



CROATIAN NATIONAL BANK

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## Semi-annual Information

on the Financial Condition, the Degree  
of Price Stability Achieved and the  
Implementation of Monetary Policy

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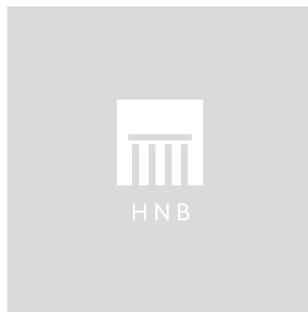
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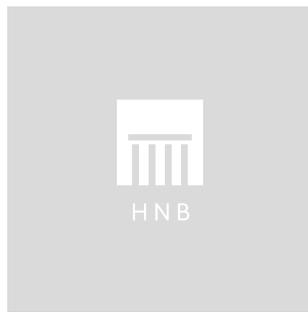
2015



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## 1 Summary

*After six consecutive years of recession, economic activity in Croatia picked up modestly in the first half of 2015. Exports of goods and services grew vigorously, and positive changes were also manifested in personal consumption and, to a slightly lesser extent, in capital investment. The labour market started recovering in the same period, while the drop in consumer prices came to an end. Against this background, the CNB continued to focus on maintaining high liquidity in the banking system, in efforts to help reduce domestic costs of financing and stimulate the economic recovery. The exchange rate of the kuna against the euro was stable, which is crucial for maintaining financial stability in the country. While the fiscal deficit was much lower in the first half of 2015 than in the same period of 2014, the structure of its decrease remained relatively unfavourable as it was based on larger revenues, while the expenditure side of the general government budget remained unchanged.*

After a years-long recession, economic activity picked up in the first half of 2015 as favourable developments from the second half of 2014 gained momentum. While economic growth was only marginal (0.2%) at the beginning of the year, it accelerated noticeably in the following three months, so that real GDP grew by 0.7% on a quarterly level. The real increase in GDP was even larger on an annual level, of 0.5% and 1.2%, respectively, in the first and second quarters of 2015. The largest contribution to overall growth came from exports of goods and services, which was in part due to stronger recovery in Croatia's main trading partners. Positive trends in personal consumption were largely due to the rise in net disposable income triggered mostly by tax amendments. In addition, the drop in prices of oil and refined petroleum products also increased the spending power of households. The aforementioned price developments and more favourable trends in the labour market were also reflected in the increase in consumer optimism, which returned to the pre-crisis level and added to the propensity to consume. Furthermore, government consumption also made a positive contribution, primarily on account of the larger use of goods and services. By contrast, the contribution of investments to annual GDP growth was neutral, although the signs of recovery in private sector investments were visible on a quarterly level.

The slight recovery in the labour market was evident in the steady increase in employment in the first six months of the current year, so that employment on a semi-annual level was 0.4% higher than in the first six months of 2014. The number of the unemployed decreased in the same period, primarily on the basis of employment, while the outflow from the register for other reasons diminished strongly. In line with these developments, the internationally comparable ILO unemployment rate was 16.8% in the first half of 2015, down from 17.7% in the same period of the preceding year. Gross wages also edged up slightly, while net wages grew even more thanks to changes in the income tax system.

Consumer price inflation went up from -0.5% in December 2014 to 0% in June 2015. Such a development was primarily determined by the increase in the annual rate of change in the prices of food products and, to a slightly lesser extent, of industrial products (excluding food and energy). On the other hand, the acceleration of the annual decrease in the prices of

energy in the first half of the year was mostly the consequence of the administrative decision to reduce the price of natural gas in April and, to a lesser degree, the base effect. The annual rate of change in core inflation and the annual rate of change in producer prices in the domestic market (excluding energy) also picked up slightly, from -0.4% and -0.7% respectively in December 2014 to 0.6% and -0.1% respectively in June 2015.

In the first half of 2015, the current account balance improved further compared with the same period of 2014. Within foreign trade, particularly noteworthy were positive results in travel services, while the greater use of EU funds triggered a rise in income based on secondary income. Concurrently, the lower deficit in the primary income account was mostly the consequence of larger revenues from compensations to residents working abroad. If cumulative values over the past year are taken into account, the current account surplus grew to 2.1% of GDP in the second quarter of 2015, while it was 0.4% in the year up to mid-2014.

Foreign capital flows in the first half of 2015 were marked by an increase in debt liabilities of domestic sectors, while net inflows from equity investments were smaller than in the previous year. Other domestic sectors increased their external debt (including debt to affiliated creditors), above all private non-financial enterprises and the government. By contrast, the net debt position of credit institutions and the CNB remained unchanged. The process of foreign deleveraging by credit institutions was concurrent with an equal decline in their foreign assets. The noticeable increase in CNB liabilities was due to the investment of a portion of international reserves in repo agreements, leading to the increase in reserves.

In the first half of 2015, the CNB continued to pursue an expansionary monetary policy, while maintaining the stability of the exchange rate of the kuna against the euro. This policy was reflected in the maintenance of the very high level of liquidity in the domestic monetary system and record low levels of interest rates in the domestic money market. The central bank used its monetary policy to affect domestic financing costs positively, encourage bank lending activity and stimulate the recovery of the Croatian economy.

In the conditions of the high liquidity in the domestic monetary system, the costs of government borrowing on the domestic market remained in the first half of 2015 at the very low levels seen in late 2014, while average interest rates on corporate and household loans edged down compared with the previous year. Notwithstanding lower interest rates and the gradual easing of credit standards indicated by the Bank Lending Survey, households continued to deleverage for the sixth year in a row. Enterprises also reduced their debt to domestic banks in the first half of 2015, but their total debt increased due to greater financing from other sources, primarily from abroad.

The nominal exchange rate of the kuna against the euro was relatively stable in the first half of 2015. The weakening of the kuna in the first two months of the year was triggered by the adjustment of the banks' foreign exchange position to the Croatian government's decision on the fixing of the Swiss franc exchange rate in loan repayment, while the CNB sold to banks a total of EUR 0.5bn in two foreign exchange interventions and put a stop to depreciation pressures. In the following

months, the kuna first became stable and then strengthened gradually against the euro. The average exchange rate of the kuna against the euro thus stood at EUR/HRK 7.63 in the first six months of 2015, equalling the average recorded in 2014.

Gross international reserves of the CNB grew noticeably in the first half of 2015. This was mostly due to the substantial volume of purchases of foreign exchange from the government, reflecting the government's heavier reliance on foreign exchange borrowing both in the domestic and foreign market in 2015. An additional contribution to the growth of gross reserves came from the investment of a part of international reserves in repo agreements, which began in February and led to a simultaneous increase in foreign assets (international reserves) and foreign liabilities of the CNB. At the end of June, gross reserves stood at EUR 13.7bn, up EUR 1.0bn from the end of 2014. In the same period, net usable reserves grew by EUR 0.7bn, to EUR 11.3bn at the end of June (net reserves do not include foreign currency reserve requirements, special drawing rights with the IMF, foreign liabilities, including repo agreements, and MoF deposits with the CNB). Gross and net international reserves remained considerably higher than the narrowest monetary aggregates – reserve money (M0) and money (M1).

The CNB invests international reserve funds predominantly in American and German government bonds, as well as in the securities of other developed countries that are considered safe, its policy being governed primarily by the principles of liquidity and safety. Net international reserves of the CNB comprise the euro and dollar-denominated held-for-trading portfolios, the euro-denominated held-to-maturity portfolio and the funds entrusted to the World Bank under the Reserves and Advisory Management Program (RAMP). The annual rates of return on the CNB held-for-trading dollar and euro portfolios stood at 0.31% and –0.01% respectively in the first six months of 2015. It should be noted that the negative interest rates on euro-denominated instruments maturing in up to four years of almost all countries covered by CNB investments considerably limit the possibility of achieving favourable rates of return on the euro held-for-trading portfolio. The rate of return on the euro held-to-maturity portfolio was 1.59% in the first half of 2015. This portfolio is carried at amortised cost, its average maturity is longer and it serves as a source of more stable longer-term income.

Bank operations in the first half of 2015 continued to be characterised by weak lending activity and deleveraging in both

foreign and domestic financial markets, as well as the fall in interest rates. Banks' pre-tax profits and the indicators of return drifted mildly lower from the first half of 2014. In the first half of 2015, bank profit (from continuing operations, before taxes) was somewhat below HRK 1.5bn, 6.0% less than in the first half of 2014. The key triggers to such developments were amendments to consumer credit regulations which in January 2015 provided for an administratively set exchange rate of the Swiss franc for loan instalments falling due in the next year. In addition, a noticeable increase was recorded in provisions for litigation costs, mostly related to disputes with debtors having Swiss-franc indexed loans.

The loan portfolio quality continued to deteriorate, albeit at a slower pace. The share of partly recoverable and fully irrecoverable loans (risk categories B and C) rose from 17.1% at the end of 2014 to 17.3% at the end of the first half of 2015. B and C category loans increased slightly, but their growth was impeded, among other things, by activities to address difficulties in loan collection, such as the sale of receivables, foreclosure proceedings, write-offs, etc. The coverage of B and C loans by value adjustments steadily increased (to 53.0%) due to the ageing of that part of the portfolio and the regulatory rule on the gradual increase in value adjustments depending on the time elapsed since the debtor's delinquency in meeting obligations.

Risks to bank operations remained adequately covered by capital at the end of the first half of 2015. This is evident in the capital adequacy ratios at the level of all banks, which were much above the prescribed minimum. The total capital ratio stood at 22.3%, growing further from the end of 2014. The slight growth in this ratio was due to the increase in own funds and the decrease in total risk exposure. Exposure to credit risk dropped the most, largely due to the decrease in the average credit risk weight, i.e. the decrease in portfolio riskiness.

The general government deficit under ESA 2010 stood at HRK 9.4bn in the first half of 2015, down by HRK 3.4bn from the same period last year. This reflects the increase in tax revenues, which was spurred by slightly more favourable economic developments, consolidation measures on the revenue and expenditure side as well as the positive base effect on VAT revenues. Public debt grew noticeably less than the deficit in the period under review due to the fact that the government used the funds deposited with the CNB and carried forward from 2014. At the end of June 2015, public debt stood at HRK 283.0bn or 85.7% of GDP, having risen by HRK 3.4bn from the end of the previous year.

## 2 Global developments

Global developments in the first half of 2015 were marked by uncertainties surrounding the slowdown of economic growth in China and expectations of a possible shift in the Fed's monetary policy, along with the decline in the price of oil and key raw materials. Favourable trends were seen in the US in the first half of the year, while developing and emerging market countries continued to experience a deceleration of real GDP growth, with Russia and Brazil slipping into recession. The modest recovery in the euro area continued, almost all Croatia's major foreign trade partners boasting positive GDP growth rates. Real developments, performance and divergent expectations in the monetary area were also reflected in considerable changes in the prices of the world's leading currencies. The exchange rate of the euro weakened sharply against the US dollar and the Swiss franc in the first half of 2015. Crude oil prices in the world markets bottomed out in January 2015 but recovered slightly by the end of June, while raw material prices decreased steadily.

### 2.1 Movements of gross domestic product of selected economies

The American economy saw weaker performance in the first quarter due to unfavourable weather conditions, disruptions at US ports and a significant drop in energy sector investment. However, it grew sharply in the second quarter on the back of stronger personal consumption and investment to the private sector as well as increased accumulation of inventories. The rise in personal consumption was supported by the steady growth in employment, cheaper fuel, the rally in real estate prices and the surge in consumer optimism.

Economic activity in the euro area grew slightly in the first half of 2015 as compared with the preceding half-year. The modest growth in the second quarter was supported by increases in personal consumption and exports of goods and services, with Germany, Spain and the Baltic countries recording

the sharpest economic growth rates. The euro area recovery was supported by falling oil prices and ECB announcements of continued expansionary monetary policy. The greatest risk to the euro area was posed by the Greek debt crisis, which escalated towards the end of the first half of 2015 because of uncertainties surrounding the new assistance programme. As a result, Greek banks and the Athens Stock Exchange were closed for several days and strict controls of capital flows were introduced.

The high growth rates of developing and emerging market economies continued to decelerate, largely due to the fall in export revenues triggered by the drop in prices of oil and other raw materials, tighter external financing conditions, structural limitations as well as economic disruptions caused by political crises and armed conflicts in some countries.

After growing in the first quarter, Japan's economy contracted slightly in the second quarter, predominantly due to the fall in personal consumption and investments in the private sector. The weaker Japanese growth in the first half of the year was also due to a slump in exports to China and a slight increase in unemployment.

The Russian economy contracted in the first six months of 2015. As Russian export revenues depend strongly on oil, the plummeting of crude oil prices triggered a depreciation of the Russian ruble. This raised inflation and diminished the purchasing power of the household sector. The imposition of sanctions against Russia also had an adverse effect on the dynamics of real activity.

The Chinese economy grew more slowly in the first half of 2015 than in the previous year, recording real GDP growth of 7% on an annual level in both quarters of the current year. Chinese imports dwindled due to weaker domestic demand, which posed a significant constraint on global demand. China continued to exhibit significant macroeconomic imbalances and financial sector vulnerabilities.

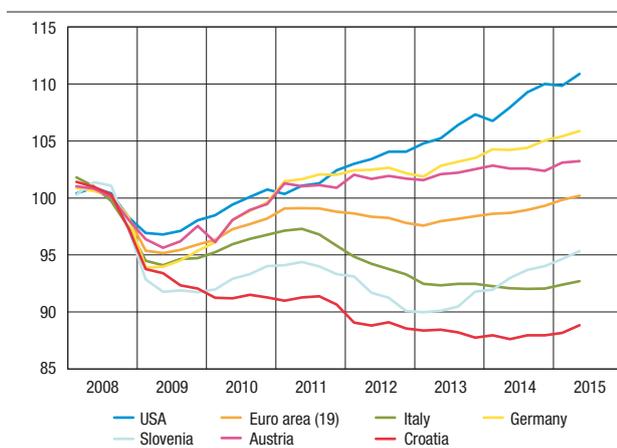
India also recorded economic growth in the first half of 2015, although more slowly in the second quarter, primarily due to a contraction in exports. After the country's years-long struggle with high inflation, inflationary pressures in the Indian economy continued to ease in the first half of the year.

Brazil was in deep recession in the first half of 2015. The fall in real GDP was largely due to a major downturn in personal consumption and private investment, which was also caused by the slump in business confidence triggered by a weaker fiscal position, higher inflation and corruption scandals that have shaken the country. The decrease in the prices of raw materials and oil, which account for a large share in the country's exports, and the slowdown in Chinese demand restrained the recovery of Brazil.

### 2.2 Croatia's main trading partners

The economic activity of all Croatia's trading partners, except Serbia, increased in the first half of 2015, with Slovenia and Germany recording the sharpest growth. The economies of Austria and Italy grew only marginally, while economic growth in Bosnia and Herzegovina picked up noticeably.

Figure 2.1 Gross domestic product of selected economies  
seasonally adjusted data, constant prices, 2008 = 100



Sources: Eurostat, BEA and CNB.

Having been modest in the first quarter, economic growth in Germany accelerated mildly in the second quarter on the back of larger exports, which were mostly due to the weakening of the euro and stronger business confidence in the euro area. The parallel increase in domestic demand was supported by favourable developments in personal consumption triggered mostly by the steady increase in employment, larger disposable incomes and the fall in energy prices.

The Austrian economy grew noticeably in the first quarter but slowed down in the second quarter. Modest growth in personal and government consumption had a positive impact while lower exports had the opposite effect on the dynamics of economic activity in the second quarter.

After favourable economic developments in the first quarter, Italy recorded positive growth rates in the second quarter as well, which supports expectations that Italy could for the first time since 2011 record real GDP growth at the level of the whole of 2015. The second-quarter growth was spurred by exports and the recovery in personal demand, which was still constrained by high unemployment, as well as a sharp increase in exports.

Favourable developments in the Slovenian economy continued from the first to the second quarter with economic growth rates exceeding the euro area average by a large margin. The largest contribution to second quarter growth came from exports of goods, coupled with the growth in industrial production and the construction sector supported by EU structural funds.

The Serbian economy was in recession in 2014 (partly due to floods) and the first quarter of the current year, but recorded growth in the second quarter. The increase was mostly due to investment and net exports on the back of the recovery in the mining and energy sector.

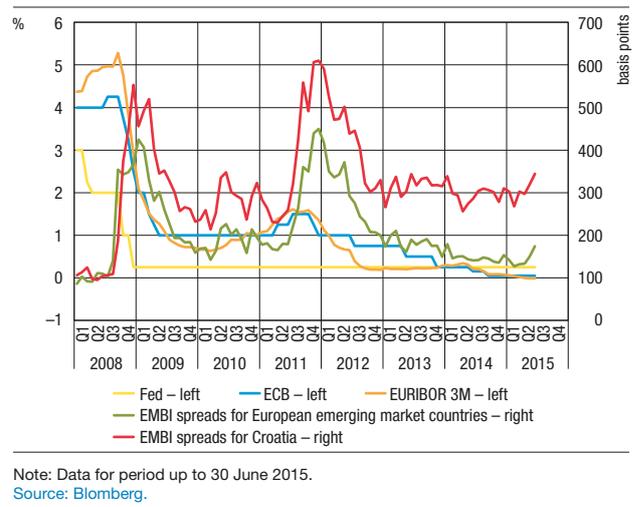
In the first half of 2015, Bosnia and Herzegovina also recovered from economic disruptions caused by last year's floods. It recorded a positive real rate of economic growth in the first quarter, with favourable developments continuing in the second quarter, thanks also to industrial production growth and positive trends in the labour market.

### 2.3 Benchmark interest rate trends

The sustained expansionary monetary policy helped maintain euro benchmark interest rates at record low levels in the first half of 2015. Against this background, the 3-month EURIBOR rate averaged zero in the first half of the year, while the average financing terms for European emerging markets remained almost unchanged from the end of 2014. Still, an increase in borrowing costs was seen towards the end of the first half of 2015. The ECB stressed its intention to maintain the benchmark interest rate at around zero as long as unconventional expansionary monetary policy measures were in force, including the continued government bond repurchase programme in the secondary market. On the other hand, while the Fed kept its benchmark interest rate unchanged at 0.25% in the first half of 2015, it has been announcing for a long time that the rate may be raised gradually in the future.

The Croatian government bond yield spread steadily increased in the first six months of the current year, standing at 344 basis points in June, which is almost 35 basis points more than at the end of 2014. The yield spread for Croatia

Figure 2.2 Benchmark interest rates and the average yield spread on bonds of European emerging market countries end of period

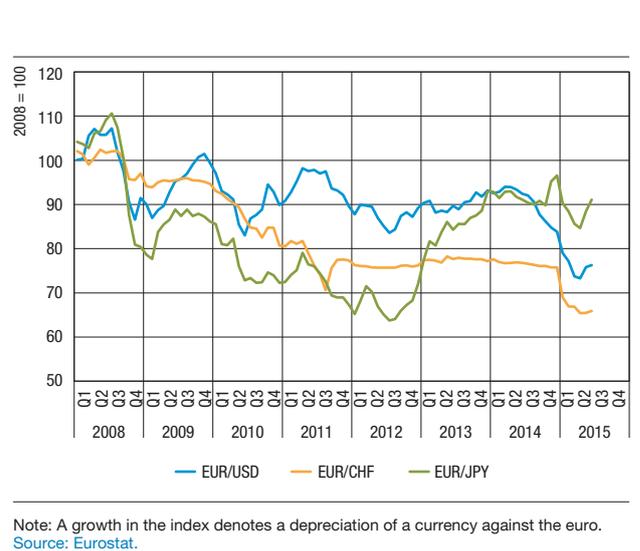


continued to be much larger than for other Central and Eastern European countries, with the difference growing further in the first six months.

### 2.4 Exchange rates and price movements

Both the US dollar and the Swiss franc appreciated against the euro in the first six months of 2015 relative to the average value in 2014, by 16.0% and 13.0% respectively. In the first four months of 2015, the US dollar strengthened against the euro due to the better performance of the US than the European economy in the last quarter of 2014, divergent monetary policies of the Fed and the ECB and the beginning of the ECB's quantitative easing programme. The European currency was additionally pressured by large uncertainties surrounding the solution to the Greek debt crisis. In May and early June, the US dollar weakened slightly against the euro after the release of somewhat less favourable results of the US economy in the first quarter, signs of economic recovery in the euro area and

Figure 2.3 Exchange rates of individual currencies

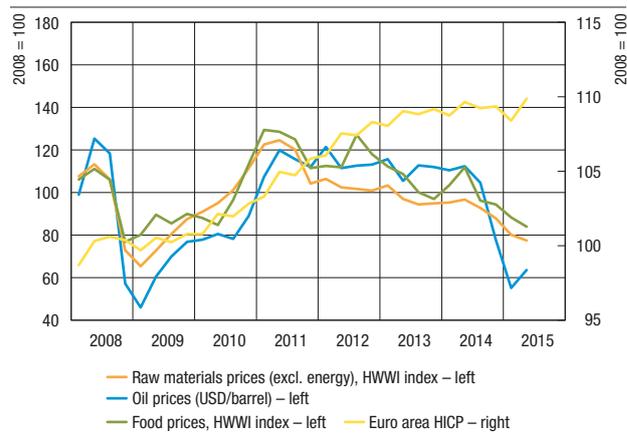


the announcement that the Fed could postpone the increase in interest rates. The nominal US dollar/euro exchange rate stood at USD 1.11/EUR at the end of June. The Swiss franc steadily strengthened versus the euro in the first four months after the unexpected decision of the Swiss central bank in mid-January 2015 to no longer defend the exchange rate floor of CHF 1.20/EUR. In the remainder of the period the Swiss franc/euro exchange rate did not fluctuate strongly and hovered around the average of CHF 1.04/EUR in May and June.

Having bottomed out in January 2015, the price of crude oil rebounded mildly in the following two months, with an average price of USD 53.9 for a barrel recorded in the first quarter. The growth continued in the second quarter, mainly due to intensified geopolitical tensions in the Middle East and expectations regarding slower crude oil production in the US. The Brent crude oil price grew from USD 53 per barrel in late March to USD 61 at the end of June.

The prices of raw materials, excluding energy, measured by the HWWI index (in US dollars), which decreased in the second half of 2014, continued to decline in the first half of 2015, though the pace of the decrease slowed down from the first to the second quarter. Such developments were mostly a result of the fall in the prices of iron ore and non-ferrous metals triggered by global uncertainties regarding demand from China, one of the largest importers. In addition, food prices went steadily down from the beginning of the year, with the exception of June, due to a sharp decrease in prices of cereals,

Figure 2.4 Prices



Sources: Eurostat, Bloomberg and HWWI.

oilseeds and sugar. The fall in food prices was supported by favourable weather conditions in most producing regions and the strengthening of the US dollar. For this reason, the prices of food raw materials in America were reduced in efforts to preserve global competitiveness.

## 3 Aggregate demand and supply

Economic growth in Croatia picked up noticeably in the first half of 2015 after being stagnant throughout the previous year. GDP growth was mild in the first quarter of 2015 compared with the end of 2014 but it intensified significantly in the second quarter, so that real GDP increased by 0.7% on a quarterly basis. On an annual basis, economic activity grew by 0.8% in the first half of 2015 from the same period of 2014, largely due to the rise in net exports (0.9 percentage points).

### 3.1 Aggregate demand

In the first quarter of 2015, exports of goods and services expanded by a high 2.9% on a quarterly level mainly as a result of the rise in goods exports (2.5%). The growth in goods exports picked up further in the second quarter (5.7%), in part due to favourable economic developments in Croatia's main trading partners. According to nominal data on the trade in goods, the increase in the first half of 2015 was predominantly fuelled by exports of capital goods, notably ships, and non-durable consumer goods, in particular food products. Exports of services also recorded positive trends, being as much as 6.2% larger in the first half of 2015 than in the same period of the preceding year.

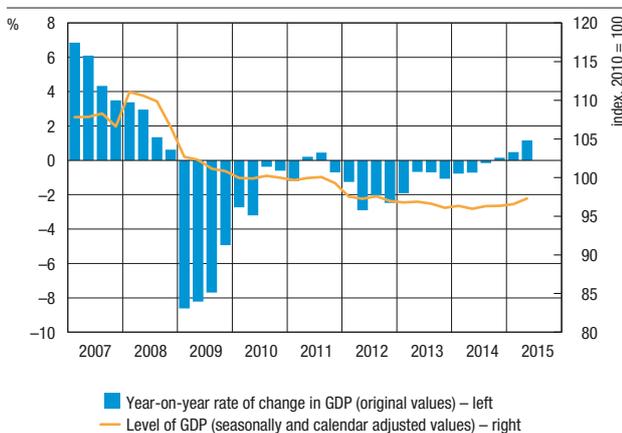
After falling for several years, personal consumption started to rebound in the first half of 2015. Household consumption grew by 0.7% in the first quarter and by another 0.4% in the second quarter. Such trends reflect the increase in net wages arising from changes in the income tax system, as well as more favourable developments in the labour market, leading to a rise in household disposable income. In addition, the drop in prices of oil and refined petroleum products also increased the spending power of households. The aforementioned price developments and more favourable trends in the labour market were also reflected in the increase in consumer optimism, which returned to the pre-crisis level and added to the propensity to consume.

Investments grew sharply (2.2%) in the first three months of 2015 compared with the last quarter of 2014 but levelled off in the second quarter. Available data point to larger capital investment of the private sector early in the year and stagnation in the second quarter while general government investment seemed to have stagnated.

Government consumption held steady in the first quarter of 2015 (-0.1%) relative to the previous quarter but shrank in the second quarter (-0.4%). However, it grew on an annual basis (0.5%) in the first six months of 2015, which is partly attributable to the increase in intermediary consumption.

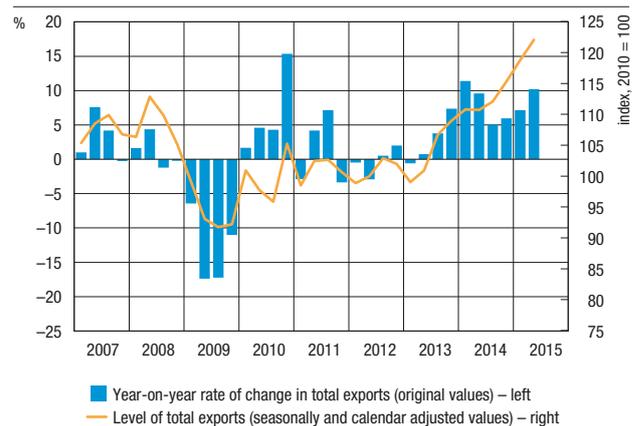
Owing to the expansion of exports and domestic demand in the first half of 2015, imports of goods and services also grew distinctly. The increase was particularly pronounced at the beginning of the year, but it decelerated sharply in the second quarter. Nominal data on trade in goods in the first six

Figure 3.1 Gross domestic product  
real values



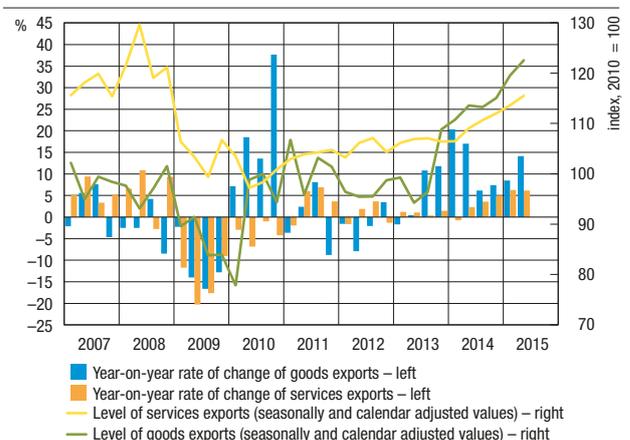
Source: CBS data seasonally adjusted by the CNB.

Figure 3.2 Exports of goods and services  
real values



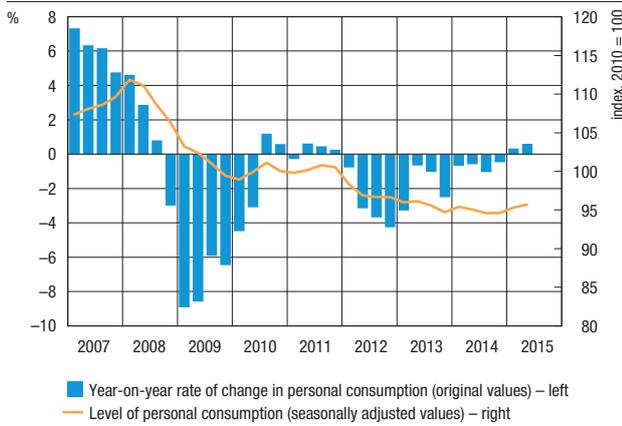
Source: CBS data seasonally adjusted by the CNB.

Figure 3.3. Real exports of goods and services



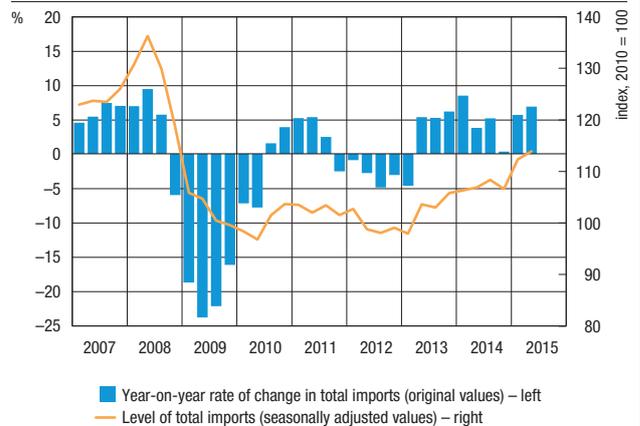
Source: CBS data seasonally adjusted by the CNB.

**Figure 3.4 Personal consumption**  
real values



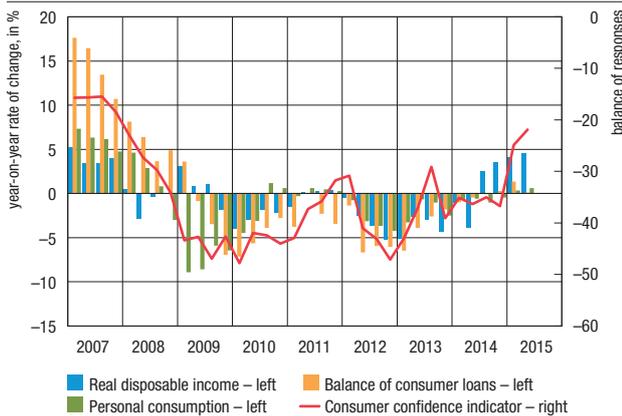
Source: CBS data seasonally adjusted by the CNB.

**Figure 3.7 Imports of goods and services**  
real values



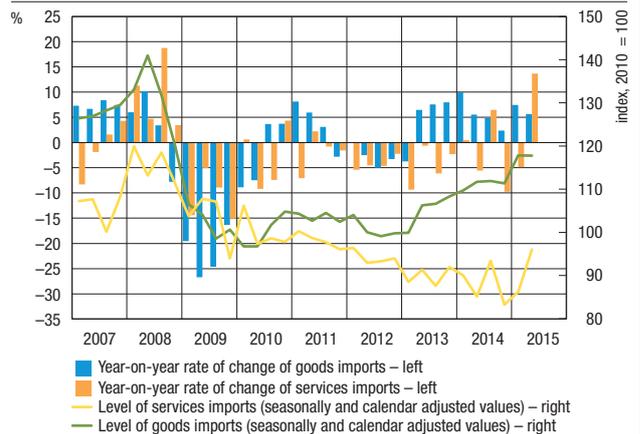
Source: CBS data seasonally adjusted by the CNB.

**Figure 3.5 Determinants of personal consumption**



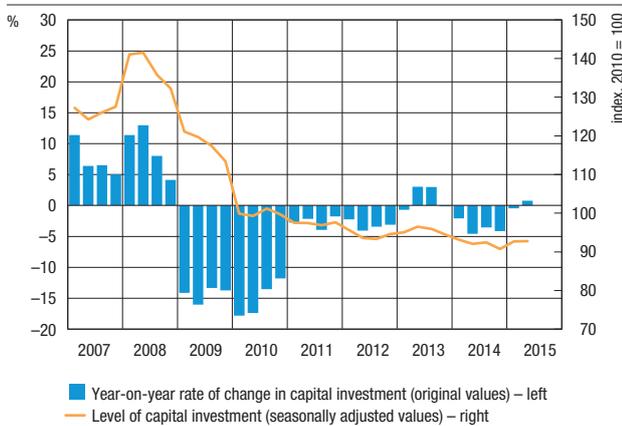
Note: The values of the consumer confidence indicator in a month are calculated as averages of monthly data.  
Sources: CBS, Ipsos and CNB.

**Figure 3.8 Real imports of goods and services**



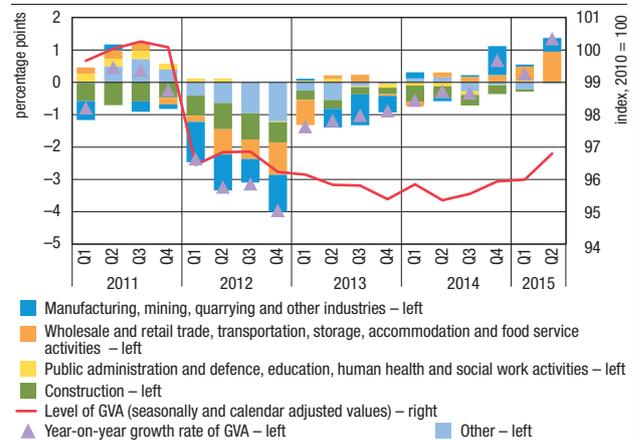
Source: CBS data seasonally adjusted by the CNB.

**Figure 3.6 Gross fixed capital formation**  
real values



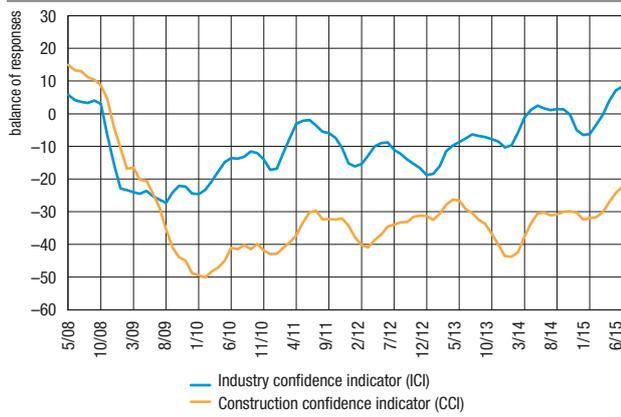
Source: CBS data seasonally adjusted by the CNB.

**Figure 3.9 Change in GVA**  
contribution by components



Source: CBS data seasonally adjusted by the CNB.

**Figure 3.10 Business confidence indicators**  
three-member moving averages of monthly data



Note: The presented values are three-member moving averages of monthly data. The Business Confidence Survey has been carried out since May 2008.  
Source: Ipsos.

months of the year show strong growth in all the main industrial groupings, except energy. The drop in the imports of energy was largely determined by oil price developments. Imports of services edged up slightly in the first quarter but grew significantly in the second quarter, with an especially sharp increase recorded in telecommunication and IT services and travel services.

### 3.2 Aggregate supply

The growth in real gross value added was slight early in the year but picked up pace in the second quarter. On an annual basis, gross value added was 0.8% larger in the first half of 2015 than in the first half of 2014. The major contributors to this were retail trade, transportation and storage, manufacturing, mining and quarrying. The opposite effect was produced by gross value added developments in agriculture, forestry and fishing, construction, and information and communication activities.

## 4 Labour market

Favourable developments were seen in the labour market in the first half of 2015 owing to the slight increase in economic activity. Employment (CPIA data) increased steadily in that period and was 0.7% higher at end-June 2015 than at end-2014. The growth was most pronounced in the majority of private and public sector service activities. Employment held steady in industry, trade and construction and continued to decline in agriculture.

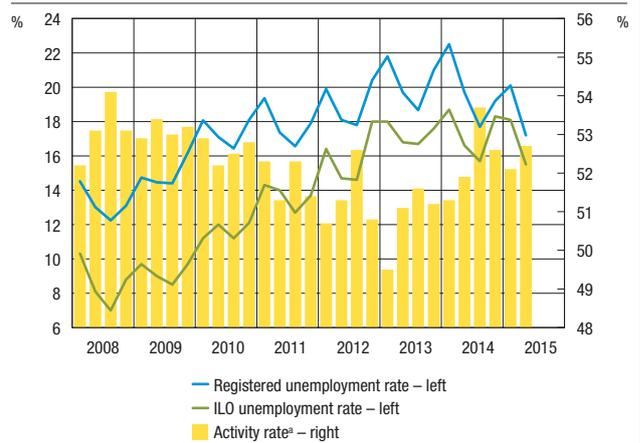
The first half of 2015 was also characterised by favourable developments in unemployment. The decrease in the number of unemployed persons registered with the CES (of 3.9% from the end of 2014) was primarily due to positive net outflows on the basis of employment and other business activities and to other reasons to a lesser extent (mostly removals from the register).

As a result of the described movements in employment and unemployment, the administrative unemployment rate went down in the period under review, from 18.6% at end-2014 to 18%, which is the average value in the first six months of 2015 (seasonally adjusted data). The internationally comparable ILO unemployment rate averaged 16.8% in the first half of 2015, down from 17.7% in the same period of the preceding year.

In addition to volume indicators, financial indicators of the labour market were also somewhat more favourable in the first half of 2015. Gross wages (nominal and real) continued to drift up slowly, with the most pronounced growth being

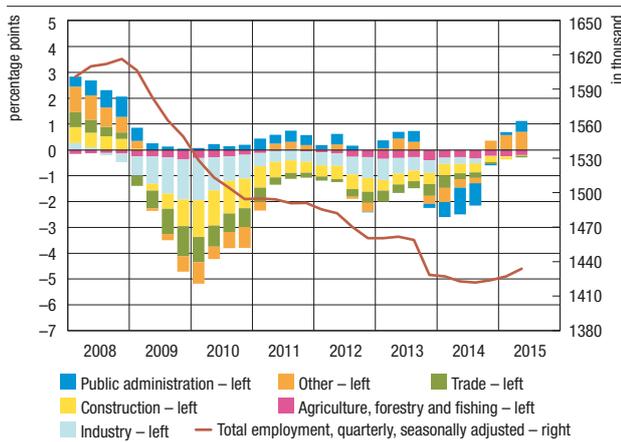
recorded in trade and other private sector service activities, gross wages in industry stagnated, while they dropped in the public sector. In the same period, net wages grew in all sectors because of tax legislation changes. Productivity was on average stagnant in the first half of the year so that unit labour costs increased slightly.

Figure 4.2 Unemployment and activity rates



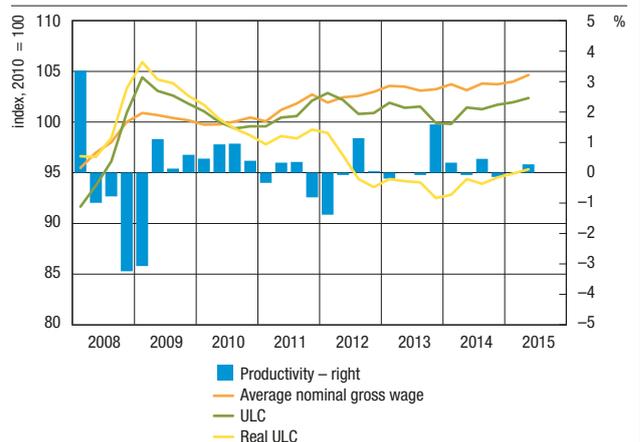
<sup>a</sup> The labour force as a percentage of working age population (15+).  
Sources: CES and CBS.

Figure 4.1 Total employment and contribution to the year-on-year change in employment by sector year-on-year rate of change



Source: CPIA data seasonally adjusted by the CNB.

Figure 4.3 Gross wages, productivity and unit labour costs seasonally adjusted series, levels and quarterly rates of change



Sources: CBS and CPIA data seasonally adjusted by the CNB.

## 5 Inflation

The average annual rate of change in consumer prices in Croatia stood at  $-0.2\%$  in the first half of 2015 and was largely a result of much lower crude oil prices in the global market compared with the first half of 2014, weak demand-pull and cost-push inflationary pressures and low euro area inflation.<sup>1</sup> By contrast, the annual rate of change in core inflation and producer prices in the domestic market picked up. The indicators of current inflation developments mostly increased in the period from January to April, after which they point to abatement of short-term inflationary pressures.

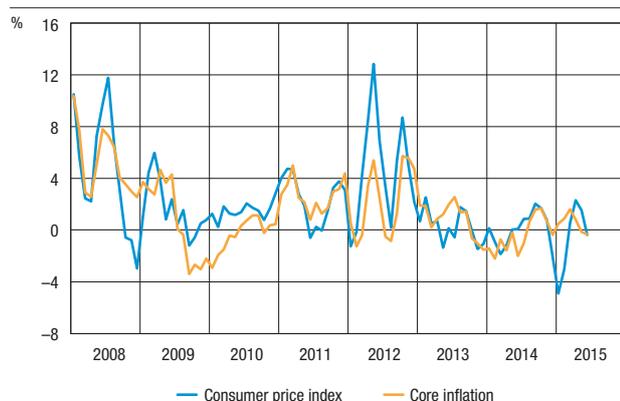
Annual consumer price inflation went up from  $-0.5\%$  in December 2014 to  $0\%$  in June 2015, mostly as a result of the increase in the annual rate of change in the prices of food products and, to a lesser extent, industrial products (excluding food and energy). The prices of food products increased more in the first six months of 2015 than in the same period of 2014. The negative contribution of food products to annual inflation started to decrease in the second half of 2014 due to unfavourable weather conditions during the summer and the waning effects of the previous fall in the prices of these products after the accession of the Republic of Croatia to the EU. Furthermore, the annual rate of change in the prices of industrial products also grew from January to June so that their contribution to annual inflation was positive (0.1 percentage points) in February, for the first time after two years in which it had been negative. Among the mentioned products, the contribution of the prices of clothing and footwear increased the most.

On the other hand, the annual fall in the prices of energy accelerated slightly (from  $-2.2\%$  in December 2014 to  $-3.0\%$  in June) in the first six months of 2015. This was mostly the consequence of the administrative decision to reduce the price of natural gas in April<sup>2</sup> and, to a lesser degree, the base effect. The contribution of the considerable fall in the prices of refined

petroleum products in January was offset by the rise in these prices in the period from March to May, which was the consequence of the volatility of crude oil prices in the world market. In addition, excises on refined petroleum products were raised in April.

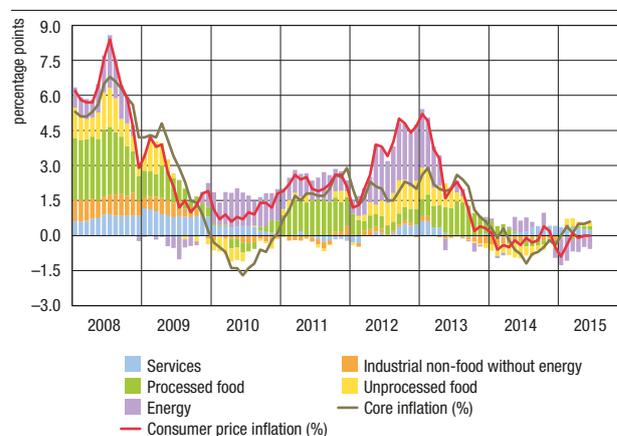
The annual rate of change in producer prices in the domestic market (excluding energy) also picked up slightly (from  $-0.7\%$  in December 2014 to  $-0.1\%$  in June 2015), suggesting that downward pressures on consumer prices from this source weakened gradually. Such trends are also reflected in the movements in the annual rate of core inflation, which was positive in the first half of 2015, growing from  $-0.4\%$  in December 2014

**Figure 5.1 Consumer price index and core inflation**  
annualised month-on-month rate of change



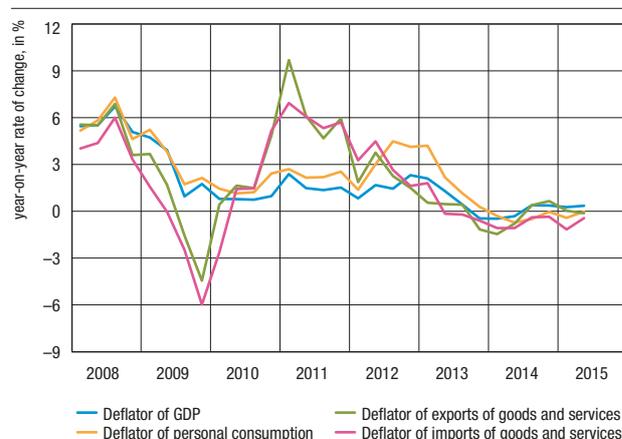
Note: The month-on-month rate of change is calculated from the quarterly moving average of seasonally adjusted price indices.  
Sources: CBS and CNB calculations.

**Figure 5.2 Year-on-year inflation rates and contribution of components to consumer price inflation**



Note: Core inflation excludes agricultural product prices and administrative prices.  
Sources: CBS and CNB calculations.

**Figure 5.3 Deflator of GDP and its individual components**



Source: CBS.

- Results of the analysis presented in Box 2 Decomposition of recent inflation rates into domestic and external factors show that external shocks of food raw materials and oil prices have contributed the most to low inflation in Croatia ever since mid-2013.
- The impact of the 6.5% cut in gas prices on monthly inflation was  $-0.2$  percentage points in April 2015.

to 0.6% in June 2015. The acceleration of the core inflation rate was largely due to the rise in the annual rate of change in the prices of processed food products and clothing and footwear. In addition to following common inflation trend indicators, including the annual rates of the overall and core CPI, the Croatian National Bank analyses the inflation diffusion index in Croatia as an additional indicator of trends in inflationary pressures. This indicator shows that mild and stable inflationary pressures were present in the first half of 2015 (for more details on the trends in the inflation diffusion index in Croatia and countries in the environment, see Box 1 Trends in the inflation

diffusion index in Croatia and countries in the environment).

The annual rate of change in the deflator of imports of goods and services fell in the first quarter and grew in the second quarter of 2015 (still remaining negative), which indicates a slight weakening of deflationary pressures arising from the decrease in prices of raw materials and final products in the external environment. On the other hand, the deflator of exports of goods and services stagnated in the first quarter and dropped marginally in the second quarter of 2015, which indicates that trade conditions improved less than in the preceding three quarters.

### Box 1 Trends in the inflation diffusion index in Croatia and countries in the environment

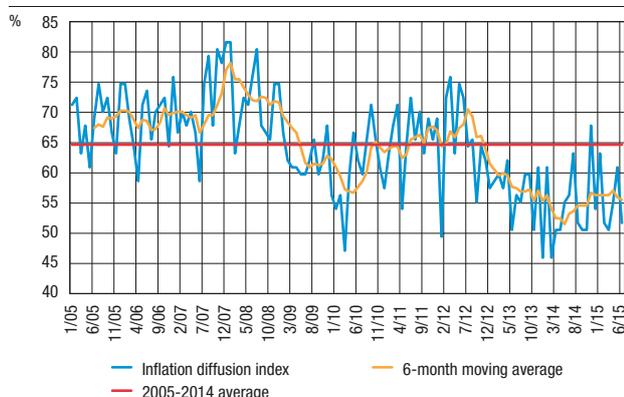
The inflation diffusion index shows the share of the number of products whose prices increased in a given month in the total number of products in the CPI basket and indicates whether an increase or decrease in prices is diffused across most of the economic sectors. The share of components whose prices fell on a monthly basis in that period increased in the period from mid-2012 to mid-2014. The fall in prices was not diffused across most of the economic sectors and it primarily reflected a decrease in crude oil and food raw materials' prices in the world market as well as a drop in euro area producer prices. The inflation diffusion index trend changed in mid-2014 as the index gradually increased in the second half of 2014 while it became stable in the first six months of 2015.

In addition to following common inflation trend indicators, including the annual rates of the overall and core CPI, the Croatian National Bank calculates the inflation diffusion index as an additional indicator of trends in inflationary pressures. This index shows the share of the number of products whose prices increased<sup>3</sup> in a given month in the total number of products in the HICP basket.<sup>4</sup> The calculation of the inflation diffusion index does not take into account the weight of a product or component in the aggregate CPI, in order to avoid the overestimation of

the effects of the components carrying a relatively large weight in the aggregate index. The inflation diffusion index shows a value that is higher (lower) than 50% if most of the goods and services record a rise (fall) in prices. This is an indication of whether the rise or fall in prices is diffused across most of the economic sectors, which aids to the assessment of whether inflationary pressures strengthened or weakened over a given period.

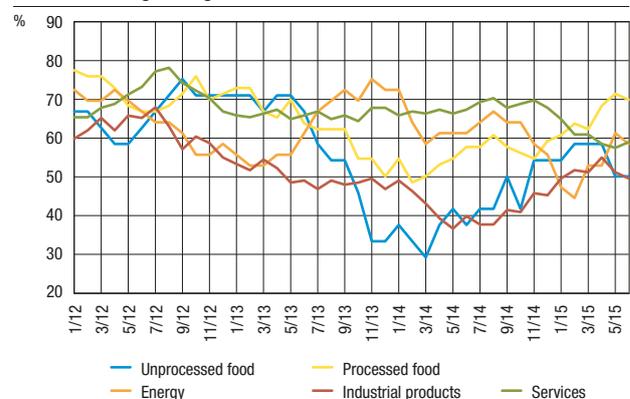
Figure 5.4 shows that the inflation diffusion index in Croatia (measured by a 6-month moving average) was mostly slightly above its long-term average in 2005 and 2006. Inflationary pressures started to mount in the second half of 2007 due to an increase in imported inflation, primarily a price growth in food raw materials and crude oil in the world market. The inflation diffusion index reached a maximum of 78% in January 2008 (significantly exceeding the long-term average of 65%), signalling that a great majority of products in the HICP basket recorded a price increase. Following this, the index was on a two-year downward trend, falling to 57% in April 2010. The mentioned weakening of inflationary pressures resulted from a sharp decrease in imported inflation and to a smaller extent from the weakening of foreign and domestic economic activity. The inflation diffusion index returned to its average long-term level in late 2010 and

**Figure 5.4 Trends in the inflation diffusion index in Croatia**  
the share of the overall HICP components whose prices increased on a monthly basis



Note: The calculation is based on the monthly rates of change derived from the seasonally adjusted components of the HICP. Data up to June 2015.  
Sources: Eurostat and CNB calculations.

**Figure 5.5 Trends in the inflation diffusion index by the main HICP components in Croatia**  
the share of subcomponents whose prices increased on a monthly level, 6-month moving average



Note: The calculation is based on the monthly rates of change derived from the seasonally adjusted components of the HICP. Data up to June 2015.  
Sources: Eurostat and CNB calculations.

<sup>3</sup> The index also includes products whose prices remained unchanged in the current month from the previous month.

<sup>4</sup> Based on 87 seasonally adjusted components of the HICP.

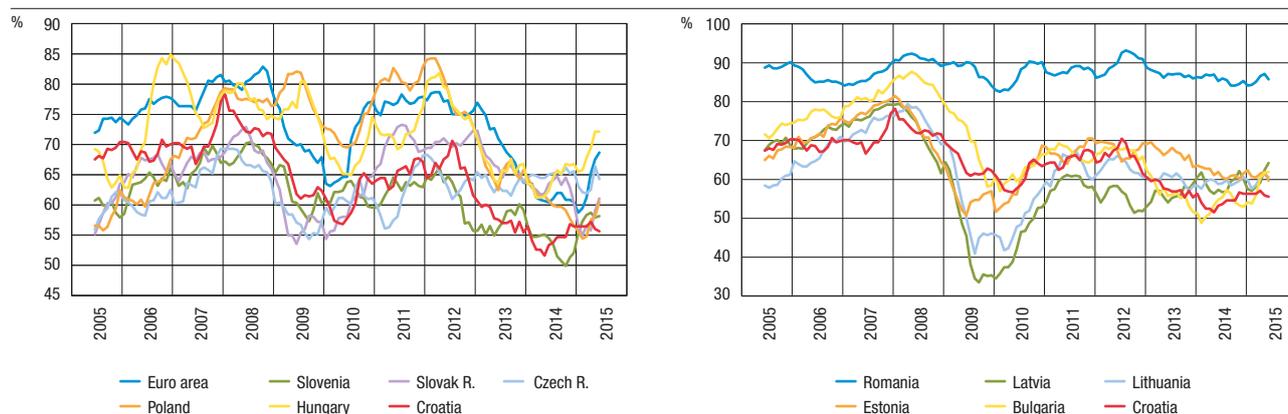
held steady in 2011. A temporary increase in the inflation diffusion index in the first half of 2012 could be attributed largely to administrative decisions increasing the basic VAT rate and electricity and gas prices. This was followed by a two-year period of weakened inflationary pressures, during which the share of the components whose prices fell on a monthly basis increased (from 30% in July 2012 to 48% in May 2014). However, the price decrease was not diffused across most of the economic sectors, that is, deflation pressures were not strong. Such developments primarily reflected a decrease in crude oil and food raw material prices in the world market as well as a drop in euro area producer prices as well as, in a smaller measure, weak foreign and domestic economic activity and an increase in competition in the domestic market caused by Croatia's accession to the EU. The inflation diffusion index trend changed in mid-2014 as the index gradually increased up to the beginning of 2015. In the second half of 2014, the number of products whose prices increased grew by 3.1 percentage points relative to the first half of the year, while their number stabilised at the average level of 56% in the first half of 2015, which is somewhat more than a year ago but below its long-term average. When observing the main HICP components (Figure 5.5) one can notice that industrial products and food products recorded the strongest growth in the share

of the number of products whose prices increased in a given month in the total number of products. By contrast, the share of services whose prices increased dropped sharply, from 68% in December 2014 to 59% in June 2015.

### International comparison of Croatia and selected countries

The inflation diffusion index fell in most CEE countries in 2013 and 2014, signalling a slight increase in deflation pressures, as a result of an increase in the share of products in the HICP basket whose prices fell. However, it needs to be emphasised that, despite a significant decrease, the inflation diffusion index (measured by a 6-month moving average) in all the countries remained above the benchmark level of 50%, indicating that the price decrease did not involve the majority of products. Inflationary pressures weakened the most in Poland, the euro area and Bulgaria during the mentioned period. In early 2015, the share of products whose prices increased on a monthly level started to grow again in most of the countries. The pace of increase in the inflation diffusion index in the first half of 2015 was especially high in Bulgaria and the euro area, continuing to drop slightly only in Estonia and the Czech Republic.

Figure 5.6 Trends in the inflation diffusion index in Croatia and countries in the environment  
the share of the overall HICP components whose prices increased on a monthly basis, 6-month moving average



Note: The calculation is based on the monthly rates of change derived from the seasonally adjusted components of the HICP. Data up to June 2015.  
Sources: Eurostat and CNB calculations.

## Box 2 Decomposition of recent inflation rates into domestic and external factors

The box seeks to identify the main determinants of domestic CPI inflation in view of the currently low inflation rates in Croatia and to decompose inflation into domestic and external factors. Results of the analysis indicate that the subdued inflation in the last two years primarily reflects the spillover of foreign food and energy prices onto domestic consumer prices. Unfavourable real developments, both in Croatia and the EU, also contribute to

deflationary pressures, although to a much smaller extent than the external shocks of food and oil prices.

The analysis draws upon a series of papers on domestic inflation that emphasise the importance of external shocks for inflation dynamics<sup>5</sup>, assessing the impacts of domestic real developments on inflation as relatively insignificant. Considering the recent correspondence between subdued inflation and

5 See: Jankov, Lj. et al. (2008): *The Impact of the USD/EUR Exchange Rate on Inflation in the Central and East European Countries*, Comparative Economic Studies; Krznar, I., and D. Kunovac (2010): *Impact of External Shocks on Domestic Inflation and GDP*, Croatian National Bank, Working Papers, W-26; Krznar, I. (2011): *An Analysis of the Domestic Inflation Rate Dynamics and the Phillips Curve*, Croatian National Bank, Working Papers, W-31; and Kunovac, D., and G. Jovičić: *What Drives Inflation in a Small European Economy: The Case of Croatia*, the 21st Dubrovnik Economic Conference.

unfavourable trends in the domestic real cycle, the extent to which (long-lasting) unfavourable domestic developments affect low inflation rates was analysed in comparison with external shocks. In order to achieve this, a historical decomposition into domestic and foreign shocks was performed for the inflation rate in Croatia.

Domestic shocks analysed included the real economic activity shock and the domestic consumer inflation shock, while external variables were used to identify the external real shock, the foreign core inflation shock and the shocks of oil and food prices in the global market.<sup>6</sup> Despite the importance that the exchange rate of the kuna against foreign currencies has for domestic prices, it was not included in the model as a separate variable, so that a model with as few unknown parameters as possible could be defined. This is particularly important bearing in mind the short time series used in the analysis. Nevertheless, it is important to note that the USD/HRK exchange rate is at least as important in the mechanics of transmission of the exchange rate to prices as the EUR/HRK exchange rate. This is particularly interesting considering the fact that the US dollar is used several times less in Croatian foreign trade than the euro<sup>7</sup>, probably as a result of its significantly greater volatility as opposed to the relatively stable EUR/HRK exchange rate. In this analysis, trends in the USD/HRK exchange rate were only implicitly included through the prices of crude oil expressed in kuna. Such a simplification is rational keeping in mind that most domestic consumer prices sensitive to trends in the USD/HRK exchange rate are related to energy prices.

In order to examine the robustness of the model, alternative specifications were tested, which, in various combinations, consider survey inflation expectations<sup>8</sup>, unit labour costs, the EUR/

USD exchange rate, domestic producer prices and alternative foreign price indicators as well. It has been found that the results of alternative specifications do not significantly alter the fundamental findings of the analysis, which is why a specification with a total of six variables was followed: the domestic GDP gap and CPI inflation were variables included in the domestic block of variables, while foreign industrial production, core inflation in the euro area and the global prices of oil and food constituted the foreign block.

The structural analysis of the historical decomposition of inflation was based on a Bayesian structural VAR model with block exogeneity restrictions<sup>9</sup>. The model based its assessment on the monthly data from April 2001 to June 2015. All series are expressed in annual rates of change, apart from the GDP gap, whose quarterly values have been reduced to a monthly level by interpolation. The block exogeneity of foreign variables was used for the accurate modelling of shock transmission from a large economy (the EU, or, in more general terms, the global economy) to a small open economy (Croatia). Restrictions used provided for the impact of external shocks on the small economy, but at the same time closed the channel through which shocks in the small economy affect the large economy. Such restrictions proved necessary for an accurate identification of the structural shocks of the model. Upon estimating model parameters, structural shocks were identified and a standard structural BVAR analysis was performed – reactions to economic shocks were calculated and a historical decomposition of levels of particular series was carried out.

The historical inflation decomposition for the periods of recent low inflation in Croatia was of primary interest for this analysis. Historical decomposition proved a suitable methodological

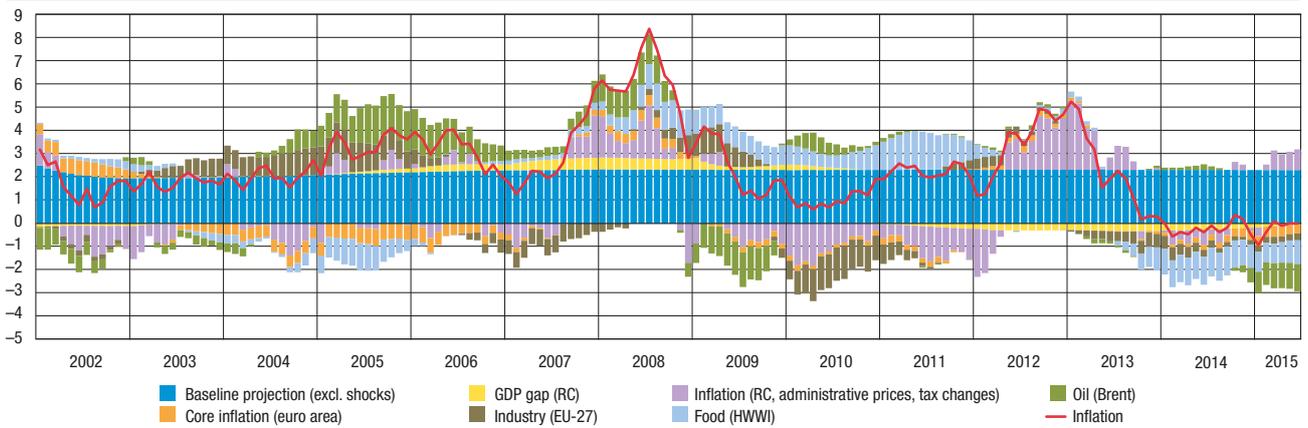
6 The domestic real variable is the GDP gap calculated via the Cobb-Douglas production function, whereas the inflation is calculated as the inter-annual CPI rate of change. Monthly external real activity is represented by the industrial production index for 27 EU member states, while core inflation is represented by HICP inflation for the euro area, excluding food and energy. Prices of crude oil are represented by the Brent oil index in kuna terms, while prices of food are represented by the corresponding HWWI index. Instead of the HWWI raw material price index, EU consumer food prices may be used as foreign food prices. In that case, they incorporate the channels of transmission of foreign raw material prices and consumer prices on domestic consumer prices. This model proved to be more economical than channel modelling, but equally as efficient: foreign raw material prices → domestic PPI (or import prices) → domestic CPI (see Krznar, I., and D. Kunovac, 2010). However, in order to comply with similar analyses contained in the literature, foreign food prices are represented by prices of raw materials.

7 This is easy to illustrate if a generic nominal effective exchange rate is constructed in order to weigh the exchange rates of the kuna versus the US dollar and the euro by the corresponding portion of trade conducted in dollars/euros in the balance of payments of the Republic of Croatia (around 80% in euros and 20% in dollars). The correlation between annual changes in such an exchange rate and the USD/HRK exchange rate is approximately 90%, whereas the correlation with the EUR/HRK exchange rate is significantly smaller, around 70%. Certainly, the importance of the variation of the USD/HRK exchange rate for consumer prices, equal to or even greater than that of the EUR/HRK exchange rate, depends exclusively on the stability of the latter. Pronounced variations in the EUR/HRK exchange rate would undoubtedly have a significant impact on domestic prices; however, as such variations have not occurred thus far, the transmission to prices is by and large materialised through the USD/HRK exchange rate. To illustrate all of the above, it is sufficient to consult the firm survey on the manner in which the prices of the respondents' main products are formed. Almost all export/import companies participating in the survey claimed they would alter the prices of their products as a result of a change in the exchange rate above 2%. For details on the survey see: Pufnik, A., and D. Kunovac (2013): *The Pricing Behaviour of Croatian Companies: Results of a Firm Survey and a Comparison with the Eurozone*, Croatian National Bank, Working Papers, W-36.

8 Survey inflation expectations were calculated using the Carlson-Parkin method and, constructed in such manner, they do not provide any explanation for inflation variability, which is an interesting finding in the context of the evaluation of the New Keynesian Phillips curve (see Krznar, I., 2011, for different findings based exclusively on model expectations).

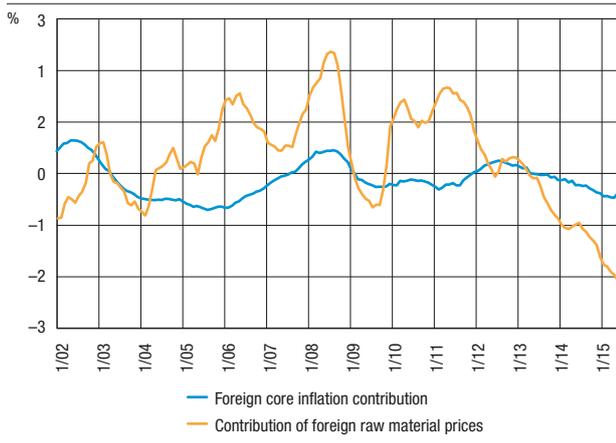
9 Posterior distribution of non-structural parameters is approximated using MCMC simulations. Based on 10,000 Gibbs sampling simulations, the model was identified recursively, with foreign variables preceding domestic variables. Block exogeneity was implemented using the appropriate prior distribution defined by determining the domestic variable parameters in the foreign block equations with zero expectation and extremely small variance. Corresponding posterior distributions thus stand under the dominant influence of prior distribution and sample information is mostly ignored, which ultimately enables the block exogeneity of the foreign block to be implemented. For model details, see Kunovac, D.: *Structural BVAR with Block Exogeneity and Sign Restrictions* (forthcoming).

Figure 5.7 Inflation decomposition into baseline projection and domestic and external shocks



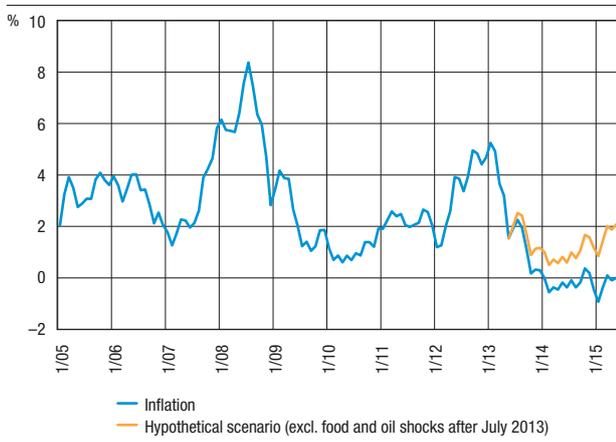
Source: CNB.

Figure 5.8 Contributions of euro area core inflation shocks and external shocks of food and energy to domestic inflation



Source: CNB.

Figure 5.9 Actual CPI inflation and a hypothetical scenario that excludes external shocks of food and energy



Source: CNB.

framework for the analysis of specific economic episodes such as the recent trends in consumer prices because it enables the identification of shocks which predominantly characterise a particular period. In terms of methodology, a historical decomposition breaks down the time series into two components. The first component represents a baseline projection, i.e. a scenario which does not take economic shocks (whether domestic or external) into account, while the other component includes only economic shocks that occurred in the past. In addition, by disregarding the impacts of particular shocks, i.e. by their selective exclusion, it is possible directly to analyse particular hypothetical scenarios (counterfactual analysis). In the context of the current low domestic inflation rate, a hypothetical inflation rate was constructed under the assumption that there had been no negative external shocks of prices of energy and food and that these variables moved within the range of their expected (average historical) values.

Figure 5.7 shows the breakdown of CPI inflation into the baseline projection and historical shocks. The results clearly demonstrate that, after mid-2013, low inflation was predominantly caused by external shocks. Strong negative external shocks of prices of food raw materials and oil and unfavourable trends in the external real sector are primary causes of recent low inflation rates. The spillover of foreign food prices on domestic prices had the most significant deflationary impact, which is not surprising bearing in mind the high share of food in the domestic CPI as well as the substantial decline in food prices on the global market in the reference period. In addition, the negative contribution of oil prices to domestic inflation grew further due to the sharp drop in the world prices of crude oil as of October 2014. Since mid-2013, shocks of foreign food and oil prices have been lowering the annual inflation rate below historical values (baseline projections) by an average of 1.2 percentage points and by as much as 1.8 percentage points from October 2014. From mid-2013, external real shocks had an average negative impact on (contribution to) the annual inflation rate of 0.4 percentage points, while the domestic negative GDP gap had an average negative impact on inflation of merely 0.2 percentage points. In addition to the domestic GDP gap, the weakest contribution to inflation was made by core inflation in the euro area (-0.2 percentage points) and the shock to domestic inflation (0.1 percentage point).

In order to gain an insight into the relative importance of the spillover of foreign core inflation as against that of foreign oil and food prices, Figure 5.8 shows the contributions of raw material prices and core inflation to domestic inflation from January 2002 to June 2015. The inflation rate decomposition performed leads to the conclusion that foreign prices of raw materials were a dominant factor contributing to recent domestic inflation. Foreign core prices also had a negative impact on inflation, although the intensity of such an impact has been very low.

The impact of external shocks of raw material prices on recent inflation is also evident in Figure 5.9 which shows the inflation excluding external shocks of raw material prices from July 2013. In other words, the figure shows the hypothetical inflation scenario without the recent decline in foreign raw material prices, i.e. with these prices hovering around their expected levels. The figure demonstrates that domestic inflation is returning towards its standard historical levels (around 2.3%) in the hypothetical scenario.

## 6 Foreign trade and competitiveness

In the first six months of 2015, the current account balance improved, displaying a deficit of EUR 1.3bn, almost one third less than in the same period of the preceding year. Favourable trends in foreign trade and the primary and secondary income account contributed to the noticeable improvement in the current account balance. Positive results in foreign trade were above all associated with larger net exports of services, in particular travel services. In the same period, the goods trade deficit (according to balance of payments data) held steady at the previous year's level as the growth in exports was coupled with an equal growth in imports in absolute terms. Net inflow in the secondary income account grew, largely as a result of an increase in the use of EU funds, while the lower deficit in the primary income account was the consequence of larger revenues from compensations to residents working abroad. If cumulative values over the past year are taken into account, the current account surplus grew to 2.1% of GDP in the second quarter of 2015, while it was 0.4% of GDP in the same period of 2014.

The annual increase in net inflow in the secondary income account in the first six months of 2015 was largely the result of higher use of EU funds. Taking into account the total utilisation of EU funds, particularly current and capital revenues (in the balance of payments statistics, they are recorded in the secondary income and capital accounts), the bulk of the funds used in the first half of 2015 were current revenues, with the government accounting for slightly less than 40% of the total absorption. Concurrently, the lower deficit in the primary income account was mostly the consequence of larger revenues from compensations to residents working abroad. Positive developments were also seen in direct equity investment income thanks to increased revenues and lower expenditures. Smaller expenditures from direct equity investment reflect the poorer business performance of enterprises and banks in foreign ownership than in the same period previous year, particularly in activities pertaining to construction, financial intermediation and oil and natural gas extraction. In contrast, interest expenses

(excluding FISIM) on foreign liabilities rose slightly, which is primarily related to the government, while the costs of credit institutions and other domestic sectors decreased.

Foreign trade developments in the first half of 2015 were characterised by very positive results of the services trade. In this period, net exports of services rose by 11.6% on an annual level, due largely to travel services. The annual rate of growth in tourism revenues was 7.5%, with a sharp growth in volume indicators. Foreign tourists from Austria, Germany, Slovenia, the United Kingdom and the USA particularly contributed to the increase in the number of foreign tourist arrivals and nights, of 8.4% and 5.7% respectively, while the number of tourists from Russia steadily decreased. In addition to travel, other services also added to the continued increase in the services balance surplus, in particular the growth in net exports of IT services and manufacturing services on physical inputs owned by others.

Seasonally adjusted data show that exports of goods were 7.4% larger in the first half of 2015 than in the previous half-year, owing specifically to second-quarter results. Exports of ships expanded in the first six months, while negative trends were seen in exports of oil and refined petroleum products. An increase in exports was also observed in a number of other SITC divisions (exports excluding ships and oil grew by 10.6% from the second half of 2014), with a particularly sharp increase recorded in exports of capital goods (notably electrical machinery, apparatus and appliances and power generating machinery and equipment) and food products (particularly cereals and cereal preparations). However, performance was poor in certain segments, as evidenced by the continued decline in the exports of clothing and electricity.

Imports of goods rose by 6.9% (seasonally adjusted data) from the second half of 2014 to the first half of 2015. This was contributed to by the upsurge in the imports of ships previously exported for finishing purposes, whereas the imports of oil and refined petroleum products dropped. Ships and oil excluded, imports rebounded even more, by 8.9%, largely due

Figure 6.1 Current account balance and its structure

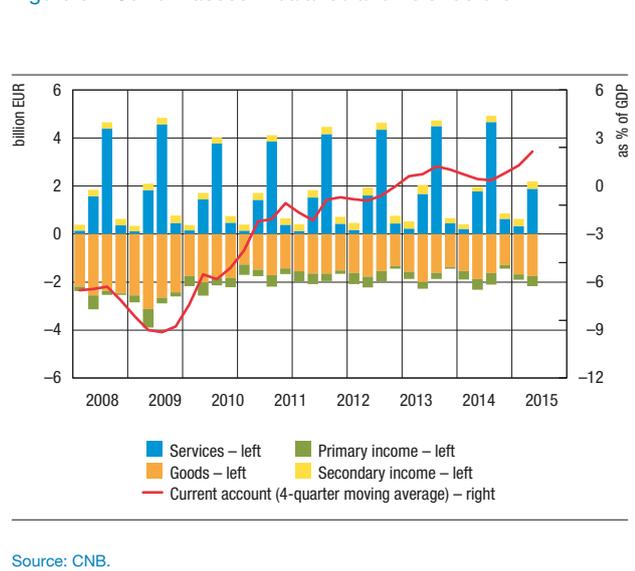


Figure 6.2 Goods exports (f.o.b.)

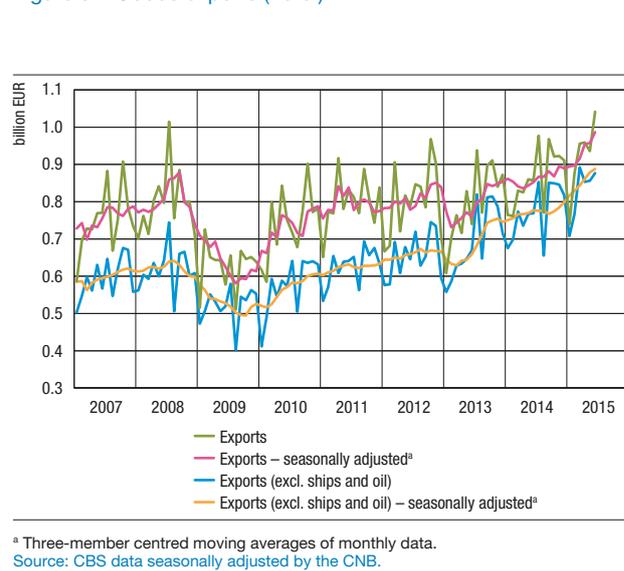
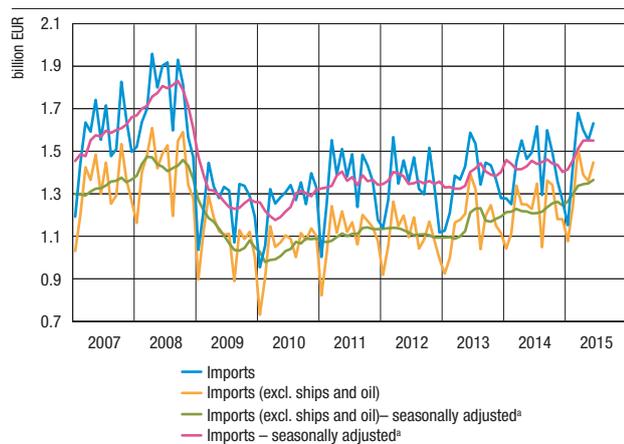
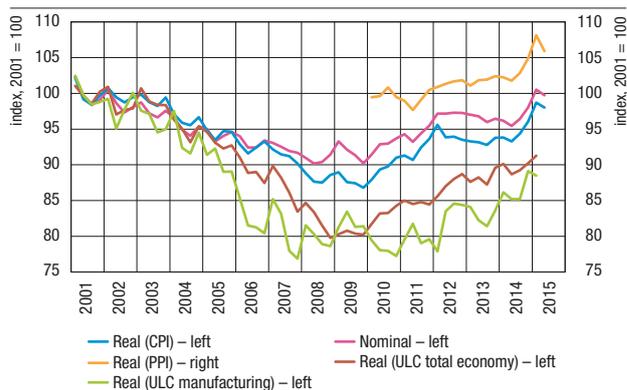


Figure 6.3 Goods imports (c.i.f.)



<sup>a</sup> Three-member centred moving averages of monthly data.  
Source: CBS data seasonally adjusted by the CNB.

Figure 6.4 Nominal and real effective exchange rates of the kuna



Note: Real effective exchange rate of the kuna deflated by producer prices includes the Croatian index of industrial producer prices on the non-domestic market, which is available from January 2010. A fall in the index denotes an effective appreciation of the kuna.  
Source: CNB.

to increased imports of electricity, natural and manufactured gas and manufactures of metals (n.e.c.). An upsurge was also seen in imports of road vehicles and capital goods, in particular power generating machinery and equipment. Divergent movements were observed in other SITC divisions – the growth in imports of clothing slowed down and imports of sugar and sugar preparations slumped. As the rise in the imports of the narrow aggregate in absolute terms exceeded the rise in exports, the goods trade balance (excluding ships and oil) deteriorated from the previous half-year.

The price competitiveness of Croatian exports improved considerably between the second half of 2014 and the first half of 2015, affected favourably by the depreciation trend that started in mid-2014 and continued into the first quarter of 2015. Real effective kuna exchange rates deflated by consumer and producer prices depreciated in the first quarter relative to the preceding quarter, mainly due to the weakening of the

nominal effective kuna exchange rate, while the trends in domestic consumer and producer prices were only slightly more favourable than those of the main trading partners. By contrast, the nominal effective appreciation of the kuna in the second quarter of 2015 had an adverse effect on price competitiveness indicators. The real effective exchange rate of the kuna deflated by consumer prices appreciated despite more positive movements in domestic consumer prices than in the major trading partners, while the appreciation of the real effective exchange rate of the kuna deflated by producer prices was additionally pronounced due to less favourable trends in domestic producer prices. Data on the real effective kuna exchange rate deflated by unit labour costs in the total economy, which are available for the first quarter of 2015, suggest a slight improvement from the previous quarter, while a slight decrease in cost competitiveness was seen in manufacturing.

## 7 Financing conditions and capital flows

Financing conditions for domestic sectors were on average more favourable in the first half of 2015 than in the previous year. In addition to the sustained high level of liquidity in the domestic financial market, the trend was also affected by the implementation of the ECB's QE programme as of March 2015, causing liquidity to increase and yields to decline in the European financial market. Against such a backdrop, total corporate debt grew in the first half of 2015, primarily as a result of the rise in foreign borrowings, while the household sector continued to deleverage.

In the first half of 2015, the government's borrowing costs in the domestic market remained at the low levels recorded at the end of 2014, largely owing to the continued expansionary monetary policy of the CNB. The interest rate on one-year kuna T-bills remained at 1.50%, whereas the interest rate on one-year T-bills with a currency clause had dropped to 0.40%

by May (from 0.48% at end-2014). In February 2015, the government also issued year-and-a-half euro T-bills worth EUR 1.2bn at an interest rate of 1.95%, while equal T-bills issued 18 months before had an interest rate of 5%.

The price of government borrowing abroad, estimated by the sum of yields on the German government bond and the EMBI index for Croatia, also continued to drift lower in early 2015, reflecting the concurrent fall in yields on government bonds. Croatia made use of favourable market conditions by issuing government eurobonds worth EUR 1.5bn with a yield of 3.3% in early March. However, financing conditions in the international market began to deteriorate slowly in mid-April, leading to a renewed increase in the yields on Croatian government bonds in that period.

Elevated global risk aversion was reflected in the growth of CDS spreads for the bonds of parents of major Croatian banks.

Figure 7.1 Costs of domestic and foreign financing

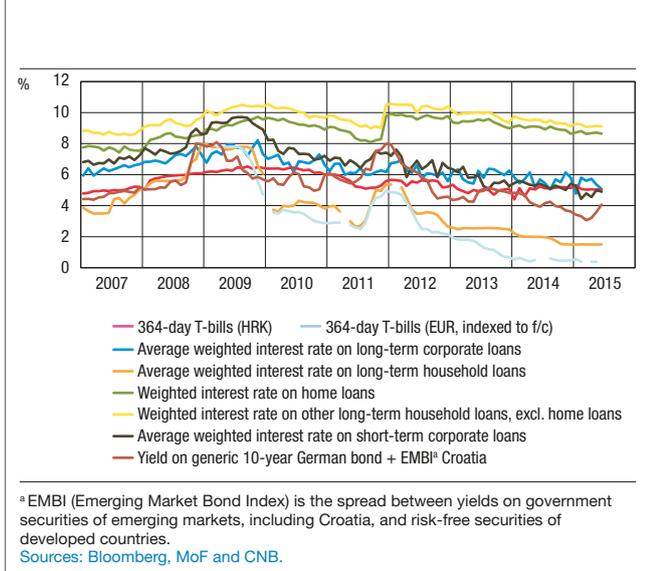


Figure 7.2 CDS spreads for Croatia and selected parent banks of domestic banks

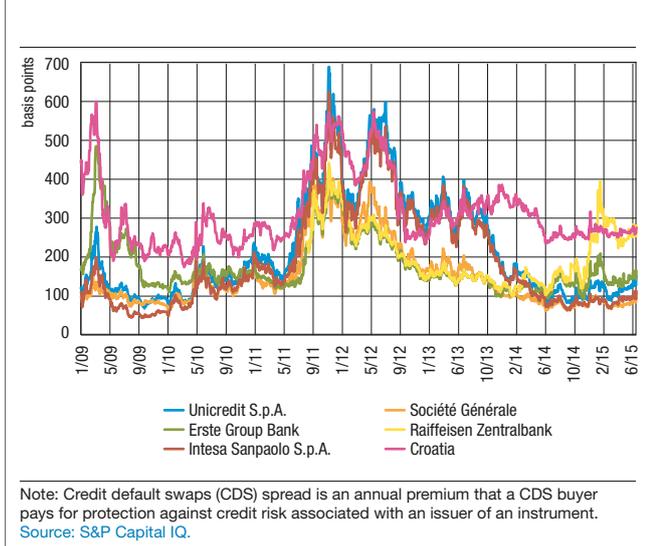


Figure 7.3 Corporate financing by sources

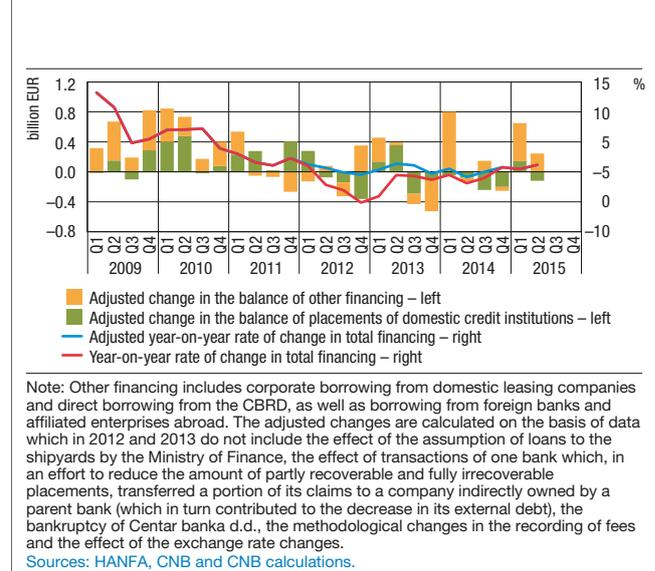
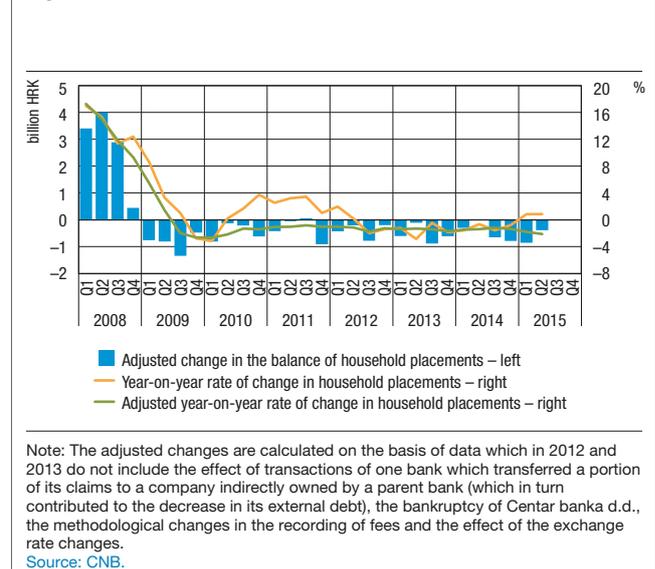


Figure 7.4 Placements to households



This growth, which began in April, gained momentum in early June. At the same time, the CDS for Croatia was relatively stable, but remained noticeably higher than that of parent banks of Croatian banks and peer countries in Central and Eastern Europe.

Total corporate debt grew by EUR 0.8bn in the first half of 2015 and was 1.2% larger at end-June than the year before. This increase was mostly a result of foreign borrowing. By contrast, corporate placements of domestic credit institutions remained on a negative trend so that their annual rate of change stood at  $-3.6\%$  at the end of June (excluding the exchange rate effects). The fall in domestic corporate placements continued notwithstanding the slight year-on-year decrease in nominal interest rates, in particular on short-term loans. Public and private non-financial enterprises reduced their debt to domestic banks, but private enterprises more than offset domestic debt reduction by other sources of financing, in particular foreign sources. For more information on developments in credit standards and demand for loans to enterprises and households, see Box 3 Credit demand and supply – findings from the Bank Lending Survey.

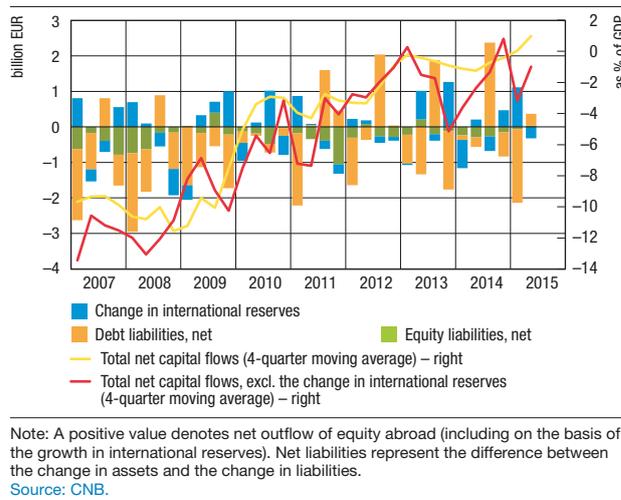
Household financing conditions in the domestic market were slightly more favourable in the first half of 2015 than in 2014. Average interest rates on household long-term loans saw a slight decline, while the costs of short-term household borrowing held steady. Notwithstanding both that and the easing of credit standards indicated by the Bank Lending Survey, the several-year trend of household deleveraging continued into the first six months of 2015. Consequently, the annual rate of decrease in household placements remained around the level recorded in the previous years, standing at  $-2.1\%$  (excluding exchange rate effects) at the end of June.

## 7.1 Capital flows between Croatia and foreign countries

Foreign capital flows in the first half of 2015 were marked by an increase in net debt liabilities of domestic sectors, while net inflows from equity investments were smaller than in the previous year. The rise in debt to foreign creditors (including debt to affiliated creditors) was most notable in other domestic sectors, above all private non-financial enterprises and the government. At the same time, the net debt position of credit institutions and the central bank remained almost unchanged. Relative indicators of gross and net external debt (expressed as a share in GDP) deteriorated from the end of 2014.

Net inflows from equity investments were more modest in the first six months of 2015 than in the same period of 2014, largely due to the fall in direct equity investment (excluding last year's round-tripping transactions) and reinvested earnings on the liabilities side. Previous years' profit payouts in individual activities, particularly those in the telecommunications sector, had an adverse effect on direct equity investment. The opposite impact was made by the conversion of debt claims to equity. The largest equity investments were made in the construction and financial intermediation sectors. Retained earnings, as a component of foreign direct investment, decreased on an annual basis on the liabilities side, mostly due to financial intermediation activity. In particular, retained earnings were negative in this activity owing to weaker current profit, which was lower than dividends.

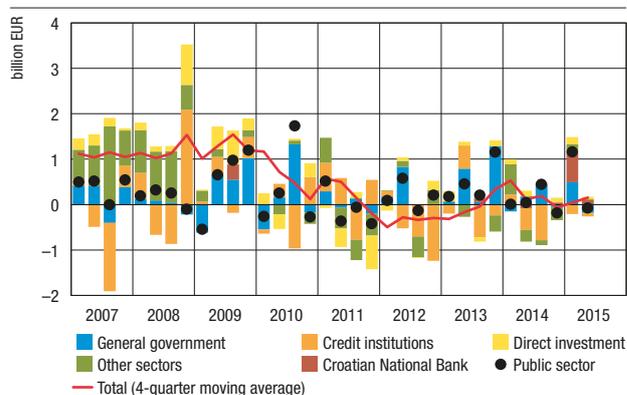
Figure 7.5 Financial account flows



Net debt liabilities (arising from direct, portfolio and other investment) of domestic sectors increased in the first half of 2015. An increase in liabilities to foreign creditors was observed in other domestic sectors and general government. Within other domestic sectors, private non-financial enterprises continued to borrow abroad (from both affiliated and other creditors), while other financial institutions deleveraged further. The rise in government liabilities is primarily associated with debt securities. After repaying a EUR 750m foreign bond which fell due in early 2015, the government issued new ten-year eurobonds worth EUR 1.5bn in March. On the other hand, a decrease was seen in government liabilities arising from long-term and, to a lesser extent, short-term loans. Net debt liabilities of credit institutions did not change significantly as the reduction in liabilities to foreign creditors was coupled by an equal decrease in foreign assets.

The net debt position of the central bank (cross-currency changes excluded) also remained unchanged in the first half of 2015 as CNB claims and liabilities grew by the same amount. Central banks' foreign liabilities grew due to the investment of

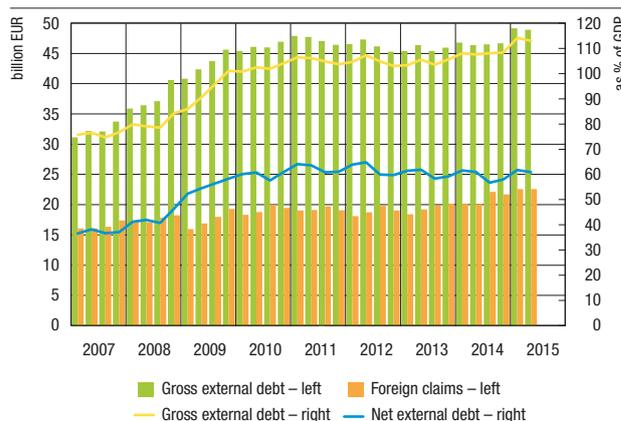
Figure 7.6 Gross external debt transactions by sectors



a portion of international reserves in repo agreements. In the same period, reserves increased owing to investment in repo agreements and the net purchase of foreign exchange from the government that followed government's foreign borrowing and issues of foreign exchange treasury bills in the domestic market; reserves decreased due to the sale of foreign exchange to banks and the European Commission. At the end of June, gross international reserves stood at EUR 13.7bn and were sufficient to cover 8.3 months of goods and services imports.

Total gross external debt of Croatia (balance as at end-June 2015) swelled by EUR 1.2bn in the first half of 2015, cross-currency changes and other adjustments excluded, i.e. much more than in the same period of 2014 (EUR 0.3bn). This was largely the outcome of the aforementioned investment of reserves in repo agreements, which simultaneously raised gross debt of the CNB and gross international reserves. Also noteworthy is government borrowing abroad, which was larger than in 2014. By contrast, the increase in debt of other domestic sectors (including liabilities to affiliated creditors) was less pronounced, while deleveraging of credit institutions held steady at the previous year's level. In addition to transactions, the total gross external debt balance increased in the first six months of 2015 largely due to the negative effect of cross-currency changes (of EUR 1.2bn), resulting from the appreciation of the US dollar against the euro, in particular the government

Figure 7.7 Gross and net external debt



Note: Net external debt is calculated as gross external debt stock net of foreign debt claims.

Source: CNB.

debt balance. As a result, at end-June, gross external debt stood at EUR 48.9bn, accounting for 113.0% of GDP. At the same time, net external debt stood at EUR 26.3bn, accounting for 60.9% of GDP.

### Box 3 Credit demand and supply – findings from the Bank Lending Survey

Due to the significance of banks' lending activity for economic developments and the currently subdued lending activity in Croatia, it is useful to analyse the determinants of credit growth on both the supply and the demand side. A source of data that may contribute to the better understanding of these developments is the Bank Lending Survey, which the CNB has been conducted on a quarterly basis since October 2012. The Survey results show that developments in credit standards and demand were more favourable in the first half of 2015 than in the previous periods. Furthermore, an econometric assessment<sup>10</sup> confirmed that there is a statistically significant correlation between the growth in loans to enterprises and the growth of consumer credit and other lending on the one hand and credit standards and credit demand on the other. Credit growth reacts faster to changes in credit demand, while the changes in credit standards affect credit growth with a somewhat greater lag. The analysis also indicates that it is difficult to expect a recovery of credit activity without some improvement in the economic outlook and in demand, despite the high liquidity of the monetary system supported by the CNB.

#### Descriptive results of the Survey

With regard to total loans to enterprises, the first half of 2015 saw the most favourable trends in credit standards since the Survey was introduced. Bank liquidity and the competition among banks played the major role in the easing of credit

standards, while the risk on the collateral demanded was on average the main factor leading to the tightening of credit standards (Figure 7.8).

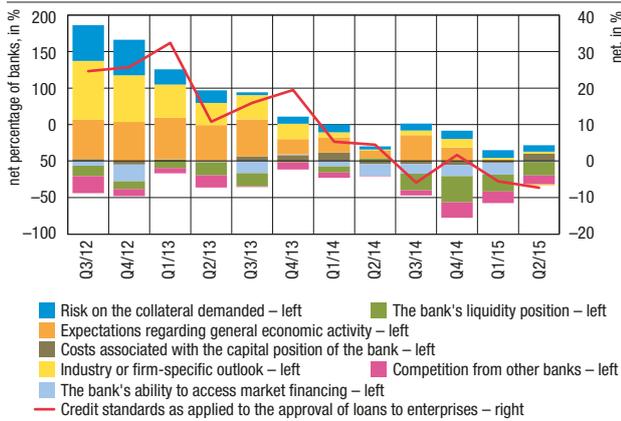
Favourable developments in demand for loans to enterprises continued into 2015. Investment in inventories and working capital remained the main contributor to the increase in demand for such loans, because the importance of debt restructuring was significantly reduced compared with the previous years. Also, it should be noted that, for the first time since the introduction of the Survey, fixed investment contributed to the rise in demand for loans to enterprises in the second quarter of 2015 (Figure 7.9).

Credit standards for loans for house purchase and consumer credit and other lending continued to ease in the first half of 2015 due to the competition among banks and to positive expectations regarding general economic developments. Expectations started to play a role in the easing of credit standards only in 2015, while in all the previous periods observed they were one of the main factors leading to the tightening of credit supply to households.

With regard to household demand for loans, consumer confidence contributed the most to the increase in demand for both loans for house purchase and demand for consumer credit and other lending in the first half of 2015. This is a significant change from the previous years when consumer confidence was one of the biggest contributors to the fall in demand for loans. In

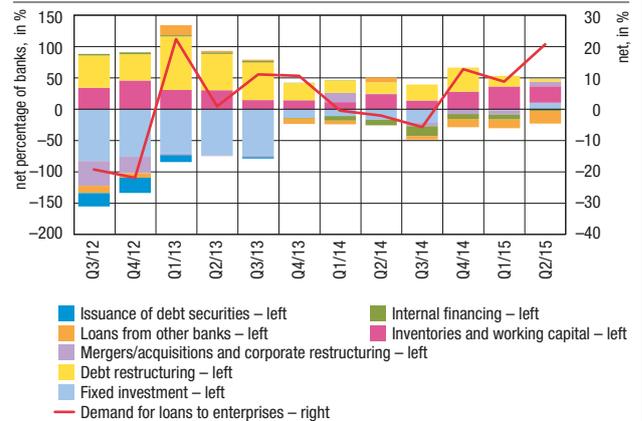
<sup>10</sup> For a more detailed analysis, see the following paper available on the CNB's website: Pintarić, M. (2015): *Which factors are weighing on credit recovery? – Evidence from the Croatian Bank Lending Survey*, which was presented at the conference "The Tenth Young Economists' Seminar" in Dubrovnik on 7 June 2015.

Figure 7.8 Factors affecting credit standards as applied to the approval of loans to enterprises



Note: The positive value shows that the factor contributes to standard tightening and the negative that it contributes to standard easing.  
Source: CNB.

Figure 7.9 Factors affecting demand for loans to enterprises



Note: The positive value shows that the factor contributes to higher demand and the negative that it contributes to lower demand.  
Source: CNB.

addition to consumer confidence, housing market prospects for loans for house purchase and spending on durable consumer goods for consumer credit and other lending also provided a strong boost to demand.

### Econometric assessment of the effect of credit supply and demand on credit growth

An econometric assessment is used to link the banks' answers concerning the changes in credit standards, credit demand and the factors that affected them with the data on credit growth, interest rates on loans, capital adequacy and funding costs at bank level. The assessment is performed by regression on an unbalanced panel data set taking into account fixed effects for banks and quarters in the period from the third quarter of 2012 to the end of 2014. The general form of the equation is as follows:

$$y_{i,t} = \alpha + \beta_{1y,t} - 1 + \beta_2 BLS\_S_{i,t-h} + \beta_3 BLS\_D_{i,t-h} + \beta_4 X_{i,t} + F_i + F_t + \epsilon_{i,t}$$

where:  $y$  represents the quarterly rate of change of individual types of loans;  $BLS\_S$  is the indicator of credit standards;

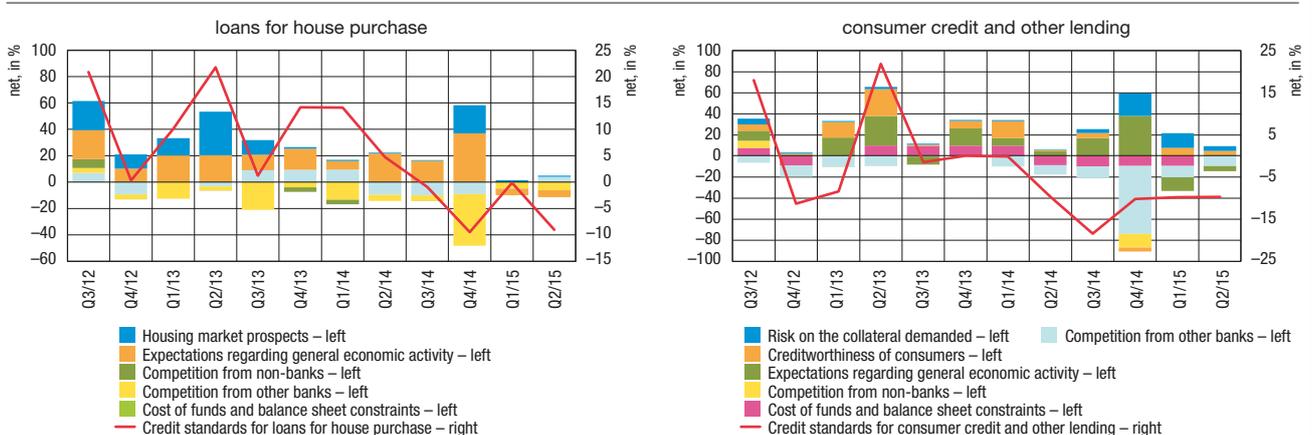
$BLS\_D$  is the indicator of demand for loans;  $X$  represents the vector of control variables identifying the price of loans, capital position of banks and their funding costs;  $F_i$  is the fixed effect of the bank, and  $F_t$  is the fixed effect of the quarter;  $i$  is a designation of the bank,  $t$  is a designation for the quarter;  $h$  is the quarter lag, which can take values from 0 to 4.

The growth rates of loans to enterprises, loans for house purchase and consumer credit and other lending to households were adjusted by one-off effects and the exchange rate effect at bank level. The credit standards indicator is a dummy variable which takes the value 1 for the quarters in which, according to the banks' answers, the standards were tightened/eased or a specific indicator contributed to tightening/easing. The credit demand indicator is also a dummy variable which takes the value 1 for the quarters in which credit demand changed or a specific indicator contributed to changed demand.

### Results for loans to enterprises

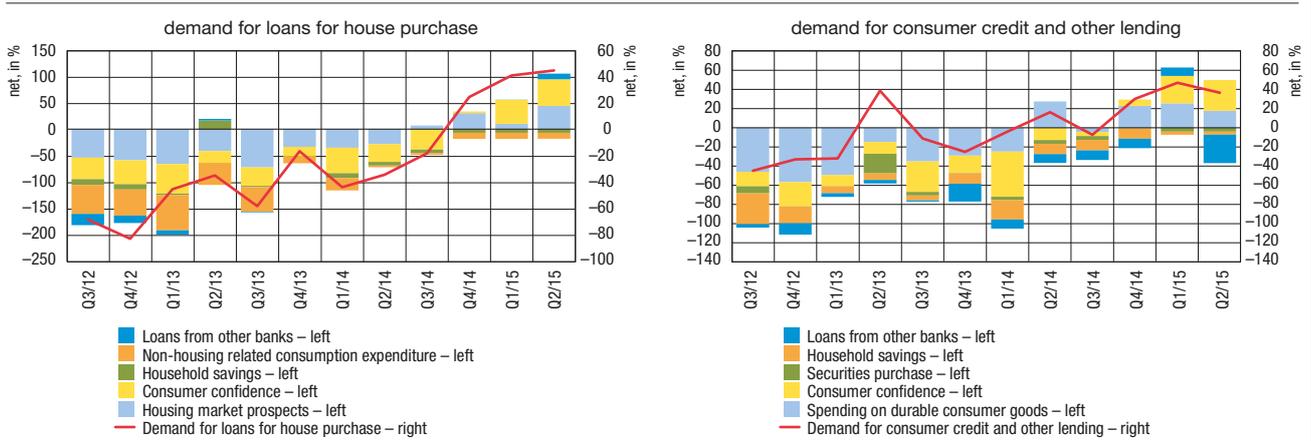
A rise in the demand for loans to enterprises causes, *ceteris paribus*, a rise in the quarterly credit growth from 3.3 to 6.1

Figure 7.10 Factors affecting credit standards as applied to the approval of loans to households



Note: The positive value shows that the factor contributes to standard tightening and the negative that it contributes to standard easing.  
Source: CNB.

Figure 7.11 Factors affecting demand for loans to households



Note: The positive value shows that the factor contributes to higher demand and the negative that it contributes to lower demand.

Source: CNB.

percentage points in the same quarter. On the other hand, the tightening of credit standards has almost no statistical significance. According to the answers regarding the individual factors, banks that reported expectations regarding general economic activity as a factor of tightening standards experienced, with a lag of three quarters, a loan growth which was 2.4 to 3.3 percentage points lower than that of other banks. In addition, banks that reported debt restructuring as a factor contributing to increased demand experienced, on average, a 2.1 to 2.7 percentage points greater loan growth in the same quarter than other banks.

Figure 7.12 shows the two model specifications for loans to enterprises that, on average, have the greatest statistical significance. It is evident that demand affects credit growth in the same quarter with substantial differences in the intensity of the effect depending on whether it is brought about by an overall rise in demand or by debt restructuring. On the other hand, the tightening of credit standards reduces credit activity with a lag of three to four quarters at a stable rate of slightly above 3 percentage points. As regards other variables, credit growth in the

preceding period has the greatest significance, indicating a negative effect on lending in the current period.

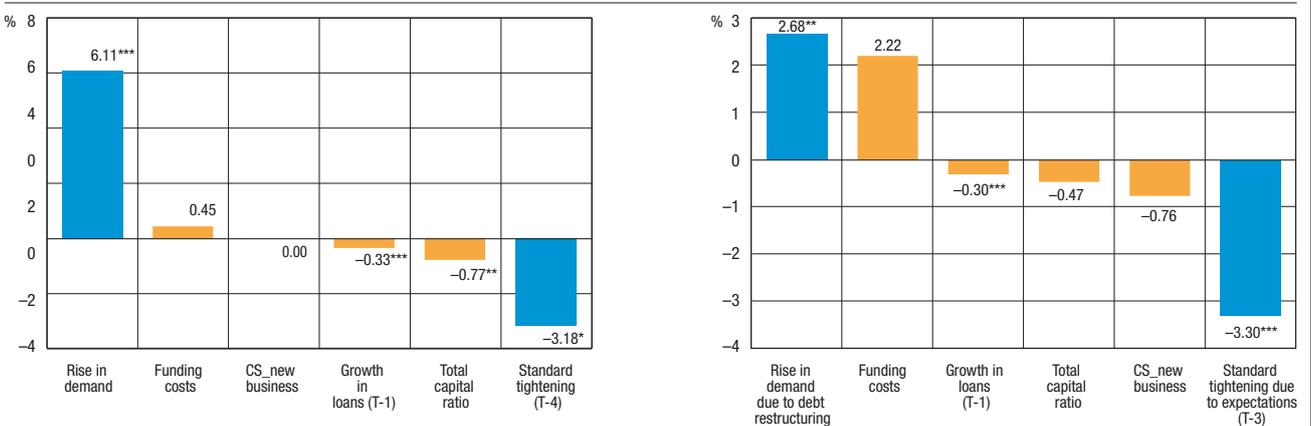
Results for loans for house purchase

For loans for house purchase no variable from the Survey is statistically significant and no valid conclusions can therefore be made about the effect of supply and demand on credit growth. There are two probable reasons for such an outcome of the analysis. First, loans for house purchase are almost exclusively long-term loans with a longer average maturity than other loans to enterprises and households. Therefore, a longer period in which the Survey is conducted is probably needed to identify any major changes in loans for house purchase. Second, banks report changes in credit standards and demand for loans for house purchase much less frequently than for the other two groups of loans.

Results for consumer credit and other lending to households

The easing of standards causes a rise in the growth of

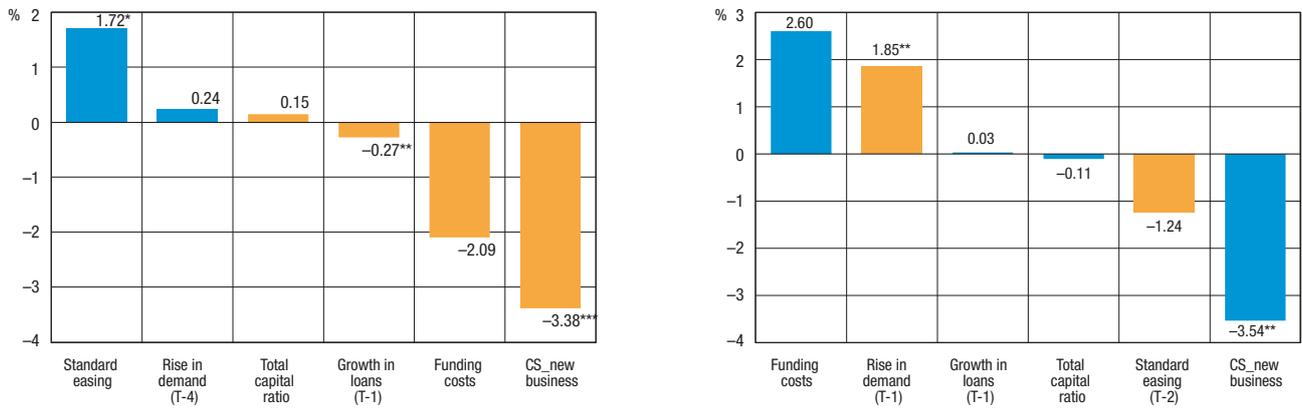
Figure 7.12 Results for loans to enterprises



Note: \*\*\*p<0.01, \*\*p<0.05 and \*p<0.1.

Source: CNB.

Figure 7.13 Results for consumer credit and other lending to households



Note: \*\*\*p<0.01, \*\*p<0.05 and \*p<0.1.  
Source: CNB.

consumer credit and other lending to households of 1.7 to 2.0 percentage points in the same quarter. On the other hand, banks reporting a rise in demand exhibited a credit growth that exceeded that of other banks by 1.4 to 2.6 percentage points. Factors affecting the changes in standards and demand produced no statistically significant results.

The two model specifications shown in Figure 7.13

demonstrate that the effect of a rise in demand on the growth of consumer credit and other lending, achieved with a lag of one quarter, is weaker than for loans to enterprises, while the statistical significance of the effect of standard easing is small. An increase in the interest rate on new business of one percentage point reduces credit growth by more than 3 percentage points on average.

## 8 Monetary policy

In the first half of 2015, the CNB continued to pursue an expansive monetary policy, while keeping the stability of the exchange rate of the domestic currency against the euro. High liquidity of the monetary system was boosted additionally by foreign exchange transactions of the central bank which contributed to keeping the domestic interest rates at record low levels. Against the backdrop of low inflation, the CNB used such monetary policy to influence domestic financing costs positively, to encourage bank lending and the recovery of the Croatian economy.

The nominal exchange rate of the kuna against the euro was relatively stable in the first six months of 2015, first weakening temporarily in the first couple of months of the year, but then strengthening gradually in the following months. After the CNB's foreign exchange interventions in early 2015 helped prevent the excessive weakening of the domestic currency's exchange rate triggered by the adjustment of the banks' currency position to the Croatian government's decision on the fixing of the exchange rate of the Swiss franc exchange rate for loan repayments for a period of one year, appreciation pressures prevailed in the following months as a result of an increased supply of foreign exchange of the corporate sector and seasonal developments. The exchange rate of the kuna against the euro thus fell from the record high of EUR/HRK 7.72 in mid-February to EUR/HRK 7.58 at the end of June. The average exchange rate of the kuna against the euro in the first six months of 2015 thus stood at EUR/HRK 7.63, equal to its average in 2014.

As regards the exchange rates of the kuna against other major global currencies, the trend of the weakening of the kuna against the American dollar came to a halt in the second quarter of 2015, while the exchange rate of the kuna against the Swiss franc held steady at the levels reached in the first quarter of 2015. Such developments reflect the developments of the euro against these currencies on the global financial market. Arrested growth of the American dollar and a slight recovery of the euro were due to favourable developments in the European economy and another postponement of the Fed's decision to raise key interest rates. In the case of the EUR/CHF exchange rate, the

strengthening of the Swiss franc against the euro at the beginning of the year was the result of the decision of the Swiss central bank to abandon its currency peg against the euro.

In the first six months of 2015, the CNB purchased net EUR 419.7m creating HRK 3.1bn in reserve money. The main channel for foreign exchange purchases was transactions with the central government, from which a net sum of EUR 1.2bn was purchased. The large volume of conversions of government foreign exchange reflects increased reliance on foreign borrowing in 2015. This pertains to the issue of EUR 1.2bn foreign exchange T-bills on the domestic market in February and the EUR 1.5bn bond issued in April on the international market. Unlike transactions with the government, in the two foreign exchange interventions, the banks were sold EUR 0.5bn. In addition, the CNB continued to sell foreign exchange to the European Commission on a regular basis for the purpose of the conversion of the funds in kuna that the government allocates each month to the account of the EC with the CNB in accordance with payments to the EU budget. The amount of foreign exchange sold to the EC in the first six months of 2015 stood at EUR 0.3bn.

Surplus liquidity rose additionally in the first half of 2015. In the first six months of 2015, banks held an average HRK 7.2bn in surplus liquidity in their transaction accounts with the CNB, but on some days this amount exceeded HRK 10bn. In such circumstances, the overnight interbank interest rate in the money market sank further, hovering around 0.20% at end-June. While maintaining high liquidity, by repurchasing compulsory CNB bills from banks that record a positive increase in loans to the corporate sector, the CNB stimulates the financing of the economy. However, the banks' corporate lending activity remained subdued and limited by numerous factors outside the reach of monetary policy, resulting in an only modest amount of repurchased compulsory CNB bills (HRK 0.2bn) in the first six months of 2015 and a slight influence on liquidity.

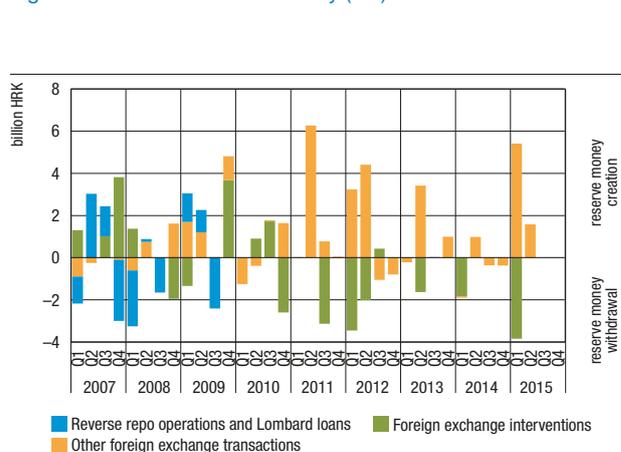
The CNB's gross international reserves rose considerably in the first six months of 2015. In addition to the aforementioned purchase of foreign exchange, their growth was also greatly

Figure 8.1 Nominal exchange rates of the kuna against selected currencies



Source: CNB.

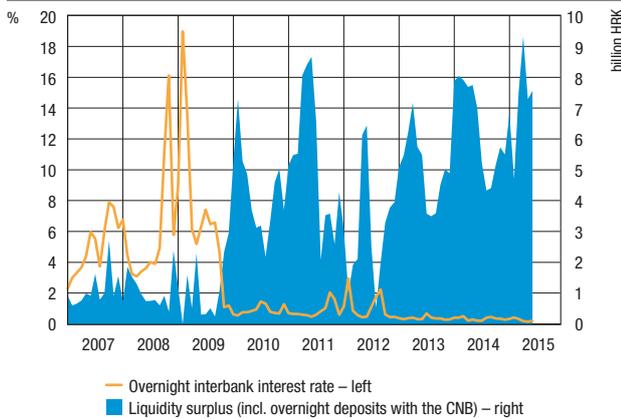
Figure 8.2 Flows of reserve money (M0) creation



Note: Other foreign exchange transactions include the purchase of foreign exchange from and the sale of foreign exchange to the MoF and the EC as well as foreign currency swaps with banks, where the positive values refer to the purchase of foreign exchange by the CNB.

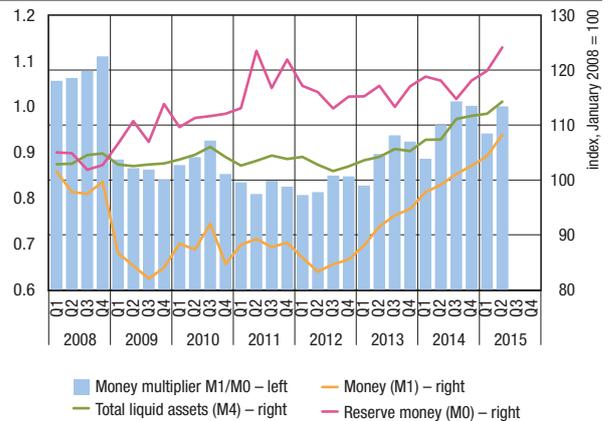
Source: CNB.

Figure 8.3 Bank liquidity and overnight interbank interest rate



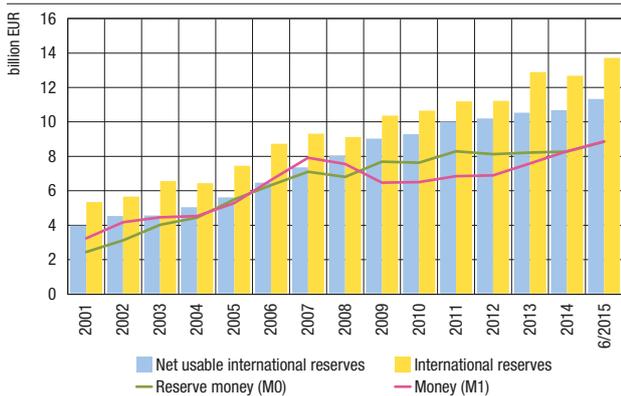
Source: CNB.

Figure 8.5 Monetary aggregates and money multiplier index of developments in seasonally adjusted values, deflated by the consumer price index



Source: CNB.

Figure 8.4 International reserves of the CNB and monetary aggregates



Note: Net usable international reserves are defined as international reserves net of CNB foreign liabilities in f/c, reserve requirements in f/c, government foreign currency deposits and off-balance sheet liabilities (swaps).

Source: CNB.

boosted by the investment of a part of international reserves in repo agreements, which began in February and led to a simultaneous increase in foreign assets and foreign liabilities of the CNB. These investments ended June at EUR 0.8bn. By contrast, the withdrawals of foreign exchange of the government deposited with the CNB led to a fall in gross international reserves. At the end of June, gross reserves stood at EUR 13.7bn, an increase of EUR 1.0bn or 8.2% from the end of 2014. At the same time, net usable reserves rose by EUR 0.7bn or 6.1%, reaching EUR 11.3bn. Gross and net international reserves remained considerably higher than the narrowest monetary aggregates M0 and M1.

Against the background of subdued inflation, the real values of reserve money (M0), money (M1) and total liquid assets (M4) continued to trend up in the first half of 2015. In addition to a sharp increase in reserve money, money also grew sharply reflecting the propensity of households to accumulate liquid financial assets in current and transaction accounts, which may partly be associated with a further fall of banks' interest rates on deposits and the introduction of tax on interest income in early 2015.

## 9 Public finance

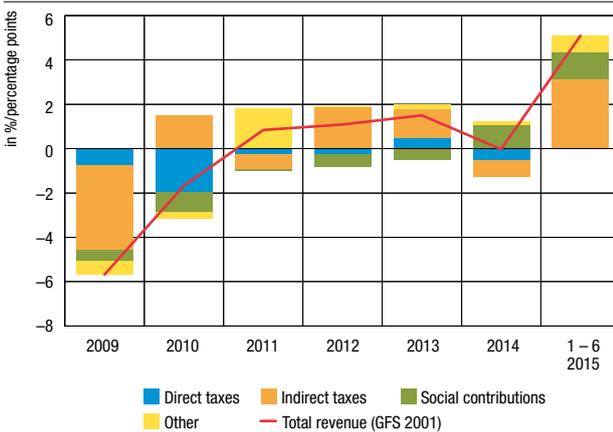
The general government deficit according to the ESA 2010 methodology decreased considerably in the first half of 2015 from the same period of the previous year, primarily due to somewhat more favourable economic developments which led to higher tax revenues, consolidation measures on both revenue and expenditure sides but also to a favourable base effect of VAT revenues.

General government revenues rose noticeably during January to June 2015 from the same period of the previous year, primarily as a result of an increase in VAT revenues. The rise in the most significant tax revenue may be largely attributed to its low base in 2014, partly as a result of increased VAT returns. The rise in revenues from indirect taxes is due, among others, to excise revenues as a result of increase in excise duty on cigarettes and refined petroleum products. By contrast, direct taxes held steady, reflecting the rise in revenue from profit tax

and the introduction of taxation of interest payments on savings and the fall in income tax revenues as a result of changes in tax brackets and rise in the amount of personal allowance introduced in January this year. Revenues from social contributions made a considerable contribution to total revenue growth following the introduction of a higher rate of health insurance contributions in April 2014. Revenues from the EU budget also rose, however this should not have a direct impact on the budget deficit since expenditures of the same type are also carried on the expenditure side of the budget.

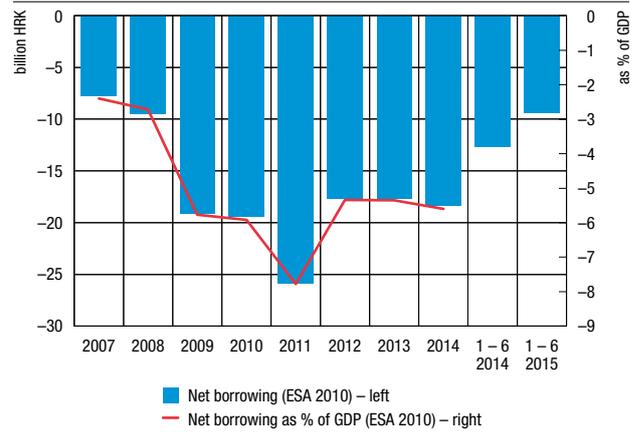
General government expenditure according to the ESA 2010 methodology held steady from January to June 2015 at the level reached during the same period of the previous year. Most categories rose slightly; however, this increase was cancelled out by a reduction in social benefits. Despite planned savings, the expenditures for intermediary consumption made

Figure 9.1 Consolidated general government revenue (ESA 2010) year-on-year rate of change and contributions



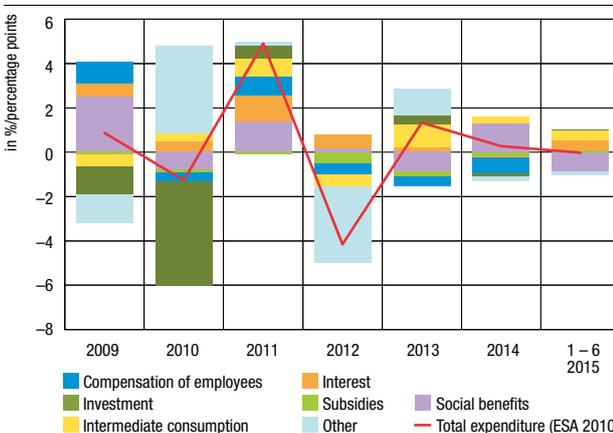
Source: Eurostat (CNB calculations).

Figure 9.3 Consolidated general government balance (ESA 2010)



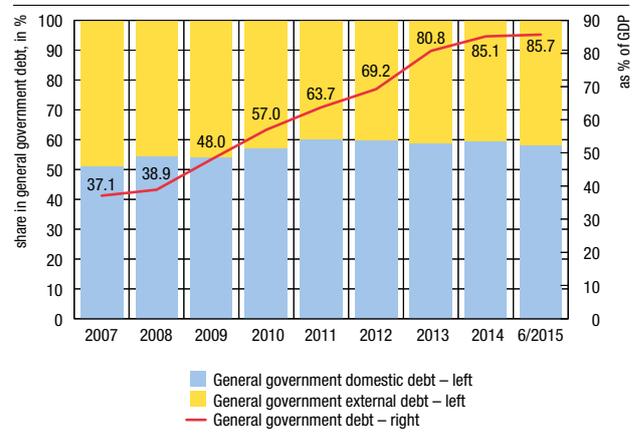
Sources: Eurostat and CNB calculations.

Figure 9.2 Consolidated general government expenditure (ESA 2010) year-on-year rate of change and contributions



Sources: Eurostat and CNB calculations.

Figure 9.4 General government debt end of period



Note: GDP calculated as the sum of the last four available quarterly data was used for the calculation of the relative indicator in 2015.  
Source: CNB.

the biggest contribution to developments in total expenditures. Interest expenditures also continued to rise, reflecting a continuous rise in general government debt. The rise in expenditures on employees reflects wage adjustments associated with years of services and the base effect of the increase in the contribution for health insurance, partly cancelled out by the base effect of a reduction in the loyalty bonus. Expenditures on subsidies also rose slightly while investments held steady, with the available data pointing to an investment growth on central government level and an investment fall on local government level. Decreased investment activity of the local government can probably be explained by the need to contain the deficit resulting from a fall in income tax revenues.

As a result of these developments, the general government deficit according to the ESA 2010 methodology stood at HRK

9.4bn in the January to June 2015 period, having narrowed by HRK 3.4bn from the same period of 2014.

Public debt growth was slower than the deficit during the observed period since the government used the funds deposited with the CNB and carried forward from 2014. In addition, debt growth was mitigated by a small appreciation of the kuna against the euro since the bulk of public debt is denominated in that currency. At the end of June, public debt stood at HRK 283.0bn or 85.7% of GDP, having risen by HRK 3.4bn from the end of the previous year. There was an increase in the debt based on long-term securities, resulting from the issue of a EUR 1.5bn bond on the foreign capital market and T-bills of the MoF worth EUR 1.2bn maturing in one and a half years. By contrast, the debt arising from loans and short-term debt securities declined.

## 10 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 central bank balance sheet. The manner 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 all banknotes in a convertible foreign currency as well as special drawing rights.

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

The Council of the CNB formulates the strategy and policy of international reserves management and approves the risk management strategic framework. The International Reserves Commission is the body responsible for the development of international reserves investment strategies 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. The International Reserves and Foreign Exchange Liquidity Department is responsible for investment and maintaining the liquidity of international reserves on a daily basis, for risk management and the preparation of reports for the Commission and the Council.

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

In managing the international reserves of the Republic of Croatia, the central bank is guided by the principles of liquidity and safety of investment (Article 19 of the Act on the Croatian National Bank). In this context, it maintains the reserves at a high liquidity level 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 with financial institutions with the highest credit rating and by imposing limits on maximum exposure for each investment category. Interest rate risk, or the risk of a fall in the value of the international reserves portfolio due to a possible increase in interest rates, can be controlled by means of benchmark portfolios and by investing a part of international reserves in the held-to-maturity portfolio. Currency risk arises from currency fluctuations between the kuna and the euro and between the kuna and the US dollar. Liquidity risk is controlled by investing reserves into readily marketable bonds and partly in deposit instruments with short maturities. Operational risk can be controlled by strict separation of functions and responsibilities, precisely defined methodologies and procedures, and regular internal and external audits.

#### 10.1.2 Management of international reserves

As provided by the Decision on international reserves management, the Croatian National Bank manages international reserves in two ways: in line with its own guidelines and in accordance with the assumed obligations, depending on the way in which international reserves are formed.

The component of international reserves acquired through outright purchases of foreign currency from banks and the MoF, through IMF membership and through the income derived from the investment of international reserves and other CNB assets is managed by the CNB in line with its own guidelines.

The other component of the reserves, formed on the basis of deposits of the Ministry of Finance, repo agreements with banks, foreign currency swaps in the domestic market, IMF membership and other assets owned by other legal persons, is managed by the CNB in accordance with the obligations assumed, the aim being to ensure protection against currency and interest rate risks.

The CNB manages the funds based on allocated foreign currency reserve requirements in accordance with the currency structure of the assumed obligations while the maturity of investments may be different from the maturity of the assumed obligations.

The component of international reserves managed by the CNB in line with its own guidelines can be kept in held-for-trading and held-to-maturity portfolios or may be entrusted to foreign asset management companies. Held-for-trading portfolios, comprising held-for-trading financial instruments, are important for maintaining the daily liquidity of international reserves. The minimum daily liquidity and held-for-trading instruments used for daily liquidity maintenance are prescribed by a Governor's decision. Held-for-trading portfolios are carried at market (fair) value through profit and loss. Held-to-maturity portfolios comprise fixed income and fixed maturity securities that the CNB holds until maturity and are carried at amortised cost.

The terminology of reporting on CNB international reserves includes the terms of gross and net reserves. Gross reserves imply total international reserves. Net reserves imply that component of the reserves managed by the CNB in line with its own guidelines.

### 10.2 International reserves from 1 January to 30 June 2015

The first half of 2015 was marked by the introduction of the programme of quantitative easing by the European Central Bank, postponement of the start of the raising of interest rates in the USA, negotiations between the EU and Greece as regards the new assistance programme and volatility in the government bond market. Interest rates were again at record low levels, and the yields on safer euro investments were negative even for maturities of up to four years.

The total international reserves of the CNB as at 30 June 2015 stood at EUR 13,733.35m, increasing by EUR 1,045.91m or 8.2% from their balance on the last day of 2014 when they stood at EUR 12,687.44m.

The main factors contributing to the change in the total

**Table 10.1 Monthly changes in total and net CNB international reserves**

end of period, in million EUR

Month	Total reserves	Net reserves
December 2014	12,687.44	10,678.99
January 2015	11,603.83	10,422.99
February 2015	12,866.36	10,579.71
March 2015	14,155.94	11,160.37
April 2015	14,737.21	11,330.03
May 2015	14,163.37	11,195.18
June 2015	13,733.35	11,329.17
Change Jun. 2015 – Dec. 2014	1,045.91	650.18

Source: CNB.

international reserves in the first six months of 2015 were the purchase of foreign currency from the Ministry of Finance, the sale of foreign currency to the European Commission and the sale of foreign currency to the banks through interventions, inflows based on repo transactions, the increase in the exchange rate of the American dollar against the euro and earnings from reserves management.

Net international reserves, excluding the foreign currency component of reserve requirements, special drawing rights with the IMF and the funds of the European Commission,

the funds of the Ministry of Finance and investments in repo operations, increased by EUR 650.18m or 6.1%, from EUR 10,678.99m to EUR 11,329.17m in the first half of 2015.

### 10.2.1 Total CNB turnover in the foreign exchange market in the first half of 2015

In the first half of 2015, the Croatian National Bank purchased foreign currency on the domestic market from the MoF and sold foreign currency to banks in the Republic of Croatia, the European Commission and the MoF. The total amount purchased by the CNB stood at EUR 1,205.33m and the total amount sold by the CNB stood at EUR 785.63m, resulting in a net purchase of EUR 419,70m. As a result, the sum of HRK 3,149.68m was put into circulation.

The amount of foreign currency sold to the banks stood at EUR 498.90m (EUR 326.20m were sold in January and EUR 172.70m were sold in February) during which time there were no foreign currency purchases from banks. The amount sold to the European Commission was EUR 286.68m.

In the first six months of 2015, the CNB purchased from the MoF a total of EUR 1,205.33m and sold EUR 0.04m.

### 10.3 Structure of international reserves investment

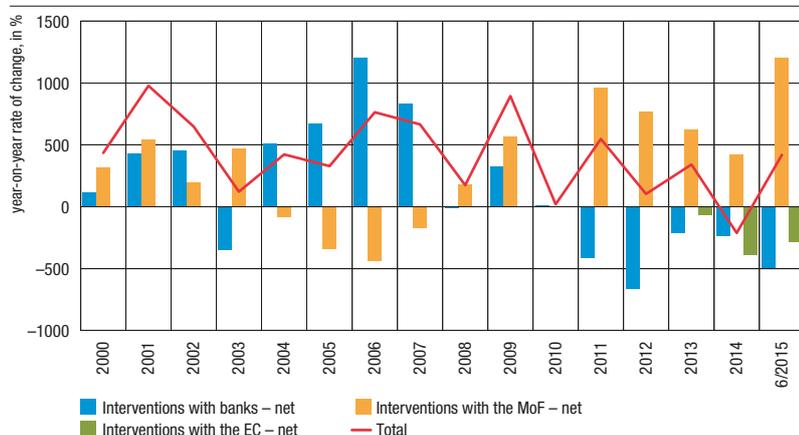
The CNB invests funds with financial institutions and in countries with an investment grade and the assessment of

**Table 10.2 Total CNB turnover in the foreign exchange market, 1 January – 30 June 2015**

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	0.00	0.00	498.90	3,843.54	-498.90	-3,843.54
European Commission	0.00	0.00	286.68	2,186.60	-286.68	-2,186.60
Ministry of Finance	1,205.33	9,180.16	0.04	0.33	1,205.28	9,179.82
<b>Total</b>	<b>1,205.33</b>	<b>9,180.16</b>	<b>785.63</b>	<b>6,030.47</b>	<b>419.70</b>	<b>3,149.68</b>

Source: CNB.

**Figure 10.1 Foreign exchange interventions of the CNB with the banks, the EC and the MoF in net amounts, in million EUR**

Year	Banks	MoF	EC
2000	115.97	319.90	0.00
2001	433.95	544.24	0.00
2002	452.82	194.34	0.00
2003	-353.80	474.70	0.00
2004	510.20	-87.00	0.00
2005	670.80	-342.65	0.00
2006	1,203.97	-440.10	0.00
2007	839.00	-173.70	0.00
2008	-11.50	185.91	0.00
2009	324.78	570.44	0.00
2010	13.60	5.91	0.00
2011	-419.40	966.54	0.00
2012	-666.30	770.21	0.00
2013	-214.90	625.66	-69.44
2014	-240.20	420.63	-392.22
6/2015	-498.90	1,205.28	-286.68

Source: CNB.

Table 10.3 Structure of international reserves investment as at 30 June 2015

in %

Investment	30 June 2015		31 December 2014	
	Net reserves	Total reserves	Net reserves	Total reserves
<b>1 Countries</b>				
Government bonds	70.78	58.39	73.38	61.76
Reverse repo agreements	3.97	9.76	0.00	4.54
Central banks	3.95	8.30	4.04	3.56
Covered bonds	0.62	0.51	1.21	1.02
<b>2 International financial institutions</b>				
Deposits	0.32	3.08	0.31	3.13
Securities	5.62	4.64	6.57	5.53
Reverse repo agreements	1.83	1.89	1.03	0.93
RAMP	1.59	1.31	0.00	0.00
<b>3 Banks</b>				
Deposits	5.31	7.16	11.50	17.49
Securities <sup>a</sup>	3.84	3.17	1.97	2.04
Reverse repo agreements <sup>b</sup>	2.16	1.78	0.00	0.00
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

<sup>a</sup> Refers to securities guaranteed by German federal states.

<sup>b</sup> Refers to reverse repo agreements collateralised by securities of the German development bank.

Source: CNB.

creditworthiness is based on ratings issued by internationally recognised rating agencies (Moody's, Standard & Poor's and FitchRatings) and on an internally-developed creditworthiness assessment model.

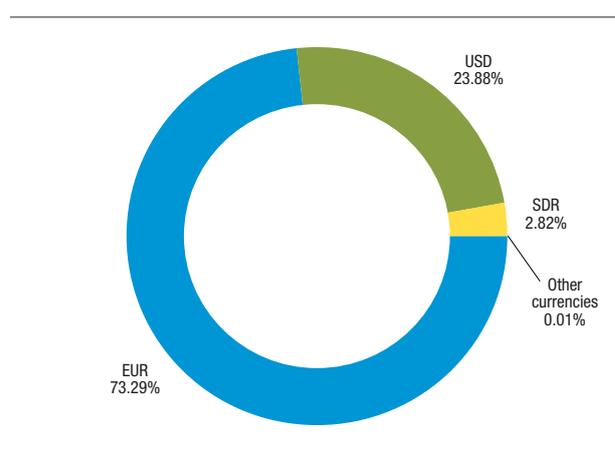
There are restrictions on investments in individual financial institutions and countries, which serves to diversify credit risk.

The bulk of CNB foreign currency portfolios is invested in government securities of selected countries, reverse repo agreements and deposits with central banks.

Compared with end-December 2014, there was an increase in the share of investments in reverse repo agreements, deposits with central banks and securities of banks guaranteed by German federal states. By contrast, there was a fall in the share of investments in deposits with banks, government bonds, securities of international financial institutions and covered bonds. The change in the structure of investments in the first six months of 2015 was mostly due to the environment of negative yields on most euro investments. The adjustments in the structure of foreign currency investments were aimed at maintaining the achievement of adequate results from reserves management, maintaining acceptable security level at the same time. Following the January introduction by the European Central Bank of an expanded asset purchase programme involving, in addition to the existing programmes, EUR 60bn worth of securities purchases per month, the yields on government bonds of euro area member states fell sharply.

On the last day of the first half of 2015, approximately 72% of total CNB international reserves were invested in instruments within the two highest credit rating categories or in foreign cash in CNB vault or the BIS and the IMF.

Figure 10.2 Currency structure of total international reserves as at 30 June 2015



Source: CNB.

## 10.4 Currency structure of international reserves

As at 30 June 2015, the euro accounted for 73.29% of the total international reserves, falling from 79.83% at the end of 2014. The lower share of the euro towards the end of the first half of 2015 was the result of a decision to change the benchmark currency structure of net international reserves, the smaller amount of euros in the account of the MoF with the CNB and the lower share of the euro part of the allocated foreign currency component of reserve requirements.

The share of the American dollar in total international reserves that stood at 17.29% at the end of 2014 rose to 23.88% at the end of June 2015.

The share of SDRs also dropped, from 2.87% to 2.82% of the total international reserves, primarily due to an increase in the level of total reserves.

## 10.5 Foreign exchange gains and losses on CNB foreign currency portfolios in the first half of 2015

The financial performance of all central banks, including the CNB, depends on the volume and structure of assets and liabilities. The CNB belongs among banks with a large share of international reserves in their assets. As at 30 June 2015, the share of total international reserves in CNB assets was as high as 99.99%, with the bulk of liabilities denominated in kuna. One of the consequences of this currency structure of assets and liabilities is the CNB's exposure to a significant currency risk, i.e. the risk of a change in the currency price of investments in relation to the reporting currency – the kuna. Foreign exchange gains and losses arising from fluctuations in EUR/HRK and USD/HRK exchange rates have a direct impact on the income and expense calculation reported in kuna in the CNB Income Statement.

In the first half of 2015, the EUR/HRK exchange rate fell

Figure 10.3 Daily changes in USD/HRK and EUR/HRK exchange rates in the first half of 2015



Source: CNB.

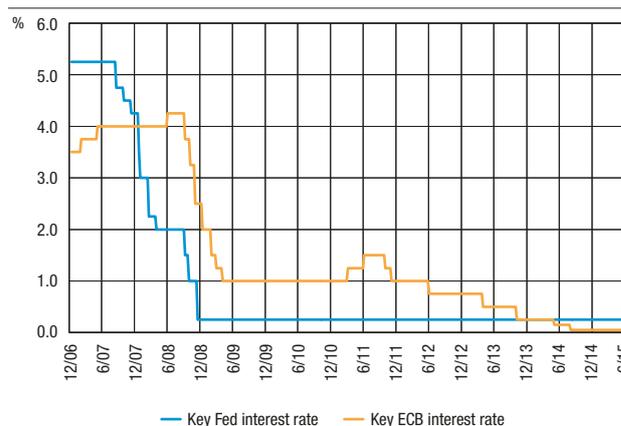
from 7.661 to 7.581 (-1.05%), with the result that unrealised foreign exchange gains on the CNB euro portfolio totalled HRK -682m. The US dollar strengthened in relation to the kuna from 6.302 to 6.829 (+8.37%) in the same period. Foreign exchange gains on the US dollar portfolio were positive and totalled HRK 1,288m in the first half of 2015. Realised foreign exchange gains arising from interventions of the CNB were HRK +33m in the reporting period.

As a result of fluctuations in the EUR/HRK and USD/HRK exchange rates, and exchange rate differentials resulting from the CNB interventions, net foreign exchange gains totalled HRK 638m in the reference period.

### 10.6 Results and analysis of CNB's foreign currency portfolio management from 1 January to 30 June 2015

The Fed's key interest rate remained unchanged throughout the first half of 2015, ranging between 0% and 0.25%, the

Figure 10.4 Changes in key Fed and ECB interest rates



Source: Bloomberg.

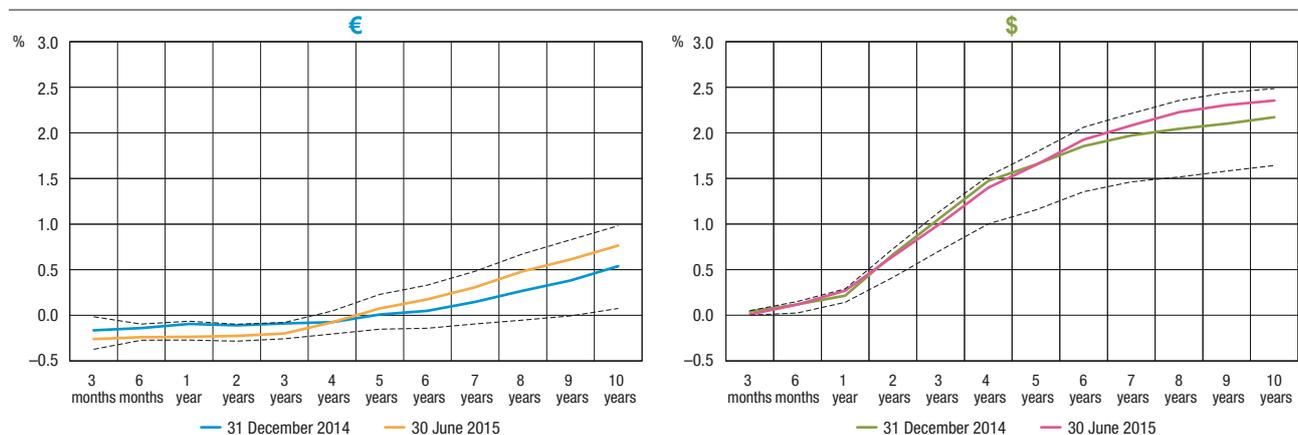
level at which it had stood already at the end of 2008.

The European Central Bank maintained the benchmark one-week repo rate at 0.05%, the interest rate on the marginal lending facility at 0.30% and the interest rate on the deposit facility at -0.20%. In the environment of poor economic growth and persistently low level of inflation, the ECB introduced unconventional monetary policy measures to create an encouraging environment for the implementation of structural reforms and for the recovery of the European economy. As a result, euro interest rates are expected to remain unchanged at this low level until the end of 2016 or even longer.

The yields on euro and dollar bonds in the first six months of 2015 were slightly more volatile than in the previous periods but overall there were no significant changes in the German or American yield curves.

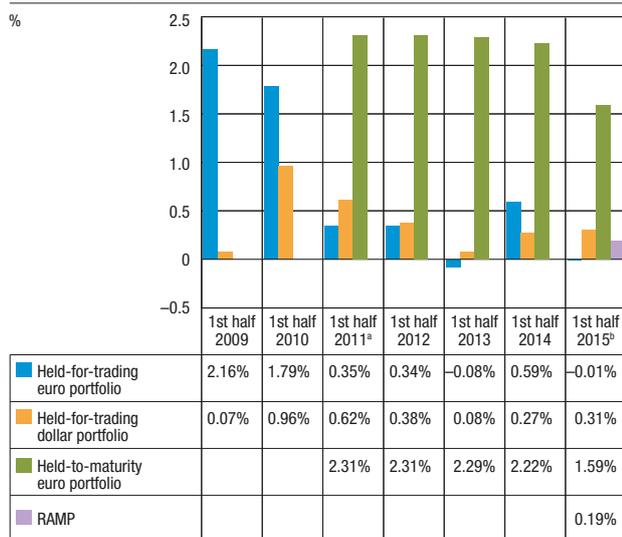
German government bond yields moved further into the negative in the part of the yield relating to maturities of up to four years, while the American curve for the same maturities remained almost unchanged from the end of 2014. The yields

Figure 10.5 German and American yield curves as at 31 December 2014 and 30 June 2015 and their spread in the first half of 2015



Source: Bloomberg.

Figure 10.6 Annual rates of return on the CNB held-for-trading euro and dollar portfolios, held-to-maturity euro portfolio and RAMP from 2009 to 2015 in the first half, on annual basis



<sup>a</sup> For held-to-maturity portfolio, effect in the period from 23 May to 30 June 2011, on annual basis.

<sup>b</sup> For RAMP portfolio, effect in the period from 31 March to 30 June 2015, on annual basis.

Source: CNB.

on both German and American longer-maturity government securities rose.

Net international reserves of the CNB comprise the euro- and dollar-denominated held-for-trading portfolios, the euro-denominated held-to-maturity portfolio and funds with the World Bank under the Reserves and Advisory Management Program (RAMP).

The negative interest rates on euro instruments with maturity up to four years of almost all the countries in which the CNB invests greatly limit the possibility for achieving favourable rates of return on the euro-denominated held-for-trading portfolio.

The rate of return on the CNB dollar-denominated held-for-trading portfolio stood at 0.31% on an annualised basis in the first six months of 2015, while the annualised rate of return on the CNB euro held-for-trading portfolio stood at -0.01% in the same period. The held-for-trading portfolios are valued at fair market prices, have short average maturities and are used as a source of liquidity. The euro-denominated held-to-maturity portfolio had a rate of return of 1.59% in the first half of 2015. This portfolio is carried at amortised cost, has a longer average maturity and serves as a source of more stable long-term income.

## 11 Business operations of credit institutions

In the first half of 2015, bank assets trended up modestly, exclusively under the influence of exchange rate developments, especially after the strengthening of the Swiss franc following the extraordinary events in January. In order to alleviate the position of debtors who borrowed in Swiss francs the Government of the Republic of Croatia adopted measures to fix the exchange rate of the Swiss franc for loan repayments for a period of one year. Banks immediately and fully recognised the costs arising from the difference between the administratively set and the market exchange rate. These costs, together with the rising costs of provisioning for litigation, were the main reason for the 6.0% decline in profit (before tax) from the first six months of 2014. Since two banks reported noticeably negative profit tax prepayments, current year profit went up by 2.2%. Thus, the return on average assets (ROAA) went down, while the return on average equity (ROAE) that is calculated on the basis of profit after tax was up on the same period in 2014. ROAA totalled 0.7% and ROAE 4.7%. In comparison with the end-2014 figures, when bank performance was burdened by the EBA's Asset Quality Review and additional requirements pursuant to the recommendation of the EU Council, profitability indicators visibly recovered.

Deleveraging in the financial markets continued and dividend payments were made in a substantial amount. Despite this, liquidity reserves remained sufficient, registering a seasonal rise in the most liquid forms of assets, like cash. Credits did not grow. In the corporate sector, a more substantial increase in loans was observed only in accommodation and food service activities, while the growth of general-purpose cash loans to the household sector continued to increase, although exclusively in kuna. As for home financing, the kuna component went up noticeably, while the overall level continued declining. The loan portfolio quality continued deteriorating, although at a much slower pace. The share of partly recoverable and fully irrecoverable loans (risk categories B and C) in total loans rose from 17.1% at the end of 2014 to 17.3% at the end of the first half of 2015. B and C category loans went up slightly, under the influence of, among other things, activities aimed at resolving the issue of loans with collection difficulties, such as the sale of claims. The coverage of B and C category loans by value adjustments continued growing (totalling 53.0%) under the influence of the ageing of that part of the loan portfolio and the rules regarding gradual value adjustment increase depending on the time elapsed since the debtor's delinquency in repayment.

Bank operational risks continued to be adequately covered by capital at the end of the first half of 2015, reflecting capital ratios at system level much higher than the required minimum. The total capital ratio stood at 22.3%, rising additionally from the end of 2014. The mild increase of this ratio is a result of low intensity developments, such as the increase in own funds and the decrease in total risk exposure. The exposure to credit risk went down the most, largely due to the reduction in the average credit risk weight, i.e. due to the reduction in the portfolio risk profile.

### 11.1 Banks

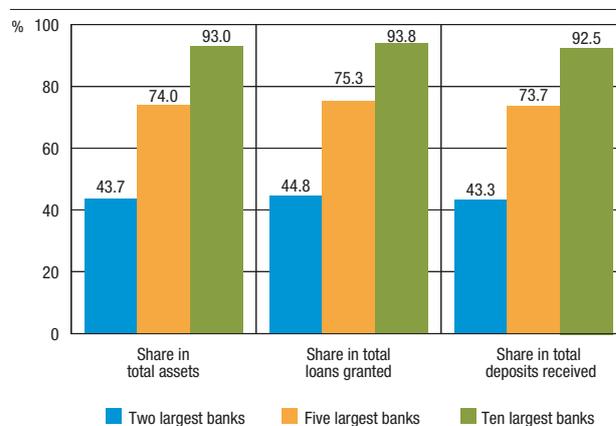
#### 11.1.1 Structural characteristics

The number of credit institutions at the end of the first half of 2015 remained the same as at the end of 2014. Of the total 33 institutions, 27 were banks, one was a savings bank and five were housing savings banks. Their assets totalled HRK 404.0bn, up 0.2% on the end of 2014. Bank assets (including the savings bank) went up slightly by 0.2%, while the assets of housing savings banks rose 2%. The negative trends observed in bank assets in recent years, followed by their meagre growth in the first half of this year resulted in a mild decline in the dominant share of bank assets in total assets, to 98.0%. Influenced by these developments, but also by the mentioned increase in the assets of housing savings banks, the assets of housing savings banks reached 2% of total assets of credit institutions, their highest level since the end of 2006.

In the first half of 2015, the indicators of the market shares of the leading banks (Figure 11.1) went up slightly, continuing to reflect great systemic importance of these banks. However, the Herfindahl-Hirschman index (HHI) for assets increased only slightly (to 1436) and, thanks to a relatively large number of banks with small market shares, continued to reflect moderate system concentration.

In the first half of 2015, the share of bank assets in majority foreign ownership went up slightly at the expense of the share of assets in domestic private ownership (Table 11.1). The reason for these changes was the increase in the assets of banks in majority foreign ownership paired with the parallel decrease in the assets of banks in domestic private ownership. The largest number of banks (six) belonged to Austrian shareholders, the assets of these banks accounting for 59.5% of the total assets of all banks. The next three banks were in Italian ownership, their market share standing at 18.7%.

Figure 11.1 Shares of assets, loans and deposits of the largest banks in total assets, loans and deposits as at 30 June 2015



Source: CNB.

Table 11.1 Ownership structure of banks and their share in total bank assets

end of period

	Dec. 2013		Dec. 2014		Jun. 2015	
	Number of banks	Share	Number of banks	Share	Number of banks	Share
Domestic ownership	14	10.3	12	9.9	12	9.8
Domestic private ownership	12	5.1	10	4.7	10	4.6
Domestic state ownership	2	5.3	2	5.2	2	5.2
Foreign ownership	16	89.7	16	90.1	16	90.2
<b>Total</b>	<b>30</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>

Source: CNB.

Then there was one bank in majority ownership of shareholders from France and one in the majority ownership of shareholders from Hungary, their market shares coming to 7.1% and 3.9% respectively. A bank owned by shareholders from the Czech Republic accounted for 0.4% of bank assets, while the remaining 0.7% was accounted for by four banks in the majority ownership of third-country shareholders (outside the EU).

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

#### Assets

In the first half of 2015, bank assets went up by HRK 0.8bn or 0.2% (Table 11.2). This growth was under the influence of exchange rate developments, especially of the strengthening of the Swiss franc. Effectively, (excluding the exchange rate changes) banks' balance sheet went down by 0.3%.

The strong growth of the Swiss franc against the kuna was a consequence of the sudden decision by the Swiss central

bank of January 2015 to stop maintaining its exchange rate against the euro. In order to alleviate the position of debtors who borrowed in the Swiss franc and whose liabilities went up considerably as a result of the events in January, the Government of the Republic of Croatia decided to fix the exchange rate to HRK 6.39 for one franc for instalments/annuities in that currency maturing within the period of one year by adopting the Act on Amendments to the Consumer Credit Act<sup>11</sup> in relation to loan contracts with natural persons and the Act on Amendments to the Credit Institutions Act<sup>12</sup> in relation to loan contracts with natural persons who perform the activity of freelancers, craftsmen, sole traders and family farm holders. Banks registered these regulatory changes by reporting in their business books embedded derivatives (reported separately from the principal instrument) whose contracted value is the amount of annuities/instalments (principal plus interest) in regular repayment for the period of duration of the determined exchange rate of one year, calculated by applying the market/contracted exchange rate. The fair value of derivatives

Table 11.2 Structure of bank assets

end of period, in million HRK and %

	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	51,284.0	12.9	50,252.6	12.7	-2.0	52,891.6	13.4	5.3
Money assets	6,369.7	1.6	6,462.7	1.6	1.5	7,849.2	2.0	21.5
Deposits with the CNB	44,914.3	11.3	43,789.9	11.1	-2.5	45,042.4	11.4	2.9
Deposits with financial institutions	21,464.2	5.4	26,369.8	6.7	22.9	25,229.0	6.4	-4.3
MoF treasury bills and CNB bills	13,634.0	3.4	15,353.5	3.9	12.6	13,707.8	3.5	-10.7
Securities	30,033.7	7.5	34,236.2	8.7	14.0	36,119.3	9.1	5.5
Derivative financial assets	1,583.6	0.4	1,357.0	0.3	-14.3	2,472.6	0.6	82.2
Loans	263,822.4	66.3	253,132.3	64.0	-4.1	250,271.0	63.2	-1.1
Loans to financial institutions	8,912.2	2.2	6,355.2	1.6	-28.7	5,692.4	1.4	-10.4
Loans to other clients	254,910.2	64.1	246,777.2	62.4	-3.2	244,578.6	61.8	-0.9
Investments in subsidiaries, associates and joint ventures	3,185.7	0.8	2,722.1	0.7	-14.6	2,975.8	0.8	9.3
Foreclosed and repossessed assets	1,541.2	0.4	1,544.8	0.4	0.2	1,620.9	0.4	4.9
Tangible assets (net of depreciation)	4,253.5	1.1	4,243.0	1.1	-0.2	4,357.7	1.1	2.7
Interest, fees and other assets	7,061.5	1.8	6,026.3	1.5	-14.7	6,427.8	1.6	6.7
<b>Total assets</b>	<b>397,863.7</b>	<b>100.0</b>	<b>395,237.7</b>	<b>100.0</b>	<b>-0.7</b>	<b>396,073.4</b>	<b>100.0</b>	<b>0.2</b>

Source: CNB.

11 OG 9/2015.

12 OG 19/2015.

is the difference between annuities/instalments calculated in this way and the annuities/instalments calculated by applying the administratively set exchange rate. In their income statement banks immediately and in full recognised the expense in the amount of negative fair value of derivatives. According to bank reports as at 31 March 2015, the expense totalled HRK 223.4m.

The most significant bank asset item, loans granted (net), boasting an almost two-thirds share in bank assets (63.2%), continued the fall observed in the previous three years. In the first half of 2015, bank loans went down by HRK 2.9bn or 1.1% as a result of the decline in loans to all domestic sectors, predominantly to government units. The decline in loans was the result not only of the still high level of caution among banks and their clients but also of the increase in value adjustments due to continued growth of losses in the loan portfolios. The effect of the sale of claims was much weaker because the net value of those loans was predominantly very small or the loans were well covered by value adjustments.

As regards bank asset items, money assets and deposits with the CNB went up the most, by HRK 2.6bn (5.3%), banks' vault cash going up by more than one fifth, which is a common occurrence in the tourist season. As for the rise in deposits with the CNB (HRK 1.3bn or 2.9%), it was caused by the HRK 1.8bn or 12.1% increase in giro accounts (settlement accounts) with the CNB. In contrast, deposits with financial institutions were lower by HRK 1.1bn (4.3%) due to the withdrawal of deposits with foreign financial institutions of HRK 1.5bn. The deposits that went down were deposits with other foreign financial institutions (other than the majority foreign owners), while deposits with majority foreign owners went up by HRK 178.1m or 3.4%.

Although there were no substantial changes to the bank securities portfolio (including MoF T-bills) as a whole, which maintained its 12.6% share in bank assets, there were some changes in the portfolio itself. Investments in MoF T-bills declined by 10.7% (HRK 1.6bn). However, investments in other securities went up during the same period (by 5.5% or HRK 1.9bn). This increase was associated primarily with the increase in domestic debt securities, which went up by 13.3%, and of bonds of the Republic of Croatia, which went up by

Figure 11.2 Bank assets

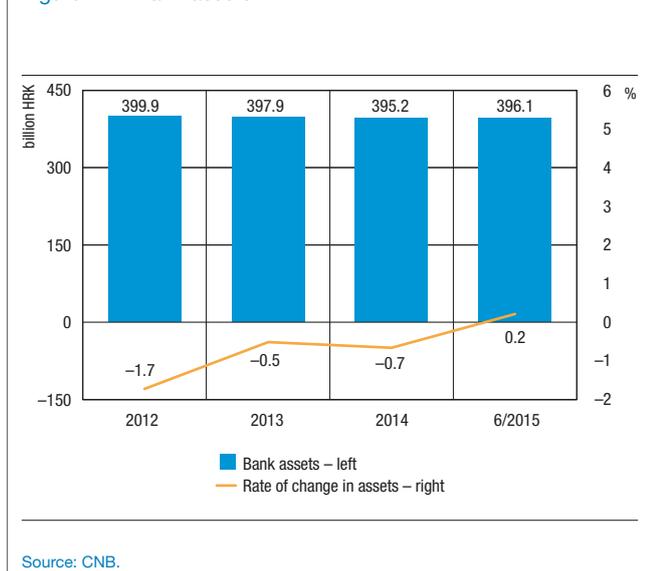
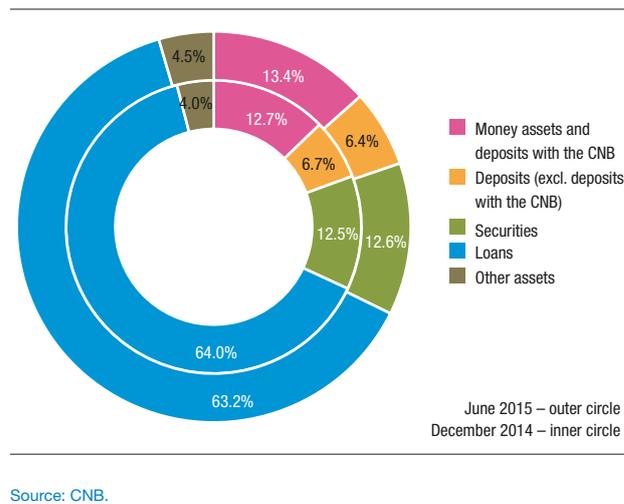


Figure 11.3 Structure of bank assets



19.0%, or HRK 2.8bn. At the same time, bank investments in foreign debt securities went down by 7.4%, or HRK 0.9bn, due to the decline in investments in money market instruments and bonds of foreign countries (by 15.3%) and the parallel increase in bonds of foreign financial institutions by slightly over 10%. The result of these opposite developments was a rise in the amount of total portfolio of debt securities by a meagre 0.5%. Its structure continued to be dominated by the securities of domestic government units, accounting for 63.5%. The equity securities investments of banks decreased slightly, largely due to the decrease in investments in securities of domestic corporates. Their share in total investments in securities remained low (1.1%).

The substantial increase in the fair value of derivative financial instruments in banks' balance sheets, of derivative financial assets (by 82.2% or HRK 1.1bn), as well as of derivative financial liabilities (by 117.2% or HRK 1.4bn) is a reflection of the increase in fair value of cross-currency interest rate swaps with foreign financial institutions (assets) and government units (liabilities). This is a consequence of the hedge contracted by the MoF for bond issues denominated in foreign currency and of the closing out of these positions, (aimed at protecting banks against market risks) with foreign parent banks. As for derivative financial liabilities, they were additionally influenced by book entries described earlier in the text that had been implemented in accordance with the amended rules of consumer lending whereby the exchange rate of the Swiss franc had been determined administratively.

#### Liabilities and capital

In the first half of 2015, banks' liabilities went up by 0.5% (HRK 1.6bn), largely due to the increase in deposits, especially deposits of financial institutions. The increase in derivative financial liabilities described earlier, the increase in issued debt securities with the characteristics of equity and the increase in interest rates, fees and other liabilities contributed to this growth to a smaller extent. In relation to the last item mentioned, provisions for legal actions against banks increased by slightly over one fifth, thus pushing their balance up to HRK 581.8bn.

Total sources of bank financing<sup>15</sup> went down slightly in the

first half of 2015. Although deposits, the largest item (accounting for 88.6% of sources of financing) went up by 1.2% (HRK 3.4bn), the noticeable decline in the loans received, of HRK 4.7bn or 12.8%, resulted in the decline of total sources of bank financing of 0.2%. Domestic sources of financing stagnated, while sources from non-residents decreased by 1.2% due to the substantial decrease in loans received, totalling 14.2%. The decisive element was the influence of developments in the sources from majority foreign owners (used by twelve banks), which went down by HRK 1.1bn or 2.6% during the period under review. The share of majority foreign owners in the total sources of financing at the end of the first half of 2015 had gone down slightly, from 12.8% at the end of 2014 to 12.5%.

In the period observed, both domestic and foreign deposits increased, domestic by HRK 2.0bn or 0.8% and foreign by HRK 1.5bn or 3.9%. The growth of domestic deposits benefited to the greatest extent from the rise in deposits of credit institutions, which went up by HRK 1.1bn or 19.5%. Thanks

to deposits of credit institutions and the steep growth in deposits of financial auxiliaries (predominantly pension fund management companies) by more than one third, the deposits of financial institutions as a whole went up by 6.6%. No contribution was made to the rise of total bank deposits by the two sectors that make up its largest share, households and corporates (61.0% and 15.5% respectively) because household deposits went up only slightly by 0.1%, while funds deposited by corporates were actually down on the end of 2014, by 0.2%. Deposits of majority foreign owners (increasing by HRK 0.7bn or 2.8%) and deposits of other non-residents (increasing by HRK 0.8bn or 6.0%) contributed almost equally to the rise in deposits of non-residents.

The fall in household time deposits of 2% caused a decline in this type of deposit as a whole, for it went down by almost 1% or HRK 1.9bn. At the same time savings deposits and deposits on transaction accounts increased noticeably (by 9.1% and 5.5%). The household sector might have been affected by

**Table 11.3 Structure of bank liabilities and capital**

end of period, in million HRK and %

	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	15,146.0	3.8	14,617.1	3.7	-3.5	13,334.0	3.4	-8.8
Short-term loans	2,124.8	0.5	2,428.3	0.6	14.3	1,705.2	0.4	-29.8
Long-term loans	13,021.2	3.3	12,188.9	3.1	-6.4	11,628.8	2.9	-4.6
Deposits	282,805.6	71.1	286,075.4	72.4	1.2	289,524.4	73.1	1.2
Transaction account deposits	54,245.1	13.6	67,556.2	17.1	24.5	71,294.1	18.0	5.5
Savings deposits	21,785.7	5.5	18,045.1	4.6	-17.2	19,688.9	5.0	9.1
Time deposits	206,774.8	52.0	200,474.1	50.7	-3.0	198,541.5	50.1	-1.0
Other loans	26,337.2	6.6	21,944.3	5.6	-16.7	18,539.1	4.7	-15.5
Short-term loans	4,531.3	1.1	3,806.9	1.0	-16.0	2,855.8	0.7	-25.0
Long-term loans	21,805.9	5.5	18,137.4	4.6	-16.8	15,683.3	4.0	-13.5
Derivative financial liabilities and other financial liabilities held for trading	1,878.1	0.5	1,180.5	0.3	-37.1	2,564.2	0.6	117.2
Debt securities issued	299.9	0.1	299.9	0.1	0.0	305.7	0.1	1.9
Short-term debt securities issued	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Long-term debt securities issued	299.9	0.1	299.9	0.1	0.0	300.0	0.1	0.0
Subordinated instruments issued	1,453.5	0.4	2,050.0	0.5	41.0	2,680.3	0.7	30.7
Hybrid instruments issued	3,005.9	0.8	2,319.4	0.6	-22.8	2,244.0	0.6	-3.2
Interest, fees and other liabilities	11,445.8	2.9	11,231.2	2.8	-1.9	12,076.2	3.0	7.5
<b>Total liabilities</b>	<b>342,371.9</b>	<b>86.1</b>	<b>339,717.8</b>	<b>86.0</b>	<b>-0.8</b>	<b>341,267.9</b>	<b>86.2</b>	<b>0.5</b>
Share capital	33,964.7	8.5	33,757.2	8.5	-0.6	33,829.1	8.5	0.2
Current year profit (loss)	477.6	0.1	1,534.6	0.4	221.3	1,296.1	0.3	-15.5
Retained earnings (loss)	16,315.3	4.1	15,943.0	4.0	-2.3	15,893.7	4.0	-0.3
Legal reserves	1,108.6	0.3	1,046.0	0.3	-5.7	1,035.2	0.3	-1.0
Reserves provided for by the articles of association and other capital reserves	3,035.4	0.8	2,600.4	0.7	-14.3	2,611.0	0.7	0.4
Revaluation reserves	610.4	0.2	727.9	0.2	19.2	635.9	0.2	-12.6
Previous year profit (loss)	-20.2	0.0	-89.1	0.0	342.2	-495.5	-0.1	455.8
<b>Total capital</b>	<b>55,491.8</b>	<b>13.9</b>	<b>55,519.9</b>	<b>14.0</b>	<b>0.1</b>	<b>54,805.5</b>	<b>13.8</b>	<b>-1.3</b>
<b>Total liabilities and capital</b>	<b>397,863.7</b>	<b>100.0</b>	<b>395,237.7</b>	<b>100.0</b>	<b>-0.7</b>	<b>396,073.4</b>	<b>100.0</b>	<b>0.2</b>

Source: CNB.

<sup>13</sup> Sources of financing include: received deposits, received loans, debt instruments with the characteristics of equity (issued subordinated and hybrid instruments) and issued debt securities.

Figure 11.4 Structure of bank liabilities and capital

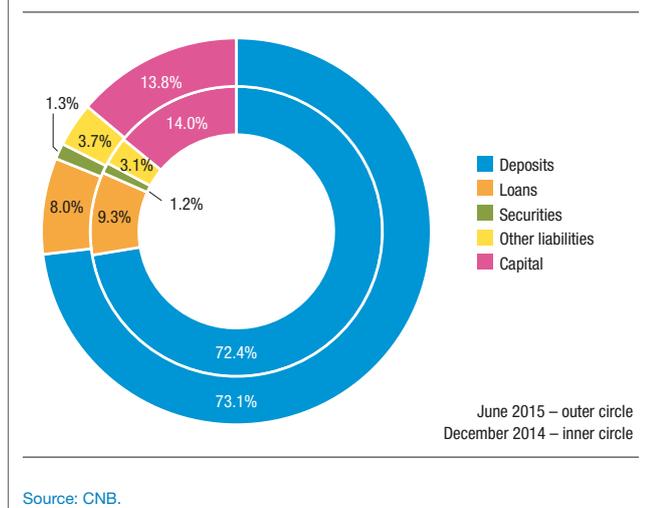
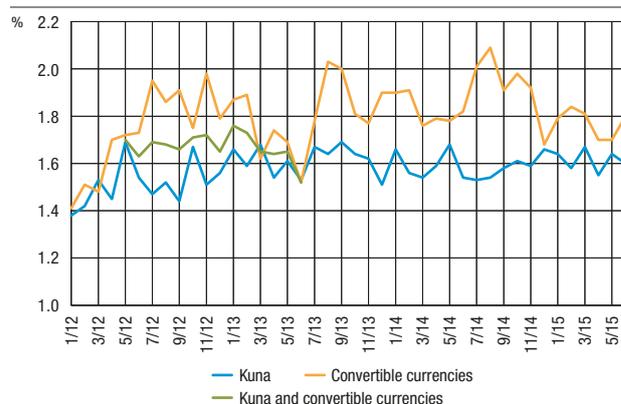


Figure 11.5 Minimum liquidity coefficient for period up to one month



Note: By way of exception, in the period from 1 May 2012 to 30 June 2013, credit institutions had to meet the minimum liquidity coefficient on a collective basis, i.e. for both kuna and all convertible currencies combined.

Source: CNB.

the introduction of tax on savings interest at the beginning of 2015<sup>14</sup>.

Foreign loans account for the lion's share of received loans of banks (57.1%) so their decrease by 14.2% (HRK 3.0bn) contributed more to the decline in that source of bank financing than the 10.9% reduction in loans from residents. Loans from majority foreign owners headed the fall, decreasing by 18.0%, while loans from other non-residents went down by 6.7%. Domestic loans went down by HRK 1.7bn, largely due to the lower amount of loans received from the CBRD.

The changes in other bank liabilities had no major impact. Issued subordinated instruments (debt instruments with certain characteristics of equity) led by the size of their increase, going up by slightly below 31%.

In the past six months bank capital went down 1.3% (HRK 0.7bn). This was predominantly under the impact of the distribution of the 2014 profit, carried out by 14 out of the 16 banks that reported profit last year. Their profit totalled HRK 2.8bn, of which the sum of HRK 2.2bn was paid in dividends. Although banks retained the remaining share of the profit, retained earnings and legal reserves were lower than in the previous year. The reason for this was the need to cover last year's losses, as well as previous years' losses brought forward. The additional factor in the capital reduction was the decrease in the amount of unrealised profit on value adjustment of financial assets available for sale, totalling 9.3% or HRK 57.7m. The recapitalisations carried out by the four banks increased the share capital by HRK 71.9m, partly offsetting the overall result.

### Liquidity indicators

The mismatch between short-term assets and short-term liabilities (up to one year) in the first half of 2015 increased by almost 10% (9.1% or HRK 6.3bn), so the short-term cumulative negative gap<sup>15</sup> reached HRK -75.2bn. A decline in short-term assets (1.4%) and the simultaneous increase in short-term liabilities of equal value (1.4%) caused the above-mentioned increase in the mismatch. These developments diminished their ratio by slightly over two percentage points, reducing it to 71.0%.

The most liquid bank assets, readily marketable assets<sup>16</sup>, continued increasing (4.0%), totalling HRK 71.5bn. The increase resulted from the growth of these assets in convertible currencies (up 11.6%), while readily marketable assets in kuna decreased by almost 2%. Readily marketable assets in kuna grew faster than overall assets, meaning their share in total bank assets went up from 17.4% to 18.1%.

The said increase was to the greatest extent related to cash and securities available for sale (19.3% and 10.1% respectively). However, the largest share of the most liquid part of assets, almost a half (48.8%), was made up of deposits with the CNB and deposits and loans with credit institutions, both in approximately the same amount.

The amount of estimated inflows remained sufficiently high for minimum liquidity coefficients (MLCs)<sup>17</sup> to remain much higher than the prescribed minimum (Figure 11.5). The MLCs for kuna went down to 2.1 in the period up to one week and to 1.6 in the period up to one month (compared with 2.2 and 1.7 at the end of 2014 respectively) while the MLCs for convertible

14 The Act on Amendments to the Income Tax Act (OG 145/2014) introduced, inter alia, a tax on interest on kuna and foreign currency savings deposits (sight and time savings deposits and annuity savings) at a rate of 12%. Interest on the positive balance in giro accounts, current accounts and foreign currency accounts are not subject to tax provided that the interest rate does not exceed 0.5% a year.

15 The short-term cumulative maturity mismatch between assets and liabilities (the cumulative gap) is calculated as the difference between (net) assets and liabilities with the same term to maturity and includes all remaining maturity categories up to one year. The positive gap implies that the amount of assets exceeds the amount of liabilities, otherwise the gap is considered a negative gap.

16 Readily marketable assets (RMA) are those assets which may be turned into cash quickly (within four working days) and easily (with no significant losses).

17 Minimum liquidity coefficient (MLC) is calculated as the ratio of expected inflows (currently negotiable assets included) and expected outflows in periods of stress in the two given periods (up to 1 week and up to 1 month) and must be equal to or higher than 1. MLC is calculated for kuna, all convertible currencies combined and for each non-convertible currency separately (if it is significant).

currencies went up to 2.9 and 1.8 from the 2.6 and 1.7 in the previous period.

### Currency adjustment of bank assets and liabilities

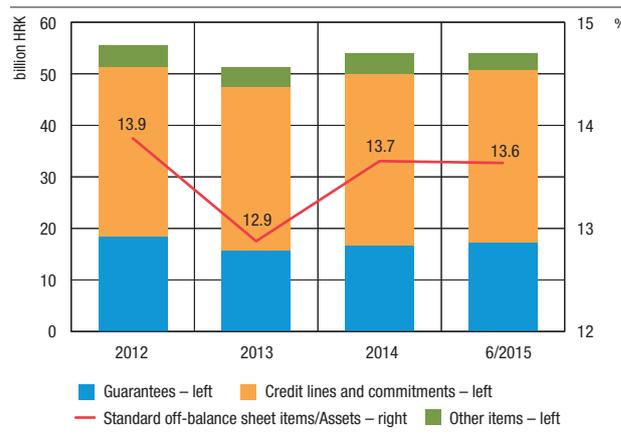
In the first half of 2015 the kuna strengthened against the euro by 1.1%, while against the two other most represented currencies it weakened noticeably, 14.6% against the Swiss franc and 8.4% against the US dollar. Excluding the impacts of the mentioned exchange rate changes that were relatively strong in the first half of the year, a relatively weak nominal rise in bank assets (0.2%) turned into a 0.3% fall, effectively.

The rising trend in kuna asset items paired with the parallel decline in foreign currency assets (including assets in kuna with a currency clause), present since 2013, continued in the first half of 2015. Bank assets in kuna went up by HRK 3.4bn (2.3%), while foreign currency assets went down by HRK 2.6bn (1.0%). This changed their shares in total assets (by 0.8 percentage points), so the share of kuna assets increased to 38.9%, while the share of foreign currency assets reduced to 61.1%. The key contributor to the fall of bank assets was the decline in loans, totalling HRK 3.5bn or 1.9% (predominantly items in kuna indexed to foreign currency). The currency substitution was noticeable in general-purpose cash loans, that is, the kuna share of these loans went up by HRK 1.8bn, while the portion indexed to the euro went down by HRK 1.5bn. The change was noticeable in the majority of banks in the system. However, several of the largest banks made the largest contribution to the actual amount of the change. The rise in kuna loans is to an extent a reflection of increased demand, that is, of changes in client preferences. This is related to no small extent to problems in the repayment of loans indexed to the Swiss franc. Banks reacted by amending the supply of loans they offer to clients and changing the currency structure of their sources. Kuna sources of financing strengthened, due to no small degree to the more attractive interest rates on kuna savings. However, for the most part this was due to the rise in transaction account deposits whose maturity limits the possibility of long-term arrangements.

The decrease in the foreign currency component of banks' liabilities (HRK 2.2bn or 0.9%) was for the most part a result of the decline in loans received, which went down by HRK 3.6bn or 12.3%, mainly in foreign currency. The fall in foreign currency time deposits was also steep, totalling HRK 2.9bn or 1.9%. Concurrently, kuna liabilities increased by HRK 3.7bn (3.3%), as a result of the increase in transaction account deposits (4.3%) and derivative financial liabilities (238.4%). The latter was a reflection of the increase in the fair value of cross-currency interest rate swaps with government units, which was a consequence of the hedge described earlier that the MoF contracted in relation to bond issues denominated in foreign currencies.

Changes in the currency structure of bank liabilities were only a tad stronger than in the currency structure of assets, more accurately, the share of foreign currency liabilities reduced by 0.9 percentage points, while the share of kuna liabilities went up. Foreign currency items made up 57.1% of total liabilities and capital, the bulk being accounted for by foreign

Figure 11.6 Bank standard off-balance sheet items



Source: CNB.

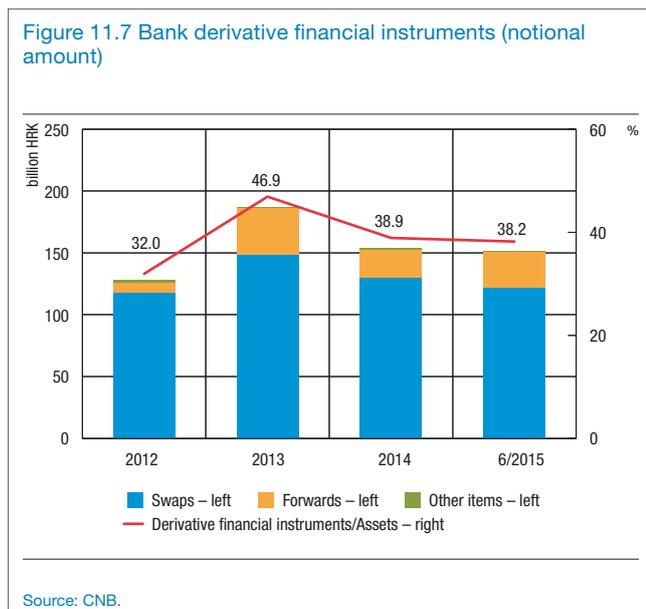
currencies (54.2%, while only 2.9% were made up of liabilities in kuna indexed to foreign currency). Liabilities in kuna accounted for the remaining 42.9% of total liabilities and capital, which were for the most part made up of deposits. Slightly more than one third of all bank deposits at the end of June 2015 were kuna deposits. Their share was the lowest in the household sector where they accounted for only 23.8% of total deposits by that sector.

The somewhat stronger decline in foreign currency assets compared to the decline in foreign currency liabilities in 2015 contributed to the reduction in their difference, which remained positive. Thus, at the end of the period under observation banks' foreign currency assets exceeded their liabilities by HRK 15.6bn (representing 3.9% of their assets), while at the end of 2015 this difference totalled HRK 16.0bn. The banks covered their long positions by forward positions, that is, by contracting derivative financial instruments and thus reduced their direct exposure to currency risk to a relatively low level. The average open foreign exchange position of all banks in the first quarter was long and stood at 2.1% of average own funds<sup>18</sup>, while in the second quarter it was short, totalling 1.8%. The substitution of the common long position by a short position has been a regular occurrence in the second quarter of the past six years.

### Standard off-balance sheet items

At the end of June 2015, standard off-balance sheet items were HRK 54.0bn, the equivalent of 13.6% of bank assets (Figure 11.6). The overall level of standard off-balance sheet items changed only slightly from the end of the previous year (went up by less than 0.1%) due to developments in its constituents that were similar in value but opposite in direction. Thus, in the period under review the less significant items went down at the largest rates. Namely, other risky items and uncovered letters of credit went down by 17.7% and 13.9% respectively. The nominal reduction was also evident in other credit lines and

<sup>18</sup> Due to the harmonisation with EU regulations, the cap on the net open foreign exchange position of banks, previously set at 30% of own funds, was abolished as of 30 June 2014. However, if the net open foreign exchange position exceeds 2% of regulatory capital, banks are obligated to allocate capital requirements for currency risk.



commitments to finance, which went down by HRK 0.6bn or 2.2%, whereby the greatest decrease was related to large public corporates. The fall in all listed items was offset by the rise in revolving loans and guarantees (9.8% and 3.0% respectively) under the influence of the increase in these liabilities towards other corporates.

There were no major changes in the structure of assumed liabilities from the end of 2014. Almost a half of all off-balance sheet items continued to be related to credit lines and commitments to finance, their share reducing by 1.1 percentage points to 45.6%. The share of guarantees went up to 31.7%, while the share of revolving loans climbed to 16.5% of all standard off-balance sheet items. All other assumed liabilities accounted for 6.2% of total standard off-balance sheet items.

### Derivative financial instruments

The fall in the notional value of derivative financial instruments continued in the first half of 2015 but at a noticeably slower pace. The total contracted value of derivative financial instruments decreased by HRK 2.4bn (1.6%) to HRK 151.3bn, while due to the weak intensity of the change and the only small change to total bank assets their ratio went down negligibly, to 38.2%. At the end of the period concerned three banks dominated the scene by their share in the overall notional value of derivative financial instruments, while the majority of banks did not rely much or at all on such instruments in their operation.

In the period under review the value of derivative financial instruments arranged with foreign institutions went down (HRK 7.2bn or 7.1%), while the value of instruments arranged with clients from all domestic sectors went up. At the end of the first half of 2015, banks arranged 62.3% of the total amount of derivative financial instruments with foreign financial institutions, of which majority foreign owners and affiliated enterprises accounted for the lion's share. As a rule, bank business with clients ended in positions closed with parent banks in their effort to protect themselves from exposure to market risks. Among the domestic sectors, the greatest increase in

the notional amount of derivative financial instruments was accounted for by domestic financial institutions (HRK 3.4bn or 18.6%) with which banks arranged 14.3% of the overall amount of these instruments. A share of this increase is a consequence of contracting forwards, which were used to register statutory changes that set the repayment exchange rate for household loans in Swiss francs<sup>19</sup>. Loan repayments in the second quarter of this year reduced the balance of the notional value of these instruments from the initial HRK 1.7bn as at the end of the first quarter to HRK 1.2bn at the end of the second quarter of this year. Broken down by the overall amount of contracted derivative financial instruments, next to follow according to size of share were instruments concluded with government units (12.8%) and enterprises (10.0%) that went up by 3.9% and 2.1% respectively in the period under observation.

The change in the derivative financial instruments in the first half of 2015 was predominantly a result of developments in the notional value of the two instruments dominating their structure, i.e. swaps and forwards. A reduction in swaps of HRK 8.0bn (6.2%) had a stronger influence on the overall change in nominal terms than the HRK 6.1bn (26.1%) increase in forwards. A noticeable decrease in notional value was also related to futures, which went down by HRK 517.9m (78.6%), and were thus reduced to less than 0.1% of the total amount of the notional value of the derivative financial instruments. Despite the decrease in the period concerned, swaps remained the dominant instrument, accounting for 80.2% of total derivative financial instruments. By size of share, forwards were in second place (19.5%). In addition to the instruments listed, options were also present in the structure of derivative financial instruments, accounting for 0.2% of total notional value of all instruments.

The importance of instruments that have the exchange rate as the underlying variable continued growing in the first half of 2015. They rose by 5.4% to reach 51.0% of total derivative financial instruments. The notional values of derivative financial instruments that have the interest rate as their underlying variable (11.9%) and of cross-currency swaps (5.9%) went down almost in the same amount (HRK 3.2bn) from the end of 2014. Due to the decrease in these instruments their share in the structure broken down by the type of underlying variable went down by more than one percentage point, so the share of instruments with interest rate as the underlying variable totalled 15.6%, and the share of cross-currency swaps amounted to 33.4%.

At the end of the first half of 2015, almost all derivative financial instruments were distributed in the held-for-trading portfolio (97.0%), while banks allocated the remaining share of derivative financial instruments to the portfolios of instruments for fair value and cash flow hedging.

### 11.1.3 Earnings

#### Income statement

Bank income before taxes was down slightly in the first half of 2015 on the same period the year before and so was the ROAA. These developments were impacted by amendments to regulations on consumer lending, whereby the exchange rate of the Swiss franc for loan repayments due over the following

<sup>19</sup> In their reports to the CNB, banks listed themselves as a counterparty in forward agreements which were used to register expenses associated with the statutory determination of the repayment exchange rate.

year was administratively set in January 2015. In addition, costs of provisioning for litigation went up noticeably, predominantly in relation to litigation concerning debtors with loans in Swiss francs. Although the majority of banks improved their performance, the effect failed at system level because the banks in question were predominantly smaller banks.

In the first half of 2015, banks reported profits of slightly below HRK 1.5bn (from continuing operations, before tax), down HRK 95.2m or 6.0% from the first half of 2014 (Table 11.4). The last time banks reported lower profits at the end of the first half of the year was in 2001. For tax purposes, banks reported noticeably negative amounts of profit tax advance payments at the end of the first half of the year so this position was as much as 40.8% lower than in the same period last year. As a result, current year profit was 2.2% higher.

Bank operations in the first half of the year continued to be characterised by weak lending activity and deleveraging in the financial markets, both foreign and domestic, as well as by the continued decline of interest rates. Considerable savings on interest expenses boosted net interest income. At the end of June 2015, it reached 76.4% of the overall banks' operating

income, its highest level since the beginning of 2004<sup>20</sup>. The impact of the aforementioned measure aimed at mitigating the position of debtors with loans in the Swiss franc and the increase in other operating costs resulted in the decline of net other non-interest income to only 2.0% of the overall operating income. Net income from fees and commissions, in relation to which the growth of income exceeded the growth of costs, had a small positive impact. Despite banks' efforts to maintain and improve the interest spread (Figure 11.8) the said fall in net other non-interest income negatively affected the overall operating income, which went down by 1.7%. Mild but opposite developments in the remaining items of the income statement could not much affect the final results, so savings in the general administrative expenses were almost fully offset by the rise in expenses on value adjustments and provisions, primarily those relating to the already-mentioned costs of provisioning for litigation.

Although there has been no noticeable improvement in the aggregate profitability of the system, an improvement is evident in several individual credit institutions. Thus, at the end of the first half of 2015, six banks operated with losses, while a year

Table 11.4 Bank income statement

in reference periods, in million HRK and %

	Amount		Change
	Jan. – Jun. 2014	Jan. – Jun. 2015	
<b>Continuing operations</b>			
Interest income	9,533.0	9,300.6	-2.4
Interest expenses	4,394.8	3,982.5	-9.4
Net interest income	5,138.2	5,318.1	3.5
Income from fees and commissions	2,077.0	2,108.7	1.5
Expenses on fees and commissions	587.0	612.3	4.3
Net income from fees and commissions	1,490.0	1,496.4	0.4
Income from equity investments	188.0	187.5	-0.3
Gains (losses)	434.8	204.4	-53.0
Other operating income	206.7	265.2	28.3
Other operating expenses	379.7	514.9	35.6
Net other non-interest income	449.8	142.2	-68.4
Total operating income	7,078.0	6,956.7	-1.7
General administrative expenses and depreciation	3,715.7	3,642.9	-2.0
Net operating income before loss provisions	3,362.4	3,313.8	-1.4
Expenses on value adjustments and provisions	1,776.9	1,835.3	3.3
Other gains (losses)	-11.7	0.0	-100.0
Profit (loss) from continuing operations, before taxes	1,573.7	1,478.5	-6.0
Income tax on continuing operations	309.1	183.0	-40.8
Profit (loss) from continuing operations, after taxes	1,264.6	1,295.5	2.4
<b>Discontinued operations</b>			
Profit (loss) from discontinued operations, after taxes	3.5	0.6	-83.5
Current year profit (loss)	1,268.1	1,296.1	2.2
<b>Memo item:</b>			
Number of banks operating with losses, before taxes	10	6	-40.0

Source: CNB.

<sup>20</sup> The manner in which banks report the items from the income statement had been changed on 1 January 2004 so as to report income from fees and commissions and expenses on fees and commissions separately from other non-interest income and other non-interest expenses. Therefore, comparison with periods before 2004 is made difficult due to changes in the methodology.

earlier ten banks had operated at a loss. Despite the decrease in the number of banks operating with losses, the amount of the aggregate loss (HRK 229.7m) was much higher than in the period under comparison. The decisive influence on the increase in losses, as well as on the share of assets of banks operating with losses in total bank assets, from 2.9% to 14.6%, came from two banks whose negative results were under the strong impact of credit losses connected with the cleaning of their balance sheets (with the process of transfer of ownership, i.e. merger).

The greatest change in the income statement was experienced by interest expenses, which went down by HRK 412.3m or 9.4%. Banks reduced the costs of almost all types of interest liabilities, with the exception of expenses on issued subordinated and hybrid instruments and other financial liabilities of low importance. Expenses on received deposits went down the most (HRK 470.3m or 15.7%); among them the expenses on household time deposits went down the most (HRK 303.7m or 14.8%). Apart from the decrease in the base, that is, in household time deposits in the one-year period under review, the said decrease in expenses was also a result of the decline in interest rates on savings deposits. In addition to interest rate developments, the decline in expenses on total deposits was aided by the change in the structure of savings, that is, the rise in the share of deposits on transaction accounts generating very small yields. The non-resident sector followed the household sector according to the amount of decline in interest expenses, which went down by HRK 187.4m or 14.8%, largely due to the reduction in expenses on loans received and expenses on time deposits. The majority of reductions in this sector pertained to foreign financial institutions and is to a large degree a consequence of continued bank deleveraging vis-à-vis their foreign owners. The expenses of sources from domestic enterprises were much lower (HRK 80.8m or 31.0%), primarily expenses on time deposits.

Bank interest income went down from the first half of 2014 by HRK 232.4m or 2.4%. Banks reported lower interest income from almost all items, primarily loans (by HRK 384.2m or 4.8%) and debt instruments in all portfolios, except for the loans and receivables portfolio. Interest income was positively impacted only by two less important categories: interest

income from held-for-trading derivatives (the connected costs included, their net worth was HRK 40.9m or 46.0% higher) and interest income from previous years that were much higher than in June last year. The majority of income from previous years was related to income from foreign financial institutions and to a lesser degree to households. Income from foreign financial institutions was generated under the influence of the settlement between the Republic of Croatia and three domestic banks (as guarantors) with the UBS AG in connection with the debt arising from API bonds (Alternative Participation Instruments) that the former Republic of Yugoslavia issued in 1988 and the Republic of Croatia inherited after its dissolution. As a result of the settlement reached, one bank paid a noticeably lower amount than the amount that had been previously reported on the books, and the difference was reported as income from previous years.

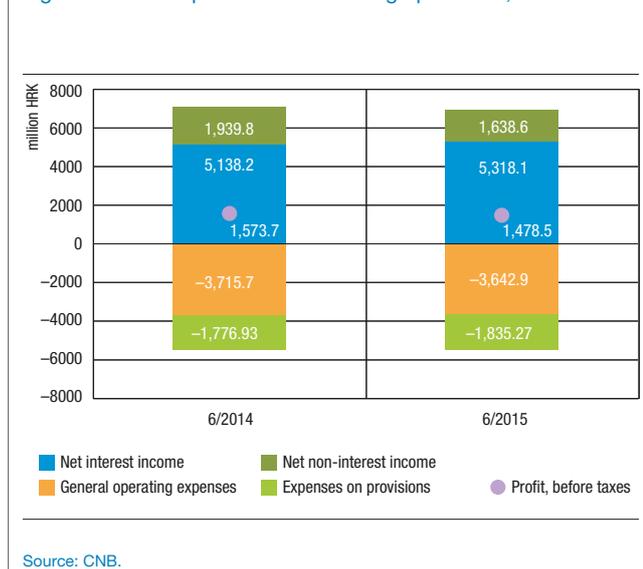
Lower income of the two most important sectors, the corporate and the household sector, contributed the most to the decline in interest income from loans. Interest income from loans to corporates decreased by HRK 198.1m or 8.3% with the decrease in interest income from loans to public corporates (12.7%) being much stronger than that from loans to other corporates (7.0%). Interest income from almost all types of loans was lower, primarily the interest income from investment loans, syndicated loans and loans for working capital.

Interest income from household loans went down by HRK 167.6m or 4.0%. Lower interest income was recorded by almost all types of loans, with the lion's share of the said decrease being accounted for by the interest income from home loans, from car purchase loans and from unspecified loans. The decrease in interest income in this sector was primarily a result of the absence of new credit activity and of the deterioration in the portfolio quality, that is, of the decline in risk category A loans and the rise in risk category B and C loans in relation to which banks can recognise interest income only at the time of collection. Higher interest income from loans to households in the first half of the year was registered only by credit card loans and several less significant types of loans to households. Despite everything, loans to households, accounting for 54.2%, continue to be the largest source of bank interest income.

Other domestic sectors also registered a decline in interest income from loans from the same period a year ago, especially government units (HRK 27.7m or 2.6%), non-profit institutions (HRK 4.7m or 30.3%) and financial institutions (HRK 4.5m or 4.3%), as a result of deleveraging by these sectors. Only non-residents managed to maintain the same level of interest income from loans, although the overall impact was modest (HRK 0.7m or 1.2%) due to opposite developments within the sector.

Net income from fees and commissions had no noticeable impact on bank profit (it went up by HRK 6.4m or 0.4%) due to the parallel increase in both income and costs. Income from fees and commissions went up by HRK 31.7m (1.5%), primarily due to the increase in fees and commissions associated with credit cards and to numerous less significant items: agreements for insurance and investment fund management companies, for account management, internet banking, etc. Expenses on fees and commissions for other banking services increased by HRK 25.3m (4.3%). Overall, income and expenses from fees and commissions changed very little from 2008 onward, so their significance in the overall operating income of banks varied, predominantly under the influence of the remaining two

Figure 11.8 Bank profit from continuing operations, before taxes



determinants, the net interest income and the net other non-interest income. Thus, at the end of June 2015 the share of net income from fees and commissions went up by 0.5 percentage points, that is, to 21.5% of the overall operating income.

Banks continued saving on general administrative expenses and depreciation by a further HRK 72.7m or 2.0%. Since the onset of the crisis banks have been striving to limit these expenses so they have changed at very low rates from 2009 to 2013 when they started trending downwards uninterruptedly until the end of June 2015. All constituents (except for expenses on investments in real estate) contributed to the decrease in these expenses from June 2014, primarily advertising and marketing expenses and other general administrative expenses. Employee expenses went down slightly (0.3%). This was due to staffing reductions to 20 708, 240 positions being lost (1.1%) as a result of the exit of two small banks from the system. From the onset of the crisis at the end of 2008 until the end of June 2015 the number of employees in banks has continuously trended downwards, albeit with short-term interruptions. During that period, the number of employees in banks decreased by 1 357, i.e. by 6.2%, with only a small portion of that decrease being the consequence of four smaller institutions exiting the system, while the remaining part of the decrease was a reflection of the rationalisation of operations (mergers, reduction in the number of operating units, increase in the direct channels of distribution).

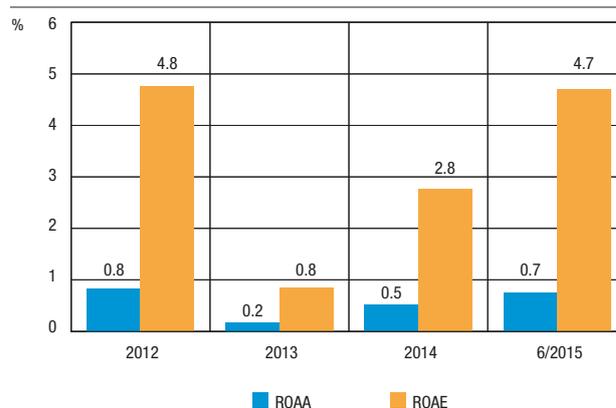
Total expenses on value adjustments and provisions rose by HRK 58.3m or 3.3%. The rise was almost entirely accounted for by provisions for litigation (for the most part having to do with loans in the Swiss franc) for which banks set aside HRK 119.9m, while in June of the previous year they had reported income from the cancellation of provisions. Opposite developments were registered by the expenses on placement value adjustments and provisions for identified losses arising from off-balance sheet liabilities that reduced by HRK 131.3m or 6.9%. This was a result of the decline in expenses on value adjustments and provisions for loans and claims arising from loans granted to corporates that went down by one fifth. Due to the currency structure of the credit portfolio, expenses on value adjustments and provisions should be viewed together with net exchange rate changes of total value adjustments and provisions, which resulted in a HRK 155.0m loss by the end of June, while in the same month last year they generated a gain. Of other expenses on value adjustments only income from the suspension of expenses on collectively assessed impairment provisions (for placements classified in risk category A) stood out, declining by HRK 67.6m or 60.8% from the June of last year.

### Returns indicators

Return indicators changed negligibly from the end of the first half of 2014. A comparison with the end of 2014 indicates a somewhat more visible improvement (Figure 11.9). However, it is noteworthy that banks' performance in the second half of 2014 was considerably burdened by the EBA's Asset Quality Review and the additional requirements imposed as part of the EU Council's recommendations.

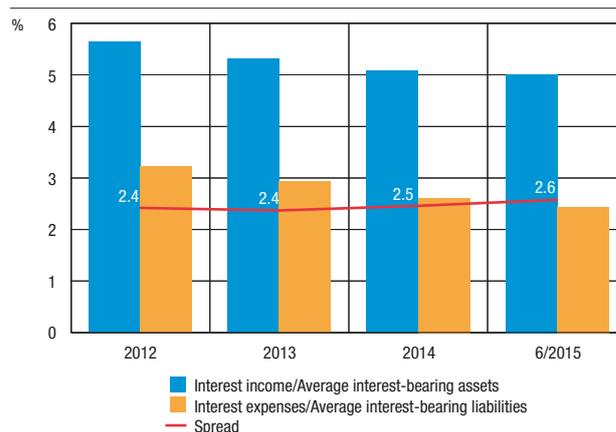
The return on average assets (ROAA) went down slightly, from 0.8% to 0.7%, on the same period a year ago. The decline

Figure 11.9 Bank return on average assets (ROAA) and return on average equity (ROAE)



Source: CNB.

Figure 11.10 Income from interest-bearing assets and expenses on interest-bearing liabilities



Source: CNB.

in banks' overall operating income and thus in the return on average assets is a result of the decline of net other non-interest income from 0.2% to 0.1% of average assets. The overall cost of the risk remained at 0.9% of the average assets.

At the same time the Return on Average Equity (ROAE) went in the opposite direction. ROAE increased from 4.6% at the end of the first half of 2014 to 4.7% at the end of the first half of 2015. The slight rise in ROAE is primarily a result of the fall in total capital, amounting to 1.9%, on an annual level and also of the growth in current year profit since the same period a year ago, up 2.2% (due to negative reported amounts of profit tax advance payments).<sup>21</sup> In the one-year period under review, the amount of bank balance sheet capital went down under the influence of the simplified reduction of capital at one bank, the exit of two banks from the system and the much higher amount of current year loss.

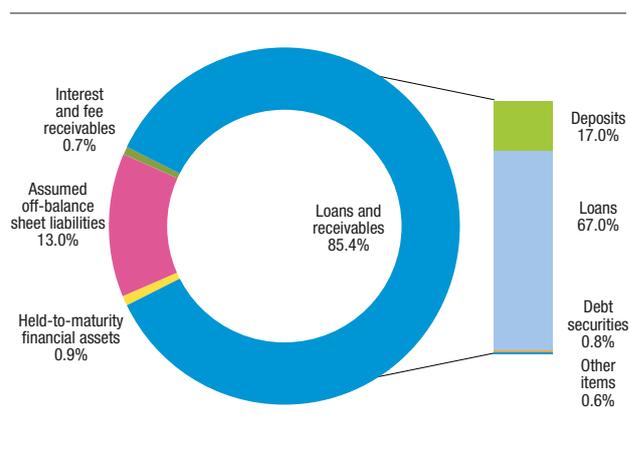
<sup>21</sup> Negative reported amounts of profit tax advance payments were a result of the recognition of tax overpayments from previous years, as well as recognised losses related to mergers and ownership changes.

In the first half of 2015, bank balance sheets were marked by poor credit activity and redirection of funds collected predominantly from the domestic public into highly liquid assets, as well as further deleveraging in the financial market. These developments, amid declining interest rates, created strong pressure on bank profitability so average interest income and average interest expenses reached their historic lows<sup>22</sup>. Interest income on average interest-bearing assets totalled merely 5.0% at the end of June 2015. At the same time, strong changes continued to push interest expenses down, so interest expenses on average interest-bearing liabilities went down to 2.4%. Banks managed to keep and improve the net interest rate spread (Figure 11.10) through savings that were firstly a result of deleveraging and then of changes in the debt structure and lower average expenses.

The general operating expenses that continued trending downward evidently contributed less to more efficient bank operation. Their cost-to-income ratio dropped from 52.5% to 52.4%. This slight shift at an aggregate level blurs the evidence of strong changes visible in smaller institutions that previously used almost all of their operating income to cover operating expenses, a few regularly lacking operating profitability. A significant improvement of the efficiency of operations in the first half of 2015 from the same period last year was a result of two banks exiting from the system and the improvement of the business results of several individual institutions.

Due to the noticeable increase in the costs of provisioning for litigation the rise in the total expenses on value adjustments and provisions continued. Net operating income (before loss provisions) fell at the same time, under the influence of the one-off measure of pegging the Swiss franc exchange rate for loans to be repaid and the rise of other operating expenses. This contributed to a deterioration in their ratio, from the

Figure 11.11 Structure of bank placements and assumed off-balance sheet liabilities as at 30 June 2015



Source: CNB.

52.8% at the end of June last year to 55.4% at the end of June this year.

#### 11.1.4 Credit risk

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

Total placements and assumed off-balance sheet liabilities that are exposed to credit risk and are subject to classification into risk categories in accordance with the rules that govern classification<sup>23</sup> stood at HRK 415.1bn at the end of June 2015 (Table 11.5), a decline of HRK 1.6bn or 0.4% from the end of 2014. The items in the portfolio of held-to-maturity financial

Table 11.5 Classification of bank placements and assumed off-balance sheet liabilities by risk categories end of period, in million HRK and %

Risk (sub)category	Dec. 2013			Dec. 2014			Jun. 2015		
	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	369,289.2	3,301.4	0.9	365,613.1	3,363.4	0.9	363,429.6	3,319.7	0.9
B-1	19,330.6	3,055.0	15.8	15,728.9	2,364.5	15.0	15,125.2	2,193.0	14.5
B-2	15,913.8	7,500.3	47.1	19,774.4	9,768.0	49.4	19,624.2	9,951.1	50.7
B-3	4,339.3	3,547.4	81.8	5,559.4	4,615.6	83.0	6,627.7	5,477.8	82.6
C	8,991.4	8,972.1	99.8	10,022.5	10,020.4	100.0	10,247.6	10,248.2	100.0
Total	417,864.4	26,401.2	6.3	416,698.2	30,131.8	7.2	415,054.2	31,189.8	7.5

Source: CNB.

<sup>22</sup> According to the data from the 1997 income statement.

<sup>23</sup> Total exposure to credit risk comprises placements (balance sheet items) and assumed off-balance sheet liabilities. The placements can be divided into a loan and receivables portfolio and a portfolio of held-to-maturity financial assets, with the receivables on interest and fees being covered by a separate item (receivables based on income). The portfolio of financial assets comprises various instruments such as loans, deposits, bonds and T-bills, while the assumed off-balance sheet liabilities comprise guarantees, credit lines, etc. Placements and assumed off-balance sheet liabilities are classified into risk categories A (fully recoverable placements and off-balance sheet liabilities), B (partly recoverable placements and off-balance sheet liabilities) and C (fully irrecoverable placements and off-balance sheet liabilities). Risk category B includes the following three subcategories, depending on the amount of the established loss: B-1 – losses of up to 30% of the amount of claims, B-2 – losses of between 30% and not exceeding 70% of the amount of claims and B-3 – losses exceeding 70% and less than 100%. Exposures bearing losses equivalent to 100% of the amount of claims are classified into category C.

assets reduced the most (HRK 1.7bn or 31.5%) primarily due to the decrease in investments in bills of exchange. Since the amount of bills of exchange in the loans and receivables portfolio went up at the same time, the investments in bills of exchange increased slightly, by 4.5%. This was also the reason why the loans and receivables portfolio held at the same level despite the decrease in loans granted of HRK 1.8bn or 0.6%. A mild positive impact on the overall exposure to credit risk came from off-balance sheet items and receivables based on income, which rose by HRK 46.4m, or 0.1%, and HRK 12.4m, or 0.4%, respectively. In spite of the decrease, granted loans continued to be dominant in the total placements and off-balance sheet liabilities of banks, their share totalling 67.0%.

The deterioration in the quality of placements and assumed off-balance liabilities continued but at a slower pace than over the previous year, so the share of partly recoverable placements and off-balance sheet liabilities (risk category B) and fully irrecoverable placements and off-balance sheet liabilities (risk category C) reached 12.4% at the end of June. An increase from the end of 2014, when this share totalled 12.3%, is a consequence of the persistence of unfavourable economic developments, the absence of new lending activity of banks and the ageing of the portfolio.

Placements and assumed off-balance sheet liabilities classified into risk category A decreased in the first half of 2015, by HRK 2.2bn or 0.6%, accounting for 87.6% of the total exposure to credit risk. The share of placements in relation to which there are unpaid receivables more than 90 days overdue (0.2% of total placements and assumed off-balance sheet liabilities) remained unchanged. This represents the continuation of the trend observed in the last two years, when their level did not exceed 1% of the total placements and assumed off-balance sheet liabilities classified into risk category A.

The total amount of placements in relation to which there are due but unpaid receivables went up by HRK 1.7bn or 5.4% to HRK 34.4bn from the end of 2014. The receivables with shorter maturities stood out the most, primarily those maturing in up to 15 days. This improved the ageing structure of due receivables to a degree. However it continued to indicate that collection processes were still quite slow. Receivables older than one year rose by 3.2%, accounting for almost three quarters of total overdue receivables based on placements.

Placements and assumed off-balance sheet liabilities classified into risk categories B and C went up by 1.1% in the first half of 2015. The growth of value adjustments and provisions for these risk categories was much faster so the coverage of these risk groups continued increasing. It went up by 1.6 percentage points to 54.0%. The coverage of risk category A remained at the usual level of 0.9%, while the coverage of total placements and off-balance sheet liabilities totalled 7.5% (Table 11.5).

The exposure of placements and off-balance sheet liabilities to currency-induced credit risk (CICR)<sup>24</sup> decreased slightly. As

at the end of June 2015, 60.2% of total placements and off-balance sheet liabilities was exposed to CICR (i.e. was granted in foreign currency and in kuna indexed to foreign currency), while 73.2% of that amount was unhedged against this risk, i.e. was made to clients with an unmatched currency position<sup>25</sup>.

### Loans

Total bank loans (classified into the loans and receivables portfolio, in gross amount) stood at HRK 278.1bn at the end of June 2015 (Table 11.6). Loans went down by HRK 1.8bn or 0.6% from the end of 2014. The rate of decline was considerably affected by the exchange rate changes and the realised sale of claims. If the exchange rate effects are excluded, the rate of decline totalled 1.3%, and if the effects of the sale of claims are included, the rate of decline amounted to 0.8%. In the first half of 2015, banks sold HRK 524.6m of loans, primarily loans classified into risk categories B and C (HRK 509.2m). The major share of claims sold was related to the household sector, predominantly the item of other loans<sup>26</sup>, and the claims sold were well covered by value adjustments.

Loans to government units declined by HRK 2.5bn or 5.8%, in nominal terms, while loans to financial institutions went down by HRK 666.7m or 10.2%. Loans to other domestic sectors and loans to non-residents increased. And while loans to corporates went up slightly in real terms as well, i.e. when the exchange rate effects and the sale of claims are excluded, the credit activity in the household sector went down in real terms, although only slightly. As for the corporate sector, only loans to public enterprises rose, especially to those from the construction sector. In addition, there has also been a noticeable increase in loans to the accommodation and food service industry, totalling 10.2%, as a result loans to the tourist sector went up considerably. The most important rise was that in the share of syndicated loans. As for the household sector, the effective growth was visible only in general-purpose cash loans (HRK 476.9m or 1.2%) and exclusively in their kuna component, which rose by HRK 1.8bn or 12.0%. Home loans rose considerably, in nominal terms, under the influence of the strengthening of the Swiss franc. However, effectively they continued their downward trend (down 2.1%). Only their kuna component registered an increase of HRK 228.6m or 5.5%.

The loan quality indicators continued to deteriorate so the share of loans classified into risk categories B and C went up from 17.1% at the end of 2014 to 17.3% at the end of June 2015 (Figure 10.13). The growth in the share of B and C category loans was under the combined influence of the decline in loans classified into risk category A (0.9%) and the increase in loans categorised into risk categories B and C (0.7%). The migration of existing claims into higher risk categories had a negative impact, visible in the growth of loans classified into risk subcategory B-3, up 19.2%, and into risk category C, up 1.2%, which are connected to the growth of loan portfolio losses. As for the household sector, the share of risk categories B and C

24 Currency-induced credit risk is the risk that the borrowers with unmatched foreign currency positions, whose foreign currency liabilities exceed their foreign currency assets (including items in kuna with a currency clause) will not be able to settle their liabilities towards banks in the event of a change in exchange rates.

25 It is deemed that the foreign exchange position of a credit institution's debtors is not matched if their expected foreign exchange inflow covers less than 80% of their foreign exchange liabilities and liabilities indexed to foreign currency, which they have towards the credit institution and other creditors.

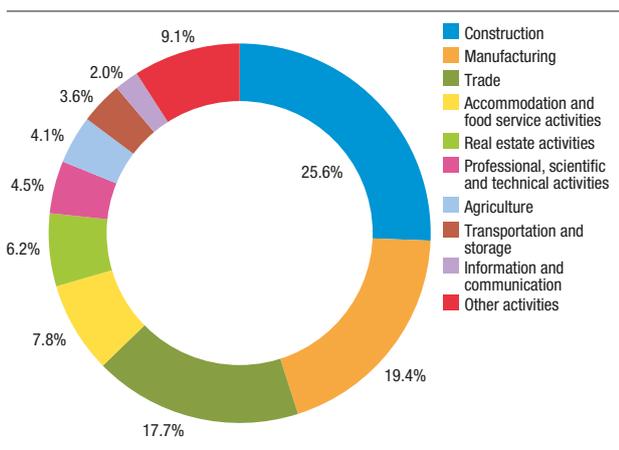
26 All other loans that are not specified are reported in the item of other loans, where banks normally report restructured loans, as well as loans granted under special programmes (for instance, under different CBRD programmes, etc.).

**Table 11.6 Bank loans**  
end of period, in million HRK and %

	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
<b>Loans</b>								
Government units	43,460.8	15.2	43,017.4	15.4	-1.0	40,523.4	14.6	-5.8
Corporates	107,989.4	37.6	104,781.2	37.4	-3.0	104,790.7	37.7	0.0
Working capital loans	39,619.8	13.8	39,521.1	14.1	-0.2	39,360.7	14.2	-0.4
Investment loans	27,206.5	9.5	26,699.3	9.5	-1.9	26,250.0	9.4	-1.7
Shares in syndicated loans	12,646.3	4.4	11,241.2	4.0	-11.1	12,554.5	4.5	11.7
Construction loans	4,722.7	1.6	4,177.0	1.5	-11.6	3,934.4	1.4	-5.8
Other corporate loans	23,794.1	8.3	23,142.7	8.3	-2.7	22,691.2	8.2	-2.0
Households	123,595.3	43.1	122,346.5	43.7	-1.0	123,598.3	44.4	1.0
Home loans	57,629.7	20.1	56,127.3	20.1	-2.6	57,572.9	20.7	2.6
Mortgage loans	3,007.4	1.0	2,843.3	1.0	-5.5	2,786.5	1.0	-2.0
Car loans	2,162.6	0.8	1,439.3	0.5	-33.4	1,202.8	0.4	-16.4
Credit card loans	3,834.6	1.3	3,831.0	1.4	-0.1	3,780.1	1.4	-1.3
Overdraft facilities	8,353.5	2.9	8,157.5	2.9	-2.3	8,148.1	2.9	-0.1
General-purpose cash loans	37,229.0	13.0	39,123.4	14.0	5.1	39,376.7	14.2	0.6
Other household loans	11,378.5	4.0	10,824.7	3.9	-4.9	10,731.1	3.9	-0.9
Other sectors	11,822.1	4.1	9,784.8	3.5	-17.2	9,200.7	3.3	-6.0
<b>Total</b>	<b>286,867.6</b>	<b>100.0</b>	<b>279,929.8</b>	<b>100.0</b>	<b>-2.4</b>	<b>278,113.2</b>	<b>100.0</b>	<b>-0.6</b>
<b>Partly recoverable and fully irrecoverable loans</b>								
Government units	47.4	0.1	47.4	0.1	0.1	15.0	0.0	-68.3
Corporates	30,542.9	67.8	32,248.3	67.5	5.6	32,341.9	67.2	0.3
Working capital loans	12,284.4	27.3	13,290.3	27.8	8.2	13,695.9	28.5	3.1
Investment loans	7,762.4	17.2	7,937.2	16.6	2.3	7,987.2	16.6	0.6
Shares in syndicated loans	263.4	0.6	328.0	0.7	24.5	255.1	0.5	-22.2
Construction loans	3,550.8	7.9	3,236.0	6.8	-8.9	3,121.3	6.5	-3.5
Other corporate loans	6,681.9	14.8	7,456.7	15.6	11.6	7,282.4	15.1	-2.3
Households	13,755.2	30.5	14,718.9	30.8	7.0	14,985.4	31.1	1.8
Home loans	4,690.6	10.4	4,934.7	10.3	5.2	5,312.7	11.0	7.7
Mortgage loans	894.1	2.0	929.1	1.9	3.9	969.8	2.0	4.4
Car loans	121.3	0.3	92.7	0.2	-23.5	84.4	0.2	-9.0
Credit card loans	174.3	0.4	157.7	0.3	-9.5	149.8	0.3	-5.0
Overdraft facilities	1,241.9	2.8	1,052.0	2.2	-15.3	991.4	2.1	-5.8
General-purpose cash loans	3,522.3	7.8	3,807.8	8.0	8.1	3,763.9	7.8	-1.2
Other household loans	3,110.8	6.9	3,745.0	7.8	20.4	3,713.5	7.7	-0.8
Other sectors	681.9	1.5	740.4	1.6	8.6	766.8	1.6	3.6
<b>Total</b>	<b>45,027.3</b>	<b>100.0</b>	<b>47,755.1</b>	<b>100.0</b>	<b>6.1</b>	<b>48,109.1</b>	<b>100.0</b>	<b>0.7</b>
<b>Value adjustments of partly recoverable and fully irrecoverable loans</b>								
Government units	10.1	0.0	11.7	0.0	15.4	3.8	0.0	-67.7
Corporates	12,596.9	60.6	15,714.9	64.2	24.8	16,436.5	64.4	4.6
Working capital loans	4,963.8	23.9	6,581.0	26.9	32.6	7,002.5	27.4	6.4
Investment loans	2,779.6	13.4	3,529.6	14.4	27.0	3,707.9	14.5	5.0
Shares in syndicated loans	84.2	0.4	52.6	0.2	-37.6	39.0	0.2	-25.8
Construction loans	1,603.5	7.7	1,703.2	7.0	6.2	1,775.1	7.0	4.2
Other corporate loans	3,165.8	15.2	3,848.4	15.7	21.6	3,912.0	15.3	1.7
Households	7,790.8	37.5	8,273.8	33.8	6.2	8,560.9	33.6	3.5
Home loans	1,848.7	8.9	2,161.0	8.8	16.9	2,565.6	10.1	18.7
Mortgage loans	338.8	1.6	439.1	1.8	29.6	478.1	1.9	8.9
Car loans	99.2	0.5	76.3	0.3	-23.1	65.6	0.3	-14.1
Credit card loans	161.3	0.8	147.1	0.6	-8.8	139.2	0.5	-5.3
Overdraft facilities	1,181.9	5.7	1,001.4	4.1	-15.3	936.8	3.7	-6.5
General-purpose cash loans	2,641.2	12.7	2,660.7	10.9	0.7	2,630.0	10.3	-1.2
Other household loans	1,519.7	7.3	1,788.2	7.3	17.7	1,745.5	6.8	-2.4
Other sectors	390.4	1.9	479.4	2.0	22.8	513.8	2.0	7.2
<b>Total</b>	<b>20,788.2</b>	<b>100.0</b>	<b>24,479.8</b>	<b>100.0</b>	<b>17.8</b>	<b>25,514.9</b>	<b>100.0</b>	<b>4.2</b>

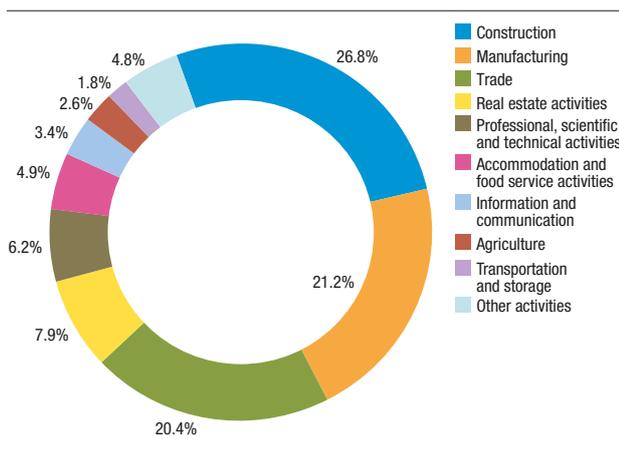
Note: As of October 2013, loan amount is reduced by the amount of collected fees.  
Source: CNB.

**Figure 11.12 Structure of bank loans to corporates by activities as at 30 June 2015**



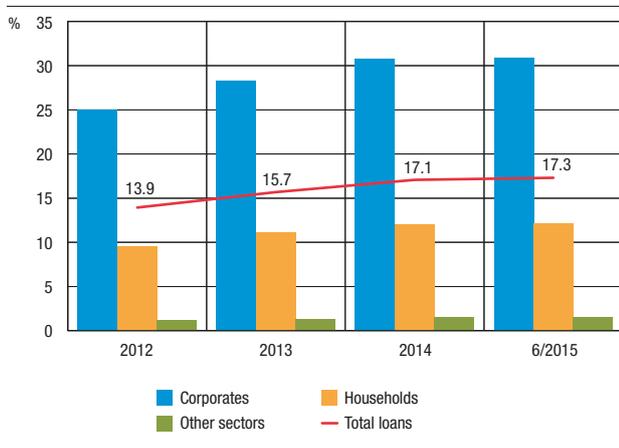
Source: CNB.

**Figure 11.13 Structure of bank partly recoverable and fully irrecoverable loans by activities as at 30 June 2015**



Source: CNB.

**Figure 11.14 Share of bank partly recoverable and fully irrecoverable loans**



Source: CNB.

rose from 12.0% to 12.1% and the deterioration in the quality of loans was more prominent than in the corporate sector. This share would have been even greater, had it not been for the sale of loans classified into categories B and C.

The reported rate of growth in B and C category loans was under the strong influence of exchange rate developments. Effectively, B and C category loans stagnated (down 0.1%), under the influence of the sale of claims. Excluding the effects of the sale, the rate of increase in B and C category loans totalled 0.9%, primarily due to the growth of these categories in the household sector. The growth of B and C category loans in the corporate sector slowed down considerably and their share in total loans to this sector increased from 30.8% to 30.9%. While in the subsector of public enterprises the share of B and C category loans decreased (to 3.6%), in the subsector of other corporates it increased to 37.7%.

As in the previous years, the dynamics of the increase in loans estimated by banks as partly or fully irrecoverable was considerably exceeded by the growth rate in value adjustments (4.2%). This growth is attributable to the unfavourable economic environment, as well as to the changes in rules on the classification of placements and the making of value adjustments, that is, to the regulatory requirement imposing 5% value adjustments every six months. This had a favourable effect on the continued growth in the coverage of total B and C category loans by value adjustments, which increased by 1.8 percentage points and reached 53.0%. The increase in coverage of B and C category loans to corporates from 48.7% at the end of 2014 to 50.8% at the end of the first half of 2015 was a significant factor in the growth in the coverage of total loans, in line with the developments thus far and the normally higher level of risk associated with loans to that sector. The increase in the coverage of B and C category loans by value adjustments was also under the favourable influence of the loans to households, whose coverage went up by 0.9 percentage points, to 57.1%, in the first half of the year. The growth of coverage in the household sector was mitigated by the sale of well covered claims.

The structure of total loans to corporates broken down by activity was dominated by loans to the construction sector (25.6%), manufacturing (19.4%) and trade (17.7%). Only loans to the construction sector went up in the first half of 2015 due to the afore-mentioned increase in loans to public enterprises involved in construction. Loans to the remaining two branches of activity decreased. In the corporate sector, the greatest contribution to the increase in B and C category loans came from manufacturing, where these loans went up by HRK 198.3m or 3.0%. In this connection, one can single out the manufacture of food products and fabricated metal products (except machinery and equipment). The share of B and C category loans in manufacturing went up to 33.6%, while in construction and trade it went down to 32.3% and 35.7% respectively. However, if the data pertaining to two public enterprises involved in the management and construction of motorways were excluded, the share of B and C category loans would climb to as much as 64.8%. In the activity closely associated with construction, namely the real estate business, B and C category loans accounted for almost 40% of total granted loans. Information and communications activity continues to be the most risky activity of the corporate sector, accounting for the highest share of partly recoverable and fully irrecoverable loans (51.0%).

The structure of household loans was dominated by two

types of loans that accounted for three quarters of total loans to households at the end of the first half of 2015. The most important among them, accounting for 46.6% of total loans to households, were again home loans, followed by general-purpose cash loans with a share of 31.9%. They were followed by overdraft facilities, although they boasted the much lower share of 6.6%.

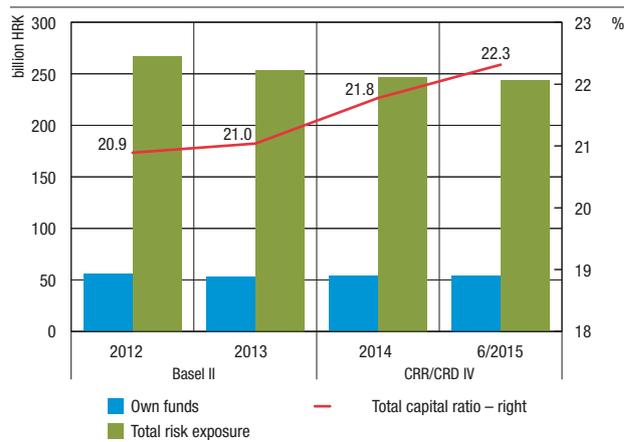
A review of the quality of home loans as the most important type of household loans showed that the quality of that share of the portfolio continued deteriorating, so the share of non-performing home loans in total loans reached 9.2%, (vis-à-vis the 8.8% at the end of 2014). Even with the exchange rate effect excluded, home loans in the Swiss franc contributed more to the growth of total home loans classified into categories B and C than loans in euros. This is in contrast with developments in 2014 when B and C category home loans in the Swiss franc went down, most likely under the influence of the amended consumer credit regulations pegging the interest rate at 3.23% at the beginning of 2014. Additional measures of January 2015 regarding the pegging of the repayment exchange rate failed to halt the growth of categories B and C. This was strongly affected by changes in one bank, where the increase in the number of delinquency days resulted in the automatic reclassification of loans to B and C category loans. Thus, the quality of home loans in Swiss francs remained the poorest, with a share of B and C risk category loans totalling 13.8%. As for the kuna component, this indicator totalled 11.3% (which was substantially affected by the very poor quality of this portfolio in one bank), while in relation to the euro component it remained lowest, at 5.7%. The associated value adjustments exceeded the growth dynamics of B and C categories so at the end of June 2015 the coverage of home loans was much higher than at the end of 2014, totalling 48.3% vis-à-vis 43.8%.

### 11.1.5 Capital adequacy

Risks to bank operations remained adequately covered by capital at the end of the first half of 2015. This is evident in the capital adequacy ratios at the level of all banks, which were much above the prescribed minimum<sup>27</sup>. The total capital (own funds) ratio stood at 22.3%, rising additionally since the end of 2014 when it totalled 21.8%. The slight increase in the total capital ratio was a result of developments whose intensity was weak, notably of an increase in own funds and a decrease in total risk exposure. The common equity tier 1 capital ratio stood at 20.8%, as did the tier 1 capital ratio.

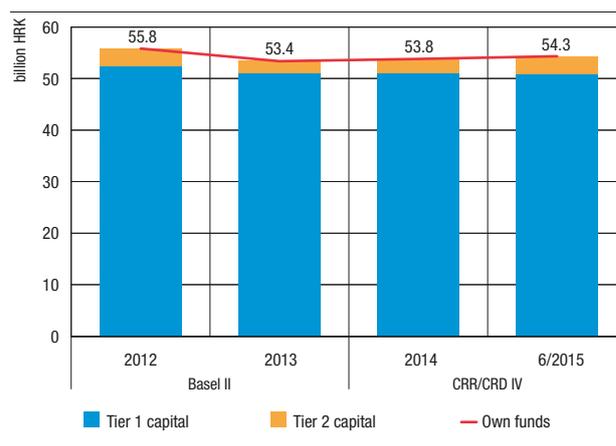
After the reduction in 2014, bank exposure to almost all types of risks trended downwards in the first half of 2015 as well, which led to a decline in total exposures by HRK 3.5bn

Figure 11.15 Bank total capital ratio



Source: CNB.

Figure 11.16 Bank own funds



Source: CNB.

(1.4%) to HRK 243.5bn (Table 11.7). The major contributor to the overall development was the decrease in exposure to credit risk (including the counterparty, dilution and free delivery risks)<sup>28</sup>, which totalled HRK 2.4bn or 1.1%. The reduced exposure to the key risk within the system, which accounts for 88.8% of total risk exposure (Figure 11.17), was

27 Since 1 January 2014, the framework for determining the capital and capital ratios of credit institutions has been governed by Regulation (EU) No 575/2013 and Directive 2013/36/EU (transposed into the Croatian legislation via the Credit Institutions Act). The new rules brought stricter definitions of capital and a broader scope of risk (for example, the inclusion of the counterparty credit risk associated with over-the-counter (OTC) derivatives), but also a different regulation of capital ratios. The minimum total capital ratio (previously referred to as the capital adequacy ratio) was thus reduced to 8% from the initial 12%. The remaining two ratios, indirectly determined by restrictions in the structure of own funds, have been tightened – the common equity tier 1 capital ratio has been set at 4.5% and the tier 1 capital ratio at 6%.

28 Credit risk exposure is calculated by multiplying the exposure that is being weighted by the relevant credit risk weight. Under the standardised approach, the supervisor prescribes the methods and the manner of risk parameters determination, by means of weights ranging from 0% to 1250%, depending on the risk to the exposure. Under the internal ratings-based approach (IRB approach), weights are based on own estimates of banks and are calculated as a function of certain risk parameters. There are two possible approaches, a foundation internal ratings-based approach and an advanced internal ratings-based approach, depending to which degree the bank is allowed to use own estimates of risk parameters.

predominantly a consequence of the reduction in the portfolio risk profile, as evident in the decrease of the average weight for credit risk, from 53.7% to 53.1%. The decrease in the average weight under the standardised approach was primarily the result of the fall in the category of exposures in default<sup>29</sup>, especially of the decrease in its share that is weighted by 150% (the value adjustments of which do not exceed 20% of the unsecured part of the total exposure). The lion's share of the total exposure to credit risk, more than 85%, continued to be calculated by applying the standardised approach (STA approach), while the rest was calculated using the internal ratings based approach (IRB approach), applied by only one bank.

Next to follow in terms of influence on the change in total risk exposure was the decrease in exposure to market risks (position, foreign exchange and commodity), which amounted to HRK 616.4m or 14.7%. This was a consequence of the decrease in exposure to currency risk (HRK 620.7m or 41.3%), which was predominantly a result of the change in the foreign

exchange position in the euro and the Swiss franc. A substantial contribution to the aggregate change came from the reduction in the overall net foreign exchange position of one institution to the level below the legal threshold, i.e. to less than 2% of its own funds. As a result there was no requirement to allocate capital requirements for currency risk. Exposure to operational risk reduced as well, by HRK 601.8m or 2.5%. This exposure figure was determined by bank advanced approaches based on own operational risk measurement systems. In the period under concern, bank exposure increased only vis-à-vis the credit valuation adjustment risk (HRK 112.8m or 31.8%) due to the rise in exposures arising from securities financing transactions and over-the-counter (OTC) derivative financial instruments<sup>30</sup>. Despite the relatively high growth rate, bank exposure to this risk is not significant, and its share in the structure of total risk exposure amounted to only 0.2%.

Own funds of banks went up by HRK 545.0m or 1.0% from the end of 2014, thanks to the growth of tier 2 capital

**Table 11.7 Own funds, risk exposure and capital ratios of banks**

end of period, in million HRK and %

	Dec. 2014		Jun. 2015		
	Amount	Share	Amount	Share	Change
<b>Own funds</b>	<b>53,780.0</b>	<b>100.0</b>	<b>54,325.0</b>	<b>100.0</b>	<b>1.0</b>
Tier 1 capital	50,931.0	94.7	50,738.1	93.4	-0.4
Common equity tier 1 capital	50,931.0	94.7	50,738.1	93.4	-0.4
Capital instruments eligible as common equity tier 1 capital	33,482.2	62.3	33,577.0	61.8	0.3
Retained earnings	16,707.9	31.1	16,586.8	30.5	-0.7
Other items	740.9	1.4	574.3	1.1	-22.5
Additional tier 1 capital	0.0	0.0	0.0	0.0	0.0
Tier 2 capital	2,849.0	5.3	3,586.9	6.6	25.9
<b>Total risk exposure amount</b>	<b>246,959.2</b>	<b>100.0</b>	<b>243,475.3</b>	<b>100.0</b>	<b>-1.4</b>
Risk weighted exposure amounts for credit, counterparty credit and dilution risks and free deliveries	218,615.5	88.5	216,237.0	88.8	-1.1
Standardised approach	185,416.7	75.1	183,984.6	75.6	-0.8
Central governments or central banks	2,843.2	1.2	2,995.3	1.2	5.3
Corporates	63,408.8	25.7	62,522.5	25.7	-1.4
Retail	61,537.1	24.9	60,957.7	25.0	-0.9
Exposures in default	26,710.5	10.8	24,991.5	10.3	-6.4
Other items	30,917.2	12.5	32,517.7	13.4	5.2
Internal ratings based approach (IRB)	33,198.8	13.4	32,252.4	13.2	-2.9
Settlement/delivery risks	0.0	0.0	0.0	0.0	0.0
Position, foreign exchange and commodities risks	4,193.0	1.7	3,576.6	1.5	-14.7
Operational risk	23,796.0	9.6	23,194.2	9.5	-2.5
Credit valuation adjustment	354.7	0.1	467.5	0.2	31.8
<b>Common equity tier 1 capital ratio</b>	<b>20.6</b>	<b>-</b>	<b>20.8</b>	<b>-</b>	<b>1.0</b>
<b>Tier 1 capital ratio</b>	<b>20.6</b>	<b>-</b>	<b>20.8</b>	<b>-</b>	<b>1.0</b>
<b>Total capital ratio</b>	<b>21.8</b>	<b>-</b>	<b>22.3</b>	<b>-</b>	<b>2.5</b>

Source: CNB.

<sup>29</sup> It includes exposures to clients: a) who have had at least one due but unpaid receivable overdue for more than 90 days and/or b) who are considered unlikely to settle their obligations in full (excluding the option of collection from collateral).

<sup>30</sup> Derivative financial instruments are traded directly between contracting parties, instead of through regulated markets.

Figure 11.17 Structure of bank total risk exposure as at 30 June 2015

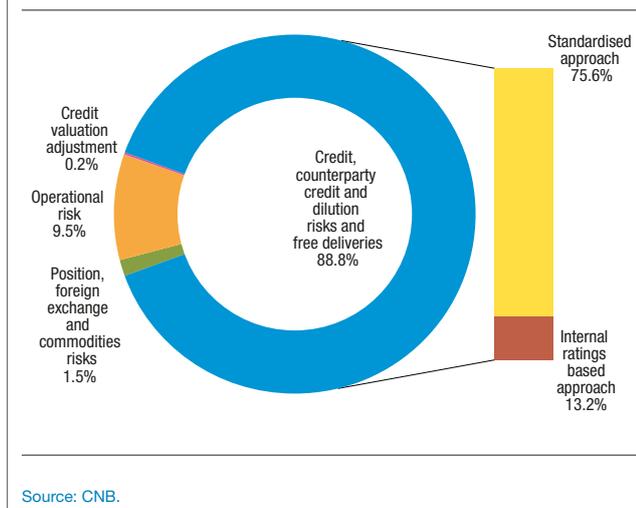
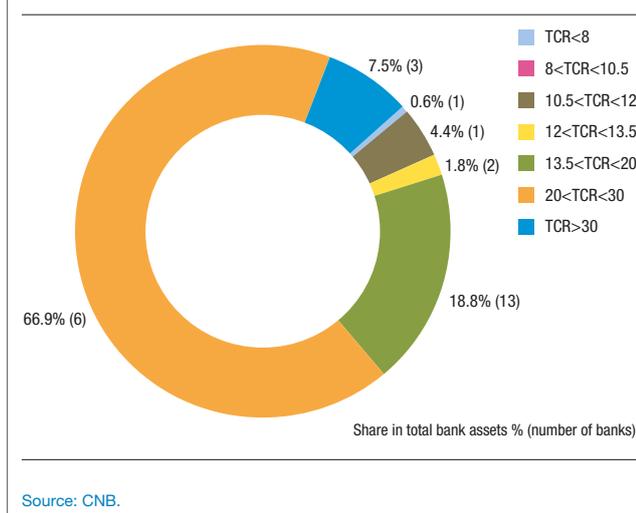


Figure 11.18 Distribution of the bank total capital ratio (TCR) as at 30 June 2015



(Figure 11.16). In the first half of 2015, several banks strengthened their tier 2 capital position by using subordinated instruments. The effect of this increase at the system level was HRK 599.4m. The increase in tier 2 capital was also under the influence of the higher recognised amount of excess provisions over expected losses under the IRB approach, totalling HRK 138.5m. Original own funds went down by 0.4% in the period under review under the greatest influence of the decrease in retained earnings on the basis of paid out dividends.

In order to meet the capital requirements pertaining to the total capital ratio banks needed HRK 19.5bn of own funds. Most banks managed to meet this requirement with their original own funds. This is a consequence of the structure of own funds, the lion's share of which continues to be made up by its

highest quality share, i.e. original own funds. At the end of the first half of 2015, the share of original own funds was 93.4% of own funds and it was made up exclusively of common equity tier 1 capital items. In addition to the prescribed minimum capital ratio banks were required to ensure common equity tier 1 capital in order to meet the capital buffer requirements<sup>31</sup>. For the capital conservation buffer, whose role is to maintain the level of capital sufficient to ensure the continuation of normal operation (i.e. to maintain the capital ratio above the legally prescribed minimum) even after suffering significant losses due to financial difficulties, banks used HRK 6.1bn of the common equity tier 1 capital. For the structural systemic risk buffer, whose purpose is to prevent and minimise long-term systemic or macroprudential risks that may have serious negative consequences for the financial system and the real economy, banks were required to ensure HRK 6.6bn.

Most banks were well capitalised, particularly the banks that lead in terms of asset size. In the majority of banks (15) the total capital ratios ranged from 13.5% to 20%. Nine banks, accounting for almost 75% of total bank assets, reported rates exceeding 20%. Due to its failure to meet the capital ratio requirement, measures were taken against one bank.

## 11.2 Housing savings banks

The structural characteristics of housing savings banks did not change in the first half of 2015. Out of the five housing savings banks operating in the market, four were in direct or indirect majority ownership of foreign shareholders, while one was in majority domestic ownership. The assets of housing savings banks in majority foreign ownership accounted for 96.6% of the total assets of all housing savings banks. The remaining 3.4% of total assets went to the single housing savings bank in domestic ownership.

As a result of the lower rate of increase in bank assets, the share of assets of housing savings banks in the total assets of credit institutions increased slightly, reaching 2.0%. At the end of the first half of 2015, there were 298 persons working in housing savings banks, 9.7% less than at the end of 2014. As a result and due to the parallel increase in assets, the average amount of assets managed by one employee increased to HRK 26.6m.

### 11.2.1 Balance sheet

At the end of the first half of 2015, total assets of housing savings banks stood at HRK 7.9bn (Table 11.8), which was HRK 154.1m or 2.0% more than at the end of 2014. Although the total balance sheet of housing savings banks increased in the period concerned, the volume of business with housing savings banks' savers reduced. This is evident from the negative developments in the key asset and liability items of housing savings banks, i.e. the decrease in the amount of home loans and deposits received from savers in housing savings banks. The growth of the aggregate balance sheet of housing savings banks was a consequence of greater investments in securities

<sup>31</sup> As of 1 January 2014 banks are required to apply the capital conservation buffer, while the application of the structural systemic risk buffer became mandatory on 19 May 2014. Both buffers are maintained via the common equity tier 1 capital, which cannot be used to cover other risks. The capital conservation buffer is calculated by multiplying the total risk exposure by 2.5%, while the structural systemic risk buffer is calculated by multiplying the total risk exposure by 3% for credit institutions whose assets are equal to or exceed 5% of total assets of credit institutions, or by 1.5% for other credit institutions.

Table 11.8 Structure of housing savings bank assets

end of period, in million HRK and %

	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	0.0	0.0	0.0	0.0	-48.1	0.0	0.0	21.4
Money assets	0.0	0.0	0.0	0.0	-48.1	0.0	0.0	21.4
Deposits with the CNB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits with financial institutions	522.8	6.9	434.1	5.6	-17.0	491.9	6.2	13.3
MoF treasury bills and CNB bills	435.9	5.8	350.8	4.5	-19.5	154.3	1.9	-56.0
Securities	2,256.5	29.8	2,481.2	31.9	10.0	2,893.6	36.5	16.6
Derivative financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans	4,034.6	53.3	4,381.4	56.4	8.6	4,264.2	53.8	-2.7
Loans to financial institutions	20.8	0.3	141.6	1.8	580.6	109.0	1.4	-23.1
Loans to other clients	4,013.8	53.1	4,239.7	54.5	5.6	4,155.3	52.4	-2.0
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	0.2	0.0	0.2	0.0	0.0	1.5	0.0	883.8
Tangible assets (net of depreciation)	3.9	0.1	3.0	0.0	-22.1	2.6	0.0	-13.6
Interest, fees and other assets	310.8	4.1	124.4	1.6	-60.0	120.9	1.5	-2.8
<b>Total assets</b>	<b>7,564.7</b>	<b>100.0</b>	<b>7,774.9</b>	<b>100.0</b>	<b>2.8</b>	<b>7,929.0</b>	<b>100.0</b>	<b>2.0</b>

Source: CNB.

Table 11.9 Structure of housing savings bank liabilities and capital

end of period, in million HRK and %

	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	139.6	1.8	60.5	0.8	-56.7	408.7	5.2	575.3
Short-term loans	139.6	1.8	60.5	0.8	-56.7	408.7	5.2	575.3
Long-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits	6,359.0	84.1	6,694.3	86.1	5.3	6,395.6	80.7	-4.5
Transaction account deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Savings deposits	223.8	3.0	4.7	0.1	-97.9	0.8	0.0	-83.8
Time deposits	6,135.2	81.1	6,689.6	86.0	9.0	6,394.9	80.7	-4.4
Other loans	95.5	1.3	95.8	1.2	0.3	94.8	1.2	-1.1
Short-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term loans	95.5	1.3	95.8	1.2	0.3	94.8	1.2	-1.1
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	88.4	1.2	83.4	1.1	-5.7	82.9	1.0	-0.6
Interest, fees and other liabilities	278.9	3.7	124.9	1.6	-55.2	195.9	2.5	56.9
<b>Total liabilities</b>	<b>6,961.4</b>	<b>92.0</b>	<b>7,058.8</b>	<b>90.8</b>	<b>1.4</b>	<b>7,177.9</b>	<b>90.5</b>	<b>1.7</b>
Share capital	487.9	6.4	487.9	6.3	0.0	487.9	6.2	0.0
Current year profit (loss)	29.9	0.4	58.9	0.8	97.3	29.6	0.4	-49.8
Retained earnings (loss)	91.1	1.2	120.1	1.5	31.9	177.6	2.2	47.8
Legal reserves	8.2	0.1	9.0	0.1	10.0	10.5	0.1	16.3
Reserves provided for by the articles of association and other capital reserves	3.5	0.0	-8.0	-0.1	-	-9.0	-0.1	12.7
Revaluation reserves	-17.2	-0.2	48.1	0.6	-	54.5	0.7	13.3
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>603.4</b>	<b>8.0</b>	<b>716.1</b>	<b>9.2</b>	<b>18.7</b>	<b>751.1</b>	<b>9.5</b>	<b>4.9</b>
<b>Total liabilities and capital</b>	<b>7,564.7</b>	<b>100.0</b>	<b>7,774.9</b>	<b>100.0</b>	<b>2.8</b>	<b>7,929.0</b>	<b>100.0</b>	<b>2.0</b>

Source: CNB.

and repo operations. The decisive influence on such developments came from the operations of one housing savings bank. The changes in balance sheet items of other housing saving banks were less pronounced and rather similar.

Net loans of housing savings banks went down by HRK 117.1m (2.7%) from the end of 2014. The reduction in household home loans accounted for a half of this amount, while the other half was accounted for by the reduction in loans to financial institutions and corporates. In the period in question, home loans increased only in one housing savings bank.

The increase in housing savings banks' investment in securities of HRK 215.9m (7.6%) was a result of larger investments in the RC bonds, while investments in T-bills of the Ministry of Finance decreased at the same time. Bonds of the Republic of Croatia, with a share of 94.9%, accounted for the majority share in the structure of the securities portfolio. Thanks to the increase in these investments in the first half of 2015, the said share of the RC bonds in total securities went up by more than 7.3 percentage points. The share of securities in the assets of housing savings banks went up to 38.4%, its highest level since 2008.

Among other asset items there was a noticeable increase in deposits with financial institutions (HRK 57.8m or 13.3%), primarily due to the influence of the placement of liquidity surplus by one housing savings bank.

Total sources of financing of housing savings banks went up by HRK 48.1m (0.7%) from the end of 2014. The relatively small change in the total sources of financing is a result of much larger but opposite developments in the structure of individual instruments, that is, of the decrease in deposits and the parallel increase in liabilities associated with loans. The re-introduction of government incentives for housing savings to be paid out from the state budget<sup>32</sup>, after the temporary suspension of these payments on housing savings generated in 2014, failed to result in any inflow of savings until the end of the first half of this year. Moreover, total deposits reduced by HRK 299.3m (4.5%) (Table 11.9) on the end of 2014. Apart from the decline in nominal terms, an additional negative impact on deposits, totalling approximately one percentage point, came from the change in the exchange rate of the kuna against the euro, to which most received deposits are indexed.

Loans received by housing savings banks increased by HRK 347.2m (222.2%). Their noticeable growth was founded predominantly on repo operations. The share of loans received thus increased to 7.2% of total sources of financing, that is, to 6.4% of the total assets of housing savings banks.

Housing savings banks increased their capital by 4.9%, or HRK 35.0m, in the first half of this year. The bulk of the increase was a result of the current year profit, while a smaller contribution came from the increase in the unrealised losses on value adjustments of financial assets available for sale. Housing savings banks retained their entire 2014 profit as capital and strengthened their retained earnings and reserves to almost one fourth of total capital.

At the end of the observed period, housing savings banks' standard off-balance sheet items comprised only credit lines and commitments, usually involving granted, but unrealised home loans. They amounted to HRK 47.5m, up HRK 15.2m or 47.1% on the end of 2014. The standard off-balance sheet items to assets ratio remained very low, totalling only 0.6%.

### 11.2.2 Earnings

In the first half of 2015, housing savings banks reported profit from continuing operations (before tax) of HRK 34.8m, down HRK 13.8m or 28.4% (Table 11.10) on the same period of the year before. All housing savings banks operated at a profit. However, it was lower than at the end of the same period the year before.

The strongest influence on the operating results of housing savings banks in the first half of this year came from the poorer performance of investments in securities. This led to a noticeable decrease in non-interest income (87.1%) so net other non-interest income of housing savings banks was negative.

Interest income of housing savings banks went up due to the equal increase in income from home loans and income from debt securities, in nominal terms totalling HRK 3.8m. Interest income from home loans increased at a lower rate than interest income from debt securities (3.8% vis-à-vis 6.5%). Paired with

Table 11.10 Housing savings bank income statement

in reference periods, in million HRK and %

	Amount		Change
	Jan. – Jun. 2014	Jan. – Jun. 2015	
<b>Continuing operations</b>			
Interest income	172.8	180.1	4.2
Interest expenses	100.2	105.2	5.1
Net interest income	72.7	74.8	3.0
Income from fees and commissions	29.0	26.6	-8.3
Expenses on fees and commissions	4.6	3.2	-30.6
Net income from fees and commissions	24.5	23.5	-4.2
Income from equity investments	0.0	0.0	0.0
Gains (losses)	17.8	2.3	-87.1
Other operating income	1.6	1.8	16.3
Other operating expenses	12.1	10.6	-12.2
Net other non-interest income	7.3	-6.5	-
Total operating income	104.4	91.7	-12.1
General administrative expenses and depreciation	58.2	57.6	-1.0
Net operating income before loss provisions	46.2	34.1	-26.1
Expenses on value adjustments and provisions	-2.4	-0.7	-72.4
Other gains (losses)	0.0	0.0	0.0
Profit (loss) from continuing operations, before taxes	48.6	34.8	-28.4
Income tax on continuing operations	5.7	5.2	-8.9
Profit (loss) from continuing operations, after taxes	42.9	29.6	-31.0
<b>Discontinued operations</b>			
Profit (loss) from discontinued operations, after taxes	0.0	0.0	0.0
<b>Current year profit (loss)</b>	<b>42.9</b>	<b>29.6</b>	<b>-31.0</b>

Source: CNB.

<sup>32</sup> Regulation on amendments to the Act on Housing Savings and State Incentives for Housing Savings (OG 151/2014) and the Decision on the amount of state incentives for housing savings in 2015 (OG 154/2014).

**Table 11.11 Classification of housing savings bank placements and assumed off-balance sheet liabilities by risk categories**  
end of period, in million HRK and %

Risk category	Dec. 2013		Dec. 2014			Jun. 2015		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
A	6,234.4	99.2	5,907.3	98.8	-5.2	5,902.3	98.9	-0.1
B	48.3	0.8	67.1	1.1	38.9	62.3	1.0	-7.1
C	3.8	0.1	5.4	0.1	41.1	6.0	0.1	10.0
<b>Total</b>	<b>6,286.5</b>	<b>100.0</b>	<b>5,979.7</b>	<b>100.0</b>	<b>-4.9</b>	<b>5,970.6</b>	<b>100.0</b>	<b>-0.2</b>

Source: CNB.

**Table 11.12 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 %

	Dec. 2013	Dec. 2014	Jun. 2015
Total value adjustments against placements and provisions for assumed off-balance sheet liabilities	66.7	69.1	68.0
Value adjustments and provisions	12.1	17.5	16.7
Collectively assessed value adjustments and provisions	54.6	51.5	51.3
Total placements and assumed off-balance sheet liabilities	6,286.5	5,979.7	5,970.6
Coverage	1.1	1.2	1.1

Source: CNB.

the concurrent growth in interest expenses of financing sources (HRK 5.1m or 5.1%), net interest income of housing savings banks increased by 3.0%. Net income from fees and commissions declined by 4.2%, as a result of lower income from fees and commissions for housing savings contracts.

Developments in net income resulted in the decrease of operating income (12.1%), while an additional negative impact on profit came from lower income arising from the suspension of expenses on loss provisions (72.4%). The greatest impact on developments in total expenses on loss provisions came from expenses on collectively assessed impairment provisions reported by housing savings banks at the end of the observed period, in contrast to last year's income. Profitability indicators of housing savings banks went down as a result of these developments. ROAA went down from 1.3% at the end of the first half of 2014 to 0.9% at the end of the first half of 2015 and ROAE went down from 13.2% to 8.1%. The fall in operating income negatively affected the cost-to-income ratio, which rose from 55.8% to 62.8% due to very small savings on general administrative expenses and depreciation.

### 11.2.3 Credit risk

The amount of total placements and assumed off-balance sheet liabilities of housing savings banks went down by 0.2% to HRK 5.8bn in the first half of 2015. The decrease in the total amount of items exposed to credit risk was a consequence of the decrease in loans granted (gross) (HRK 119.3m or 2.7%), while all other items of placements and off-balance sheet liabilities went up at the same time. Deposits went up the most (HRK 58.4m or 13.3%), then came securities (HRK 28.6m or 2.8%) and off-balance sheet liabilities (HRK 15.2m or 47.1%)

and remaining asset items (HRK 7.9m or 16.6%).

Changes in the structure of housing savings banks' items exposed to credit risk broken down by risk category were very small. As a result, the quality of placements and assumed off-balance sheet liabilities remained good at the end of the first half of 2015. The share of placements and assumed off-balance sheet liabilities classified into risk category A was 98.9%, only slightly higher than at the end of 2014. The remaining share was predominantly accounted for by risk category B1 (0.9%), while lowest quality placements, i.e. risk category C, accounted for only 0.1% of total placements and off-balance sheet liabilities.

Different risk categories accounted for similar shares in the home loans portfolio as well. The share of risk category A totalled 98.3%, the share of risk categories B and C accounted for the remaining 1.7%. Most home loans were granted in kuna indexed to the euro (90.2%) and the quality of that share of the home loans portfolio was better than that of banks, risk categories B and C accounting for a share of 1.7%. This was also the case for the kuna portion of the home loans portfolio, where the share of risk categories B and C totalled 1.3%.

Total value adjustments and provisions were 1.5% lower at the end of the first half of the year, primarily due to the decrease in value adjustments and provisions for identified losses (4.9%), which was produced mostly by the decrease in loans classified into risk category B. The decrease in value adjustments and provisions for losses on a collective basis (0.4%) had a smaller impact on the overall developments in value adjustments. The coverage of housing savings banks' total placements and assumed off-balance sheet liabilities by total value adjustments and provisions decreased slightly to 1.1%. The decrease in the coverage of risk categories B and C was also negligible so they ended the period at 24.4%.

### 11.2.4 Capital adequacy

At the end of the first half of 2015, the total capital ratio of housing savings banks was 24.4%, up almost one percentage point on the end of 2014. The lion's share in the structure of own funds of housing savings banks was accounted for by highest quality items, i.e. original own funds and common equity tier 1 capital. The common equity tier 1 capital ratio and the tier 1 capital ratio both totalled 22.3%, increasing by one percentage point in the period observed.

The increase in the total capital ratio was a result of opposite developments, that is, of an increase in own funds and a decrease in risk exposure. Own funds went up by 1.3% due to the increase in the tier 1 capital ratio, which was a result of the inclusion of profit realised in 2014 into common equity tier 1 capital. The influence of this increase was reduced by

the decline in tier 2 capital (7.5%) due to the decrease in the amount of subordinated instruments recognised as its constituents.

The overall amount of risk exposure of housing savings banks decreased by 2.3%. This was largely a result of lower exposure to credit risk (1.9%), mostly due to the reduction in exposure to households and to the reduction in exposure to

market risks (15.6%) associated with the decrease in the portfolio of traded debt instruments.

In order to meet capital buffer requirements, housing savings banks had to allocate HRK 117.8m of common equity tier 1 capital at the end of the first half of 2015, HRK 73.6m of which served as the capital conservation buffer and HRK 44.2m as the structural systemic risk buffer.

## Abbreviations and symbols

### Abbreviations

bn	– billion
b.p.	– basis points
BEA	– U. S. Bureau of Economic Analysis
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
CHF	– Swiss franc
CHY	– Yuan Renminbi
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
EBA	– European Banking Authority
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
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
JPY	– Japanese yen
m	– million
MIGs	– main industrial groupings
MM	– monthly maturity
MoF	– Ministry of Finance
NCA	– National Classification of 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
RAMP	– Reserves and Advisory Management Program
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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