities to foreign banks.

Gross external debt balance of banks, including debt based on hybrid and subordinated instruments, rose by EUR 0.4bn in the first half of 2010 of which as much as two thirds is a result of cross-currency changes. Their debt only changed in the

second quarter when banks borrowed abroad more intensely, but also when the changes in the exchange rate of the euro against other currencies were most pronounced. Accordingly, banks' debt at the end of June, including the debt based on hybrid and subordinated instruments, reached EUR 11.5bn or 26.3% of total external debt.

The external debt of the government sector (including the central government, central government funds and local government) went down by EUR 139m in the first six months of 2010. This decrease would even be higher had there not been the described unfavourable cross-currency changes, which contributed to a rise in gross government debt balance of approximately EUR 0.3bn. The central government recorded a more pronounced debt reduction in the first quarter, when it repaid the eurobonds worth EUR 0.5bn, partly by using the World Bank loan, agreed in the amount of EUR 0.2bn. In the second quarter, there were no significant transactions concerning the central government debt, apart from evident cross-currency changes, so that it ended June at EUR 5m (11.5% of Croatia's total gross external debt). Taking into account the described changes in debt of public enterprises and CBRD, which constitute the public sector together with the central government, the debt of that sector increased by EUR 0.2bn in the first half of the year, but it would have been reduced by approximately the same amount had there not been cross-currency changes. The publicly guaranteed private sector debt fell to only EUR 9.5m by end June 2010.

## 11 Government finance

The economic downturn and the ensuing unfavourable developments in the labour market as well as the growing illiquidity of economic entities led to a continued decline in consolidated general government revenues in the first six months of 2010 despite the concurrent increase in the basic VAT rate and the relatively abundant revenues from the special tax on salaries, pensions and other income. Expenditures decreased slightly in the same period; all main expenditure items recorded a fall, with the exception of expenditures on interest and social benefits, while outlays for the acquisition of non-financial assets were also reduced. Still, it should be noted that operating expenditures and capital investments are expected to increase at the entire 2010 level. As consolidated general government revenues were noticeably lower than expenditures, while the disposal of non-financial assets was several-fold lower than the acquisition, consolidated general government net borrowing (on a cash basis, GFS 2001) amounted to HRK 7.3bn in the period under review. Though the government financed the deficit and refinanced the obligations through the use of funds deposited with the CNB raised by a bond issue in late 2009, the bulk of the funds needed was raised through new borrowings. General government debt reached HRK 122.5bn at the end of June, an increase of HRK 4.8bn from the end of last year.

### 11.1 Consolidated general government revenues and expenditures

According to the preliminary MoF data, consolidated general government revenues were HRK 59.8bn in the first six months of 2010, a decrease of 2.4% from the same period in 2009. The fall was largely due to developments in revenues from profit and income tax, and social contributions.

The negative trends in total revenues were largely offset by revenues from the special tax on salaries, pensions and other income and revenues from the collection of arrears on excise duties on refined petroleum products (including road fees

incorporated in fuel prices). To some extent, this was also due to the rise in VAT revenues, which may be attributed to the increase in the basic VAT rate in August 2009 in view of the negative trends in the nominal retail trade turnover and goods exports.

Profit tax revenues were almost a third lower in the first half of 2010 than in the same period of 2009. This was largely due to much weaker business performance of profit tax payers in 2009 as current profit tax liabilities are paid based on the profit in the previous year. Furthermore, corporate profit continued to decline in the first half of 2010, as shown by FINA data, and thus the revenue downturn was also due to requests of profit tax payers for an additional reduction in their advance tax payments for 2010.

A marked decrease in the gross wage bill, which was due more to the fall in employment than the fall in the average gross wage, had an extremely negative effect on revenues from social contributions and income tax in the period under review. The fall in these revenues was also due to the rise in arrears on taxes and contributions.

Consolidated general government expenditures stood at HRK 65.1bn, down 1.3% from the first six months of 2009. The reduction was largely due to cuts in expenditures for the use of goods and services and employee compensations.

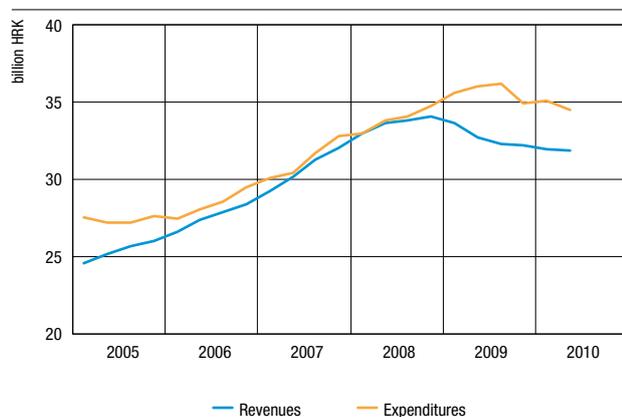
In the first half of 2010, most funds were spent on expenditures for social security benefits (somewhat less than a third of total expenditures). This sub-category of social benefits, which includes the bulk of pensions and health care expenditures, grew noticeably relative to the same period in 2009. As publicly available data are not sufficiently disaggregated, it is difficult to establish the causes of such movements, but they seem to be due partly to changes in methodology and partly to the rise in pension expenditures. Looking at the government budget plan for 2010, one may conclude that the Ministry of Finance no longer records pension supplements within social assistance benefits but within pension security benefits. The rise in pension expenditures in the first six months of 2010 was also caused by the increase in early retirement, which may be connected with the dismissal of surplus workers against the background of the economic downturn, as well as the announcements that early retirement would be further penalised financially.

Employee compensations dropped by 2.00% in the observed period, primarily due to the base period effect, i.e. the decrease in the wage calculation basis for civil servants and government employees in the second quarter of 2009. Looking at the areas of the NCEA that mostly include civil servants and government employees, one may conclude that the cut in these expenditures was also influenced by a decline in the number of the employed in public administration and defence, health care and social services.

Expenditures for the use of goods and services, grants and other current expenditures dropped markedly. Yet the amount planned for the entire 2010 leads to the conclusion that, due probably to the shortfall in revenues, some expenditures have been postponed until the second half of the year. Subsidies were also reduced noticeably in the first six months of 2010, while interest payments grew sharply due to intensive borrowing, with other capital expenditures growing strongly as well.

Figure 48 Consolidated general government revenues and expenditures

moving averages, the last four quarters



Note: Disposals and acquisitions of non-financial assets are included. From 2008 on, CM is excluded from the consolidated general government balance.

Sources: MoF and CNB calculations.

The increase in the latter expenditure category was probably largely driven by transfers to Croatian Motorways (CM) of road fees used to finance road infrastructure construction and maintenance.

### 11.2 Operating balance of the consolidated general government and transactions in non-financial assets and financial assets and liabilities

A HRK 5.3bn negative net operating balance was generated in the first six months of 2010 as operating revenues were much lower than expenditures. Concurrently, expenditures for the acquisition of non-financial assets, which include investments in construction projects, machinery, equipment, land, and the like, were nearly one fourth lower than in the first half of the previous year, while revenues from the disposal of non-financial assets held steady at the previous year's level. As a consequence, consolidated general government net borrowing (cash basis, GFS 2001) stood at HRK 7.3bn in the first half of 2010. Broken down by levels of the consolidated general government, local government units and extrabudgetary funds generated a surplus, while a HRK 7.7bn deficit was generated at the state budget level.

A broader measure of the fiscal balance is the overall balance, which indicates the total amount of funds the government must raise by the disposal of financial and non-financial assets and/or borrowing. The overall fiscal balance is calculated in such a way that expenditures for shares and other securities and outlays for net loans granted are included in total expenditures, while total revenues are reduced by revenues from the disposal of non-financial assets. The overall fiscal balance stood at HRK 7.8bn in the first six months of 2010.

The negative balance of the consolidated general government was in part funded through the reduction of financial assets (HRK 3.1bn), which was almost entirely due to the withdrawals of funds from government deposits with the CNB. In

addition, although outlays for loans granted were substantial, which can largely be attributed to the payment of activated guarantees, the fall in financial assets was partly a result of receipts from the repayment of previously granted loans. As the remaining funds needed to finance the deficit were raised through borrowing, financial liabilities of the general government increased by HRK 4.1bn.

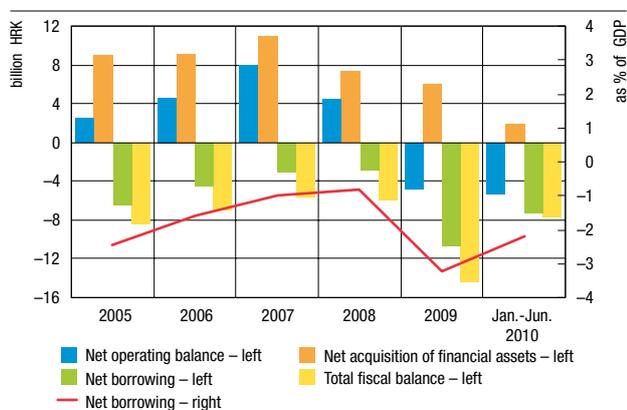
### 11.3 General government debt

General government debt reached HRK 122.5bn at the end of June 2010, an increase of HRK 4.8bn from the end of 2009. The debt increase was due to the rise in liabilities at the level of the Republic of Croatia, while the debt of extrabudgetary users and local government units remained almost unchanged. It should be noted that the depreciation of the kuna against the US dollar statistically increased the public debt in kuna terms. Contingent government debt arising from guarantees issued also rose, by HRK 4.0bn, due in part to the guarantees issued to the CBRD.

Domestic debt of the consolidated general government grew by HRK 6.4bn in the first six months of 2010. This was largely a result of borrowing through the issue of MoF T-bills and bonds. The government issued HRK 3.5bn worth of ten-year bonds and EUR 350m worth of bonds with a currency clause in March 2010. Furthermore, the government raised substantial funds by loans, particularly noteworthy being a loan of EUR 500m granted by a domestic bank syndicate. The government used these funds to finance the deficit and refinance maturing domestic liabilities, which included HRK 3.0bn worth of domestic bonds and a loan of EUR 500m.

In the period under review, external debt was reduced by HRK 1.6bn. The reduction largely reflects the net effect of the repayment of EUR 500m worth of foreign bonds and this year's first instalment payable to the London Club on the one hand, and on the other hand, government borrowing in the form of the EUR 200m World Bank loan.

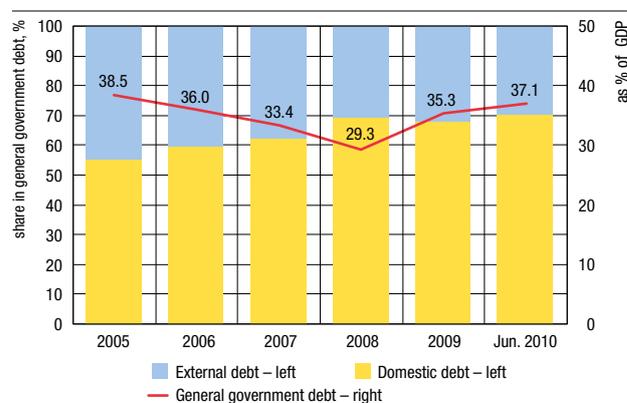
Figure 49 Net borrowing and total fiscal balance of consolidated general government (GFS 2001)



Note: On a cash basis. The GDP realised in the last four quarters has been used to calculate the deficit to GDP ratio in the first half of 2010. From 2008 on, CM is excluded from the consolidated general government balance.

Sources: MoF and CNB calculations.

Figure 50 General government debt end of period



Note: The GDP realised in the last four quarters has been used to calculate the deficit to GDP ratio at the end of June 2010. From 2008 on, CM is excluded from the consolidated general government balance.

Source: CNB.

## 12 Business operations of credit institutions

Unfavourable developments in the economy, which continued into the first half of 2010, had an impact on the activities and financial performance of the banks. Bank assets remained at almost the same level as at the end of 2009, while changes in their structure, coupled with falling interest rates and growing losses in the credit portfolio, resulted in a fall in profitability. While ROAA stood at 1.2%, ROAE stood at 6.9%.

Credit activity, following three years of slowdown triggered by CNB measures and further influenced by the effects of recession, showed indications of slight recovery. This was primarily due to the growth in loans to corporates, most notably kuna and short-term loans. The deterioration in banks' credit portfolios, largely present since the end of 2008, continued into the first half of 2010. A growth in partly recoverable and fully irrecoverable loans was seen in all sectors, particularly in the corporate sector, with these loans rising by a total of 23.7% and reaching the level of 9.5% of total bank loans.

Due to a stagnation in deposits and an unchanged amount of funds derived from majority foreign owners, it was possible to finance credit growth only by reducing almost all more liquid forms of bank assets. Nevertheless, the liquid position of banks remained favourable, as suggested by data on the minimum liquidity coefficient, which show that the banks had sufficient liquidity despite the conditions of the given stress scenario.

At the end of the first half of 2010, the capital adequacy ratio of banks was 19.02%, which is an increase of 2.59 percentage points from the end of the previous year. The main reason for this increase lies in the application of a new methodology (Basel II), or more precisely, in the absence of increased weights for currency-induced credit risk, which led to a considerable reduction in the average credit risk weight. Despite a higher prescribed minimum capital adequacy ratio (12% instead of the previous 10%), capital requirements for credit risk were reduced and accounted for 89.5% of capital requirements. The newly introduced capital requirements for operational risk accounted for 9.1% of capital requirements, while the rest was used for market risk coverage.

### 12.1 Banks

At the end of the first half of 2010, there were 39 credit institutions operating in the Republic of Croatia: 32 banks, two savings banks and five housing savings banks. Compared to end-2009, the number of credit institutions remained unchanged. Bank assets (savings banks assets included) stood at HRK 379.5bn or 98.3% of the total assets of credit institutions and housing savings banks assets stood at HRK 6.4bn and accounted for the remaining 1.7% of the total assets of credit institutions.

The number of 34 banks (savings banks included) operating in the Republic of Croatia in the past five years was generally stable. Three banks were merged with other banks and two savings banks entered the banking system of the Republic of Croatia: one newcomer was a savings and loan cooperative transformed into a savings bank while the other was a newly established institution.

The total number of banks at the end of the first half of

Table 12 Number of credit institutions

end of period

	2008	2009	Jan.-Jun. 2010
<b>Banks</b>			
Number of banks at the beginning of the period	33	33	33
Banks that merged with other banks	–	1	1
Number of banks at the end of the period	33	32	32
<b>Savings banks</b>			
Number of savings banks at the beginning of the period	0	1	2
Authorised savings banks	2	–	–
Number of savings banks at the end of the period	1	2	2
<b>Housing savings banks</b>			
Number of housing savings banks at the beginning of the period	5	5	5
Authorised housing savings banks	–	–	–
Number of housing savings banks at the end of the period	5	5	5

Source: CNB.

2010 included six large, three medium-sized and 25 small banks.<sup>23</sup> The number of large banks and their line-up in terms of the amount of assets and total market share do not show any significant departures in the past five years. At the end of the first half of 2010, the large group of banks again accounted for the biggest market share, or 82.2% of the total assets of all banks. Since the end 2009, when large bank assets accounted for the largest share of the total assets of all banks (82.7%) to date, the share of this bank group has declined by only 0.5 percentage points. This was due to a small decline in the total assets of the large bank group of 0.4% compared to the end of 2009.

Unlike large banks, the share of assets of the group of medium-sized banks in the total assets of all banks remained unchanged and the assets of medium-sized banks rose by 1.1% from end-2009. The small bank group saw the highest growth rate in assets and the concomitant increase in its share in the total assets of all banks. Owing to a growth in the assets of a larger number of small banks at rates considerably higher than the growth rates of all banks' assets, the total assets of small banks rose by 5.8% and their share in the total assets of all banks rose from 8.2% to 8.7%.

The ownership structure of banks at the end of the first half of 2010 was unchanged and, as at the end of 2009, 19 banks

<sup>23</sup> The banks (savings banks included) have been divided into three peer groups, depending on the size of the relative share of a bank's assets in the total assets of all banks at the end of the reporting period: large, medium-sized and small banks. Large banks are banks whose assets exceed 5% of the total assets of all banks, medium-sized banks are banks whose assets are greater than 1% and less than 5% of the total assets of all banks, and small banks are banks whose assets are less than 1% of the total assets of all banks. Housing savings banks, due to their specific nature, constitute a separate group.

**Table 13 Bank peer groups and their share in total bank assets**  
end of period

	Number of banks			Share		
	2008	2009	Jun. 2010	2008	2009	Jun. 2010
Large banks	6	6	6	79.4	82.7	82.2
Medium-sized banks	4	3	3	12.5	9.1	9.1
Small banks	24	25	25	8.1	8.2	8.7
<b>Total</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: CNB.

**Table 14 Bank assets by ownership residence and form of ownership**  
in %

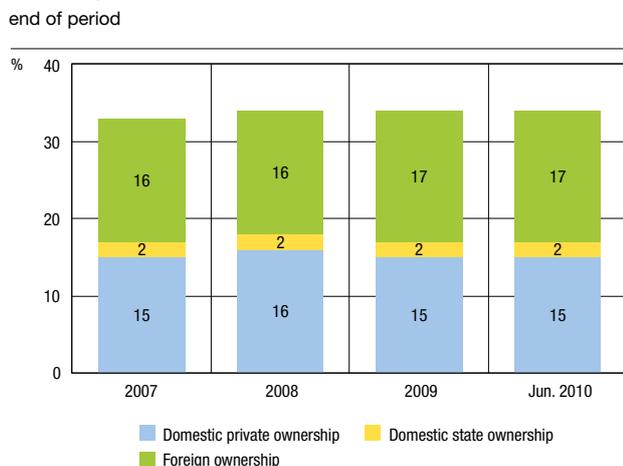
Banks by ownership residence and form of ownership	Share of bank peer group assets in total bank assets		
	2008	2009	Jun. 2010
Banks in majority ownership of domestic shareholders	4.9	4.9	5.2
Banks in majority state ownership	4.5	4.2	4.2
Banks in majority ownership of foreign shareholders	90.6	90.9	90.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: CNB.

were in the majority ownership of domestic shareholders and 15 banks in the majority ownership of foreign shareholders.

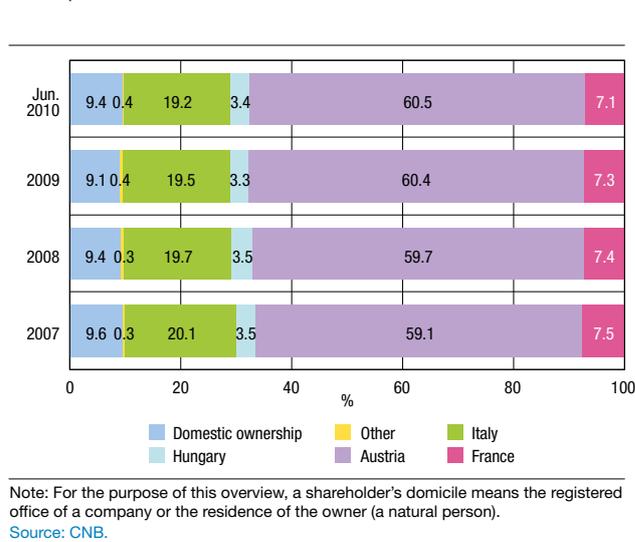
The assets of banks in the majority ownership of foreign shareholders accounted for 90.6% of the total assets of all banks, which is a slightly smaller share than that at the end of 2009. This is the result of an unchanged level in the total assets of banks in foreign ownership and a simultaneous increase in the assets of banks in domestic private ownership of 5.1% and the assets of state-owned banks of 1.4%. Small banks, which are more domestically than foreign owned, had the largest impact on the increase in the share of assets of banks in the ownership of domestic shareholders.

**Figure 51 Number of banks by ownership residence and form of ownership**  
end of period



Source: CNB.

**Figure 52 Bank assets by shareholder domicile**  
end of period



Assets of six banks in the majority ownership of Austrian shareholders accounted for the largest share of the total assets of all banks at the end of the first half of 2010 (60.5%). Their total assets rose by only 0.5% from the end of 2009. Five banks in the ownership of Italian shareholders came next in terms of their share in the total assets of all banks. Their total assets declined by 1.0% during the same period. Shareholders from France, Hungary, San Marino and Luxembourg were majority owners of one bank each at the end of the first half of 2010.

### 12.1.1 Balance sheet and off-balance sheet items

#### Assets

At the end of the first half of 2010, total bank assets amounted to HRK 379.5bn, an increase of HRK 1.1bn or 0.3% relative to the end of 2009. The slow growth in assets can largely be attributed to the growth in the assets of small banks, which rose by HRK 1.8bn or 5.8% from the end of 2009. The contribution of medium-sized banks to the increase in bank assets was smaller. Their assets rose by HRK 0.4bn or 1.1%. In contrast with the assets of small and medium-sized banks, the total assets of large banks declined by HRK 1.1bn or 0.4%.

Such a small increase in bank assets is in line with the trend of a slowdown in the growth of bank assets that started in 2007 and with the still present unfavourable macroeconomic conditions. However, there was no real increase in assets compared to the end of 2009, owing to a significant change in the exchange rate of the kuna during the observed period against the three currencies (euro, Swiss franc and American dollar) accounting for almost the entire assets in foreign currencies and assets in kuna indexed to a foreign currency. Exchange rate effects excluded, it can be concluded that since the end of 2009 assets fell in real terms by a slight 0.2%, as a result of the real fall in assets in Swiss francs (including kuna assets indexed to Swiss francs).

Banks' reluctance to increase credit risk exposure resulted in a low level of credit activities in 2009. Nevertheless, the growth in the amount of loans granted accelerated somewhat in the first half of 2010. In the light of a decline in the sources of bank financing and the stagnation in received deposits, the banks reduced almost all other forms of investment.

Table 15 Structure of bank assets

end of period, in million HRK and %

	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	42,671.2	11.5	47,673.1	12.6	11.7	46,506.6	12.3	-2.4
Money assets	5,394.3	1.5	5,430.9	1.4	0.7	6,618.8	1.7	21.9
Deposits with the CNB	37,276.9	10.1	42,242.2	11.2	13.3	39,887.8	10.5	-5.6
Deposits with banking institutions	35,592.9	9.6	32,741.9	8.7	-8.0	29,330.3	7.7	-10.4
MoF treasury bills and CNB bills	10,062.5	2.7	9,366.8	2.5	-6.9	9,687.4	2.6	3.4
Securities and other financial instruments held for trading	6,840.0	1.8	5,522.4	1.5	-19.3	4,842.9	1.3	-12.3
Securities and other financial instruments available for sale	12,480.3	3.4	14,000.5	3.7	12.2	14,001.5	3.7	0.0
Securities and other financial instruments held to maturity	4,798.8	1.3	4,012.2	1.1	-16.4	3,585.9	0.9	-10.6
Securities and other financial instruments not traded in active markets but carried at fair value	669.0	0.2	1,644.9	0.4	145.9	982.9	0.3	-40.2
Derivative financial assets	121.9	0.0	212.4	0.1	74.2	262.9	0.1	23.7
Loans to financial institutions	5,796.7	1.6	6,065.1	1.6	4.6	5,096.1	1.3	-16.0
Loans to other clients	240,808.0	65.1	246,363.2	65.1	2.3	253,921.1	66.9	3.1
Investments in subsidiaries, associates and joint ventures	1,774.1	0.5	1,980.9	0.5	11.7	2,009.1	0.5	1.4
Foreclosed and repossessed assets	391.7	0.1	604.9	0.2	54.5	643.4	0.2	6.4
Tangible assets (net of depreciation)	4,503.8	1.2	4,372.3	1.2	-2.9	4,266.7	1.1	-2.4
Interest, fees and other assets	6,624.6	1.8	6,889.5	1.8	4.0	7,297.8	1.9	5.9
Net of: Collectively assessed impairment provisions	3,042.4	0.8	3,079.5	0.8	1.2	2,976.6	0.8	-3.3
<b>Total assets</b>	<b>370,093.0</b>	<b>100.0</b>	<b>378,370.6</b>	<b>100.0</b>	<b>2.2</b>	<b>379,458.0</b>	<b>100.0</b>	<b>0.3</b>

Source: CNB.

Assets were smaller in nine banks, i.e. three large and six small banks than in 2009. The remaining 19 small banks increased their assets at rates higher than the average growth rate of the total assets of all banks, and owing to a substantial growth in the assets of some small banks, this group of banks

saw the fastest semi-annual growth in assets.

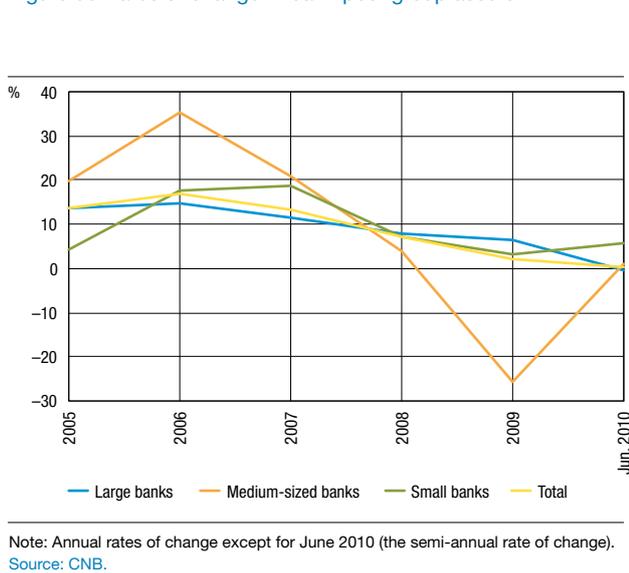
The growth in (net) bank loans to the non-financial sector at the rate of 3.1%, with loans to corporates accounting for the largest share, resulted in a considerable increase in the share of loans in total bank assets. The largest contribution to the growth in loans to corporates came from an increase in kuna loans, but in terms of total loans, kuna loans indexed to a foreign currency rose the most as a result of growth in the household sector, most notably home loans. The share of loans to corporates with a remaining maturity below one year rose from 56.7% at the end of 2009 to 57.5%.

An increase in net loans was seen in all bank groups. Small banks witnessed the largest growth rate (4.0%) since end-2009. In large banks and medium-sized banks this growth rate was 2.6% and 1.2%, respectively.

The amount of vault cash of banks rose by a large HRK 1.2bn or 21.9% from the end of 2009. This increase mainly involved kuna cash, which can be associated with the adjustment of banks to changes in the supply of cash.<sup>24</sup>

Almost all other forms of bank assets declined since the end of 2009. The largest decline in bank investment was seen in placements to the financial sector with the banks reducing their

Figure 53 Rates of change in bank peer group assets



<sup>24</sup> Decision on amendments to the Decision on supplying banks with cash (OG 36/2010).

deposits and loans to that sector by HRK 4.4bn or 11.3% since the end of 2009. The major share of this amount (HRK 2.8bn) can be attributed to a decline in deposits with foreign banks and the remaining share to an almost equal decline in deposits and loans to domestic banks. Of the total amount of deposits placed, 20.3% were placed to foreign banks as majority owners of domestic banks and the amount of these deposits did not change significantly from the end of 2009.

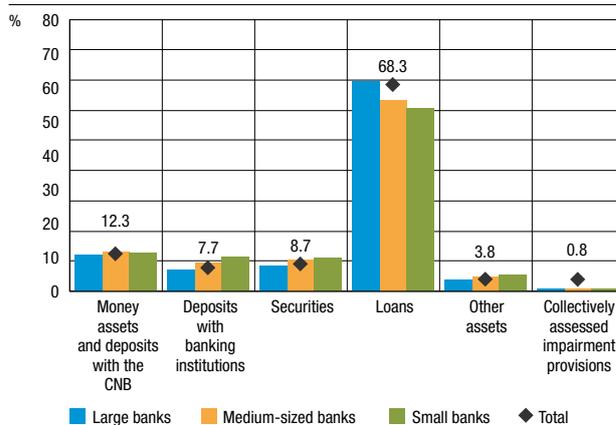
In addition to the mentioned decline in deposits and loans to financial institutions, the banks also reduced the amount of deposits with the CNB by a total of HRK 2.4bn or 5.6%. A decline in deposits associated with reserve requirements stood at HRK 1.9bn or 6.7%,<sup>25</sup> while the settlement accounts of banks declined by HRK 2.1bn or 17.8%. In contrast with these declines, overnight deposits with the CNB had risen by HRK 1.7bn or 107.6% at the end of June since the end of 2009 and stood at HRK 3.3bn.

Bank investments in securities declined by HRK 1.4bn or 4.2% over the calendar year. The largest decline in nominal terms was seen in investments in debt securities of foreign countries (HRK 1.6bn or 12.1%) followed by investments in short-term money market instruments (12.4% or HRK 0.9bn). Some of this decline was offset by increased bank investments in domestic securities, most notably domestic government bonds, which rose by 8.0%, and T-bills of the Ministry of Finance which rose by 3.4%. The banks again distributed the bulk of securities in the available-for-sale portfolio, adjusting their value to market prices. As a result, at the end of the first half of 2010, the banks reported HRK 63.0m in unrealised profit. Bonds, most notably foreign government bonds, again accounted for almost one half of these securities (49.0%). T-bills of the Ministry of Finance followed, accounting for 29.7% of total debt securities. After falling by 3.9% at the end of the first half of 2010, equity securities accounted for only 1.6% of the total securities at the end of the first half of 2010.

Small banks' investments in securities rose a little more (23.8%) compared to the end of 2009, mainly owing to the more substantial investments in domestic and foreign government bonds and investment funds and partly owing to more substantial investments in equity securities of one bank in the group. Medium-sized banks tended to invest more in T-bills of the Ministry of Finance, owing to which this group's total investments in securities rose by 2.2%. Investments of large banks in securities fell by 7.9%, mainly as a result of a 10.9% decline in investments in foreign government bonds and a 12.9% decline in investment in short-term money market instruments.

The developments and changes in individual types of bank assets in the first half of 2010 had a small impact on the structure of assets, resulting mainly in an increase in the share of net loans. A high growth rate of net loans compared to the growth rate of total assets and a decline in other forms of investment led to an increase in the share of loans in bank assets from 66.7% at the end of 2009 to 68.3% at the end of the first half of 2010. Nevertheless, this share was still below the 68.8% recorded in the first half of 2009. The share of cash also increased slightly, accounting for 1.7% of bank assets, while the share of other forms of assets shrank compared to the end

Figure 54 Structure of bank peer group assets as at 30 June 2010



Source: CNB.

of 2009. Deposits with other banks accounted for 7.7% of total bank assets, a decline of almost one percentage point from the end of 2009. The share of securities, which accounted for 8.7% of bank assets, also fell by a slight 0.4 percentage points and so did deposits with the CNB, which after falling by 0.7 percentage points, accounted for 10.5% of bank assets.

Compared to the end of 2009, the currency structure of bank assets also changed little. A significant decline in placements to the financial sector and investments in foreign securities in the first half of 2010 led to a decline in bank assets in foreign currencies. Owing to a growth in net loans and securities, kuna assets, after declining steadily for almost two years, increased in the second quarter of 2010. Kuna assets indexed to a foreign currency also increased during this period. However, there were no significant changes in the structure of total assets, with foreign assets, including kuna assets indexed to a foreign currency, accounting for 65.2% of total assets at the end of the first half of 2010.

#### Liabilities and capital

Despite significant changes in individual bank liabilities, the liabilities of banks held steady at their end-2009 level while the sources of financing (deposits, loans, debt securities and subordinated and hybrid instruments) fell by a slight 0.6%. In the conditions of stagnation in deposits and a relatively small influence of the increase in issued securities and subordinated and hybrid instruments, the fall in the total sources of financing led to a fall of HRK 2.2bn or 4.1% in liabilities based on received loans. A fall in the sources of financing is due to changes in the group of large banks, which saw a decline in received loans of HRK 2.2bn (4.7%) and a decline in deposits of HRK 1.7bn (0.8%).

A noticeable slowdown in deposit growth in 2009, as compared to the previous years, was replaced by stagnation in the first half of 2010. Total deposits grew by a mere HRK 40.2m, mainly as a result of an increase in household deposits of HRK 3.3bn (2.4%) and, to a lesser extent, deposits of government units (6.1%). At the same time, deposits of corporates declined considerably (HRK 2.9bn or 6.5%) and so did deposits of financial institutions (1.6%) and non-residents (0.8%).

Almost equal to the decline in deposits with large banks

<sup>25</sup> On 10 February 2010, the Decision on amendments to the Decision on reserve requirements entered into force, cutting the reserve requirement rate from 14% to 13% (OG 18/2010).

**Table 16 Structure of bank liabilities and capital**  
end of period, in million HRK and %

	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	19,270.0	5.2	21,180.5	5.6	9.9	16,673.4	4.4	-21.3
Short-term loans	8,314.0	2.2	10,167.9	2.7	22.3	5,902.2	1.6	-42.0
Long-term loans	10,956.1	3.0	11,012.6	2.9	0.5	10,771.2	2.8	-2.2
Deposits	247,813.9	67.0	256,810.0	67.9	3.6	256,850.2	67.7	0.0
Giro account and current account deposits	41,313.1	11.2	34,526.9	9.1	-16.4	36,658.7	9.7	6.2
Savings deposits	25,640.1	6.9	24,531.3	6.5	-4.3	25,288.3	6.7	3.1
Time deposits	180,860.7	48.9	197,751.7	52.3	9.3	194,903.2	51.4	-1.4
Other loans	32,862.6	8.9	31,787.5	8.4	-3.3	34,115.1	9.0	7.3
Short-term loans	7,955.1	2.1	6,133.5	1.6	-22.9	7,793.3	2.1	27.1
Long-term loans	24,907.5	6.7	25,654.0	6.8	3.0	26,321.8	6.9	2.6
Derivative financial liabilities and other financial liabilities held for trading	1,578.3	0.4	418.9	0.1	-73.5	1,376.0	0.4	228.4
Debt securities issued	3,392.3	0.9	119.3	0.0	-96.5	129.3	0.0	8.4
Short-term debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term debt securities issued	3,392.3	0.9	119.3	0.0	-96.5	129.3	0.0	8.4
Subordinated instruments issued	53.3	0.0	396.6	0.1	643.6	431.9	0.1	8.9
Hybrid instruments issued	2,055.7	0.6	3,016.4	0.8	46.7	3,312.9	0.9	9.8
Interest, fees and other liabilities	13,139.7	3.6	12,067.3	3.2	-8.2	12,964.1	3.4	7.4
<b>Total liabilities</b>	<b>320,165.9</b>	<b>86.5</b>	<b>325,796.6</b>	<b>86.1</b>	<b>1.8</b>	<b>325,853.0</b>	<b>85.9</b>	<b>0.0</b>
Share capital	28,287.6	56.7	28,781.8	54.7	1.7	28,846.0	53.8	0.2
Current year profit/loss	4,612.5	9.2	3,277.7	6.2	-28.9	1,829.1	3.4	-44.2
Retained earnings/loss	5,694.1	11.4	7,764.9	14.8	36.4	9,018.4	16.8	16.1
Legal reserves	969.4	1.9	1,084.1	2.1	11.8	1,084.3	2.0	0.0
Reserves provided for by the articles of association and other capital reserves	10,511.3	21.1	11,789.2	22.4	12.2	12,712.6	23.7	7.8
Unrealised gains/losses on value adjustments of financial assets available for sale	-112.5	-0.2	-27.7	-0.1	-75.4	63.0	0.1	-
Reserves arising from hedging transactions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Previous year profit/loss	-35.3	-0.1	-96.0	-0.2	171.8	51.6	0.1	-
<b>Total capital</b>	<b>49,927.1</b>	<b>13.5</b>	<b>52,574.0</b>	<b>13.9</b>	<b>5.3</b>	<b>53,605.0</b>	<b>14.1</b>	<b>2.0</b>
<b>Total liabilities and capital</b>	<b>370,093.0</b>	<b>100.0</b>	<b>378,370.6</b>	<b>100.0</b>	<b>2.2</b>	<b>379,458.0</b>	<b>100.0</b>	<b>0.3</b>

Source: CNB.

(HRK 1.7bn or 0.8%) was the increase in deposits with small banks (HRK 1.6bn or 6.9%). Looking at changes by institutional sectors, it is evident that the total decline in deposits with large banks is due to a fall in corporate deposits, majority foreign owners and financial institutions. Small banks saw an increase in deposits of all sectors, mostly household deposits, deposits of majority foreign owners and corporates. Medium-sized banks saw an increase in deposits of financial institutions and deposits of all sectors, so the total deposits growth in this bank group amounted to HRK 212.9m or 0.9%.

Received loans fell the most in the group of large banks (HRK 2.2bn or 4.7%), then in the group of medium-sized banks (HRK 112.2m or 3.1%) while small banks increased their liabilities based on received loans by HRK 88.4m or 2.9%. Small banks increased even more the amount of received loans from majority foreign owners and they also increased the amount of deposits, with the result that the sources of majority foreign owners rose from 1.8% at the end of 2009 to 3.3% at the end of the first half of 2010. The share of foreign owners in the total sources of financing in large banks was 22.4%, in medium-sized banks it was 8.7% while their average share in

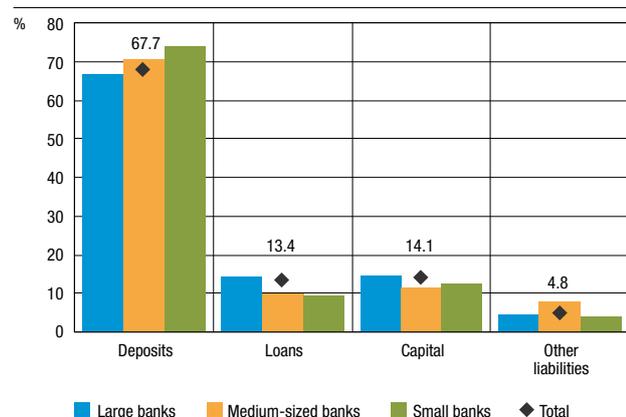
all banks stood at 19.5%.

Other sources of financing grew at equal rates compared to the end of 2009. Issued hybrid instruments rose by 9.8%, subordinated instruments by 8.9% and long-term securities by 8.4%. Despite the increase, the shares of all the three mentioned forms of financing continued to be relatively low and together accounted for only a little over 1.0% of the total sources. As regards other liabilities, derivative financial liabilities rose considerably (228.4%) compared to the end of 2009, exceeding the amount of derivative financial assets.

No significant changes were observed in the structure of bank liabilities. The largest change in the shares involved a decline in the share of received loans in total liabilities and capital of 0.6 percentage points. The share of received loans fell from 14.0% at the end of 2009 to 13.4% at the end of the first half of 2010. The share of deposits declined only slightly and stood at 67.7% of total liabilities and capital of banks.

The currency structure of total liabilities and capital of banks also remained unchanged so that foreign currency and kuna items indexed to a foreign currency accounted for 58.6% of liabilities and capital, as at the end of 2009.

Figure 55 Structure of bank peer group liabilities and capital as at 30 June 2010



Source: CNB.

The growth in total capital slowed down considerably throughout 2009 and continued to slow down steadily in the first half of 2010, reaching only 2.0%. Capital increase was mostly due to current year profit while the effect of unrealised profit on value adjustment of financial assets available for sale and the increase in the share capital of two small banks during the observed period was very small. The banks retained a larger share of the HRK 3.3bn in profit generated in 2009, increasing retained earnings by HRK 1.3bn (13.9%) and reserves stipulated by the articles of association and other capital reserves by a little less than HRK 1.0bn (7.3%). Owing to current year profit, the capital of large banks rose by 2.3% compared to end-2009. The increase in the capital of small banks of 0.6% was mainly the result of recapitalisation while medium-sized banks saw no changes in the amount of capital.

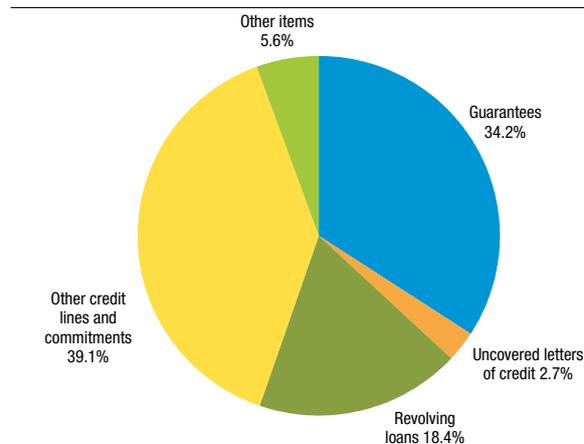
Big capital investments and the tendency of banks to retain a major share of the earnings generated since 2006 still have a positive effect on the share of capital in the liabilities of banks, which rose additionally to 14.1% in the first half of 2010. Owing to the retained major share of earnings generated in the previous year and current year profit, large banks had a larger than average share of capital in their liabilities (14.6%). Small banks also had a relatively large share of capital in their liabilities (12.6%), despite previous years' losses and unrealised loss on value adjustment of assets available for sale. Medium-sized banks had the lowest share of capital in their liabilities (11.5%), mainly as a result of a significant effect of the low level of capital of one medium-sized bank.

### Standard off-balance sheet items

After banks had for many years increased the total amount of standard off-balance sheet items, in 2009 they reduced almost all types of these items, continuing this trend in the first half of 2010, though at a slower rate. At the end of June 2010, the banks reported HRK 59.2bn in off-balance sheet items, which is a decline of HRK 1.6bn or 2.6% compared to the end of 2009. The standard off-balance sheet items to assets of banks ratio also decreased, falling from 16.1% at the end of 2009 to 15.6% at the end of the first half of 2010.

The main generators of change, i.e. of the increase and decrease in the total amount of standard off-balance sheet

Figure 56 Structure of bank standard off-balance sheet items as at 30 June 2010



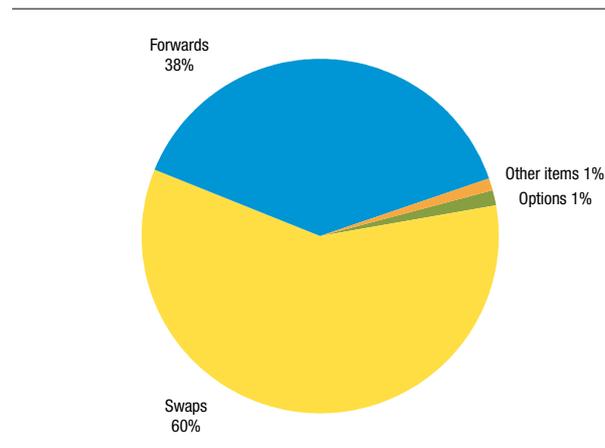
Source: CNB.

items in the previous years were credit lines and other financing commitments (including revolving loans). The amount of these commitments has been declining for the third consecutive year (3.6% in 2008, 16.9% in 2009 and 2.5% in the first half of 2010); nevertheless, these instruments still accounted for the largest share of total standard off-balance sheet items (57.5%). Issued guarantees accounted for the next largest share (34.2%). Since the end of 2009 these instruments had fallen by 5.5%.

### Derivative financial instruments

The contracted value of derivative financial instruments has also been falling, and was, like standard off-balance sheet items, similar to that in early 2007. At the end of 2009 derivative financial instruments had fallen by 6.9%; the first half of 2010 saw further acceleration in this fall to 9.6%, so that the total contracted value of derivative financial instruments stood at HRK 99.1bn. The ratio of the contracted value of derivative financial instruments and bank assets stood at 26.1%, almost three percentage points less than at the end of 2009.

Figure 57 Structure of bank derivative financial instruments (notional amount) as at 30 June 2010



Source: CNB.

Derivative financial instruments are mainly used by banks as a hedge for risk-exposed positions, most notably positions exposed to currency and interest rate risk. Therefore, in terms of the underlying variable, the largest share of the contracted value of derivative financial instruments at the end of the first half of 2010 related to the exchange rate (65.9%), interest rate (33.6%) and only 0.5% of the total contracted value related to all other underlying variables. The bulk of derivative contracts involved swaps (58.9%) and forwards (38.4%).

## 12.1.2 Earnings

### Income statement

Pre-tax profits of banks fell by HRK 559.2m (20.1%) from the same time in the previous year and at the end of the first half of 2010 amounted to HRK 2.2bn. Profits fell as a result of a decline in most categories of bank income, particularly a decline in interest income, despite further cost reductions. A considerable fall was seen in interest expenses, the high level of which at the end of the first half of last year was due to ZIBOR developments, while firm control of other expenses, including employee expenses, led to a fall in general administrative expenses and depreciation. Not only was there a fall in interest income in all sectors, but other non-interest income also fell considerably. This was due to losses generated by derivatives trading, though note should be taken of the fact that these instruments are mainly used by banks as a hedge against currency risk and that banks have at the same time made significant gains on exchange rate differentials. A substantial increase in expenses on loss provisions additionally worsened bank performance.

Net operating income before loss provisions declined by 6.3%, or HRK 249.0m from the same period 2009. The fall in income of almost HRK 2.1bn exceeded the fall in operating costs (excluding loss provision expenses) of over HRK 1.8bn. The decline in income was equally the result of a fall in interest income (9.4%) and other non-interest income, which fell by 58.1%. A small increase in income was seen only in the category of income from fees and commissions, which rose by 2.4%. On the expenses side, interest expenses fell the most (HRK 1.7bn) while other non-interest expenses and expenses on fees

and commissions fell by a slight HRK 104.1m. As a result, net income of banks fell by 3.7%. Total expenses on loss provisions rose by 26.9% and stood at HRK 1.5bn, an increase of HRK 310.2m from the end of the same period previous year.

Pre-tax profits of large banks fell by 22.1% (a decline was observed in five large banks) and those of small banks by a high 72.2%. Nine small banks, including two savings banks, reported total operating losses of HRK 91.3m. A very large increase in medium-sized bank profits (468.8%) was the result of changes in one of the banks in this group, which reported losses at the end of the first half of last year but operated with a profit in the same period of this year. Only three banks reported increased profits (two small banks and one large bank), and two banks that operated with a loss at the end of the first half of last year reported profit at the end of the observed period.

Despite a drop in the interest income of banks of HRK 1.1bn or 9.4% down on the first half of 2009, the reduction in banks' interest expenses by a significant HRK 1.7bn or 24.8%, led to an increase in net interest income of 13.4%. Interest income of banks from all types of placements declined compared to the same period of the previous year, with interest income from deposits declining the most (50.8%). Interest income from debt securities and loans fell by 21.7% and 6.0%, respectively. The decline in interest income from loans was influenced by a fall in income from all sectors, except loans to non-profit institutions. Thus interest income from loans to financial institutions and foreign persons fell by 72.0% and 25.3%, respectively, interest income from loans to government units and corporates fell by 13.5% and 7.1%, respectively, while interest income from household loans fell the least (0.9%). A sharp fall in interest expenses by almost one quarter was due to smaller expenses associated with financing sources, i.e. to a fall in received deposits (19.5%), received loans (52.1%) and securities (33.7%).

The banks increased income from fees and commissions for various banking services by 2.4%, while at the same time managing to reduce expenses on fees and commissions by 6.5%. As a result, compared to the same quarter previous year, the banks managed to increase net income from fees and commissions by 6.2%.

Other non-interest income fell by over one half (HRK 1.1bn or 58.1%). This was mostly due to losses from derivatives trading of HRK 1.7bn, compared to high profits from this activity reported by banks in the previous year (HRK 1.4bn). Given the banks' wide use of derivative financial instruments as a hedge against currency risk, the mentioned loss from derivatives trading should be viewed in relation to profits from exchange rate differentials, which stood at HRK 1.6bn at the end of the quarter. Given the reduction in other non-interest expenses of 22.9%, net other non-interest income fell by 64.5% or HRK 1.0bn.

In the same way as in 2009, the banks were careful in managing their operating costs, including, among other costs, employee expenses and expenses of operating units. General administrative expenses and depreciation fell slightly (0.9%), owing to a fall in large and medium-sized banks. In small banks, these expenses rose.

Total expenses on loss provisions rose by over one quarter, with the increase being attributable only to provisions for identified losses which rose by 29.2% with income from repealed collectively assessed impairment provisions rising. Total expenses on loss provisions of large banks rose slightly faster

Figure 58 Bank income before taxes

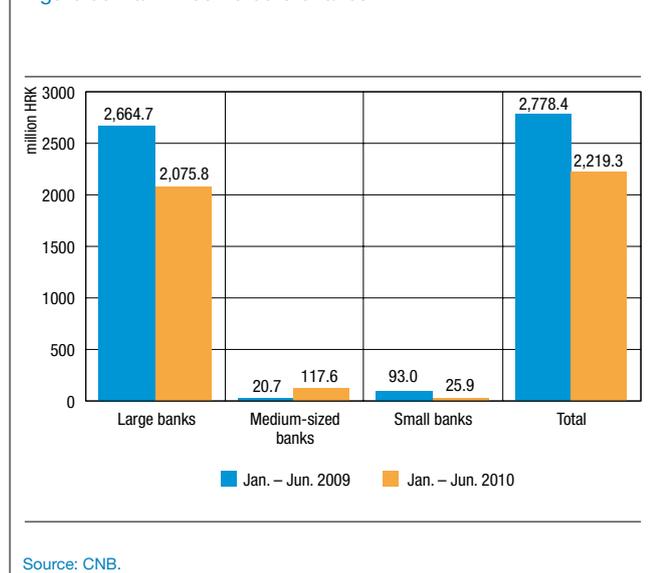


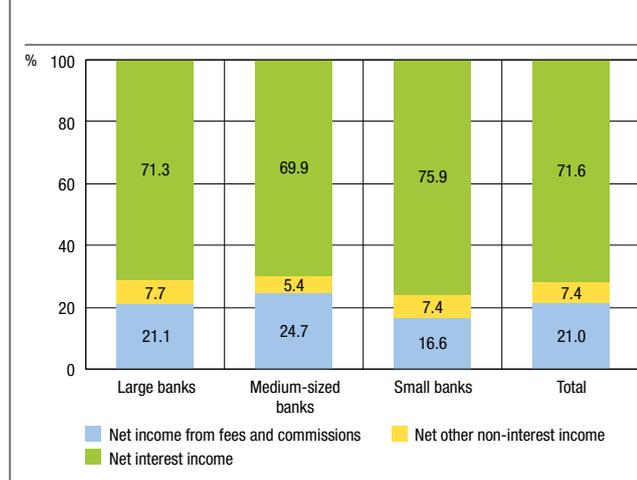
Table 17 Bank income statement

end of period, in million HRK and %

	Large banks		Medium-sized banks		Small banks		Total	
	Jan.-Jun. 2009	Jan.-Jun. 2010	Jan.-Jun. 2009	Jan.-Jun. 2010	Jan.-Jun. 2009	Jan.-Jun. 2010	Jan.-Jun. 2009	Jan.-Jun. 2010
Total interest income	3,715.9	4,334.0	461.0	473.4	494.0	487.4	4,670.9	5,294.8
Total interest expenses	9,420.4	8,431.0	1,104.5	984.6	1,032.5	1,055.8	11,557.3	10,471.4
Net interest income	5,704.4	4,097.1	643.5	511.2	538.4	568.3	6,886.4	5,176.6
Total income from fees and commissions	1,213.6	1,280.9	144.5	167.3	106.6	106.9	1,464.7	1,555.1
Total expenses on fees and commissions	1,552.2	1,606.6	375.5	379.4	155.7	147.5	2,083.4	2,133.4
Net income from fees and commissions	338.6	325.7	231.0	212.1	49.1	40.6	618.6	578.4
Other non-interest income	1,501.8	465.3	-12.8	36.8	58.3	47.8	1,547.3	549.9
Other non-interest expenses	1,661.9	615.9	66.5	70.7	97.4	78.1	1,825.9	764.6
Net other non-interest income	160.2	150.6	79.3	33.9	39.1	30.2	278.6	214.7
Net non-interest income	2,715.4	1,746.2	131.7	204.1	164.9	154.7	3,012.0	2,105.0
General administrative expenses and depreciation	2,799.6	2,769.2	429.7	413.5	519.9	532.4	3,749.2	3,715.1
Net operating income before loss provisions	3,631.8	3,311.0	162.9	263.9	139.1	109.8	3,933.8	3,684.8
Expenses on value adjustments and provisions for identified losses	967.0	1,235.2	142.3	146.3	46.0	83.9	1,155.3	1,465.5
Expenses on collectively assessed impairment provisions	1,016.6	1,315.8	150.2	167.6	48.3	86.1	1,215.1	1,569.5
Total expenses on loss provisions	-49.6	-80.6	-8.0	-21.2	-2.3	-2.2	-59.8	-104.0
Income/loss before taxes	2,664.7	2,075.8	20.7	117.6	93.0	25.9	2,778.4	2,219.3
Income tax	447.3	359.4	25.8	8.2	33.6	22.6	506.7	390.2
<b>Current year profit/loss</b>	<b>2,217.4</b>	<b>1,716.4</b>	<b>-5.1</b>	<b>109.4</b>	<b>59.4</b>	<b>3.3</b>	<b>2,271.7</b>	<b>1,829.1</b>
Memo items:								
Gains (losses) from trading activities	1,826.8	-1,086.7	95.2	-118.7	76.8	59.2	1,998.7	-1,146.1
Gains (losses) from securities trading	-47.1	84.6	2.1	5.1	0.5	-0.4	-44.5	89.3
Gains (losses) from foreign currency trading	458.0	409.7	76.5	34.2	75.5	59.0	610.1	502.9
Gains (losses) from domestic currency trading	1.0	1.1	0.0	0.0	-0.1	-0.2	0.9	1.0
Gains (losses) from derivatives trading	1,415.0	-1,582.1	16.5	-158.0	0.8	0.8	1,432.2	-1,739.3
Gains (losses) from exchange rate differentials	-620.8	1,429.6	-48.8	166.1	-15.0	-7.1	-684.6	1,588.6
Number of banks operating with losses	0	0	1	0	7	9	8	9

Source: CNB.

Figure 59 Structure of bank net income as at 30 June 2010



Source: CNB.

than total expenses of all the banks combined (27.7%) while those of medium-sized banks rose by a small 2.9% in contrast with the group of small banks, in which this category of expenses rose the most (82.3%).

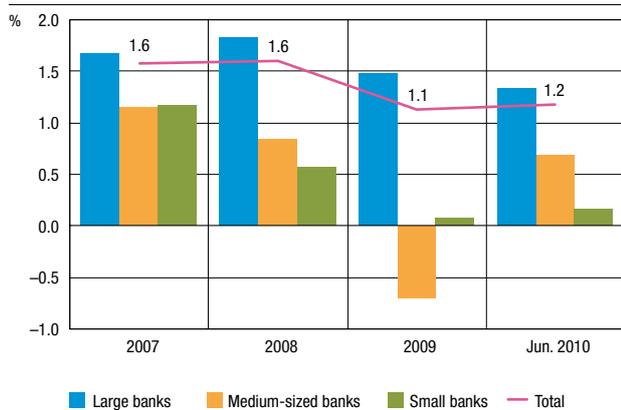
#### Indicators of returns

A decline in profits in the first half of 2010 led to a further fall in the profitability of banks, with the indicators of return on average assets (ROAA) and return on average equity (ROAE) falling to levels below those at the end of the same period previous year.

ROAA was down from 1.5% at the end of the first half of 2009 to 1.2% at the end of the first half of 2010. Both large and small banks reported a fall in this indicator of approximately a half percentage point, while medium-sized banks reported an increase of some 0.6 percentage points, attributable to profits being realised by a bank that had operated with a loss in the previous year. Small banks again reported the lowest value of this indicator (0.2%). They were followed by medium-sized and large banks whose ROAA stood at 0.7% and 1.3%,

**Figure 60 Bank return on average assets (ROAA)**

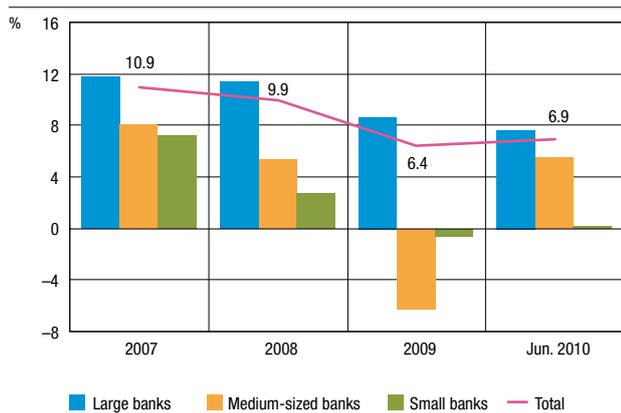
end of period



Source: CNB.

**Figure 61 Bank return on average equity (ROAE)**

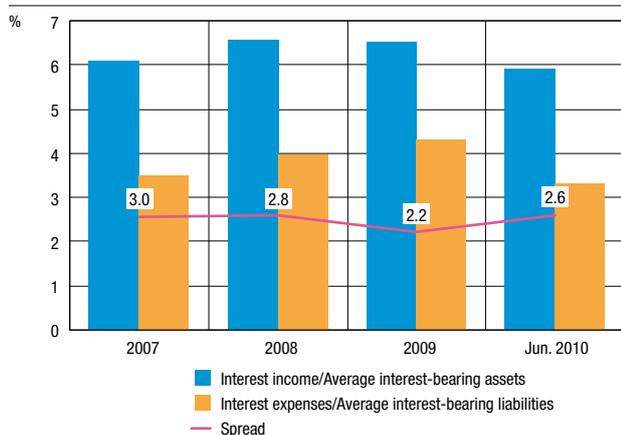
end of period



Source: CNB.

**Figure 62 Income from interest-bearing assets and expenses on interest-bearing liabilities**

end of period



Source: CNB.

respectively.

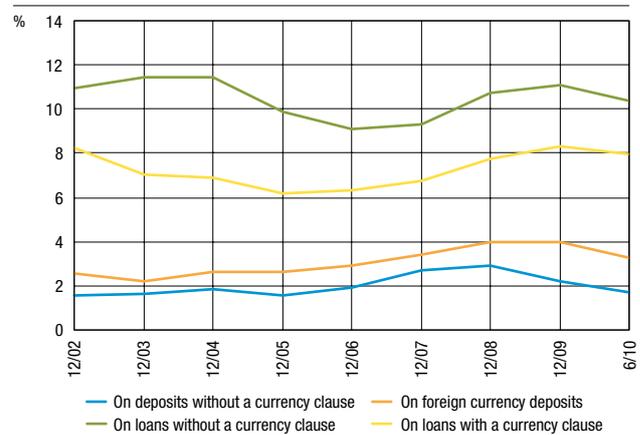
Developments in the ROAE indicator were similar. ROAE fell from 8.9% at the end of the first half of 2009 to 6.9% at the end of the first half of 2010. ROAE in large banks was 7.6%, and in medium-sized and small banks it was 5.5% and 0.2%, respectively. The return on average equity also increased in medium-sized banks (for the same reason as ROAA) and decreased in the other two bank groups.

The structure of net income at the end of the first half of 2010 changed considerably from the same period previous year, being more comparable to the structure of net income at the end of June 2008. That is, the share of net other non-interest income in total net income declined by 12.7 percentage points, affecting to a smaller extent the share of net income from fees and commissions which rose by 2.0 percentage points and even more the share of net interest income, the basic and most stable source of bank income, which rose by 10.8 percentage points. As a result, at the end of the first half of this year, interest income again accounted for over two thirds of net income of banks (71.6%) as in the same period 2008 when it accounted for 67.2% of the total net income. Net non-interest income dropped to below one tenth (7.4%) of the total net income of banks, in contrast with its balance at the end of the first half of last year, when it accounted for 20.1% of total net income.

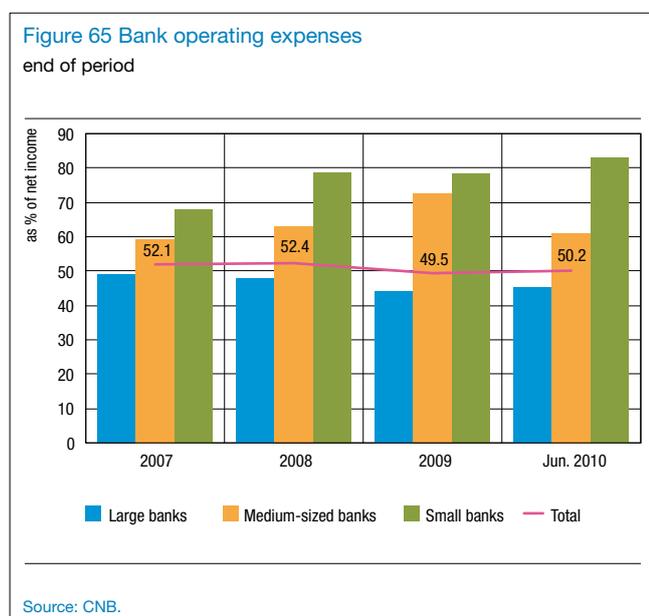
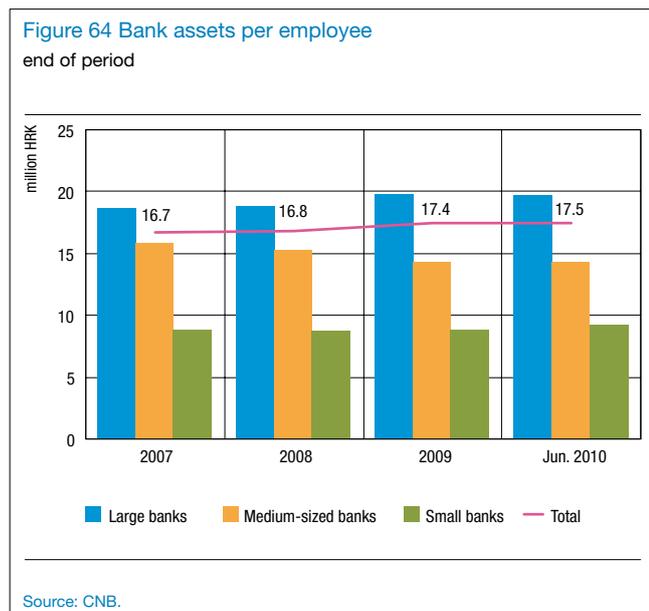
The spread, i.e. the difference between interest income on average interest-bearing assets and interest expenses on average interest-bearing liabilities, was up from 2.2% to 2.6% in the past year, returning to its 2007 and 2008 levels. Despite a decrease in interest income on average interest-bearing assets of 0.8 percentage points, a sharper fall in interest expenses on average interest-bearing liabilities that amounted to over one percentage point (1.2) during the same period, led to an increase in their spread.

Although the spread declined only in the group of small banks (0.2 percentage points), it nevertheless remained the highest in this bank group (2.9%). Interest rate spread rose in the other two bank groups; by a little over half a percentage point in medium-sized banks where it amounted to 2.7% and by less than half a percentage point in large banks, where it amounted to 2.6%. Thus, medium-sized banks, which in

**Figure 63 Weighted averages of bank monthly interest rates on annual basis**



Source: CNB.



mid-2009 and on several occasions before that, managed to operate with the same interest rate spread as large banks, again had a higher interest rate spread than large banks.

As regards developments in monthly weighted average interest rates of banks, there is evidence of a fall in interest rates on foreign currency deposits and of a further fall in interest rates on deposits not indexed to a foreign currency, which started towards the end of 2009. Interest rates on loans, both those indexed to a foreign currency and those not indexed to a foreign currency, declined towards the end of the first half of this year.

The average amount of assets per employee of all banks rose slightly from HRK 17.4m to 17.5m, due to assets increasing very modestly while the number of employees was almost unchanged. This indicator, though usually the highest in large banks, fell slightly in this bank group but increased in the other two bank groups, less in medium-sized banks than in small banks (from HRK 8.8m to HRK 9.3m).

A fall in net income of banks in the first half of 2010 led to a fall in the cost effectiveness of banks measured by cost to

income ratio. At the end of the same period 2009, the banks' cost to income ratio was 48.8% and at the end of the second quarter this year it rose to 50.2%. Large banks' cost to income ratio was again the best (43.5%) and as usual, this ratio was higher, i.e. less favourable in the group of medium-sized and small banks (72.5% and 78.9%, respectively).

### 12.1.3 Credit risk

#### Placements and assumed off-balance sheet liabilities

At the end of June 2010, total placements and assumed off-balance sheet liabilities of banks that are exposed to credit risk and are subject to classification into risk categories<sup>26</sup> stood at HRK 407.0bn, a decrease of HRK 19.6bn or 4.6% compared to the same period at the end of 2009. The main reason for the decline in total exposure to credit risk lies in the implementation of new regulations from 31 March 2010, under which the portfolio of financial assets available for sale is excluded from the scope of placements and assumed off-balance sheet liabilities classified into risk categories. At the end of 2009, this portfolio stood at HRK 19.9bn. Therefore, the effects of methodological changes excluded, placements and assumed off-balance sheet liabilities held steady in real terms at the level almost equal to that at the end of the previous year.

And while total placements and assumed off-balance sheet liabilities, in terms of their real amount, held steady, big changes were seen in some forms of financial assets that are subject to classification. The riskiest and the most significant component, granted loans, increased while almost all other forms of assets decreased. Given deposits, deposits with foreign banks and with the CNB fell the most, and evident decline was also seen in off-balance sheet items, mainly credit lines and commitments. In the second half of 2009, the banks started strengthening their liquidity reserves and in the first half of 2010, there was a fall in almost all more liquid forms of assets. By withdrawing deposits held with foreign banks, the banks optimised their liquid foreign exchange position which exceeded the prescribed minimum by a large margin at the end of 2009<sup>27</sup> but some banks needed these funds, not only for credit growth, but for the coverage of the outflows of the sources of financing, mainly corporate deposits. The amount in CNB giro accounts fell considerably, with some of it probably spilling over to cash to accommodate changes in cash supply regulations.

Of the total amount of placements and assumed off-balance sheet liabilities at the end of the first half of 2010, 6.9% were classified as partly recoverable (risk categories B-1, B-2 and B-3) or fully irrecoverable (risk category C), while placements with no objective evidence of value impairment and off-balance sheet liabilities for which no outflows are expected, or are expected to be fully recovered (risk category A) if they do take place, accounted for 93.1% of the total. At the end of 2009, the share of placements and assumed off-balance sheet liabilities classified into risk categories B<sup>28</sup> and C, stood

<sup>26</sup> Decision on the classification of placements and off-balance sheet liabilities of credit institutions (OG 1/2009, 75/2009 and 2/2010).

<sup>27</sup> Under the Decision on the minimum required amount of foreign currency claims (OG 59/2008, 17/2009 and 23/2009) the banks are obligated to maintain a minimum of 20% of their foreign currency liabilities with foreign currency claims. In June 2010, the average monthly coverage of foreign currency liabilities by foreign currency claims stood at 22.58% (compared to 24.14% in December 2009).

<sup>28</sup> The sum total of placements and assumed off-balance sheet liabilities classified into risk categories B-1, B-2 and B-3.

Table 18 Classification of bank placements and assumed off-balance sheet liabilities by risk categories

end of period, in million HRK and %

Risk category	2008			2009			Jun. 2010		
	Placements and assumed off-balance sheet liabilities	Value adjustments and provisions	Coverage	Placements and assumed off-balance sheet liabilities	Value adjustments and provisions	Coverage	Placements and assumed off-balance sheet liabilities	Value adjustments and provisions	Coverage
A	408,397.9	3,674.9	0.9	403,906.5	3,613.0	0.9	378,943.1	3,509.0	0.9
B-1	6,312.0	661.4	10.5	10,764.0	1,416.9	13.2	13,783.0	1,800.0	13.1
B-2	2,744.7	1,128.2	41.1	5,303.4	2,225.6	42.0	7,386.2	3,227.9	43.7
B-3	808.9	572.4	70.8	1,283.3	931.8	72.6	1,499.8	1,208.5	80.6
C	4,214.6	4,193.3	99.5	5,366.6	5,281.8	98.4	5,375.8	5,241.8	97.5
Total	422,478.1	10,230.1	2.4	426,623.8	13,469.1	3.2	406,987.8	14,987.3	3.7

Source: CNB.

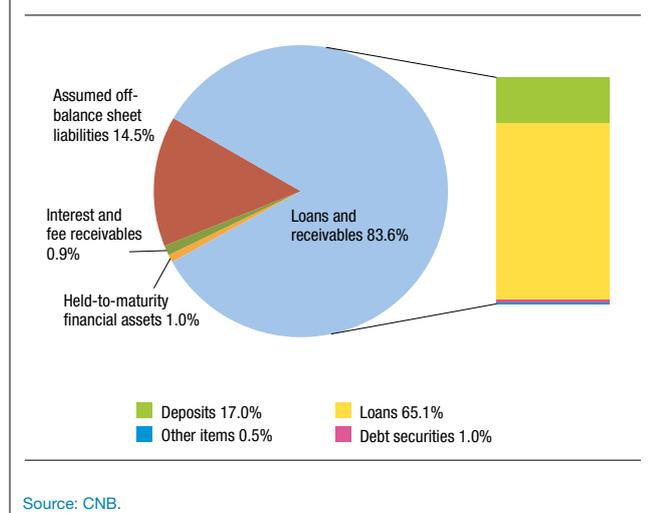
at 5.3%.<sup>29</sup> In the first half of 2010, the amount of these placements and assumed off-balance sheet liabilities rose by a considerable 23.5%, or HRK 5.3bn. Due to a decline in total exposure, owing to the exclusion of the portfolio of assets available for sale, and due to the fact that this portfolio mainly comprises securities of domestic and foreign central governments, i.e. highest quality securities, the share of placements and assumed off-balance sheet liabilities of B and C categories in total placements and assumed off-balance sheet liabilities rose considerably during the observed half-year period. The growth of B and C category placements and assumed off-balance sheet liabilities was mainly attributable to an increase in the loans classified into these risk categories and an increase in income classified into these categories, most notably interest income which rose sharply in the first half of 2010.

All the three medium-sized banks witnessed a marked growth in B and C category placements and assumed off-balance sheet liabilities. As a result, medium-sized banks had the largest share of these placements and assumed off-balance sheet liabilities in total placements and off-balance sheet liabilities (10.3%). Though traditionally the highest in small banks, this indicator stood at 9.9% in this group of banks at the end of the first half of 2010. It was the lowest in large banks (6.3%), although the growth rate of these placements and assumed off-balance sheet liabilities was considerably higher than in small banks. The higher level of category B and C placements and assumed off-balance sheet liabilities in small than in large banks is the result of a higher share of exposure to corporates and a smaller share of exposure to government units and households as less risky sectors. Small banks are also limited in their ability to service large and more stable corporates because under regulations governing exposure restrictions,<sup>30</sup> in order to grant the same nominal amount of loan as large banks, they have to have a larger amount of own funds. In addition, their options in risk dispersion are smaller in the case of larger-amount lending to bigger corporates. In relation to own funds, large exposures of all banks stood at 43.5% while those of small banks stood at 176.5%. In large and medium-sized banks, large exposures were significantly lower, at 29.9% and 52.9%, respectively.

Total losses, i.e. the total amount of provisions, including collectively assessed impairment provisions<sup>31</sup> were estimated at 3.7% of total placements and assumed off-balance sheet liabilities, thus continuing this indicator's growth, which started last year, and which thus reached its highest value since 2004. At the same time, the coverage of placements and assumed off-balance sheet liabilities classified into risk categories B and C fell from 43.4% at the end of 2009 to 40.9% at the end of the first half of 2010, continuing its falling trend for the tenth consecutive year. Value adjustments and provisions rose by a total of HRK 1.5bn or 11.3% in the first half of 2010 as a result of an increase in value adjustments and provisions for B and C

Figure 66 Structure of bank placements and assumed off-balance sheet liabilities

as at 30 June 2010



Source: CNB.

<sup>29</sup> In the EU, this indicator stood at 4.2% at the end of 2009 (Source: EU Banking Sector Stability, ECB, September 2010).

<sup>30</sup> A credit institution's exposure to a single person or a group of connected persons after the use of credit risk mitigation techniques may not exceed 25% of its own funds. The sum of all large exposures (exposure to a single person or a group of connected persons that equals or is higher than 10% of own funds) may not exceed 600% of a credit institution's own funds.

<sup>31</sup> Credit institutions have to maintain the level of impairment (value adjustment) for placements and provisions for off-balance sheet liabilities graded A in the amount that is not below 0.85% or above 1.20% of the total balance of placements and off-balance sheet liabilities graded A.

category placements and assumed off-balance sheet liabilities of 16.5% and a fall in value adjustments and provisions for A category placements and assumed off-balance sheet liabilities of 2.9%. The placements and assumed off-balance sheet liabilities of banks classified into risk category A fell sharply compared to the end of 2009, mainly as a result of methodological changes, i.e. as a result of the exclusion of the available for sale asset portfolio, which was almost entirely classified into risk category A.

The loans and receivables portfolio, with over 3/4 of it consisting of loans, accounted for the major share of total placements and assumed off-balance sheet liabilities. Assumed off-balance sheet liabilities, over 90% of which consisted of various forms of credit lines and issued guarantees, came next. Guarantees were the riskiest component of total off-balance sheet liabilities. They accounted for 5.6% of B and C category items. Overall, off-balance sheet liabilities classified into risk categories B and C accounted for 5.0% of total placements and assumed off-balance sheet liabilities of these two categories. Claims arising from income (interest and non-interest) which accounted for 0.9% of total placements and assumed off-balance sheet liabilities, accounted for 3.8% of B and C category placements and assumed off-balance sheet liabilities owing to a very large share of B and C category claims (30.4%). It should be mentioned that 94.9% of claims from income were covered by value adjustments. B and C category loans distributed in the loans and receivables portfolio had a predominant effect on the quality of total exposure. They accounted for 89.8% of B and C category placements and assumed off-balance sheet liabilities of banks. Bank loans distributed in the loan and receivables portfolio are therefore further analysed below.

## Loans

Granted bank loans (distributed in the loans and receivables portfolio) stood at HRK 264.8bn at the end of the first half of 2010, which is an increase of HRK 3.7bn or 1.4%, compared to the previous year. After three years of slowdown, initiated by CNB measures<sup>32</sup> and further accelerated by the effects of recession, banks heightened their credit activity slightly.<sup>33</sup> Loans to corporates rose considerably and loans to government units, after being the main generator of credit growth in 2009, declined considerably.<sup>34</sup>

Household loans fell in 2009, halting the upward trend present throughout the entire ten year period, but rose slightly in the first half of 2010. In addition to home loans, the increase was also seen in other household loans (cash general purpose loans, overdraft facilities and all other household loans). The growth in home loans, and thus also in total household loans took place under the influence of the developments in the exchange rate of the kuna against the Swiss franc, which caused them to fall in real terms, while other household loans (cash general purpose loans, overdraft facilities and all other

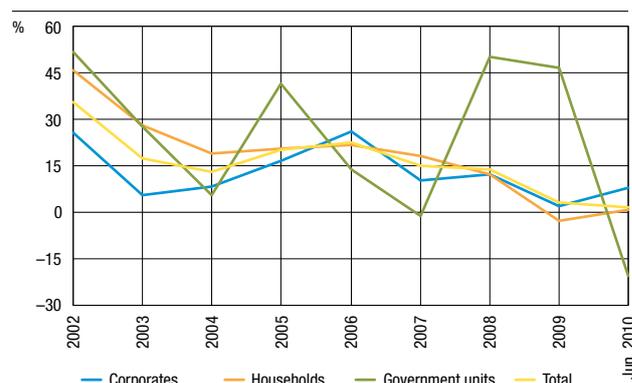
household loans) rose effectively (i.e. taking into account exchange rate developments). It was exactly the fall in other household loans that took place in 2009, coupled with a decline in car purchase loans, that led to a fall in total household loans. Car purchase loans have not yet started to show signs of recovery, and a similar fall in the first half of 2010 was seen in mortgage loans and credit card loans.

Loans grew in 24 banks during the observed half-year period. They fell in ten banks, nine of which were small banks. Nevertheless, small bank loans grew the fastest (2.9%) while those of medium-sized and large banks grew by 1.8% and 1.2%, respectively.

A downward trend in the share of loans to corporates in total bank loans over the past several years (temporarily disrupted in 2006) came to a halt at the end of the first half of 2010 owing to acceleration in their growth rate, while the share of household loans remained the same as at the end of the previous year. Large banks had the highest growth rate of loans to corporates; nevertheless, these loans again accounted for the smallest share of total loans to (38.5%) in this bank group. In small banks, loans to corporates accounted for a much larger share (57.5% of total loans of small banks) and this was thus the only bank group with a larger share of loans to corporates than household loans. Of 25 small banks, 17 focused on corporate lending and the remaining eight focused on household lending.

In large banks, household loans accounted for 47.3% or the major share of total loans, with home loans accounting for the major share of household loans. Other loans (cash general purpose loans, overdraft facilities and all other household loans) accounted for the major share of household credit portfolio of

Figure 67 Rates of change of bank loans



Note: Annual rates of change except for June 2010 (the semi-annual rate of change). From June 2010 on, loans comprise loans classified into loans and receivables category, while household loans comprise loans to non-profit institutions serving households.  
Source: CNB.

32 Restrictions on foreign borrowing were lifted in October 2008 and restrictions on placements and off-balance sheet liabilities growth were lifted in November 2009.

33 Due to methodological changes, the comparison of 2010 data with data from previous periods is somewhat limited. Historical data on loans (for the periods ending in 2009), in addition to loans as a form of financial assets, in case of some banks also include debt securities distributed in the loans and receivables portfolio, which had a negative impact on the reported loan growth rate. As most of the mentioned debt securities involve RC bonds, this methodological change has contributed to a considerable fall in the amount of loans to government units as a result of their high quality and an increase in the share of B and C category loans in total loans, though to a lesser extent.

34 As from 31 March 2010, credit institutions submit credit exposure and credit quality data by means of reporting records (Decision on statistical and prudential reporting, OG 35/2010) and exposure distribution by sectors and by activities are determined in the CNB based on personal identification numbers of clients submitted by credit institutions and personal identification numbers of the CBS. This makes data comparability as regards loan exposure distribution by sectors/activities in 2010 with earlier periods more difficult, while data comparability by activities has also been additionally limited due to the transfer to NCEA 2007.

Table 19 Bank loans

end of period, in million HRK and %

	2008			2009			Jun. 2010		
	Amount	Share	Change	Amount	Share	Change	Amount	Share	Change
<b>Loans</b>									
Government units	21,509.8	8.5	50.1	31,547.7	12.1	46.7	25,039.9	9.5	-20.6
Corporates	96,827.7	38.3	12.3	98,924.4	37.9	2.2	106,575.3	40.2	7.7
Households	125,922.6	49.8	12.1	122,195.0	46.8	-3.0	123,837.1	46.8	1.3
Home loans	52,317.5	20.7	15.7	52,959.6	20.3	1.2	54,993.0	20.8	3.8
Mortgage loans	3,130.1	1.2	6.7	3,084.2	1.2	-1.5	2,424.3	0.9	-21.4
Car loans	9,646.0	3.8	2.7	7,810.5	3.0	-19.0	6,902.2	2.6	-11.6
Credit card loans	5,529.7	2.2	12.3	5,022.3	1.9	-9.2	4,639.0	1.8	-7.6
Other household loans	55,299.3	21.9	10.9	53,318.4	20.4	-3.6	54,878.6	20.7	2.9
Other sectors	8,422.1	3.3	-8.5	8,472.0	3.2	0.6	9,391.9	3.5	10.9
<b>Total</b>	<b>252,682.2</b>	<b>100.0</b>	<b>13.8</b>	<b>261,139.0</b>	<b>100.0</b>	<b>3.3</b>	<b>264,844.2</b>	<b>100.0</b>	<b>1.4</b>
<b>Partly recoverable and fully irrecoverable loans</b>									
Government units	67.0	0.5	149.7	62.1	0.3	-7.4	64.3	0.3	3.5
Corporates	7,234.8	58.0	14.2	12,736.0	62.6	76.0	15,860.0	63.0	24.5
Households	4,998.4	40.1	18.8	7,081.3	34.8	41.7	8,581.8	34.1	21.2
Home loans	891.9	7.1	23.0	1,446.6	7.1	62.2	1,879.3	7.5	29.9
Mortgage loans	304.0	2.4	2.5	368.0	1.8	21.1	484.9	1.9	31.8
Car loans	277.6	2.2	-5.2	330.3	1.6	19.0	209.9	0.8	-36.5
Credit card loans	102.8	0.8	69.2	152.6	0.7	48.4	168.1	0.7	10.1
Other household loans	3,422.1	27.4	20.9	4,783.8	23.5	39.8	5,839.7	23.2	22.1
Other sectors	178.0	1.4	40.2	481.7	2.4	170.5	686.4	2.7	42.5
<b>Total</b>	<b>12,478.3</b>	<b>100.0</b>	<b>16.7</b>	<b>20,361.1</b>	<b>100.0</b>	<b>63.2</b>	<b>25,192.5</b>	<b>100.0</b>	<b>23.7</b>
<b>Value adjustments of partly recoverable and fully irrecoverable loans</b>									
Government units	14.5	0.2	21.9	5.5	0.1	-61.9	4.6	0.0	-16.7
Corporates	2,904.6	45.2	1.2	4,232.1	48.6	45.7	5,109.1	51.4	20.7
Households	3,391.3	52.7	20.3	4,309.5	49.5	27.1	4,625.6	46.5	7.3
Home loans	384.3	6.0	6.0	516.7	5.9	34.4	539.6	5.4	4.4
Mortgage loans	118.7	1.8	0.4	116.6	1.3	-1.7	143.4	1.4	23.0
Car loans	204.9	3.2	-6.4	206.4	2.4	0.8	86.8	0.9	-57.9
Credit card loans	89.0	1.4	88.3	125.6	1.4	41.2	134.0	1.3	6.7
Other household loans	2,594.4	40.4	25.2	3,344.2	38.4	28.9	3,721.6	37.4	11.3
Other sectors	118.9	1.8	-1.2	163.5	1.9	37.5	207.5	2.1	26.9
<b>Total</b>	<b>6,429.3</b>	<b>100.0</b>	<b>10.5</b>	<b>8,710.6</b>	<b>100.0</b>	<b>35.5</b>	<b>9,946.8</b>	<b>100.0</b>	<b>14.2</b>

Note: From June 2010 on, loans comprise loans classified into loans and receivables category, while household loans comprise loans to non-profit institutions serving households.

Source: CNB.

medium-sized and small banks. At the end of the first half of 2010, home loans granted by large banks accounted for a high 90% of home loans of all banks.

In 2008, the growth of home loans was the largest source of growth in household loans and in 2009, home loans were the only category of household loans that recorded growth. Due to a steady growth trend which continued into 2010, particularly in case of large banks, home loans accounted for a little over one fifth of total bank loans at the end of June 2010. Their large share can evidently be associated with a large share of construction in the credit portfolios of banks. After household loans and loans to the manufacturing sector, loans to the construction sector accounted for the largest share of total

bank loans. The large shares of loans covered by real estate property and to the construction sector and real estate business underline the importance that developments in the real property market and in residential real estate financing have in the assessment of a bank's risk profile.

In addition to home loans, which accounted for 20.9% of total bank loans, in terms of distribution by loan types, loans for working capital and loans for investments accounted for the largest shares (15.9% and 14.0%, respectively) of total loans. They also accounted for the largest share of partly recoverable and fully irrecoverable loans (22.3% and 19.8%, respectively). Partly recoverable and fully irrecoverable home loans accounted for 7.6% of total partly recoverable and fully irrecoverable

bank loans. Payments made on the basis of guarantees and similar instruments and financial leasing had the highest level of B and C categories (87.7% and 58.3%, respectively). They were followed by loans to the construction sector,<sup>35</sup> 25.5% of which were classified into risk categories B and C.

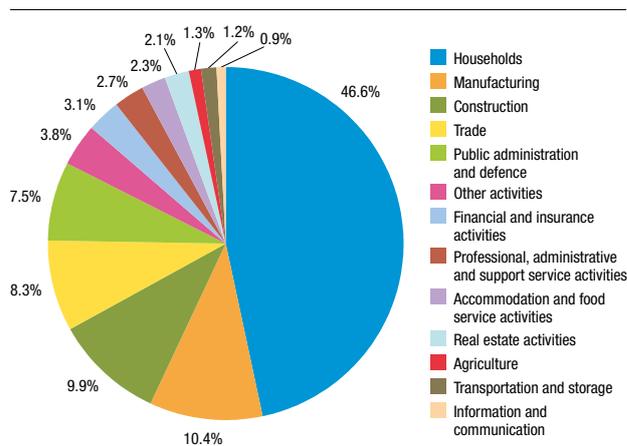
The growth in the granted loans of banks in the first half of 2010 was the result of an increase in the second quarter of the year, when loans, after four quarters of stagnation, rose by 2.1%. Loans to corporates, most notably working capital loans, rose the most during that quarter, although there was also a significant increase in loans to government units, while household loans, mainly home loans, grew at a somewhat slower rate. The growth in loans to corporates during this quarter was mainly due to increased loans to construction activities, real estate business and manufacturing. The construction activity, in addition to being the main generator of growth in total loans to corporates, also made the biggest contribution to the increase in partly recoverable and fully irrecoverable corporate loans. It was followed by trade, which, in terms of exposures with a high risk weight, was the riskiest activity and accounted for 16.6% of B and C category loans. In manufacturing and construction, this indicator stood at 13.2% and 11.9%, respectively, at the end of the first half of 2010.

The deterioration in the credit portfolios of banks largely present since the last quarter of 2008 continued into the first half of 2010. During that period, the strongest growth of partly recoverable and fully irrecoverable loans was seen in the corporate sector (14.9% of total assets), obviously the sector which was the hardest hit by the economic crisis, although the household sector also saw a fast growth rate in these loans. Special note should be made of the growth in partly recoverable and fully irrecoverable home loans. They reached 3.4% of total home loans of banks, which indicates that these loans have lost the attribute of the best quality household loans. Car purchase loans had a lower share of B and C category loans (3.0%). In the light of their quality, the noticeable fall in car purchase loans in this and in the preceding year can probably be associated with a fall in demand for this type of loan. Of household loans, mortgage loans, i.e. loans covered by real estate, had the largest growth rate of B and C category loans.

Partly recoverable and fully irrecoverable loans rose in all sectors in the first half of 2010, with their total growth amounting to HRK 4.8bn or 23.7% and reaching HRK 25.2bn, or 9.5% of total bank loans. Looking at quarterly rates of change in B and C category loans, one can observe a slowdown in their growth dynamics. It should be noted, however, that the largest share of growth in B and C category loans in 2009 was due to their increase in the last quarter of that year following a major reclassification of loans and increased value adjustments in a number of banks, in accordance with the instructions of the CNB based on special examinations conducted in these banks. The banks probably also took a more rigorous approach to loan quality assessment and more realistic presentation of their performance towards the end of the year.

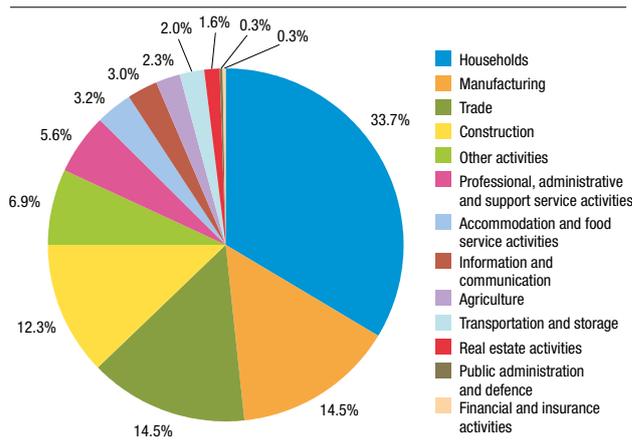
Of the total amount of partly recoverable and fully irrecoverable loans, due but unpaid loan receivables accounted for 53.4% of the total. Value adjustments covered 74.1% of due but unpaid receivables under these loans, although this indicator varied greatly from sector to sector, standing at 57.1% in

Figure 68 Structure of bank loans by activities as at 30 June 2010



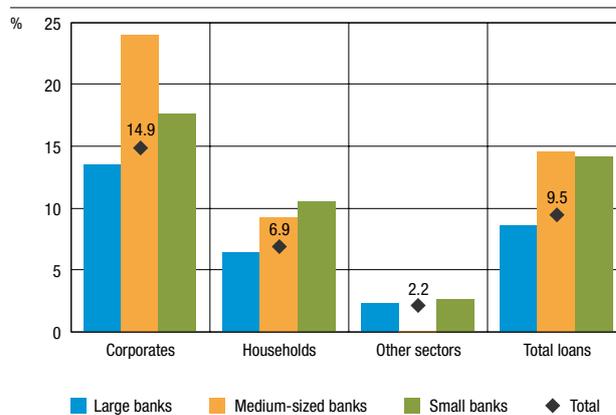
Source: CNB.

Figure 69 Structure of bank partly recoverable and fully irrecoverable loans by activities as at 30 June 2010



Source: CNB.

Figure 70 Share of bank partly recoverable and fully irrecoverable loans as at 30 June 2010



Source: CNB.

<sup>35</sup> Construction loan is a loan used for the financing of residential or commercial construction projects intended exclusively for market sale.

the corporate sector and 109.8% in the household sector. Most household loans belong to the so called small loans portfolio in which distribution into risk categories can be done on the basis of the criterion of timeliness in meeting the obligations (the criteria of credit worthiness and the quality of instruments of collateral need not be applied). As a result, due but unpaid liabilities of households are largely covered by value adjustments.<sup>36</sup>

Of the total amount of bank loans, due but unpaid liabilities accounted for 5.2%, which is equal to the value of this indicator at the end of 2009. The reason for the same value of this indicator can probably be attributed to further heightened activities of banks relating to loan repayment prolongation and loan rescheduling.

Risk category A loans, which involve a payment delay of over 90 days,<sup>37</sup> amounted to HRK 4.7bn and accounted for 1.8% of total bank loans (1.7% at the end of 2009) and due but unpaid receivables under these loans amounted to HRK 1.0bn, or 21.4% of these loans. Since the end of the previous year, the amount of these loans had fallen by 6.8%. A little over 2/3 of fully recoverable loans with a payment delay of over 90 days went to corporates, in which these loans accounted for 3.6% total loans, this indicator being the highest in small banks (10.0%).

There was a great difference in the growth rate of partly recoverable and fully irrecoverable loans among bank groups in the first half of 2010. For instance, in small banks it was considerably lower than in the remaining two bank groups. These loans grew the fastest in medium-sized banks, which resulted in an almost equal share of these loans in these two bank groups (14.6% in medium-sized and 14.2% in small banks). This indicator was the lowest in large banks (8.6%), though in the period since end-2008 (ever since a more marked growth in partly recoverable and irrecoverable loans started) the growth in the level of these loans was the fastest in large banks.

#### Currency-induced credit risk

Given the high level of foreign currency loans and kuna loans indexed to a foreign currency, risks of deterioration in banks' credit portfolios might arise from unmatched currency positions of clients who took out bank loans in a foreign currency or in kuna indexed to a foreign currency, should the

exchange rate of the kuna weaken. Of the total amount of loans (net), 73.0% were exposed to a currency-induced credit risk (CICR). Hedged loans accounted for 6.7% of loans exposed to CICR, loans not subject to hedge assessment (as they are exempted from the obligation of assessment due to their small amount) accounted for 2.5% of these loans and the remaining 90.8% went to loans unhedged against CICR, i.e. to loans to clients with an unmatched currency position. In the first half of 2010, loans in the euro or indexed to the euro rose considerably and accounted for 4/5 of the total foreign currency (and indexed) bank loans. Loans in Swiss francs (included those indexed) fell considerably in real terms, i.e. if exchange rate effects are excluded, which is probably due to the fact that they became less attractive recently on account of the more marked fluctuation in the exchange rate of the kuna against the Swiss franc. The share of loans in Swiss francs (those indexed included) reached a peak towards the end of 2007 and has been falling since.

#### 12.1.4 Liquidity risk

##### Sources of financing

At the end of the first half of 2010, total sources of financing of banks<sup>38</sup> stood at HRK 311.5bn, a slight decrease of HRK 1.8bn or 0.6% compared to the end of 2009. The absence of growth in the sources of financing can be attributed to their fall in large banks of HRK 3.8bn or 1.5%. By contrast, these sources rose by HRK 1.7bn (6.5%) and HRK 297.7m (1.0%) in the group of small and medium-sized banks, respectively.

In view of the type of the sources of financing, a decline in the total sources reflects a decline in received loans of HRK 2.2bn or 4.1%, while all other types of sources of financing rose, though not sufficiently to offset the described decline. As a result, the share of received loans in the structure of total sources fell by 0.6 percentage points, while the share of deposits, stagnation notwithstanding, rose to 82.5%. Issued subordinated and hybrid instruments continued to increase steadily, and their increase of HRK 331.7m or 9.7% was the largest relative increase of all the sources of financing during the observed semi-annual period.

There were no major changes in the structure of sources of financing of individual bank groups. Deposits continued to be

Table 20 Structure of bank sources of financing

end of period, in %

	Large banks		Medium-sized banks		Small banks		Total	
	2009	Jun. 2010	2009	Jun. 2010	2009	Jun. 2010	2009	Jun. 2010
Deposits	81.0	81.6	85.5	85.3	87.3	87.6	82.0	82.5
Loans	17.9	17.3	12.6	12.1	11.5	11.1	16.9	16.3
Debt securities issued	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Hybrid and subordinated instruments issued	1.0	1.0	2.0	2.6	1.1	1.2	1.1	1.2
<b>Total sources of financing</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Deposits and loans of majority foreign owner	22.0	22.2	8.3	8.4	1.8	3.2	19.1	19.2

Source: CNB.

<sup>36</sup> Until 31 March 2010, the criterion of timeliness in meeting the obligations, as the only criterion for placement distribution, could only be applied to the small loans portfolio and since that date credit institutions are obligated to classify placements (large exposures individually and separately from the small loans portfolio) that are not secured by eligible instruments of collateral into risk categories mainly on the basis of timeliness in meeting the obligations.

<sup>37</sup> These loans may be classified into risk category A provided instruments of collateral have been activated.

<sup>38</sup> The sources of financing include received deposits, received loans, issued debt securities and issued subordinated and hybrid instruments.

the dominant source of financing in all bank groups, most notably in small banks, where their share was 87.6%. Large banks again accounted for the largest share of received loans (17.3%) in the total sources of financing, although their share fell by 0.6 percentage points compared to the end of 2009. All bank groups increased the amount of issued subordinated and hybrid instruments, particularly medium-sized banks (by 35.3%), due almost entirely to the increase in one bank in this group.

A decline in the received loans of banks is the result of their HRK 2.2bn or 4.6% decline in large banks. The increase in received loans in small banks and an almost simultaneous decrease in medium-sized banks had a neutral effect on total bank indebtedness. By contrast, a decline in the received deposits of large banks of HRK 1.7bn was fully offset by their marked increase in small banks (HRK 1.6bn or 6.9%) and a small increase of HRK 212.9m or 0.9% in medium-sized banks, which ultimately led to a stagnation in total deposits of banks.

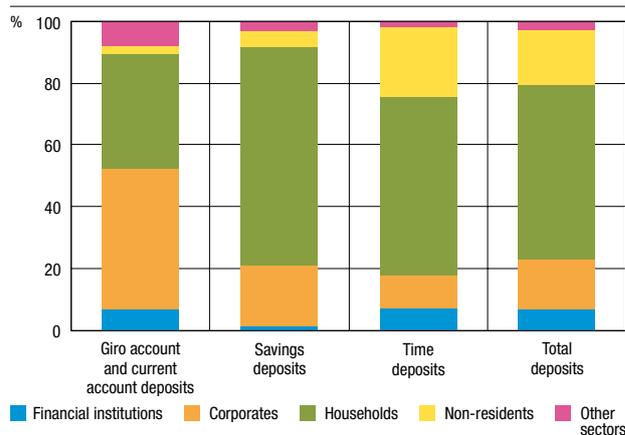
In the first half of 2010, sources received from majority foreign owners<sup>39</sup> rose only slightly from the end of the previous year (HRK 51.1m or 0.1%) and stood at HRK 59.9bn or 19.2% of the total sources of financing. Financing continued mainly through an increase in received loans from owners of HRK 2.0bn or 8.5%, received deposits falling by almost the same amount (5.4% in relative terms). Even though the major share of these changes again involved large banks, the growth in sources from a majority foreign owner during the observed period can be attributed to the remaining two bank groups. In relative terms, the largest increase was reported by small banks (94.3%), while medium-sized banks increased their debt from this source by 3.2%. Sources from majority foreign owners in large banks fell by 0.8%. As a result, all bank groups saw a steady increase in the share of sources of funds received from majority foreign owners in total deposits and loans. This share rose to 22.4% in large banks, 8.7% in medium-sized and 3.3% in small banks. A total of 12 banks used the sources of their majority foreign owners, in amounts that ranged from 6.9% to 36.6% of the total received loans and deposits.

A decline in the total received bank loans of HRK 2.2bn or 4.1% was due to a decline in the loans from domestic financial institutions of HRK 4.5bn and an increase in loans from foreign financial institutions of the remaining HRK 2.3bn. These changes caused the share of loans from domestic financial institutions to fall from 40.1% to 32.9% in favour of foreign financial institutions, in particular the majority foreign owner.

Due to a fall in the loans of other domestic financial institutions (most notably banks), the CBRD became the almost exclusive source of financing on the domestic market, accounting for 87.4% of all loans from domestic sources and 28.8% of the total received loans) while on the foreign market majority foreign owners accounted for 75.3% of all loans from non-residents and 50.5% of the total received loans. It should be noted that medium-sized and small banks continue to rely predominantly on domestic loans, which accounted for 75.2% and 80.2%, respectively, of the total received loans, while large banks relied predominantly on loans from non-residents, which accounted for 73.7% of the total received loans, most notably those received from majority foreign owners, which accounted for 75.5% of loans received from non-residents.

On a semi-annual level, bank deposits held steady as a result of a small increase in the deposits of domestic sectors (HRK 409.1m or 0.2%), which accounted for the bulk (82.1%) of total deposits, and a practically equivalent fall in the deposits of non-residents. The absence of any significant increase in the deposits of domestic sectors is mainly due to opposite developments in two largest domestic sectors, the corporate sector and households. Deposits of the household sector continued to grow steadily, though at a much slower rate (HRK 3.3bn or

Figure 71 Sectoral structure of received deposits as at 30 June 2010



Source: CNB.

Table 21 Sectoral structure of received loans

end of period, in million HRK and %

	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from government units	125.7	0.2	62.2	0.1	-50.6	36.1	0.1	-41.9
Loans from financial institutions	19,270.0	37.0	21,180.5	40.0	9.9	16,673.4	32.8	-21.3
Loans from corporates	3.5	0.0	4.6	0.0	29.7	3.2	0.0	-31.4
Loans from foreign financial institutions	32,603.9	62.5	31,712.7	59.9	-2.7	34,068.7	67.1	7.4
Loans from other non-residents	129.3	0.2	8.0	0.0	-93.8	7.1	0.0	-11.3
<b>Total loans received</b>	<b>52,132.6</b>	<b>100.0</b>	<b>52,968.0</b>	<b>100.0</b>	<b>1.6</b>	<b>50,788.5</b>	<b>100.0</b>	<b>-4.1</b>
Loans from majority foreign owner	22,735.6	43.6	23,641.7	44.6	4.0	25,656.5	50.5	8.5

Source: CNB.

39 Further analysis of the sources of financing involves mainly received deposits and loans.

2.4%) while corporate deposits continued to trend downwards, falling by HRK 3.0bn or 6.5%. Non-resident deposits fell by HRK 368.9m or 0.8% as a result of a decline in the deposits of the majority foreign owner of almost HRK 2.0bn or 5.4% that banks failed to offset fully by means of an increase in deposits of other non-residents. These changes led to an additional increase (1.3 percentage points, to 56.3%) in the share of households while the share of corporate deposits and deposits of the majority foreign owner fell to 16.4% and 13.3%, respectively.

Despite stagnation in the total level of deposits, there was significant change in the maturity structure of deposits in the first half of 2010 as seen in a decline in time deposits of HRK 2.8bn or 1.4% in favour of sight deposits, most notably giro and current account deposits, which went up by HRK 2.1bn or 6.2% and savings deposits which rose by HRK 757.0m or 3.1%. Only government units and household sectors saw an increase in time deposits since the end of 2009, while all other sectors saw a decline. The corporate sector again accounted for the biggest decline in time deposits, of HRK 4.4bn or 17.5%, only partly offset by a sight deposits growth of HRK 1.4bn or 7.1%.

As a result of these changes, at the end of the first half of 2010, the share of giro and current accounts in all deposits rose to 14.3%, the share of savings deposits rose to 9.8%, while time deposits fell by 1.4 percentage points to 75.9%.

As shown by deposits currency structure at the end of the first half of 2010, the share of foreign currency deposits continued to grow slowly but steadily. Foreign currency deposits rose by HRK 1.1bn or 0.6%, compared to the end of 2009, largely as a result of growth in household and other non-resident time foreign currency deposits. This led to an increase in the share of foreign currency deposits in total deposits (66.0%). Together with kuna deposits indexed to a foreign currency, the share of foreign currency deposits stood at 67.9%. Unlike the previous periods, euro deposits fell in the first half of 2010 (0.7%), with the fall being evident even with the exchange rate effects excluded. The growth in foreign currency deposits was thus due to a real 7.7% growth in deposits in American dollars and a real 12.9% growth in deposits in Swiss francs, which led to an increase in their share in foreign currency and indexed deposits (to 6.3% and 5.2%, respectively). The share of euro deposits

fell to 87.4% of total foreign currency and indexed deposits, and to 59.4% of the total deposits of banks.

The trend of decline in the share of kuna in total deposits, which started in early 2008 continued into the first half of 2010. Kuna deposits fell by HRK 596.5m or 0.7%, reaching 32.1% of total deposits. This was mainly the result of a fall in time kuna deposits of other corporates of HRK 2.7bn or 27.1% and deposits of domestic and foreign financial institutions, which fell by a total of HRK 1.3bn or 6.1%. Unlike several previous periods, household time kuna deposits were on the increase, rising by 5.8%. Kuna deposits with a currency clause fell by 8.2% or HRK 438.0m.

The increase in loans granted and the stagnation in deposits received at the end of the first half of this year led to an increase in their ratio relative to the end of 2009. Large banks again had the biggest impact on the level of this ratio, which was the highest in this bank group and stood at over 100% (104.4%). Medium-sized and small banks followed with the ratios of 89.7% and 81.8%.

#### Maturity structure of bank assets and liabilities

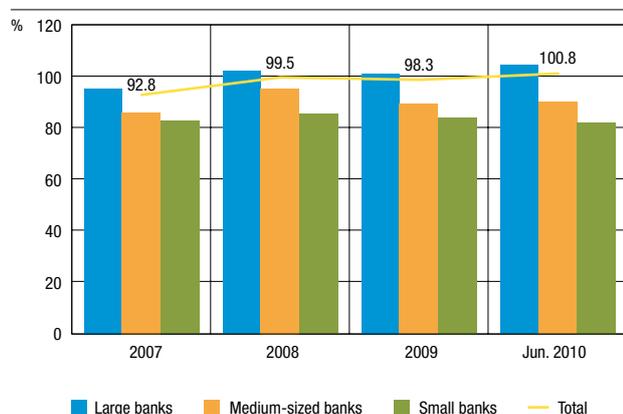
A further excess of short-term bank liabilities over short-term bank assets at the end of the first half of 2010 led to a maturity structure mismatch or a negative cumulative gap<sup>40</sup> in short-term maturity (up to one year). From the end of 2009 this mismatch was exacerbated, though the largest gap, that with up to one month maturity, narrowed. An increase in the cumulative short-term mismatch is the result of a significant decline in assets with the remaining maturity up to one year (HRK 8.2bn or 4.0%) compared with a decline in the liabilities with the same maturity (HRK 2.3bn or 0.9%).

A fall in short-term assets is mainly due to a fall in short-term loans (government units saw a marked decline in short-term and an increase in long-term loans) followed by a fall in deposits with banking institutions and the CNB. Of the liabilities of banks with remaining maturity up to one year, time deposits fell the most, particularly time deposits up to one month which fell by HRK 10.0bn or 21.1%. The share of deposits with the remaining maturity of up to one year fell from 85.0% to 83.9% of total deposits. Influenced by a fall in the shortest maturity loans (up to one month) received from financial institutions, the share of loans with the remaining maturity of up to one year fell slightly from 47.3% at the end of 2009 to 46.9%. As a result, the coverage of short-term liabilities by short-term assets fell by 2.5 percentage points during the observed period, reaching 77.2%, a level equal to that at the end of June 2009.

#### Minimum liquidity coefficient

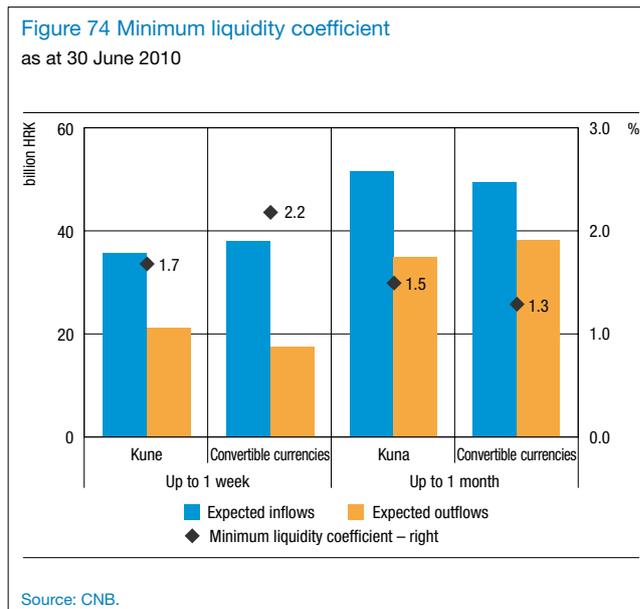
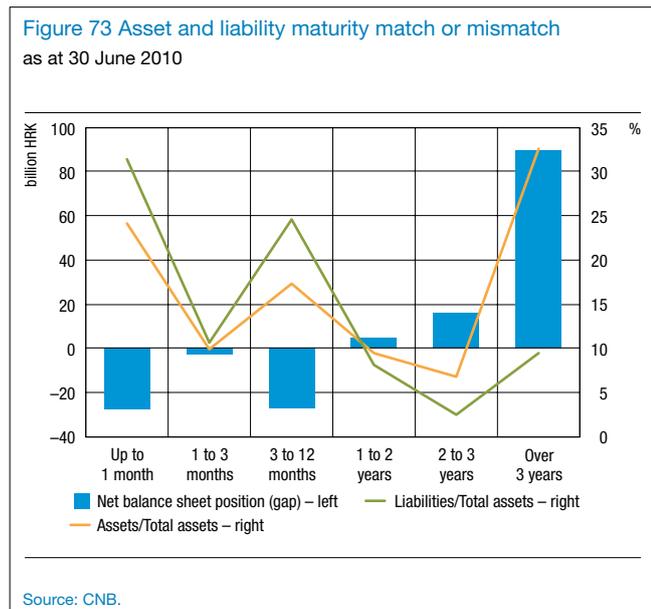
In its provisions governing liquidity risk management and quantitative requirements, the CNB has prescribed the minimum set of supervisory tools to be used in an ongoing supervision of liquidity risk exposures of credit institutions. This implies ongoing monitoring and projection of the expected inflows and outflows in two given periods (up to one week and up to one month) separately for kuna and on an aggregate basis for all convertible currencies, while unconvertible currencies are monitored separately if they are materially significant (i.e. where outflows in a currency account for over 1% of total assets). The expected cash flows are then subjected to the given

Figure 72 Bank loans granted/deposits received  
end of period



Source: CNB.

<sup>40</sup> This represents the difference between net assets and liabilities with the same period until maturity.



stress conditions<sup>41</sup> so as to determine whether the credit institution has sufficient liquid assets (assets and inflows) available to meet its liquidity needs (i.e. liabilities) within a month under stress conditions. The minimum liquidity coefficient, the measure of meeting liquidity needs, must be at least 1 in both given periods and by all currencies in question.

On 30 June 2010, the minimum liquidity coefficient (MLC) of banks for kuna stood at 1.7 in the period up to one week and at 1.5 in the period up to one month. The MLC for convertible currencies stood at 2.2 in the period up to one week and at 1.3 in the period up to one month.<sup>42</sup> The reported MLC suggests that the banks, in the framework of the stress scenario in the given periods, have sufficient liquidity (assets and inflows) both in kuna and in convertible currencies to meet all the estimated liquidity needs.

As expected, large banks had the lowest MLC values in kuna (1.5 and 1.4) and in convertible currencies (2.0 and 1.2), while these coefficients were slightly higher in medium-sized and small banks. The reported MLC values for medium-sized banks in kuna were 2.0 and 1.5 and were significantly higher in convertible currencies and stood at 4.3 and 3.5. Small banks reported the highest values of this indicator which stood at 2.8 and 2.2 in kuna and 5.2 and 3.4 in convertible currencies. All this points to the conclusion that in convertible currencies the banks, particularly small banks, maintain higher levels of surplus inflows over outflows than in kuna. Furthermore, large banks in general maintain considerably lower levels of estimated surplus liquidity, which is partially because large banks expect to be able to access domestic and foreign sources of funds faster and more easily than do the other two groups.

As at 30 June 2010, the total readily marketable assets<sup>43</sup> of banks stood at HRK 53.6bn, accounting for 14.1% of the total assets of banks, i.e. the banks were able to liquidate a little over one tenth of their total assets without any major losses within four working days. Small banks maintained the highest

share of readily marketable assets in total assets (17.3%). Medium-sized banks and large banks maintained somewhat lower shares of readily marketable assets in total assets, i.e. 16.4% and 13.5%, respectively.

Readily marketable assets were equally distributed to assets in kuna (HRK 27.2bn or 50.7%) and assets in convertible currencies (HRK 26.4bn, or the remaining 49.3%). The bulk of readily marketable assets in kuna (HRK 20.7bn or 76.0%) comprised deposits with the CNB and T-bills of the Ministry of Finance while the bulk of readily marketable assets (HRK 23.4bn or 88.7%) in convertible currencies comprised deposits with credit institutions and securities available for sale. Money assets accounted for a little over 10% of the total readily marketable assets (10.8%).

#### 12.1.5 Currency structure of bank assets and liabilities

In terms of currency structure, items in foreign currencies and items in kuna indexed to a foreign currency accounted for the major share of the balance sheet of banks and at the end of the first half of 2010, these items accounted for 65.2% of the total assets and 68.2% of the total liabilities (capital excluded). Due to the high level of items in foreign currency and in kuna indexed to foreign currency, changes in the total assets and liabilities are related to developments in the exchange rate of the kuna, particularly to developments in the exchange rate of the kuna against the currencies most represented in banks' balance sheets.

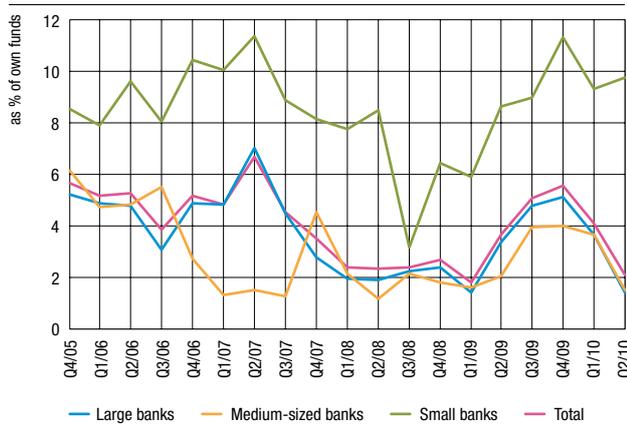
The share of kuna assets rose relative to the end of 2009 (HRK 1.6bn or 1.2%) while the kuna countervalue of the foreign currency share, i.e. assets in foreign currencies and assets in kuna indexed to a foreign currency, fell by a total of HRK 0.5bn or 0.2%. The fall in total foreign currency assets was consequent upon a fall in assets in euro of 1.4%, which was greater than the increase in assets in Swiss francs (1.6%) and

<sup>41</sup> Assets and liabilities categories which are taken into account in MLC calculation are adjusted by the prescribed volatility adjustments or volatility adjustments obtained by the credit institution on the basis of own estimates of volatility adjustments. As at 30 June 2010, only one large bank used own estimates of volatility adjustments.

<sup>42</sup> As no significant outflows in non-convertible currencies were reported by banks, the MLC for non-convertible currencies was not calculated.

<sup>43</sup> Readily marketable assets (RMA) are those liquid assets which are available to the credit institution and which may be turned into cash quickly (within four working days) and easily (with no significant losses).

**Figure 75 Long foreign exchange position of banks**  
quarterly averages



Source: CNB.

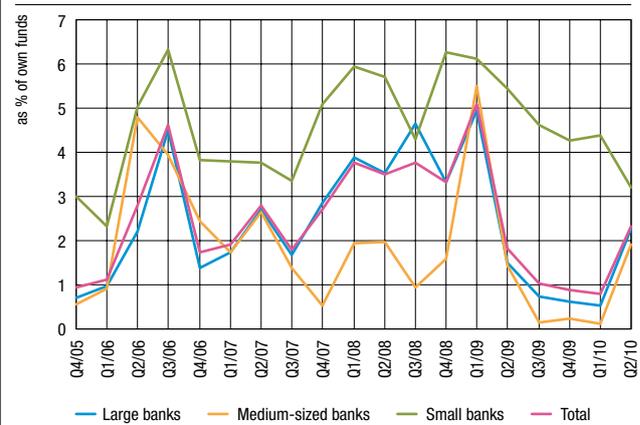
the increase in assets in American dollars (19.4%). As a result of these changes, total assets rose by a small 0.3% in the first half of 2010.

A decline in the foreign exchange share of assets largely reflected changes in the exchange rate of the kuna against three major currencies: the euro, the Swiss franc, and the American dollar, which accounted for 99.1% of the total foreign exchange assets at the end of the first half of 2010. Compared to the end of 2009, the exchange rate of the kuna against the euro strengthened by 1.5% and weakened against the Swiss franc and the American dollar by a high 10.4% and 15.9%, respectively. Exchange rate effects excluded, assets in euros grew by a negligible 0.1%, assets in American dollars grew in real terms by a slow 3.5% while assets in Swiss francs fell in real terms by 8.9%. The total change in foreign exchange assets involved a real fall of almost 1.0%, which led to a real fall in total assets of 0.2%.

In the second quarter of 2010, large and medium-sized banks had a bigger short than long position which amounted to 2.3% and 1.9% of own funds, respectively. Long foreign exchange position of small banks amounted to 9.7% of own funds.

The effects of depreciation in the exchange rate of the kuna against the Swiss franc and a real fall in loans denominated in Swiss francs or indexed to that currency had the largest impact on the described developments in bank assets. These effects excluded, the real amount of loans denominated in Swiss francs or indexed to Swiss francs fell by HRK 3.1bn or 9.2% at the end of the first half of 2010, compared to the end of 2009. By contrast, appreciation of the exchange rate of the kuna against the euro since the end of 2009 caused a fall in the growth in euro loans that was bigger in real terms and amounted to HRK 6.7bn or 4.6%. As regards foreign currency liabilities of banks, the effect of exchange rate changes was negligible, due to similar amounts of opposite changes in the exchange rate of the kuna against the euro and the Swiss franc and the American dollar. At the end of the first half of 2010, the banks reported profits on exchange rate differentials of HRK 1.6bn. However, these profits should be viewed in the context of a simultaneously incurred loss on derivatives trading since banks use some of their derivative financial instruments to hedge their open

**Figure 76 Short foreign exchange position of banks**  
quarterly averages



Source: CNB.

positions exposed to currency risk.

The euro accounted for the largest share, or 80.8%, of foreign currency and foreign currency indexed assets at the end of the first half of 2010. It was followed by the Swiss franc (14.0%) and the American dollar (4.3%) while all other foreign currencies accounted for less than 0.9% of the total foreign currency assets. Compared to the end of 2009, the largest change in the share of foreign currency assets involved a decline in the share of the euro of 1.0 percentage points. The euro accounted for 86.0%, or a somewhat bigger share of foreign currency liabilities than foreign currency assets while the Swiss franc and the American dollar accounted for smaller shares in foreign currency liabilities than in assets (7.8% and 5.4%, respectively). The fall in the share of the euro in foreign currency liabilities was bigger than that in assets and stood at 2.8 percentage points compared to the end of 2009.

Unlike the second half of 2009 and the first quarter of 2010, the average quarterly short foreign exchange position of banks in the second quarter exceeded the long position and stood at 2.3% of banks' own funds. The largest number of banks had an average quarterly open long foreign exchange position, but on an overall level, mainly under the influence of a short position in two large banks, the long position was smaller than the short position and amounted to 2.1% of banks' own funds.

#### 12.1.6 Interest rate risk in the non-trading book

Interest rate risk in the non-trading book is defined as the risk of loss in the expected net interest income due to interest rate changes on the market. To facilitate the calculation of the potential impact on bank income, the use of standard interest rate shock has been prescribed, which assumes a parallel positive or negative shift in all interest bearing positions in the non-trading book (regardless of the type of interest rate and currency) on the reference yield curve of 200 basis points. All interest rate sensitive non-trading book positions are distributed in 13 time zones, each of which is assigned an appropriate weight calculated as the estimated modified duration for that zone multiplied by the assumed interest rate shock. The result is the estimate of the change in the economic value of the non-trading book, i.e. the estimate of the present value of all

expected net cash flows measured by the net weighted position which may not exceed 20% of own funds.

At the end of the first half of 2010, the net weighted position of banks stood at HRK 1.7bn<sup>44</sup> which, placed in the context of its ratio to own funds, amounted to 3.1%, or much below the prescribed maximum. Large banks had the highest ratio of change in the economic value and banks' own funds (3.5%). They were followed by small banks (1.8%) and medium-sized banks, the latter having the lowest ratio of change in the economic value and banks' own funds (0.3%) and thus the smallest potential change in the net present value of non-trading book positions.

Looked at by currencies, a positive net weighted position (surplus assets over liabilities) was reported in kuna (HRK 872.4m), in euro (HRK 756.1m) and in Swiss francs (HRK 108.9m), while a smaller, negative position was reported in American dollars and all other less important currencies.

Overall, almost 91.0% of assets and 94.4% of liabilities of banks were sensitive to interest rate changes, and almost one half of that base was made up of positions with interest rates subject to change based on a decision by the credit institution's management board (administered interest rate): 41.2% on the assets side and 45.3% on the liabilities side. Positions with variable interest rates came next and accounted for 32.1% of interest rate sensitive assets, while the share of these positions on the side of interest rate sensitive liabilities was somewhat smaller and stood at 20.7%. Positions with fixed interest rates accounted for the remaining 26.7% of interest rate sensitive assets and 34.0% of interest rate sensitive liabilities.

**Table 22 Interest rate risk in the non-trading book**

as at 30 June 2010, in million HRK and %

Currency	Interest rate type	Net position (before weighting)	Net weighted position
HRK	Administered interest rate	-10,705.6	-124.7
	Variable interest rate	19,072.0	488.7
	Fixed interest rate	8,316.8	508.3
EUR	Administered interest rate	-6,714.7	357.6
	Variable interest rate	34,896.4	495.0
	Fixed interest rate	-22,611.3	-96.4
CHF	Administered interest rate	28,159.8	288.5
	Variable interest rate	-9,746.4	-179.3
	Fixed interest rate	-1,977.9	-0.2
USD	Administered interest rate	-2,467.1	-19.8
	Variable interest rate	1,087.3	4.0
	Fixed interest rate	1,767.7	-4.0
Other	Administered interest rate	-5,258.8	-30.8
	Variable interest rate	1,886.4	-2.6
	Fixed interest rate	1,724.1	-12.6
Change in the economic value of the non-trading book			1,671.6
Own funds			53,278.8
Relative ratio: Change in the economic value of the non-trading book/Own funds			3.1

Source: CNB.

The analysis of the interest rate gap suggests that banks are most sensitive to a fall in interest rates in the shortest-term category (up to 1 month), which is characterised by considerable surplus assets of banks, particularly loans granted with a variable interest rate. The received sight deposits and savings deposits, which are distributed in accordance with the instructions in time zones of 6-12 months, led to a negative gap in that zone. As a result, the cumulative gap up to 1 year was not large and accounted for only 3.3% of interest rate sensitive assets. All time zones, beginning with zone 1 to 2 years to 20 years, were positive, i.e. the banks reported a surplus of interest sensitive assets relative to interest sensitive liabilities, but the amount of this surplus was relatively small.

In conclusion, the analysis of the non-trading book items in terms of their possible revaluation, i.e. interest rate change, confirmed the relatively low exposure of banks to interest rate risk in the non-trading book since the largest net exposure was seen in the shortest term category with the smallest estimated modified duration and thus the smallest effect on the change in the economic value of interest rate sensitive positions of non-trading book positions. Longer term categories have a bigger estimated modified duration and thus a much greater impact on the net weighted position. The banks, as stated previously, keep a smaller amount of surplus assets in these positions.

#### 12.1.7 Capital adequacy

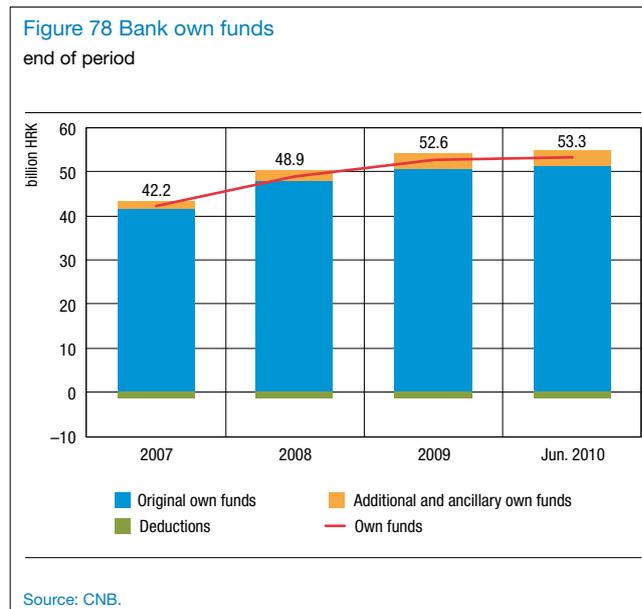
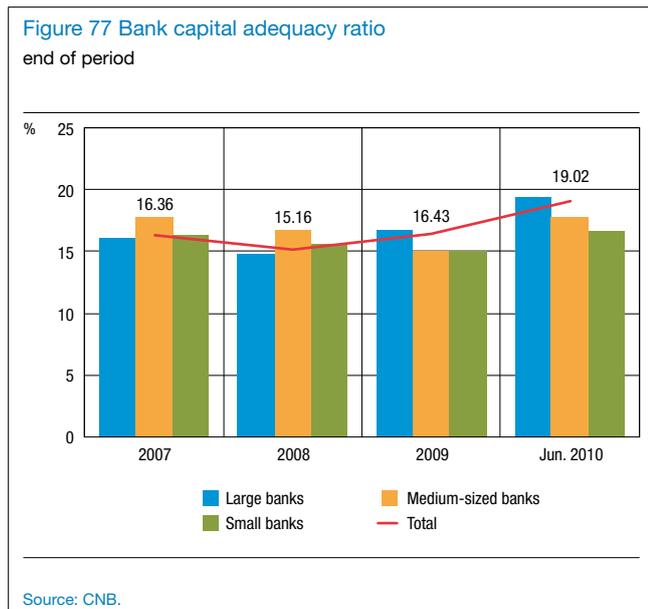
The calculation of capital adequacy is aligned with the acquis communautaire of the European Union, in particular with the Basel II Accord whose application started on 31. March 2010. The new rules in the area of credit risk enable the use of external credit risk assessments under the standardised approach or the use of own data that the credit institutions have on the customer, i.e. of the internal ratings based approach. To determine the capital requirements for credit risk, counterparty risk, dilution risk and free delivery risk (hereinafter: credit risk) all the banks applied the standardised approach.

The standardised approach implies that the portfolio subject to weighting should first be classified in one of the prescribed 15 risk categories, which may then be mitigated by means of one of the credit risk mitigation techniques. Credit risk weight determination in most categories depends on the credit quality step to which the relevant exposure belongs, i.e. on the credit assessment assigned to it by an eligible external credit assessment institution. The most significant capital savings compared to the previous provisions are due to insensitivity of the new calculation to currency-induced credit risk, lower capital requirements for parts of exposures in which some of the recognised credit risk mitigation techniques have been used and to exposure categories secured by real estate property. The CNB tried to offset some of these savings by raising the minimum capital adequacy ratio from 10% to 12%.

Thus calculated, the capital adequacy ratio of banks at the end of the first half of 2010 was 19.02%, which is an increase of 2.59 percentage points compared to 16.43%<sup>45</sup> at the end of the previous year. Although the increase in the capital adequacy ratio during the observed period was due to growth in banks' own funds, the change in the methodology of exposure

<sup>44</sup> The total net weighted position of banks and bank peer groups is calculated by aggregating equivalent positions by individual forms and currencies used as a basis for the calculation of total position, which enables netting of positive and negative values of individual banks. Thus calculated, the change in the economic value of these aggregates is a little lower than it would have been had it been calculated as a simple average of the amount of net weighted position reported in an absolute amount.

<sup>45</sup> In the EU, this indicator stood at 13.2% at the end of 2009 (Source: *EU Banking Sector Stability*, ECB, September 2010).



calculation, most notably credit risk exposure, which fully ignores the effect of currency-induced credit risk, hitherto accounting for over one half of the weighed exposure to credit risk, had a much bigger impact. It should be noted that currency-induced credit risk has not been left out of the new capital adequacy framework with the introduction of new rules but that it has, together with other risks, become an integral part of the second pillar<sup>46</sup> of the new framework, i.e. regulations related to the internal capital of credit institutions.

Considered in terms of bank groups, the largest increase in the capital adequacy ratio was reported by medium-sized banks. In this bank group, this ratio rose by 2.8 percentage points and amounted to 17.84%. It was followed by the large bank group whose capital adequacy ratio rose by 2.7 percentage points and amounted to 19.40%. Small banks reported the smallest change in the capital adequacy ratio which rose by 1.7 percentage points and stood at 16.68%. The bulk of bank assets (84.8%) again went to banks with a capital adequacy ratio above 15%, though eight small banks had a capital adequacy ratio below 13%, and one of them had a capital adequacy ratio below the legally prescribed minimum of 12%.

At the end of the first half of 2010, banks' own funds stood at HRK 53.3bn, an increase of HRK 717.5m or 1.4% since the end of 2009. The major part of this increase was due to an increase in its largest component, original own funds, which rose by HRK 566.4m or 1.1% following a distribution of previous year profit in reserves and retained earnings. The increase in additional own funds of HRK 161.4m of 4.7%, entirely due to an increase in issued subordinated and hybrid instruments, had a much smaller impact on the increase in own funds.

All bank groups, particularly the group of large banks and to a lesser extent the group of small banks, reported an increase in the amount of own funds. The increase in own funds in these two bank groups was due to an increase in both its components, although the increase in additional own funds was larger (3.6% and 11.3%, respectively) than the increase in original own funds (1.2% and 2.1%, respectively). With a large increase (15.8%) in additional own funds, the group of

medium-sized banks halted the downward trend in the amount of own funds present in 2009, with own funds at the end of the first half of 2010 exceeding by a narrow margin own funds at the end of 2009.

The total net weighted balance and off-balance sheet exposures, before the use of credit risk mitigation techniques and conversion of off-balance sheet items, rose slightly compared to the end of the previous year (HRK 7.2bn or 1.6%). However, after the use of all recognised credit risk mitigation techniques and conversion of off-balance sheet items, net exposure declined by HRK 4.2bn or 1.0%, compared to the end of 2009.

The use of different credit risk mitigation techniques such as unfunded credit protection and the financial collateral simple method effectively implies a substitution of weights, so that individual exposure to an obligor receives a weight of the protection provider (unfunded credit protection), i.e. the weight that the credit institution would assign in case of a direct exposure to a collateral (financial collateral simple method). In the first period of use (March 2010), the banks substituted original risk weights by lower risk weights for a total of HRK 18.8bn worth of net exposure amount and in the second period of use (June 2010), the banks increased the use of these techniques, transferring to lower risk weights almost HRK 26.0bn worth of net exposure amount (5.9% of net exposure). Given that the bulk of the risk weight switch related to received guarantees (83.5%) and that the largest share of the transfer involved central government and central bank categories (HRK 20.8bn), it is clear that the banks, in terms of replacement techniques, mostly resorted to high-impact government-issued guarantees or collateral. This can be evidenced by looking at the change in the structure of weights at the end of the second quarter, which shows that the banks most reduced exposure amounts that carry a 100% risk weight (HRK 14.1bn), then exposure amounts that carry a 20% risk weight (HRK 8.3bn), and then those that carry a 50% risk weight (HRK 7.1bn). At the same time the largest increase (HRK 17.8bn) was reported in exposures that carry a 0% risk weight.

In addition to techniques which make weight substitution

<sup>46</sup> The goal of new regulations is to enhance capital adequacy framework in two dimensions – development of regulations that, in addition to minimum capital requirements (pillar 1) as a quantitative dimension, also include the qualitative dimension, i.e. supervisory review (pillar 2) and market discipline (pillar 3).

Table 23 Own funds, capital requirements and capital adequacy ratio of banks

as at 30 June 2010, in million HRK and %

	Large banks		Medium-sized banks		Small banks		Total	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share
<b>Own funds</b>	<b>44,724.2</b>	<b>100.0</b>	<b>4,286.1</b>	<b>100.0</b>	<b>4,268.5</b>	<b>100.0</b>	<b>53,278.8</b>	<b>100.0</b>
Original own funds	43,413.5	97.1	3,732.0	87.1	3,962.1	92.8	51,107.6	95.9
Paid up capital (excl. cumulative preferential shares) net of own shares	22,169.4	49.6	3,214.2	75.0	3,416.9	80.0	28,800.5	54.1
Reserves and retained earnings	21,424.5	47.9	589.6	13.8	628.2	14.7	22,642.2	42.5
Additional own funds	2,652.8	5.9	636.3	14.8	315.7	7.4	3,604.9	6.8
Paid-up cumulative preferential shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hybrid and subordinated instruments	2,652.8	5.9	636.3	14.8	315.7	7.4	3,604.9	6.8
Items deducted from original own funds and additional own funds	-1,342.2	-3.0	-82.2	-1.9	-9.3	-0.2	-1,433.6	-2.7
Ancillary own funds (for market risk coverage)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Capital requirements</b>	<b>27,665.9</b>	<b>100.0</b>	<b>2,883.4</b>	<b>100.0</b>	<b>3,071.6</b>	<b>100.0</b>	<b>33,620.9</b>	<b>100.0</b>
Credit, counterparty credit and dilution risks and free deliveries	24,838.6	89.8	2,528.5	87.7	2,728.5	88.8	30,095.6	89.5
Standardised Approach	24,838.6	89.8	2,528.5	87.7	2,728.5	88.8	30,095.6	89.5
Corporates	10,118.7	36.6	1,016.0	35.2	841.6	27.4	11,976.3	35.6
o/w: Secured by real estate property	0.0	0.0	8.7	0.3	26.7	0.9	35.4	0.1
Retail	12,388.9	44.8	1,285.0	44.6	1,556.6	50.7	15,230.4	45.3
o/w: Secured by real estate property	4.2	0.0	15.2	0.5	39.8	1.3	59.2	0.2
Other	2,331.1	8.4	227.5	7.9	330.3	10.8	2,888.9	8.6
Settlement/delivery risks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Position, foreign exchange and commodity risks	369.3	1.3	61.3	2.1	37.1	1.2	467.8	1.4
o/w: Internal Models	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traded debt instruments	251.1	0.9	27.4	0.9	0.0	0.0	278.5	0.8
Foreign exchange	104.7	0.4	8.6	0.3	37.1	1.2	150.5	0.4
Other risks	13.4	0.0	25.4	0.9	0.0	0.0	38.8	0.1
Risk of exceeding the permitted exposure limits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operational risk	2,458.1	8.9	293.5	10.2	306.0	10.0	3,057.5	9.1
Simplified Approach	0.0	0.0	110.3	3.8	274.4	8.9	384.7	1.1
Standardised Approach	2,458.1	8.9	183.2	6.4	31.5	1.0	2,672.8	7.9
Advanced Measurement Approach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Surplus/deficit of own funds</b>	<b>17,058.3</b>	<b>-</b>	<b>1,402.8</b>	<b>-</b>	<b>1,196.9</b>	<b>-</b>	<b>19,658.0</b>	<b>-</b>
<b>Capital adequacy ratio</b>	<b>19.40</b>	<b>-</b>	<b>17.84</b>	<b>-</b>	<b>16.68</b>	<b>-</b>	<b>19.02</b>	<b>-</b>

Source: CNB.

possible, eight banks (four large, two medium-sized and two small banks) used the financial collateral comprehensive method, which enables reduction in the net credit risk exposure amount (the weighting base). The total reduction in the exposure amount based on this method stood at HRK 10.1bn in the first quarter of its use while at the end of the second quarter of 2010, after the banks started using this method increasingly, the amount of reduction in the exposure amount totalled HRK 12.9bn, or almost 3.0% of the total net exposure amount.

All the banks used weight substitution techniques to cut capital requirements for credit risk, in amounts ranging from 0.1% to 19.4% of the net exposure amount. These techniques were mostly used by large banks which substituted HRK 23.4bn in exposure amount by lower risk weights. The banks used the financial collateral comprehensive method in a range

from 1.1% to 18.7% of the net exposure amount.

The use of the new manner of calculation of exposures weighted for credit risk resulted in a HRK 65.1bn or 20.6% lower weighted exposure amount relative to the end of 2009 as well as in a substantially lower average weight for credit risk (62.8% compared to 78.3% at the end of 2009). However, the total capital requirements for credit risk, which stood at HRK 30.1bn did not fall so much (HRK 1.4bn or 4.7%), influenced by the increased minimum capital adequacy ratio (12% compared to the previous 10%).

The structure of the total net amount of bank exposure by credit risk weights shows that the largest share of exposure is weighted by a 100% risk weight (HRK 180.7bn or 45.3%), that the bulk of this exposure amount does not have credit assessment (HRK 103.7bn) and that past due items (whose value

**Table 24 Breakdown of net exposure to credit risk by risk weights**  
as at 30 June 2010, in million HRK

	Households	Corporates	Central governments and central banks	Institutions	Public sector entities	Local and regional self-government	Collective investment undertakings	Other	Total
<b>Total exposure</b>	138,186.0	96,967.9	102,555.5	32,531.0	3,995.4	3,715.8	449.8	21,090.5	399,491.8
On-balance sheet items	130,020.6	79,195.4	101,134.1	30,587.5	3,368.2	3,659.2	449.8	18,295.7	366,710.6
Off-balance sheet items	8,164.6	17,239.0	1,421.4	972.3	376.7	56.6	0.0	337.8	28,568.3
Securities transactions and long settlement transactions	0.0	358.5	0.0	287.5	250.6	0.0	0.0	2,457.0	3,353.6
Derivative financial instruments	0.8	175.0	0.0	683.6	0.0	0.0	0.0	0.0	859.4
Contracts for novation and other netting agreements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Breakdown of total exposure by risk weights</b>									
Weight 0%	0.0	0.0	96,395.3	568.6	2,404.4	0.0	0.0	12,142.5	111,510.9
Weight 10%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Weight 20%	0.0	10.1	15.9	24,391.6	40.6	0.0	2.0	145.8	24,606.0
Weight 35% (residential real estate property)	950.0	267.7	0.0	0.0	0.0	0.0	0.0	0.7	1,218.4
Weight 50%	325.6	511.6	6,109.0	6,878.9	1,545.6	3,710.7	0.0	4.8	19,086.1
o/w: Commercial real estate property	321.6	402.8	0.0	1.8	0.0	0.0	0.0	1.8	728.0
Weight 75%	50,971.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50,971.3
Weight 100%	81,424.7	89,397.9	33.0	677.5	2.3	2.2	385.9	8,782.8	180,706.3
o/w: Past due items	2,151.4	2,570.1	0.0	6.5	0.0	2.2	0.0	2.0	4,732.3
Weight 150%	4,514.5	6,633.2	2.2	14.4	2.5	2.8	61.9	13.6	11,245.1
o/w: Past due items	3,563.1	2,828.2	0.2	0.0	0.0	1.0	0.0	13.4	6,405.9
Other risk weights	0.0	147.4	0.0	0.0	0.0	0.0	0.0	0.0	147.4
<b>Credit risk mitigation techniques – substitution effects</b>									
Total outflow	-1,442.1	-10,537.3	0.0	-2,469.1	-10,745.0	-403.0	0.0	-363.3	-25,959.8
Total inflow	56.7	289.3	20,810.7	429.3	54.4	203.6	0.0	4,115.7	25,959.8

Source: CNB.

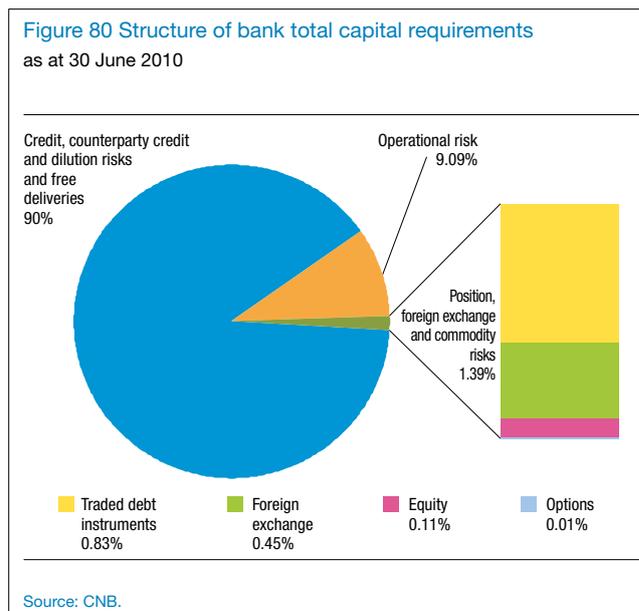
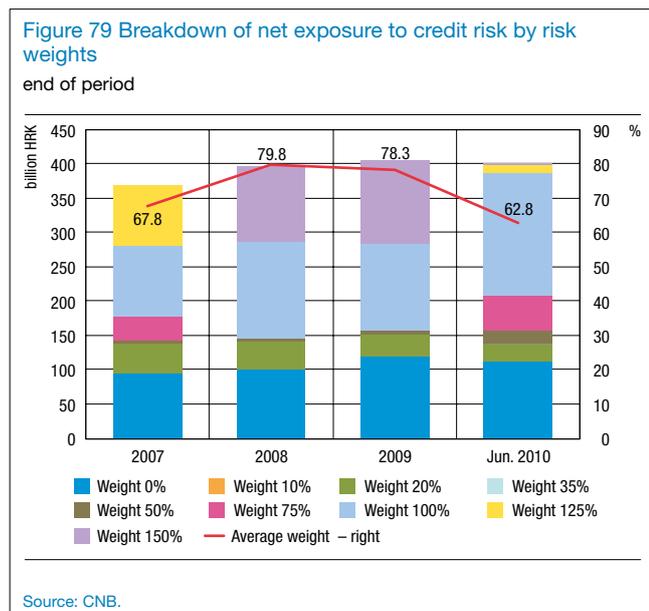
adjustments of the unsecured part of the exposure are greater than 20%) accounted for only HRK 4.7bn (1.2%). Almost 30% of the total amount of exposure was weighted by a 0% risk weight, followed by amounts weighted by a 75% and a 20% risk weight, respectively. The worst credit quality step, a 150% risk-weight, involved the amount of HRK 11.2bn (2.8%), with past due items (whose value adjustments of the unsecured part of the exposure amount are below 20%) accounting for HRK 6.4bn of this amount. Exposure amounts secured by residential or commercial real estate property accounted for only 0.5% of the total amount of exposure and other risk weights for less than 0.1% of the total amount of exposure.

As shown by the structure of the total exposure amount by exposure categories, the largest exposure was that to the household category<sup>47</sup> (HRK 138.2bn or 34.6%). Within this category, 36.9% of the exposure amount met the conditions for the assignment of a 75% risk weight, while the largest share of exposure, 58.9%, carried a risk weight of 100%. On account

of the used substitution techniques, the category of exposure to the central government and the central bank came second in order of importance. Standing at HRK 102.6bn, it accounted for 25.7% of the total net exposure amount and was deemed almost entirely non-risky (risk weight 0%). With HRK 97.0bn, or 24.3% of the total net exposure amount, the category of corporates came next. Its predominant share was assigned a risk weight of 100% (HRK 89.4bn or 92.2%) due to the fact that most corporates to which banks are exposed have no credit assessment. The average weight for the corporate sector thus stood at 102.9%. The remaining exposure categories accounted for 15.5% of the net weighted exposure amount.

At the end of the first half of 2010, capital requirements stood at HRK 33.6bn, up by HRK 1.6bn or 5.1% from the end of 2009. The increase in capital requirements is the result of the introduced capital requirements for operational risk. Operational risk requirements came to HRK 3.1bn, while those for credit risk fell by HRK 1.5bn (4.7%) to HRK 30.1bn. The

47 The exposure category households may, in addition to exposure to natural persons and subject to fulfilment of certain conditions (exposure amount up to HRK 2.5m, over 500 accounts per product type) also include exposures to small and medium-sized corporates, sole traders, those employed in crafts and trades and freelance occupations. A 75% risk weight may be used provided the listed conditions are met. In the case of natural persons, when these conditions are not met, the exposures have to be weighted by a 100% risk weight.



decline in the capital requirements for credit risk is mainly the result of a new method of calculation of the weighted exposure amount, and particularly its much lower sensitivity to currency-induced credit risk. The decline notwithstanding, capital requirements for credit risk continued to be the most significant component of total capital requirements (89.5%), followed by capital requirements for operational risk, which accounted for 9.1% of total capital requirements. Capital requirements for market risks accounted for the remaining 1.4% of the total capital requirements. These requirements rose slightly (HRK 61.9m or 15.3%) due to an increase in the prescribed minimum capital adequacy ratio.

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events and it includes legal risk. Unlike other risks, operational risk is distributed across the entire bank and is characteristic of all activities, processes, products and systems. Therefore it was necessary to provide a broad definition of the measure of exposure to that risk. Basically, the banks have three approaches at their disposal and the regulatory capital requirements under the basic indicator approach have been set at approximately 15% of the average value of the last three annual calculations of the so called relevant indicator, which is based on net income from all bank activities. The standardised approach is a little more complex for it implies the classification of business activities into set business lines, where for each

business activity a relevant indicator is calculated, weighted by the given rate of initial capital requirements, which ranges from 12% to 18%. The most complex approach is the advanced measurement approach, a fully internally-based model for operational risk measurement; it best reflects specific bank exposure and implies fulfilment of a number of conditions for permission to use it to be obtained.

With a 9.1% share in total capital requirements, capital requirements for operational risk came second in terms of importance, right after capital requirements for credit risk. The total amount of capital requirements for the coverage of operational risk stood at HRK 3.1bn. Large banks allocated the bulk of this amount (79.3%), i.e. HRK 2.5bn, which accounted for 8.9% of their total capital requirements. Capital requirements for operational risks of medium-sized banks totalled HRK 293.5m or 10.2% of their total capital requirements, while capital requirements for operational risks of small banks accounted for almost 10% of their total capital requirements of HRK 306.0m.

In the assessment of capital requirements for operational risk, nine banks decided on the standardised approach and the remaining 25 banks on the basic indicator approach. In the assessment of operational risk exposure, all large banks used the standardised approach, two medium-sized banks used the standardised approach and one the basic indicator approach. By contrast, small banks mainly used the basic indicator approach (24 small banks) in the assessment of operational risk

**Table 25 Breakdown of bank capital adequacy ratio**

end of period, in %

	2008		2009		Jun. 2010	
	Number of banks	Share in bank assets	Number of banks	Share in bank assets	Number of banks	Share in bank assets
Ratio lower than 10%	0	0.0	0	0.0	0	0.0
Ratio from 10% to 12%	4	11.8	6	5.8	1	0.0
Ratio from 12% to 15%	14	31.9	11	25.9	13	15.2
Ratio from 15% to 20%	9	50.6	9	55.3	10	70.6
Ratio higher than 20%	7	5.8	8	13.0	10	14.2

Note: From 31 March 2010 on, the minimum capital adequacy ratio is 12% (10% prior to this date).

Source: CNB.

exposure while only one small bank used the standardised approach.

The classification of business activities of banks in business lines for the purposes of the calculation of the capital requirements for operational risk by means of the standardised approach suggests that the highest values of the relevant indicator were reported in the business lines retail and corporate banking, followed by trading and sale, while other business lines were mainly estimated as less important.

The introduction of the capital requirements for operational risk led to an increase in total capital requirements and a fall in unutilised bank capital from HRK 22.0bn to HRK 19.5bn, which still accounted for a large share of own funds (36.9%). Large banks had the biggest share of unutilised own funds (HRK 17.1bn or HRK 2.8bn on average per bank). Unutilised capital of medium-sized banks stood at HRK 1.4bn or a little less than HRK 0.5bn per bank, while unutilised capital in small banks amounted to HRK 1.2bn or HRK 47.9m per bank.

## 12.2 Housing savings banks

The number of housing savings banks remained unchanged in the first half of 2010 relative to the previous year and stood at five. Their assets declined by 5.0% and accounted for 1.7% of the total assets of credit institutions in the Republic of Croatia. The ownership structure of housing savings banks also

underwent no changes, with four housing savings banks being in the majority, direct or indirect, ownership of foreign shareholders. At the end of the first half of 2010, their assets accounted for 97.1% of the total assets of all housing savings banks, and the one housing savings bank in majority state ownership continued steadily to increase its share in the total assets of all housing savings banks. Following a 10.0% increase in its assets in the first half of 2010, this housing savings bank accounted for 2.9% of the total housing savings banks' assets.

The number of employees in housing savings banks rose by 23 to 414, with their share in the total number of employees in credit institutions rising slightly from 1.8% to 1.9%. By contrast, assets per employee fell from HRK 17.2m to 15.5m.

### 12.2.1 Balance sheet

The fall in balance sheet total of housing savings banks accelerated in the first half of 2010 from 3.3% in 2009 to 5.0%. The reason for this decline lies in a further fall (6.4%) in household deposits, the predominant source of housing savings banks funding. Unlike 2009 when despite a fall in deposits household loans of housing savings banks rose slightly (4.4%), in the first half of 2010 they fell by 1.7% to HRK 2.9bn, or 45.7% of the total housing savings banks assets.

The second housing savings banks asset item in terms of size, investments in securities and other financial instruments, rose by 9.7% during the same period, with its share in total assets rising by almost three percentage points, from 18.7% to

Table 26 Structure of housing savings bank assets  
end of period, in million HRK and %

	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	0.0	0.0	0.0	0.0	23.5	0.0	0.0	-9.5
Money assets	0.0	0.0	0.0	0.0	23.5	0.0	0.0	-9.5
Deposits with the CNB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits with banking institutions	259.7	3.7	177.8	2.6	-31.6	59.4	0.9	-66.6
MoF treasury bills and CNB bills	327.7	4.7	295.4	4.4	-9.9	422.4	6.6	43.0
Securities and other financial instruments held for trading	76.5	1.1	0.0	0.0	-100.0	0.0	0.0	0.0
Securities and other financial instruments available for sale	1,121.1	16.1	71.5	1.1	-93.6	82.1	1.3	14.8
Securities and other financial instruments held to maturity	692.7	9.9	794.5	11.8	14.7	780.5	12.2	-1.8
Securities and other financial instruments not traded in active markets but carried at fair value	241.4	3.5	99.7	1.5	-58.7	98.7	1.5	-1.0
Derivative financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans to financial institutions	273.9	3.9	117.0	1.7	-57.3	97.3	1.5	-16.8
Loans to other clients	3,780.7	54.3	4,847.8	71.9	28.2	4,621.0	72.2	-4.7
Investments in subsidiaries, associates and joint ventures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreclosed and repossessed assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tangible assets (net of depreciation)	8.8	0.1	7.5	0.1	-14.6	7.4	0.1	-1.0
Interest, fees and other assets	240.9	3.5	383.2	5.7	59.1	280.7	4.4	-26.7
Net of: Collectively assessed impairment provisions	58.0	0.8	55.9	0.8	-3.7	50.4	0.8	-9.8
<b>Total assets</b>	<b>6,965.5</b>	<b>100.0</b>	<b>6,738.5</b>	<b>100.0</b>	<b>-3.3</b>	<b>6,399.1</b>	<b>100.0</b>	<b>-5.0</b>

Source: CNB.

**Table 27 Structure of housing savings bank liabilities and capital**  
end of period, in million HRK and %

	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	0.1	0.0	134.6	2.0	90,879.1	199.4	3.1	48.1
Short-term loans	0.0	0.0	134.5	2.0	–	199.3	3.1	48.1
Long-term loans	0.1	0.0	0.1	0.0	–23.6	0.1	0.0	–17.7
Deposits	6,298.1	90.4	5,713.3	84.8	–9.3	5,346.3	83.5	–6.4
Giro account and current account deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Savings deposits	0.0	0.0	0.0	0.0	0.0	95.0	1.5	–
Time deposits	6,298.1	90.4	5,713.3	84.8	–9.3	5,251.3	82.1	–8.1
Other loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Derivative financial liabilities and other financial liabilities held for trading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short-term debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subordinated instruments issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hybrid instruments issued	91.3	1.3	96.1	1.4	5.3	95.4	1.5	–0.8
Interest, fees and other liabilities	263.4	3.8	375.1	5.6	42.4	310.4	4.9	–17.2
<b>Total liabilities</b>	<b>6,652.9</b>	<b>95.5</b>	<b>6,319.2</b>	<b>93.8</b>	<b>–5.0</b>	<b>5,951.5</b>	<b>93.0</b>	<b>–5.8</b>
Share capital	450.9	6.5	487.9	7.2	8.2	487.9	7.6	0.0
Current year profit/loss	12.9	0.2	49.4	0.7	282.4	20.2	0.3	–59.2
Retained earnings/loss	–61.6	–0.9	–50.0	–0.7	–18.8	–1.3	0.0	–97.4
Legal reserves	3.4	0.0	4.8	0.1	39.6	5.5	0.1	13.7
Reserves provided for by the articles of association and other capital reserves	0.6	0.0	0.1	0.0	–77.8	0.3	0.0	106.6
Unrealised gains/losses on value adjustments of financial assets available for sale	–93.7	–1.3	–72.9	–1.1	–22.3	–64.8	–1.0	–11.0
Reserves arising from hedging transactions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Previous year profit/loss	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total capital</b>	<b>312.5</b>	<b>4.5</b>	<b>419.3</b>	<b>6.2</b>	<b>34.2</b>	<b>447.7</b>	<b>7.0</b>	<b>6.8</b>
<b>Total liabilities and capital</b>	<b>6,965.5</b>	<b>100.0</b>	<b>6,738.5</b>	<b>100.0</b>	<b>–3.3</b>	<b>6,399.1</b>	<b>100.0</b>	<b>–5.0</b>

Source: CNB.

21.6%. Following a consecutive fall in securities investments over the previous years, the first half of 2010 saw an increase in these investments of 9.7%. This was mainly the result of a significant increase in investments in T-bills of the Ministry of Finance (43.0%) which accounted for 30.5% of total securities investments. All housing savings banks reported an increase in the share of securities in assets while in one of them securities again accounted for over one half of total assets.

In addition to T-bills of the Ministry of Finance, the securities portfolio of housing savings banks contained only one more instrument, RC bonds, which accounted for 69.5% of total securities investments.

Housing savings banks distributed over one half of MoF T-bills and RC bonds to the held-to-maturity portfolio (59.3%). This portfolio shrank by 1.7% during the observed period. By contrast, the available-for-sale portfolio rose by 42.3% and accounted for 33.6% of total securities investments at the end of the first half of 2010. The remaining 7.1% of investments were

distributed in the securities portfolio which is not actively traded and is carried at fair value through profit and loss.

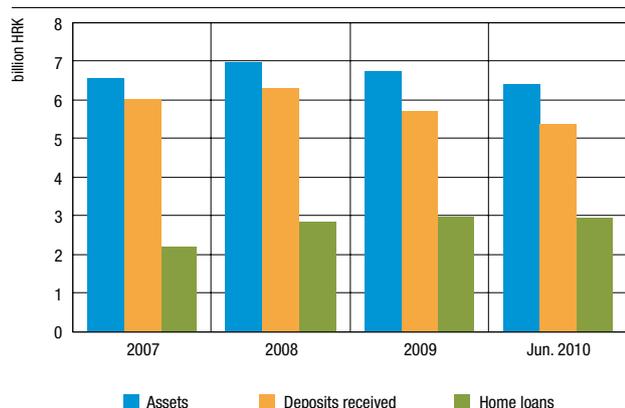
Housing savings banks placements to the financial sector almost halved, falling by 46.8%. Deposits of housing savings banks with banks fell by two thirds (66.6%) and loans to financial institutions by 16.8% at the end of the first half of the year.

In 2009, received deposits fell for the first time (9.3%). This fall accelerated in the first half of 2010 to 6.4%. At the same time, received loans, which accounted for only a little over 3% total liabilities and capital, rose by almost one half (48.1%), thus raising their share in balance sheet total to 3.1%.

The decline in deposits was greater than the decline in loans granted, so that granted loans to received deposits ratio of housing savings banks continued to grow. Following a large increase of over 20 percentage points in 2009, this ratio increased by a further 1.4 percentage points and reached 88.3%.

Owing to profit generated in the first six months of 2010, total balance sheet capital of housing savings banks rose by

Figure 81 Assets, deposits and loans of housing savings banks end of period



Source: CNB.

6.8% and stood at HRK 447.7m. The increase in capital accompanied by a simultaneous decline in assets led to an increase in its share in total liabilities of housing savings banks from 6.2% to 7.0%.

### 12.2.2 Income statement

Following a strong growth in profits in 2009, the pre-tax profit of housing savings banks was 10.1% lower in the first half of 2010 than in the same period in the previous year. One housing savings bank reported a loss and of the remaining four, two reported profit relative to the same period 2009.

A fall in the profit of housing savings banks was mostly due to a fall in interest income. The effect of this decline was stronger than the effect of a significantly larger income from repealed loss-provision expenses and the effect of profit from the sale and changes in the fair value of securities (in the first half of 2009, substantial losses were incurred on securities sale and changes in fair value). General administrative expenses and depreciation played a significant role in the fall in income in one housing savings bank.

Net income of housing savings banks fell by HRK 8.3m or 9.5%. Net interest income declined by one fourth (24.3%) and net income from fees and commissions by 7.7%. Interest income declined by 13.8%, largely due to a fall in interest income from loans granted to state-owned enterprises which are covered by state guarantees. The most significant interest income category, i.e. interest income from household loans, rose by a small 0.8%, raising its share in total interest income from 46.0% in the same period previous year to 53.7% at the end of the observed period 2010. Income from fees and commissions also fell significantly (6.8%) while expenses on fees and commissions were only slightly smaller (0.5%).

Given an increase in general administrative expenses and depreciation of 5.3%, operating income (net operating income before loss provisions) fell by 46.6%. The housing savings banks tried to offset its decline by abolishing loss provision expenses.

A bigger fall in income than in expenses, i.e. a fall in net income, accompanied by a simultaneous increase in general administrative expenses and depreciation, led to additional worsening of the cost effectiveness of housing savings banks. At the

Table 28 Housing savings bank income statement in million HRK and %

	Jan.-Jun. 2009	Jan.-Jun. 2010	
	Amount	Share	Change
Total interest income	174.2	150.3	-13.7
Total interest expenses	100.8	94.7	-6.1
Net interest income	73.4	55.5	-24.3
Total income from fees and commissions	34.5	32.1	-6.8
Total expenses on fees and commissions	4.3	4.3	-0.5
Net income from fees and commissions	30.1	27.8	-7.7
Other non-interest income	-5.4	5.1	-
Other non-interest expenses	11.2	9.7	-12.7
Net other non-interest income	-16.6	-4.7	-71.8
Net non-interest income	13.6	23.1	70.6
General administrative expenses and depreciation	62.1	65.4	5.3
Net operating income before loss provisions	24.9	13.3	-46.5
Expenses on value adjustments and provisions for identified losses	0.1	-5.8	-
Expenses on collectively assessed impairment provisions	-2.6	-5.5	114.9
Total expenses on loss provisions	-2.5	-11.3	356.2
Income/loss before taxes	27.3	24.6	-10.1
Income tax	5.8	4.4	-23.5
<b>Current year profit/loss</b>	<b>21.6</b>	<b>20.2</b>	<b>-6.5</b>

Source: CNB.

end of June 2010, general administrative expenses and depreciation accounted for 83.1% of net income, compared to the 71.4% at the end of the same period 2009.

A decline in income from the same period in 2009 led to a fall in profitability indicators. The return on average assets fell from 0.8% at the end of the first half of 2009 to 0.7% at the end of the first half of 2010, while the return on average equity fell from 12.5% to 9.3%.

### 12.2.3 Credit risk

In the first half of 2010, housing savings banks reduced their total placements and assumed off-balance sheet liabilities. As a result, compared to their end-2009 balance, they fell by HRK 722.0m or 11.3%. The exclusion of the portfolio of financial assets available for sale from placements and assumed off-balance sheet liabilities classified into risk categories had an influence on this change.

Total placements and assumed off-balance sheet liabilities of categories B and C fell by 42.5% (HRK 9.8m) or almost one half during the observed period. Fully irrecoverable placements and assumed off-balance liabilities (risk category C) fell by a high 80.2%, while partly recoverable placements and assumed off-balance sheet liabilities (risk category B) fell by 34.0%. As a result, risk categories B and C accounted for only 0.2% of total placements and assumed off-balance sheet liabilities. The share of placements and assumed off-balance sheet liabilities classified into risk category A, their fall notwithstanding, rose to a high 99.8%, so collectively assessed impairment provisions

**Table 29 Classification of housing savings bank placements and assumed off-balance sheet liabilities by risk categories**  
end of period, in million HRK and %

Risk category	2008		2009			Jun. 2010		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
A	6.598,5	99,5	6.385,1	99,6	-3,2	5.672,9	99,8	-11,2
B-1, B-2 and B-3	24,6	0,4	18,8	0,3	-23,6	12,4	0,2	-34,1
C	6,5	0,1	4,2	0,1	-34,7	0,8	0,0	-80,2
<b>Total</b>	<b>6.629,5</b>	<b>100,0</b>	<b>6.408,1</b>	<b>100,0</b>	<b>-3,3</b>	<b>5.686,1</b>	<b>100,0</b>	<b>-11,3</b>

Source: CNB.

**Table 30 Coverage of housing savings bank total placements and assumed off-balance sheet liabilities by total value adjustments and provisions**  
end of period, in million HRK and %

	2008	2009	Jun. 2010
Total value adjustments against placements and provisions for assumed off-balance sheet liabilities	69.8	64.2	53.1
Value adjustments and provisions	10.7	8.1	2.5
Collectively assessed impairment provisions	59.0	56.2	50.6
Total placements and assumed off-balance sheet liabilities	6,629.5	6,408.1	5,686.1
Coverage	1.1	1.0	0.9

Source: CNB.

again accounted for the major share of total value adjustments and provisions.

In the same way as at the end of 2009, two housing savings banks classified all their placements and assumed off-balance sheet liabilities into risk category A, while three housing savings banks classified part of their exposures as partly recoverable or fully irrecoverable.

The portfolio of loans and receivables accounted for 84.3% or a major share of total placements and assumed off-balance sheet liabilities. Loans were predominant and accounted for 77.3% or HRK 3.9bn of this amount although the share of debt securities was also large and stood at HRK 1.0bn or 21.1%. Home loans accounted for almost 80% of loans (distributed in the loans and receivables portfolio). A fall in home loans classified into risk categories B and C of HRK 9.8m or 42.7% led to a further improvement in the already high quality of home loans. The share of home loans classified into risk categories B and C was 0.5%.

#### 12.2.4 Capital adequacy

Own funds of housing savings banks rose by 4.2% and stood at HRK 518.7m. Original own funds rose by 5.4% (HRK 21.8m), owing to an increase in reserves and retained earnings while additional own funds fell by a little less than one percent (0.7%), due to a fall in the amount of issued hybrid instruments. None of the housing savings banks reported ancillary own funds (for market risk coverage).

The capital adequacy ratio rose from 16.32% to 19.01% during the observed half-year period. Despite a somewhat higher increase in total capital requirements compared to own funds, the change in the calculation methodology introduced by the new subordinate legislation (Basel II) led to an increase in the capital adequacy ratio of housing savings banks.

Total capital requirements rose by 7.4%, although the highest among them, capital requirements for credit risk, declined by 7.1%. The introduction of new regulations led to a decline in the weighted exposure amount for credit risk as a result of cancellation of increased weights for currency-induced credit risk. A high share of exposure to government units and the use of a 75% risk weight in the household category led to a lower average weight for credit risk (37.0%). However, the introduction of capital requirements for operational risk led to an increase in total capital requirements and capital requirements for position, currency and commodity risks, i.e. capital requirements for currency risk, the only market risk reported by housing savings banks. At the end of the first half of 2010, capital requirements for credit risk thus accounted for 85.4% of total capital requirements (compared to 98.7% at the end of 2009), while capital requirements for operational risk and capital requirements for market risks accounted for 12.5% and 2.1%, respectively, of total capital requirements.

## 13 International reserves management

The Croatian National Bank manages the international reserves of the Republic of Croatia; under the Act on the Croatian National Bank, these reserves constitute a part of the balance sheet of the central bank. The way in which the international reserves are managed is consistent with the established monetary and foreign exchange policies; in managing the international reserves, the CNB is governed primarily by the principles of liquidity and safety. The international reserves of the Republic of Croatia comprise all claims and banknotes in a convertible foreign currency as well as special drawing rights.

### 13.1 Institutional and organisational framework, principles of management, risks and manner of international reserves management

#### Institutional and organisational framework of international reserves management

The Council of the CNB formulates the strategy and policy for international reserves management and sets out the risk management framework. The International Reserves Commission is the body responsible for the development of strategies for international reserves investment in accordance with the objectives and criteria set by the Council of the CNB and for the adoption of tactical decisions on international reserves management, while taking into account market conditions.

#### Principles of and risks in international reserves management

Managing the international reserves of the Republic of Croatia, the central bank is guided by the principles of security and liquidity of investment (Article 19 of the Act on the Croatian National Bank). In this context, it maintains a high liquidity of reserves and appropriate risk exposure and, within the given restrictions, attempts to ensure favourable rates of return on its investments.

Risks present in international reserves management are primarily financial risks such as credit, interest rate and currency risks, though other risks, such as liquidity and operational risks, also play a role. The CNB limits exposure to credit risk by investing in highly rated government bonds, collateralised deposits and non-collateralised deposits in financial institutions with the highest credit rating. Interest rate risk, or the risk of a fall in the value of the international reserves portfolio due to unfavourable interest rate changes, can be controlled by means of benchmark portfolios. Currency risk arises from currency fluctuations between the kuna and the euro and the kuna and the US dollar. Liquidity risk can be controlled by investing reserves into easily marketable bonds and partly into short-term deposit instruments. Operational risk can be controlled by strict separation of functions and responsibilities, precisely defined methodologies and procedures, and regular internal and external audits.

#### Manner of international reserves management

Under the Decision on international reserves management, the Croatian National Bank manages international reserves in

two ways: 1) actively – in accordance with its own guidelines and 2) passively – in accordance with the foreign currency liabilities assumed.

The CNB actively manages that part of international reserves formed through outright purchase of foreign currency from the banks and the MoF in accordance with the set benchmark portfolios, thus achieving an adequate risk-return profile. The other part of the reserves, formed on the basis of allocated foreign currency reserve requirements of banks, deposits of the MoF, repo transactions, swap arrangements and special drawing rights (SDR), is managed passively by the CNB, depending on assumed foreign currency liabilities, and with the aim of ensuring protection against currency and interest rate risks.

The terminology of reporting on international reserves of the CNB includes the terms of gross and net reserves. Gross reserves imply total international reserves. Net reserves imply foreign cash and the share of reserves actively managed by the CNB.

### 13.2 International reserves in the first half of 2010

The first half of 2010 was marked by continued global economic recovery, but also the debt crisis that hit some European countries as a consequence of their increased fiscal deficits and high public debt levels. In response to increased demand for government bonds of countries that are traditionally considered the safest, such as Germany and the US, bond prices grew noticeably. This is why the realised rates of return on the CNB net euro and dollar portfolios were higher than expected in the first half of 2010.

Total international reserves of the CNB stood at EUR 10,304.97m on 30 June 2010, a decrease of EUR 70.58m (0.7%) compared with the end of 2009, when they stood at EUR 10,375.55m. Net international reserves, which do not include foreign currency reserve requirements, special drawing rights in the IMF and funds of the MoF, grew by EUR 253.28m in the first half of 2010, from EUR 9,034.53m to EUR 9,287.81m.

Table 31 Monthly changes in total and net CNB international reserves

end of period, in million EUR

Month	Total reserves	Net reserves
December 2009	10,375.55	9,034.53
January 2010	10,393.64	9,102.87
February 2010	10,081.35	9,096.27
March 2010	10,007.92	9,011.95
April 2010	10,014.78	9,015.01
May 2010	10,176.35	9,146.81
June 2010	10,304.97	9,287.81
Change		
Jun. 2010 – Dec. 2009	-70.58	253.28

Source: CNB.

The main factors leading to changes in the level of total international reserves in the first half of 2010 on the inflow side were:

- 1) EUR 384.67m in positive cross-currency changes arising primarily from a 17.7% increase in the dollar/euro exchange rate;
- 2) EUR 285.72m in total inflow for the account of the MoF (of which the CNB purchased EUR 8.75m from the MoF);
- 3) EUR 125.6m in foreign currency purchases from the banks through interventions;
- 4) EUR 71.81m in funds earned based on total CNB international reserves investments;

and on the outflow side:

- 1) EUR 233.43m sold to the Ministry of Finance and EUR 605.11m<sup>48</sup> in MoF foreign currency liabilities payment; and
- 2) EUR 96.13m fall in total allocated foreign currency reserve requirements.

#### Total CNB turnover in the foreign exchange market in the first half of 2010

In the first six months of 2010, the Croatian National Bank purchased a total of EUR 134.35m on the foreign exchange market and sold a total of EUR 233.44m, thus registering a

Table 32 Total CNB turnover in the foreign exchange market, 1 January – 30 June 2010

at the exchange rate applicable on the value date, in million

	Purchase (1)		Sale (2)		Net (1 – 2)	
	EUR	HRK	EUR	HRK	EUR	HRK
Domestic banks	125.60	904.46	0.00	0.00	125.60	904.46
Ministry of Finance	8.75	63.30	233.43	1,700.97	-224.68	-1,637.67
Foreign banks	0.00	0.00	0.01	0.30	-0.01	-0.30
<b>Total</b>	<b>134.35</b>	<b>967.76</b>	<b>233.44</b>	<b>1,701.27</b>	<b>-99.09</b>	<b>-733.51</b>

Source: CNB.

total net sale of EUR 99.09m and withdrawing from circulation a total of HRK 733.51m. The CNB purchased EUR 125.6m from the banks, while there were no foreign currency sales to the banks.

The CNB sold EUR 233.43m to the Ministry of Finance and purchased from it EUR 8.75m in the first half of 2010. The effect of purchase and sale transactions with the MoF was a net sale of EUR 224.68m.

#### Risks in international reserves management and structure of international reserves investment in the first half of 2010

##### Credit risk in international reserves management

Credit risk is the risk that a counterparty will not settle an obligation in full, either when due or at any time thereafter. The CNB provides for several levels of protection against credit risk:

- 1) the CNB invests only in funds of financial institutions and countries with the highest credit rating. The evaluation of creditworthiness is based on ratings issued by large, internationally recognised rating agencies (Moody's, Standard & Poor's and FitchRatings);
- 2) ceilings on investments in individual financial institutions and countries serve to diversify credit risk; and
- 3) a large share of investments in financial institutions is collateralised, i.e. covered by government bonds whose market value is equal to or higher than the value of the funds placed.

The lion's share of the CNB's foreign currency portfolios is invested in safe instruments, such as government securities and instruments issued by international financial institutions, e.g. the Bank for International Settlements (BIS), central banks, and bank deposits covered by government bonds. After the eruption of the global financial crisis in 2008, non-collateralised investments in commercial banks were reduced to a minimum.

Special attention is paid to diversification by debt issuers – countries in whose securities and other instruments the CNB may invest international reserves. In response to the debt crisis in some European countries, which escalated in May 2010,

Table 33 Structure of international reserves investment according to credit risk as at 30 June 2010

at market value, in million EUR

Investment	Net reserves	Reserve requirements	Ministry of Finance	Total reserves	30 June 2010		31 December 2009	
					As % of net reserves	As % of total reserves	As % of net reserves	As % of total reserves
1 Countries								
Government bonds <sup>a</sup>	7,417.48	453.26	0.00	7,870.73	79.86	76.38	85.61	76.92
Central banks	845.42	192.93	0.02	1,038.37	9.10	10.08	4.58	9.15
Bank bonds	40.98	0.00	0.00	40.98	0.44	0.40	1.99	1.74
Covered bonds	17.92	0.00	0.00	17.92	0.19	0.17	0.36	0.31
2 International financial institutions	903.90	0.00	368.26	1,272.17	9.73	12.35	5.90	10.52
3 Banks	62.11	0.00	2.69	64.80	0.67	0.63	1.56	1.37
<b>Total</b>	<b>9,287.81</b>	<b>646.19</b>	<b>370.97</b>	<b>10,304.97</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

<sup>a</sup> Also included are reverse repo agreements which are collateralised by government bonds.

Source: CNB.

<sup>48</sup> The MoF account balance transferred from 2009 to 2010 was EUR 319.2m.

restrictions on investment in some countries were considerably tightened or such investment ceased completely.

The share of total international reserves of the CNB invested in government bonds of high-rated states and reverse repo agreements, as the safest form of assets, remained steadily at a high level and stood at 76.38% on 30 June 2010, while it was 76.92% at the end of 2009. Investment in central banks and international financial institutions increased marginally, while investment in bank bonds, covered bonds, and banks decreased slightly in the first six months of 2010.

#### Currency structure of international reserves

On 30 June 2010, the euro accounted for 77.76% of the total international reserves, up from 73.07% at the end of 2009. The share of the American dollar decreased from 23.73% at the end of 2009 to 18.67% at the end of June 2010. The share of SDRs increased from 3.20% to 3.57% in the same period.

The main reasons for the growth in the share of the euro in total international reserves were the increase in foreign currency reserve requirements that are set aside in euros and the fall in the reserve requirements set aside in US dollars.

#### Interest rate risk in international reserves management

Interest rate risk is the risk of a fall in the price of bonds or the value of foreign currency portfolios of international reserves due to an increase in interest rates in fixed income markets. Interest rate risk of international reserves of the CNB is controlled by means of precisely defined benchmark portfolios. Benchmark portfolios meet the required risk-return profile, thus reflecting the long-term investment strategy of the reserves. Against the current background of low interest rates, in international reserves management special attention is paid to interest rate risk.

#### Results and analysis of CNB's foreign currency portfolio management from 1 January to 30 June 2010

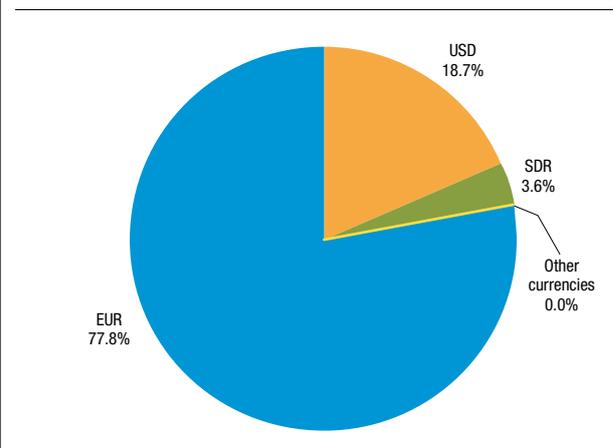
The US and German yield curves continued to flatten in the first six months of 2010, i.e. the prices of US and German government bonds increased. After the escalation of the credit crisis in Greece, Portugal, Spain and some other European countries, investors turned to countries traditionally considered the safest, such as Germany and the US. In response to stronger demand, prices of these countries' bonds went up.

In the first six months of 2010, around 62% of the CNB net dollar portfolio was accounted for by bonds issued by the United States of America, while some 70% of the CNB net euro portfolio was accounted for by government securities of the Federal Republic of Germany (or bonds for which it guarantees), which contributed to the safety of the CNB's foreign currency portfolios.

In the first half of 2010, the rate of return on the CNB net euro portfolio stood at 0.88%<sup>49</sup> (1.79% on an annual level), while the rate of return on the CNB net dollar portfolio during the same period stood at 0.48% (0.96% on an annual level).

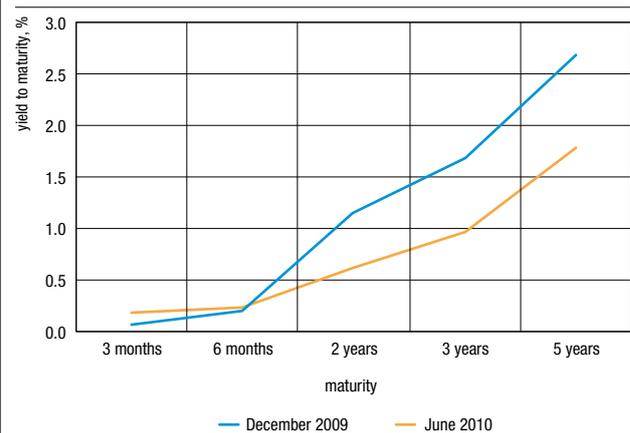
The European Central Bank (ECB) and the US central bank (Fed) did not change their key interest rates in the first half of 2010. The ECB's benchmark one-week repo rate remained at 1.00%, while the Fed's overnight interest rate ranged between 0% and 0.25%, the level at which it also stood,

Figure 82 Currency structure of total international reserves as at 30 June 2010



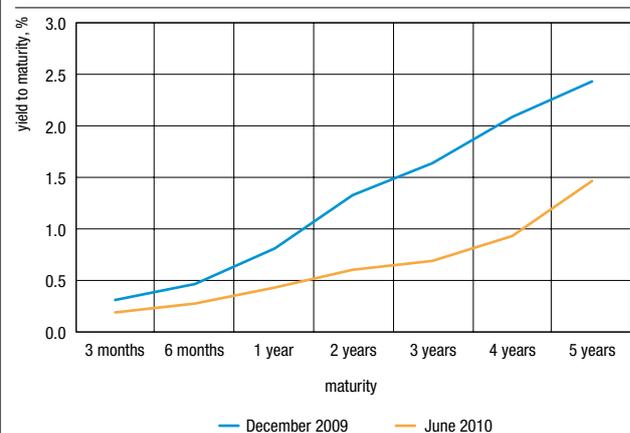
Source: CNB.

Figure 83 Yield curves of American bonds



Source: Bloomberg.

Figure 84 Yield curves of German bonds



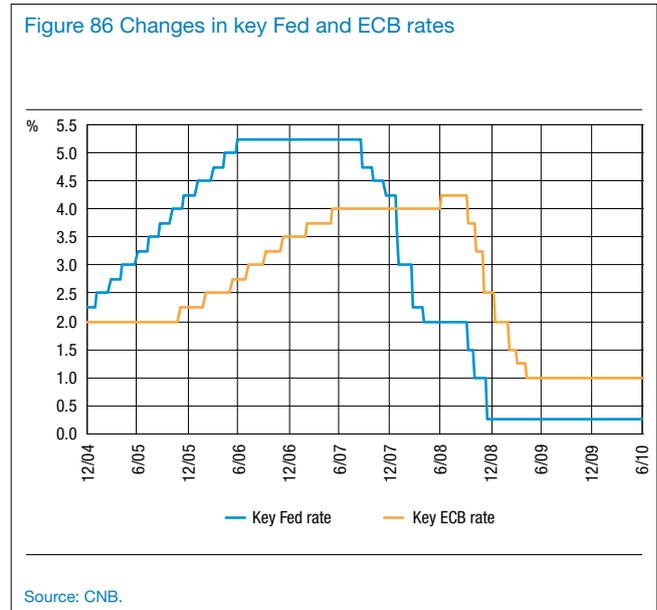
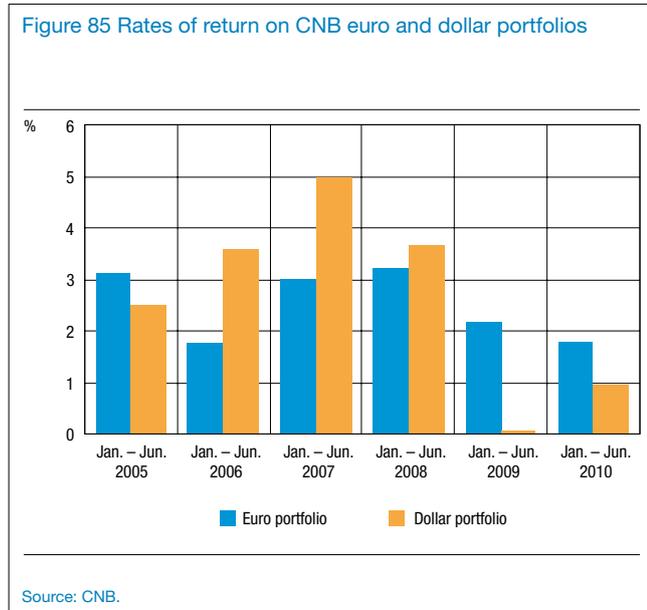
Source: Bloomberg.

<sup>49</sup> Rates of return were calculated in accordance with the Global Investment Performance Standards (GIPS).

Table 34 Realised income and rates of return on the CNB foreign currency portfolios at market value, in million EUR and USD and %

Portfolio	Realised income		Annual rate of return				
	Jan.-Jun. 2010	Jan.-Jun. 2005	Jan.-Jun. 2006	Jan.-Jun. 2007	Jan.-Jun. 2008	Jan.-Jun. 2009	Jan.-Jun. 2010
EUR	62.74	3.11	1.77	3.02	3.23	2.16	1.79
USD	11.08	2.52	3.59	4.98	3.67	0.07	0.96

Source: CNB.



following ten consecutive cuts, at the end of 2008.

The actively managed euro portfolio generated an income of EUR 62.74m in the first half of 2010, while income from the US dollar portfolio was USD 11.08m.

## 14 Conclusion

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The first half of 2010 was marked by substantial fluctuations in global financial markets, mostly due to the government debt crisis in the eurozone, and a strengthening of global economic recovery. Still, the pace of the recovery was not uniform; while some countries recorded strong economic growth, there were also those whose recovery lagged far behind. Croatia is among the rare European countries in which recovery did not even start in the first half of 2010. Although Croatian exports of goods and services picked up, their revival came later and was weaker than in comparable countries. This is why, despite a sharp fall in domestic demand for imported goods, Croatia stands apart with its still relatively high current account deficit and the resultant substantial financing requirements.

In the period under review, fiscal policy aimed at stabilising public finance by increasing the basic VAT rate and introducing a special tax on salaries, pensions and other income. However, this policy had a negative (pro-cyclical) impact on the economy as disposable income decreased. Strong negative trends were recorded in investments, which were also affected by a high perception of risk and the lack of quality projects, all of which reinforced the downward path of the overall economy. Coupled with unfavourable developments in the labour market and the growing illiquidity of economic entities, all this led to a high fiscal deficit. At the entire-2010 level, the deficit is expected to exceed that in 2009 due to the revenue shortfall and significant rigidities on the expenditure side. This is why public finance has remained focused on the timely payment of maturing liabilities. In a situation of relatively expensive borrowing, this

adds to the long-term deterioration of public finance.

Notwithstanding the extremely unfavourable macroeconomic environment, the CNB has maintained the stability of the entire financial system. In its actions, the central bank has not stopped only at attaining its main objective – the maintenance of price stability, but has taken proactive steps to contribute to the economic revival through increased lending to the economy. In addition to steadily supporting the high liquidity of the monetary system, the CNB decided to lower the reserve requirement rate in early February, thereby freeing up funds for the government and CBRD programme to spur bank lending. By the end of the first half of 2010, corporate lending recovered slightly, while household loans continued to stagnate.

The continuation of unfavourable trends and the absence of recovery in the Croatian economy in the first half of the year should be attributed to the lack of any deeper economic reforms to contribute to the creation of a more competitive, export-oriented economy whose growth is not based upon an unsustainable expansion of external debt. The government's Economic Recovery Programme, which includes various tax policy measures, public administration functioning, state property administration, judicial reform, social security system, pension system, etc., was adopted in the middle of the first half of 2010, so that its first effects are expected to be manifested in the forthcoming period. The realisation of the programme objectives should be stepped up. Otherwise, Croatia will become increasingly less competitive than comparable countries.

# Interim condensed financial statements for the six month period ended 30 June 2010

In accordance with the requirements of International Accounting Standard 34 and the Croatian National Bank Act

## Deloitte.

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### Report on Review of Interim Condensed Financial Statements

To the governor and the council of the Croatian National Bank

#### Introduction

We have reviewed the accompanying Interim Condensed Financial Statements comprising statement on the financial position of the Croatian National Bank as of 30 June 2010 and the related statements of income, comprehensive income, changes in equity and cash flows for the six-month period then ended, and a summary of selected significant accounting policies and other explanatory notes. Management is responsible for the preparation and fair presentation of this Interim Condensed Financial Statements in accordance with International Accounting Standard 34 and the Croatian National Bank Act. Our responsibility is to express a conclusion on this Interim Condensed Financial Statements based on our review. The accompanying corresponding figures for the six-month period ended June 30 2009 as included in the Interim Condensed Financial Statements, were not audited or reviewed, accordingly, we do not express an opinion or any other form of assurance on them and are presented only for comparison purposes.

#### Scope of Review

We conducted our review in accordance with International Standard on Review Engagements 2410, Review of Interim Financial Information Performed by the Independent Auditor of the Entity. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

#### Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying Interim Condensed Financial Statements do not give a true and fair view of the financial position of the Croatian National Bank as at 30 June 2010, and of its financial performance and its cash flows for the six-month period then ended in accordance with International Accounting Standard 34 and the Croatian National Bank Act.



Branislav Vrtačnik

Certified Auditor and member of the Board

Deloitte d.o.o.  
Radnička cesta 80  
Zagreb, Republika Hrvatska

30 July 2010



Deloitte Audit s. r. o.  
Nile House  
Karolinská 654/2  
Prague, Czech Republic

30 July 2010

The company was registered at Zagreb Commercial Court: MBS 030022053; paid-in initial capital: Kn 44,900.00; Board Members: Branislav Vrtačnik and Paul Trinder; Bank: Zagrebačka banka Zagreb d.d., Paromlinska 2, 10 000 Zagreb, bank account no. 2360000-1101896313; Foreign Currency Account: 2100312441 SWIFT Code: ZABHR2X IBAN: HR27 2360 0001 1018 9631 3; Privredna banka Zagreb d.d., Račkoga 6, 10 000 Zagreb, bank account no. 2340009-1110098294; Foreign Currency Account: 70010-519758 SWIFT Code: PBZGHR2X IBAN: HR38 2340 0091 1100 9829 4; Raiffeisenbank Austria d.d., Petrinjska 59, 10 000 Zagreb, bank account no. 2484008-1100240905; Foreign Currency Account: 2100002537 SWIFT Code: RZBHR2X IBAN: HR48 2484 0082 1000 0253 7

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Pursuant to Article 42 paragraph (2) of the Act on the Croatian National Bank (Official Gazette 75/2008), the Council of the Croatian National Bank, at its session held on September 8, 2010, issued the

### DECISION

#### on the Condensed Interim Financial Statements of the Croatian National Bank for the period ended 30 June 2010

The condensed interim financial statements of the Croatian National Bank for the period ended 30 June 2010 are hereby adopted in compliance with IAS 34:

#### a) STATEMENT OF FINANCIAL POSITION

- assets	HRK 78,151,923,115.18
- liabilities	HRK 78,151,923,115.18
- off-balance sheet items on the asset and liability sides	HRK 7,476,542,235.70
- treasury inventory system items on the asset and liability sides	HRK 82,589,065,816.64

#### b) STATEMENT OF COMPREHENSIVE INCOME

- income	HRK 7,751,111,489.13
- expenses	HRK 6,462,340,158.85
- <b>net income</b>	<b>HRK 1,288,771,330.28</b>
- net other comprehensive income	HRK 3,691,693.21
- total comprehensive income	HRK 1,292,463,023.49

#### c) STATEMENT OF CHANGES IN EQUITY

- equity balance as at 1 January 2010	HRK 8,346,492,870.08
- total changes	HRK 1,292,463,023.49
- equity balance as at 30 June 2010	HRK 9,638,955,893.57



HNB

## d) STATEMENT OF CASH FLOWS

- net cash flows from operating activities	HRK 345,691,079.44
- net cash flows from investing activities	HRK (20,245,818.63)
- net cash flows from financing activities	HRK (318,540,623.05)
- effect of exchange differences	HRK 206,947,317.72
- net cash flows from all activities	HRK 213,851,955.48

Dec. No.: 1717/2010

Zagreb, September 8, 2010



CROATIAN NATIONAL BANK  
CHAIRMAN  
CROATIAN NATIONAL BANK  
GOVERNOR

*Željka Rohatinski*  
Željka Rohatinski D.Sc.

## Income statement

(All amounts are expressed in thousands of kunas)

	Notes	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
Interest and similar income	2	239,188	466,712
Interest and similar expense	3	(104,904)	(107,435)
<b>Net interest income</b>		<b>134,284</b>	<b>359,277</b>
Fee and commission income		2,646	2,678
Fee and commission expenses		(2,387)	(2,210)
<b>Net fee and commission income</b>		<b>259</b>	<b>468</b>
Net investment result – equity method		953	–
Net securities trading result		287,644	171,601
Net exchange differences		1,023,780	54,569
Other income		2,872	2,291
<b>Net operating income</b>		<b>1,449,792</b>	<b>588,206</b>
Operating expenses	4	(166,690)	(169,295)
Decrease in provisions	5	5,669	70,380
<b>Net income</b>		<b>1,288,771</b>	<b>489,291</b>

## Statement of comprehensive income

(All amounts are expressed in thousands of kunas)

	Notes	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
1 Net income		1,288,771	489,291
2 Other comprehensive income:			
Gains or losses on remeasurement of financial assets available for sale (IAS 39)		3,692	684
Other comprehensive income, net		3,692	684
<b>3 Total comprehensive income (1+2)</b>		<b>1,292,463</b>	<b>489,975</b>

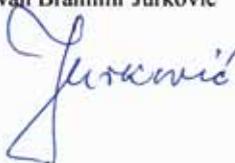
The notes on pages 74 to 79 form a part of these interim condensed financial statements.

## Statement of financial position

(All amounts are expressed in thousands of kunas)

	Notes	30 June 2010	31 December 2009
<b>Assets</b>			
Cash and current accounts with other banks		1,752,125	1,764,619
Deposits with other banks	6	20,635,424	17,544,652
Trading securities	7	49,103,251	54,084,538
Loans		99	103
Balances with the International Monetary Fund	8	5,833,264	5,335,647
Equity investments		62,408	57,764
Accrued interest and other assets		179,887	180,608
Tangible and intangible assets		585,465	590,554
<b>TOTAL ASSETS</b>		<b>78,151,923</b>	<b>79,558,485</b>
<b>Liabilities</b>			
Banknotes and coins in circulation	9	20,617,981	18,941,723
Due to banks and other financial institutions	10	39,901,017	42,265,598
Due to the State and State institutions		212,384	4,205,200
Due to the International Monetary Fund	11	5,826,613	5,330,233
Accrued interest and other liabilities	12	1,954,972	469,238
<b>Total liabilities</b>		<b>68,512,967</b>	<b>71,211,992</b>
<b>Equity</b>			
Initial capital	13	2,500,000	2,500,000
Reserves	13	5,850,185	5,846,493
Operating surplus		1,288,771	–
<b>Total equity</b>		<b>9,638,956</b>	<b>8,346,493</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>78,151,923</b>	<b>79,558,485</b>

The interim condensed financial statements set out on pages 71 to 79 were approved on 30 July 2010 by

<p>Director of the Accounting Department:</p> <p>Ivan Branimir Jurković</p> 	<p>Governor:</p> <p>Željko Rohatinski, D.Sc.</p> 
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## Statement of changes in equity

(All amounts are expressed in thousands of kunas)

	Initial capital	General reserves	Revaluation reserve	Unrealised gains/(losses)	Operating surplus/(deficit)	Total equity
Balance as of 1 January 2009	2,500,000	5,250,086	364,851	(3,484)	–	8,111,453
Net profit	–	–	–	–	489,291	489,291
Changes in exchange differences on financial assets available for sale	–	–	–	684	–	684
Balance as of 30 June 2009 (Not reviewed)	2,500,000	5,250,086	364,851	(2,800)	489,291	8,601,428
Balance as of 1 January 2010	2,500,000	5,491,192	358,598	(3,297)	–	8,346,493
Net profit	–	–	–	–	1,288,771	1,288,771
Changes in exchange differences on financial assets available for sale	–	–	–	3,692	–	3,692
Balance as of 30 June 2010	2,500,000	5,491,192	358,598	395	1,288,771	9,638,956

## Statement of cash flows

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
<b>Cash flows from operating activities</b>		
Interest received	303,683	542,438
Interest paid	(106,992)	(110,981)
Fees and commissions received	2,675	2,724
Fees and commissions paid	(2,869)	(2,281)
Other receipts	8,332	4,838
Expenses paid	(132,515)	(138,646)
	72,314	298,092
<b>Changes in operating assets and liabilities</b>		
(Increase) in deposits with other banks	(1,967,578)	(1,543,762)
Decrease/(increase) in loans	4	(2,352,152)
Sale of trading securities	6,229,048	2,323,129
(Increase)/decrease in other assets	(14,606)	29,031
Increase in other liabilities	44	1,296
(Decrease) in amounts due to the International Monetary Fund	(23)	(28)
Increase/(decrease) of currency in circulation	1,676,258	(110,082)
(Decrease)/increase in amounts due to banks and other financial institutions	(3,379,753)	2,362,394
(Decrease)/increase in amounts due to the State	(2,270,017)	681,322
	273,377	1,391,148
<b>Net cash from operating activities</b>	345,691	1,689,240
<b>Cash flows from investing activities</b>		
Purchases of property and equipment	(20,246)	(34,948)
<b>Net cash from investing activities</b>	(20,246)	(34,948)
<b>Cash flows from financing activities</b>		
Net CNB bills issued	–	(320,227)
Payments to the State Budget	(318,541)	(1,342,562)
<b>Net cash from financing activities</b>	(318,541)	(1,662,789)
Effect of changes in exchange rates – positive exchange differences	206,948	980
<b>Net increase/(decrease) in cash</b>	213,852	(7,517)
<b>Cash at beginning of period</b>	4,187,343	1,478,843
<b>Cash at end of period</b>	4,401,195	1,471,326

The notes on pages 8 to 16 form a part of these interim condensed financial statements.

## Note 1 – General information and accounting standards

### 1.1 Basis of preparation of the interim condensed financial statements

The interim condensed financial statements have been prepared in accordance with the Act on the Croatian National Bank, the Accounting Act and the International Accounting Standard (IAS) 34 “Interim Financial Reporting”.

### 1.2 Standards and interpretations effective for the current period

The International Financial Reporting Standards promulgated by the Croatian Financial Reporting Standards Board and published in the Official Gazette No. 136 of 12 November 2009 are in effect from 1 January 2010. The impact of the promulgation of those Standards on the financial statements of the Croatian National Bank has not been material.

The accounting policies of the Croatian National Bank applicable to the reporting periods from 1 January 2010 differ from those applied in the preparation of the most recent annual financial statements of the Croatian National Bank in the following:

- The titles of the financial statements have been revised in accordance with the International Accounting Standard 1 “Presentation of Financial Statements”, according to which the complete set of the financial statements includes the following (IAS 1.10):
  - Statement of financial position as at the end of the period;
  - Statement of comprehensive income for the period;
  - Statement of changes in equity for the period;
  - Statement of cash flows for the period;
  - Notes;
  - A statement of financial position as at the beginning of the earliest comparative period.
- The income statement, which is referred to under IAS 1 as the statement of comprehensive income, presents all components of profit or loss recognised for the period in two statements: a single statement displaying components of net profit (separate income statement) and a second statement beginning with net profit and displaying components of other comprehensive income (statement of comprehensive income).

The interim condensed financial statements have been prepared under the same accounting principles applicable to the recognition and measurement of assets, liabilities, capital and reserves, income, expenses and financial results applied in the preparation of the most recent annual financial statements of the Croatian National Bank, except for the revised titles of components of the complete set of the financial statements and the content of the income statement as described in the preceding paragraph.

The pronouncements of the Croatian Financial Reporting Standards Board promulgated during the reporting period comprise the following:

#### **1. Decision on amendments to the Decision on the promulgation of International Financial Reporting Standards (Official Gazette No. 8 of 15 January 2010)**

By the Amendments, the Financial Reporting Standards Board has adopted the following revised Standards:

- International Financial Reporting Standard 3 “Business Combinations”;
- International Accounting Standard 27 “Consolidated and Separate Financial Statements”.  
The requirements of the revised Standards have resulted in amending certain existing accounting standards.

The amendments to the International Financial Reporting Standard 3 have led to consequential amendments to the following Standards:

- International Financial Reporting Standard 1 – First-time Adoption of International Financial Reporting Standards;
- International Financial Reporting Standard 2 – Share-based Payment;
- International Financial Reporting Standard 7 – Financial Instruments: Disclosures;
- International Accounting Standard 12 – Income Taxes;
- International Accounting Standard 16 – Property, Plant and Equipment;

- International Accounting Standard 28 – Investments in Associates;
- International Accounting Standard 32 – Financial Instruments: Presentation;
- International Accounting Standard 33 – Earnings per Share;
- International Accounting Standard 34 – Interim Financial Reporting;
- International Accounting Standard 36 – Impairment of Assets;
- International Accounting Standard 37 – Provisions, Contingent Liabilities and Contingent Assets;
- International Accounting Standard 38 – Intangible Assets;
- International Accounting Standard 39 – Financial Instruments: Recognition and Measurement.

The amendments to the International Accounting Standard 27 have led to consequential amendments to the following Standards:

- International Financial Reporting Standard 1 – First-time Adoption of International Financial Reporting Standards;
- International Financial Reporting Standard 5 – Non-current Assets Held for Sale and Discontinued Operations;
- International Accounting Standard 1 – Presentation of Financial Statements;
- International Accounting Standard 7 – Statement of Cash Flows;
- International Accounting Standard 21 – The Effects of Changes in Foreign Exchange Rates;
- International Accounting Standard 28 – Investments in Associates;
- International Accounting Standard 31 – Interests in Joint Ventures;
- International Accounting Standard 39 – Financial Instruments: Recognition and Measurement.

## **2. Decision on the promulgation of International Financial Reporting Interpretations Committee's (IFRIC) Interpretations 15 and 16 (Official Gazette No. 8 of 15 January 2010)**

The following IFRICs have been adopted:

- IFRIC 15 – Agreements for the Construction of Real Estate;
- IFRIC 16 – Hedges of a Net Investment in a Foreign Operation.

## **3. Decision on amendments to the Decision on the promulgation of International Financial Reporting Standards (Official Gazette No. 18 of 8 February 2010)**

By the Amendments, the Financial Reporting Standards Board has adopted the following revised Standards:

- International Financial Reporting Standard 1 (revised) “First-time Adoption of International Financial Reporting Standards”;
- Amendments to International Financial Reporting Standard 4 “Insurance Contracts”;
- Amendments to International Financial Reporting Standard 7 “Financial instruments: Disclosures”;
- Amendments to IFRIC 9 “Reassessment of Embedded Derivatives”
- Amendments to International Accounting Standard 39 “Financial Instruments: Recognition and Measurement”.

## **4. Decision on the promulgation of International Financial Reporting Interpretations Committee's (IFRIC) Interpretations 17 and 18 (Official Gazette No. 18 of 8 February 2010)**

The following revisions and Interpretations have been adopted:

- IFRIC 17 – Distribution of Non-cash Assets to Owners;
- IFRIC 18 – Transfers of Assets from Customers.

The adoption of IFRIC 17 has led to consequential amendments to the following Standards:

- International Financial Reporting Standard 5 – Non-current Assets Held for Sale and Discontinued Operations;
- International Accounting Standard 10 – Events After the Reporting Period.

The adoption of IFRIC 18 has led to consequential amendments to the following Standard:

- International Financial Reporting Standard 1 – First-time Adoption of International Financial Reporting Standards.

## **5. Decision on amendments to the Decision on the promulgation of International Financial Reporting Standards (Official Gazette No. 65 of 26 May 2010)**

The adoption of the Decision has led to amendments to the following International Financial Reporting Standards:

- International Financial Reporting Standard 2 – Share-based Payment;
- International Financial Reporting Standard 5 – Non-current Assets Held for Sale and Discontinued Operations;
- International Financial Reporting Standard 8 – Business Combinations;
- International Accounting Standard 1 – Presentation of Financial Statements;
- International Accounting Standard 7 – Statement of Cash Flows;
- International Accounting Standard 17 – Leases;
- International Accounting Standard 36 – Impairment of Assets;
- International Accounting Standard 38 – Intangible Assets;
- International Accounting Standard 39 – Financial Instruments: Recognition and Measurement.

The adoption of the Decision has led to amendments to IFRIC 9 “Reassessment of Embedded Derivatives”.

**6. Decision on amendments to the Decision on the promulgation of International Financial Reporting Interpretations Committee’s (IFRIC) Interpretations 15 and 16 (Official Gazette No. 65 of 26 May 2010)**

The Decision has amended IFRIC 16 – Hedges of a Net Investment in a Foreign Operation.

The operations of the Croatian National Bank during the reporting period did not include any seasonal or cyclic activities. All the operating activities were performed according to the substance, the accrual basis of accounting and under the going-concern principle.

### 1.3 Reporting currency

The financial statements have been presented in the legal tender of the Republic of Croatia – the Croatian kuna (HRK). The financial statements are expressed in thousands of kunas.

### 1.4 Foreign exchange gains and losses

Transactions in foreign currencies are translated into Croatian kunas at the rates of exchange in effect at the transaction date. At each date of the statement of financial position, monetary assets and liabilities denominated in foreign currencies are retranslated at the exchange rates in effect on that date. Gains and losses on translation are included in the statement of comprehensive income for the period in which they arise using the midpoint exchange rate of the Croatian National Bank, except for Special Drawing Rights (SDRs), which are translated to Croatian kunas at the XDR exchange rate provided by the International Monetary Fund.

The exchange rates of major foreign currencies at 30 June 2010 were as follows:

USD 1 = HRK 5.897241 (at 31/12/2009: HRK 5.089300; at 30/6/2009: HRK 5.204507).  
 EUR 1 = HRK 7.193455 (at 31/12/ 2009: HRK 7.306199; at 30/6/2009: HRK 7.292035).  
 XDR 1 = HRK 8.721430 (at 31/12/2009: HRK 7.978445; at 30/6/2009: HRK 8.078592).

### Note 2 – Interest and similar income

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
Deposits	29,683	75,241
Trading securities	209,505	285,788
Balances with the International Monetary Fund	–	1
Loans to domestic banks	–	105,311
Other	–	371
	<b>239,188</b>	<b>466,712</b>

## Movements in the Fed and ECB reference rates:

	USD	EUR
1 January – 30 June 2010	0.00% – 0.25%	1%
1 January – 30 June 2009	0.00% – 0.25%	1% – 2.5%

**Note 3 – Interest and similar expense**

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
Kuna reserve requirements	83,083	87,252
Foreign currency reserve requirements	–	10,842
Compulsory kuna-denominated CNB bills	–	326
Repurchase transactions	5,092	7,866
Other expenses	16,729	1,149
	<b>104,904</b>	<b>107,435</b>

Pursuant to the Decision on amendments to the Decision on the interest rates and remunerations of the Croatian National Bank, the Croatian National Bank does not pay any remuneration on the compulsory reserve funds denominated in foreign currencies as from 11 November 2009.

The major item among “Other expenses” comprises interest expense on kuna-denominated overnight deposits of other banks in the amount of HRK 10,795 thousand.

**Note 4 – Operating expenses**

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
Staff costs (see the following Note)	83,153	81,154
Materials, services and administrative expenses	43,115	42,212
Costs of production of banknotes and coins in Croatian kunas	19,051	26,298
Depreciation and amortisation	21,371	19,631
	<b>166,690</b>	<b>169,295</b>

**Note 4.1 – Staff costs**

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
Net salaries	34,493	34,715
Contributions from and on salaries	20,546	20,188
Taxes and surtaxes	9,557	9,541
Other staff costs	18,557	16,710
	<b>83,153</b>	<b>81,154</b>

The average number of staff during the 2010 reporting period was 628 (2009: 615).

**Note 5 – Decrease in provisions**

(All amounts are expressed in thousands of kunas)

	1 January – 30 June 2010	1 January – 30 June 2009 (Not reviewed)
a) Loans		
Amounts collected	–	(59,804)
b) Accrued interest and receivables		
Amounts collected	–	(7,639)
c) Provisions for risks and charges		
Provisions released	(5,669)	(2,937)
	(5,669)	(70,380)

**Note 6 – Deposits with other banks**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Deposits with foreign central banks	5,740,616	5,179,758
Deposits with foreign commercial banks	14,882,190	12,351,737
Deposits with domestic commercial banks	12,618	13,157
	20,635,424	17,544,652

**Note 7 – Trading securities**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
EUR-denominated securities	38,879,596	43,041,330
USD-denominated securities	10,223,655	11,043,208
	49,103,251	54,084,538

As of 30 June 2010, the nominal value of securities was HRK 48,340,426 thousand (31 December 2009: HRK 53,270,606 thousand).

**Note 8 – Balances with the International Monetary Fund**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Membership quota	3,184,194	2,912,923
Special Drawing Rights (SDR) and deposits	2,649,070	2,422,724
	5,833,264	5,335,647

**Note 9 – Banknotes and coins in circulation**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Cash in circulation	20,617,981	18,941,723

**Note 10 – Due to banks and other financial institutions**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Kuna reserve requirements	22,089,085	23,600,572
Foreign currency reserve requirements	4,647,847	5,041,745
Other deposits from domestic banks	13,151,392	13,611,596
Deposits from foreign banks and other financial institutions	9,273	8,083
Court-mandated deposits	3,420	3,602
	<b>39,901,017</b>	<b>42,265,598</b>

**Note 11 – Due to the International Monetary Fund**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Kuna-denominated bills of exchange	3,174,846	2,904,372
Net cumulative allocations	2,643,788	2,418,561
Other IMF's accounts	7,979	7,300
	<b>5,826,613</b>	<b>5,330,233</b>

**Note 12 – Accrued interest and other liabilities**

Included in accrued interest and other liabilities as of 31 December 2009 were the obligations arising from the allocation of 2009 surplus of HRK 318,374 thousand to the State Budget, which were transferred on 15 April 2010.

**Note 13 – Equity**

The equity funds of the Croatian National Bank consist of the initial capital and reserves, and the reserves include accumulated operating surplus.

**Note 14 – Risk management**

The Croatian National Bank manages international reserves of the Republic of Croatia based on the principles of liquidity and safety. The Bank maintains high liquidity of the reserves and appropriate risk exposures, and seeks to achieve a favourable return on its investments within the defined limits.

Risks inherent to managing international reserves consist primarily of financial risks such as credit risk, interest rate risk and foreign exchange risk, with the further attention focused also on liquidity and operating risks.

**Note 15 – Capital commitments and off-balance sheet items**

Capital commitments: As of 30 June 2010, the capital commitments of the Croatian National Bank amounted to HRK 7,015 thousand (31 December 2009: HRK 2,887 thousand).

**Off-balance sheet items**

(All amounts are expressed in thousands of kunas)

	30 June 2010	31 December 2009
Banknotes and coins not in circulation	79,351,241	79,137,270
Treasury inventory system: government duty stamps and bill-of-exchange forms	407,770	522,119
	<b>79,759,011</b>	<b>79,659,389</b>

## Abbreviations and symbols

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### Abbreviations

bn	–	billion
b.p.	–	basis points
BOP	–	balance of payments
c.i.f.	–	cost, insurance and freight
CBRD	–	Croatian Bank for Reconstruction and Development
CBS	–	Central Bureau of Statistics
CEE	–	Central and Eastern European
CEFTA	–	Central European Free Trade Agreement
CES	–	Croatian Employment Service
CICR	–	currency-induced credit risk
CIHI	–	Croatian Institute for Health Insurance
CPF	–	Croatian Privatisation Fund
CPI	–	consumer price index
CPIA	–	Croatian Pension Insurance Administration
CM	–	Croatian Motorways
CNB	–	Croatian National Bank
CR	–	Croatian Roads
ECB	–	European Central Bank
EFTA	–	European Free Trade Association
EMU	–	Economic and Monetary Union
EU	–	European Union
EUR	–	euro
excl.	–	excluding
f/c	–	foreign currency
FDI	–	foreign direct investment
Fed	–	Federal Reserve System
FINA	–	Financial Agency
FISIM	–	financial intermediation services indirectly measured
f.o.b.	–	free on board
GDP	–	gross domestic product
GVA	–	gross value added
HANFA	–	Croatian Financial Services Supervisory Agency
HICP	–	harmonised index of consumer prices
HRK	–	kuna
incl.	–	including
IMF	–	International Monetary Fund
IPO	–	initial public offering
m	–	million
MIGs	–	main industrial groupings
MM	–	monthly maturity
MoF	–	Ministry of Finance
NCEA	–	National Classification of Economic Activities
n.e.c.	–	not elsewhere classified
NUIR	–	net usable international reserves
OECD	–	Organisation for Economic Co-Operation and Development
OG	–	Official Gazette
R	–	Republic
ROAA	–	return on average assets
ROAE	–	return on average equity
o/w	–	of which
PPI	–	producer price index
Q	–	quarter
RR	–	reserve requirement
SDR	–	special drawing rights
SITC	–	Standard International Trade Classification

USD	–	US dollar
VAT	–	value added tax
ZSE	–	Zagreb Stock Exchange
ZMM	–	Zagreb Money Market

## Symbols

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







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