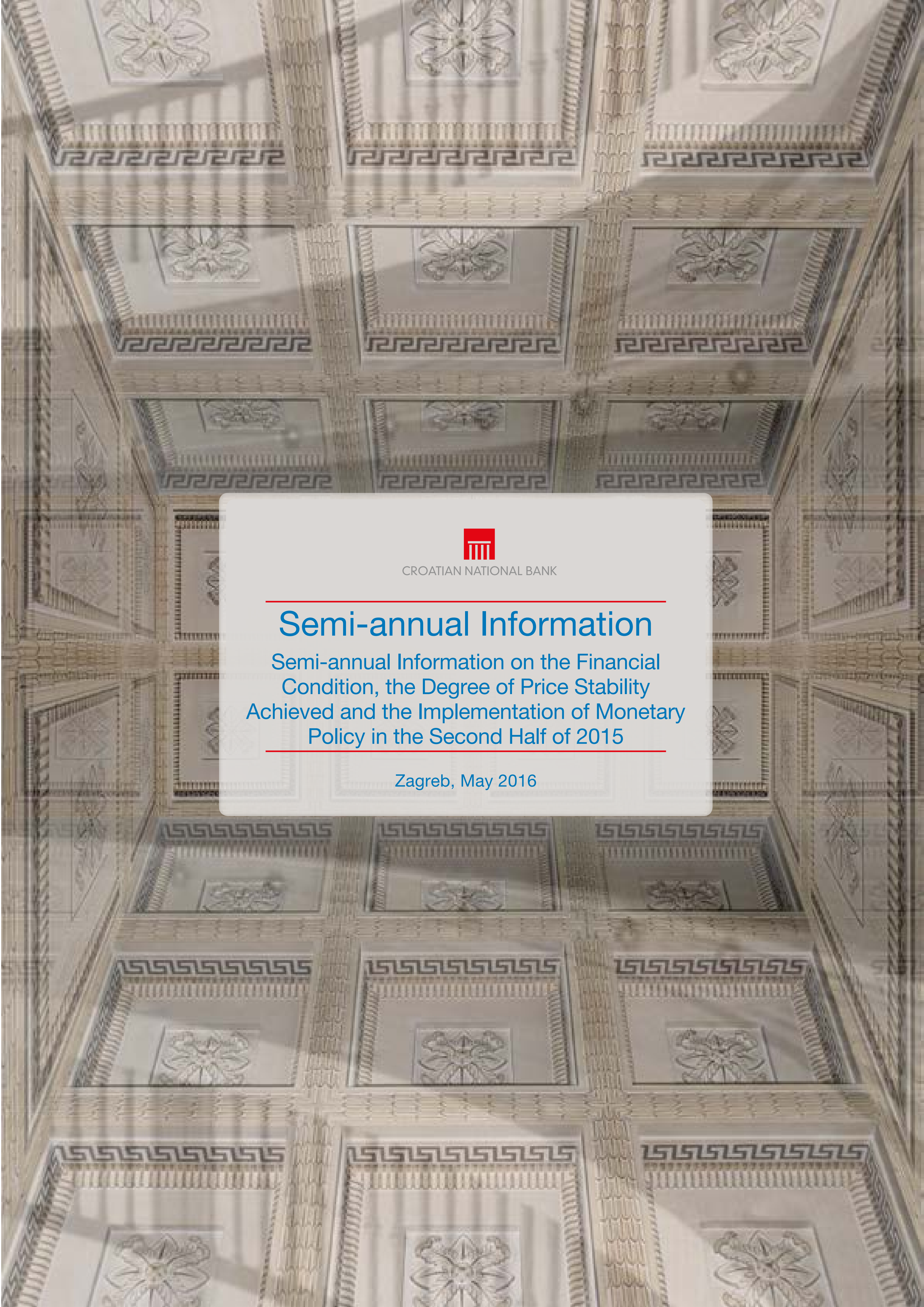

CROATIAN NATIONAL BANK

# Semi-annual Information

## Semi-annual Information on the Financial Condition, the Degree of Price Stability Achieved and the Implementation of Monetary Policy in the Second Half of 2015

Zagreb, May 2016

HNB

# SEMI-ANNUAL INFORMATION 2015

PUBLISHER

CROATIAN NATIONAL BANK
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www.hnb.hr



ISSN 1849-3483 (online)

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# SEMI-ANNUAL INFORMATION

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2015

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# Contents

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# 1 Summary

Economic growth continued in the second half of 2015 with a slightly stronger dynamics than in the first half of the year. The exports of services, investments and personal consumption recorded a relatively high increase, particularly in the third quarter, and the exports of goods and services grew strongly again at the end of the year. Simultaneously, a rise in the number of employed persons and a decline in the number of unemployed persons were recorded in the labour market. Consumer price inflation went down in the second half of the year, primarily due to the spillover of lower prices of crude oil and food raw materials in the global market onto domestic prices. Against this background, the CNB continued to focus its monetary policy on maintaining high liquidity in the banking system, in addition to maintaining the stability of the kuna exchange rate against the euro, as a crucial precondition for maintaining financial stability in the country. By the end of the third and in the fourth quarter of 2015, the central bank adopted a series of connected measures to neutralise pressures in foreign exchange and money markets that had mounted amid regulatory amendments concerning the conversion of Swiss franc loans. A relatively strong fiscal consolidation was implemented in the second half of the year, but the general government debt continued to grow.

The growth of economic activity continued in the second half of 2015, when it reached 1.5% relative to the first half of the year. This primarily reflected the high growth recorded in the third quarter, when GDP increased by 1.4% on a quarterly basis, primarily due to the favourable developments in the exports of services, investments and personal consumption. Favourable trends in the exports of services mainly reflect exceptionally good results in tourism. Personal consumption growth, to the largest extent, can be linked to favourable labour market developments and a further drop in the prices of oil and refined petroleum products and food, which strengthened the purchasing power of the household sector. The aforementioned developments were also reflected in the increase in consumer optimism, which returned to the pre-crisis level and added to the propensity to consume. With regard to investments, it seems that growth was driven by private investments in the third quarter, as indicated by the movements in production and the imports of capital goods. Although all components of domestic demand, including exports, continued to grow in the last quarter of 2015, this also led to a stronger increase in imports, so that the total level of domestic activity was lower (by –0.5%) than in the previous quarter. At the level of the whole of the second half of 2015, economic activity was 2.4% higher than in the same period in 2014, while 1.6% growth was recorded at the level of the whole year.

Favourable labour market trends also marked the second half of 2015. The number of employed persons (persons insured with the CPIA) continued to grow in the third and the fourth quarter of 2015, which was contributed to by private and public sector services (excluding trade, which stagnated). Employment also increased on an annual basis, so that the average number of employed persons in the second half of 2015 was 1% higher than in the same period of 2014, while it grew by 0.7% throughout 2015, by which the multi-annual negative trend in employment was stalled. In the second half of 2015, the number of unemployed persons also continued to decline, so that the registered unemployment rate dropped to 16.4% in December. Available data show that gross wages continued to rise moderately in the period from July to December 2015.

Consumer price inflation went down in the second half of the year from 0% in June 2015 to –0.6% in December 2015. Such a development was largely a result of the spillover of lower crude oil and food raw material prices in the global market onto domestic prices. The annual decrease in energy prices accelerated from –3.0% in June to –5.0% in December 2015. In addition, the annual rate of change in the prices of food products and services declined in the second half of 2015. On the other hand, the annual rate of change in the prices of industrial products increased, to which the prices of clothing and the prices of sewerage services made a particular contribution. The annual core inflation rate, excluding volatile (agricultural products and refined petroleum products) and administrative prices, declined from 0.6% in June to 0% in December 2015.

The improvement in the current account balance accelerated in the second half of 2015, so that the surplus throughout 2015 reached 5.2% of GDP. This was mostly the result of improvement in the primary income account, as a consequence of the cost for banks in foreign ownership caused by the anticipated effects of the conversion of Swiss franc loans. The growth in the current account surplus was also attributed to the growth in net exports of services because of the much better tourism results, while the simultaneous stronger absorption of available EU funds had an effect on the growth in net inflows in secondary income. By contrast, the goods trade deficit deepened because the absolute growth in imports exceeded the growth in exports, despite the stronger relative growth in exports than in imports.

Foreign capital flows in the second half of 2015 were marked by a net capital outflow in the financial account of the balance of payments (excluding the transactions of the central bank), which was more prominent than in the same period of 2014. This was the result of a marked improvement in the net debt position of domestic sectors, highlighting a pronounced reduction in credit institutions' external debt, also partly driven by the adjustments of currency positions of banks with the effects of the expected write-off of a share of Swiss franc loans. Relative indicators of gross and net external debt (expressed as a share in GDP) improved from the end of June 2015.

In the second half of 2015, the CNB continued to pursue an expansionary monetary policy, while keeping the stability of the exchange rate of the kuna against the euro. Through a series of connected measures in the second half of September and at the beginning of October, the central bank further increased the liquidity of the monetary system in order to neutralise pressures in foreign exchange and money markets that had mounted amid amendments regulating the conversion and a partial write-off of loans indexed to the Swiss franc. Kuna liquidity was boosted by the reintroduction of regular reverse repo operations and the rescinding of the regulation relating to compulsory CNB bills, while a foreign exchange intervention provided foreign currency liquidity and eased pressures on the domestic currency's exchange rate.

The nominal exchange rate of the kuna against the euro throughout the major part of the third quarter held steady at slightly lower levels than in the first half of the year. However, in the second part of September, the kuna weakened against the euro, and after the foreign exchange intervention and other CNB measures, the exchange rate stabilised at somewhat higher levels than in the previous three months. The weakening of the kuna was triggered by an increase in banks' demand for foreign currency, related to the adjustment of their foreign exchange positions to the imbalance caused by the recording of the expected write-off of a share of loans indexed to the Swiss franc. Overall, the average exchange rate in the second half of 2015 stood at EUR/HRK 7.59, a decrease of 0.6% from the average of the corresponding period in 2014.

In the conditions of high liquidity of the monetary system supported by the expansionary monetary policy of the CNB, the domestic costs of financing of the government and other domestic sectors remained at very low levels in the second half of 2015. The Bank Lending Survey shows that the credit standards continued to ease gradually for all groups of loans to enterprises and households (excluding home loans). Despite this, the deleveraging of the household and corporate sectors in the domestic market continued during the second half of 2015.

At the end of 2015, gross international reserves of the CNB stood at EUR 13.7bn and were almost at the same level as at mid-year, while they grew by EUR 1.0bn or 8.0% relative to the end of 2014. The growth was mostly due to the investment of a part of the international reserves in repo agreements (which resulted in a simultaneous increase in the gross reserves and the foreign liabilities of the CNB) and, to a lesser extent, to the strengthening of the US dollar and net purchases of foreign exchange. Net usable international reserves declined (by EUR 0.2bn or 1.7%) in the second half of the year after the CNB sale of foreign currency, but on annual levels they rose from EUR 0.5bn (4.4%), reaching EUR 11.2bn at the end of 2015 (net reserves do not include foreign currency reserve requirements, special drawing rights with the IMF, foreign liabilities, including the mentioned 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 0.25% and 0.00% respectively in 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. However, the rate of return on the euro held-to-maturity portfolio was 1.44% in 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. The rate of return of the RAMP portfolio was 0.15% from 31 March to 31 December 2015 on an annual basis.

Bank operations in the second half of 2015 were marked by the continued contraction of banks' assets. Total decrease in banks' assets in 2015 stood at 0.4%, or 1.2% if the exchange rate effects are excluded. Such developments were due to the absence of credit growth, the sale of irrecoverable claims and the continued deleveraging of banks, as well as the implementation of regulatory amendments concerning Swiss franc loans, which resulted in losses in operations because of the recording of the expected write-off of a part of the principal of loans (for details on loan conversion see Box 4 Swiss franc loans). Banks reported losses (before tax) of HRK 4.7bn throughout the year. If the impact of the cost of conversion is excluded, the profit of banks grew moderately in 2015, which was mostly the result of lower expenses on loss provision in the credit portfolio.

During 2015, the growth in the share of partly and fully irrecoverable loans that had begun in 2008 was halted. The share of B and C risk category loans decreased from 17.1% at the end of 2014 to 16.6% at the end of 2015. The key contributor to the movements of the loan quality indicator included the sale of claims, particularly in the corporate sector. The ageing of the portfolio, strengthened by the regulatory rules on the gradual increase in value adjustments for long-term delinquent placements, impacted the noticeable growth in the coverage of B and C risk category loans by value adjustments (from 51.3% to 56.6%).

The application of legislative provisions on the conversion of Swiss franc loans resulted in a decrease in the bank total capital ratio, on one hand by reducing own funds because of the current year loss, and on the other hand, by increasing the bank exposure to currency risk. In addition, the decrease in own funds was also partially caused by higher dividend payments, in a total amount of HRK 2.5bn (while in 2014, HRK 1.8bn was paid out in dividends). Despite this, the total capital ratio remained high – at the end of 2015 it stood at 20.9% or 0.8 percentage points lower than at the end of 2014, but it was still noticeably higher than the minimum total capital ratio of 8% and other regulatory capital requirements and systemic risk buffers.

With regard to fiscal policy, the considerable decrease in the general government deficit (according to the ESA 2010 methodology) on an annual level continued in the second half of 2015 because of a further increase in revenues and a decrease in expenditures. Total revenues grew mostly on the back of revenues from indirect taxes, while a strong decline in general government investment continued on the expenditure side of the budget. If the whole of 2015 is analysed, general government deficit stood at HRK 10.7bn (3.2% of GDP), which was HRK 7.4bn (2.3 percentage points of GDP) lower than in 2014. General government debt reached HRK 289.7bn (86.7% of GDP) at end-December 2015.

# 2 Global developments

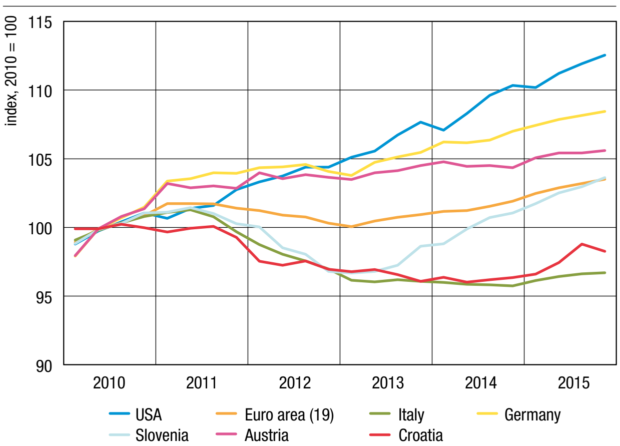
Global developments in the second half of 2015 were marked by the continued growth of the global economy, a sharp fall in the price of crude oil and other raw materials, as well as the beginning of the tightening of monetary policy in the US. The gross domestic product of the US and the euro area continued to grow in the second half of 2015, albeit at a slower pace relative to the first six months. Almost all Croatia's major foreign trade partners reported a positive economic activity rate in the second half of the year. The deceleration of global GDP growth in 2015 was mostly the result of a slower economic growth in the developing and emerging market countries. Lower GDP growth rates in China on an annual level were due to the restructuring of the Chinese economy, while net exporters of oil and other raw materials, such as Russia and Latin American countries, were still affected by the recession.

## 2.1 Movements of gross domestic product of selected economies

After a strong real GDP growth in the second quarter, the US economy recorded a markedly slower growth in the second half of the year, primarily because of the weaker growth of personal consumption and the decline in non-residential investments and exports in the last quarter. A relatively high economic growth continued in 2015 as a whole, as well as in the previous year, at the level of 2.4%, mostly because of the strengthening of domestic demand. As a result of a prolonged period of favourable economic developments, in the labour market in particular, the US monetary policy makers decided to increase the target range of the benchmark interest rate moderately at the end of the year.

Economic activity in the euro area decelerated relative to the previous half of the year, mostly because of the slowdown in the growth of exports and personal consumption. Real GDP growth slowed down in almost all euro area countries in the second half of the year from the previous period, with the exception of Estonia, whose GDP growth accelerated significantly at the end of the year, France and Slovakia, whose growth dynamics were almost unchanged and Greece in which recessionary developments were recorded. At the level of the whole year, real economic activity of the euro area grew at the rate of 1.6%, which was a noticeable acceleration from the previous year, when the growth stood at 0.9%. The largest contribution to growth came from domestic demand, mostly from personal consumption, which was favoured by the movements in the labour market and the fall in the prices of refined petroleum products. The growth in the euro area was supported by the expansionary measures of the ECB and the weakening of the effective exchange rate of the euro. It was limited by the slower economic growth of developing and emerging market countries and generally weak investment activity, which eventually strengthened at the end of 2015.

Figure 2.1 Gross domestic product of selected economies
seasonally adjusted data, real values




Sources: Eurostat, BEA and CNB.

The economic growth in developing and emerging market countries continued in the second half of the year, albeit at a slower pace. The growth slowdown is correlated with changes in the Chinese economy, the negative impact of the fall in raw materials prices on countries exporting refined petroleum products and with geopolitical tensions. The restructuring of the Chinese economy continued, marked by an evident trend for the growth of investments to slow down and an acceleration in the growth of personal consumption, as reflected by the strengthening of the service sector. On the other hand, net exporters of oil and other raw materials, such as Russia and Latin American countries, continued to be affected by recession, predominantly because of the fall in the prices of their main export products. At the level of 2015, the growth of these countries slowed down for the fifth consecutive year, and stood at 4.0% following the growth of 4.6% in 2014. The economic growth of these countries was also limited by depreciation pressures on the domestic currencies of some of them and the worsening of external financing conditions resulting from the reorientation of capital flows because of the gradual increase in the Fed's interest rate at the end of 2015 and from increased volatility in the financial markets.

## 2.2 Croatia's main trading partners

The economic activity of all Croatia's trading partners, except Serbia, increased in the second half of 2015, with Slovenia recording the sharpest growth. A mild growth of real GDP in the observed period was reported by Germany, as it was by Austria and Italy. A noticeable acceleration of the economic growth of Bosnia and Herzegovina in the first half of 2015 stalled in the rest of the year.

Growth in Germany slowed down slightly in the second half of the year relative to the previous period, which may be correlated mostly with the significant deceleration of exports. The largest contribution to GDP growth came from the rise in personal consumption on the back of higher employment and lower energy prices. Throughout 2015, economic activity accelerated slightly relative to the previous year, and investment activity, weaker during the year, showed signs of recovery in the last quarter.

The Austrian economy recorded a minimal growth in economic activity in the second half of 2015. The slowdown in the growth of the Austrian economy was mostly attributed to a considerable decline in exports in the last quarter of the previous year, while government consumption made the largest contribution to the GDP growth. Nevertheless, economic growth in Austria accelerated at the level of the whole year.

Italy recorded a very moderate growth in economic activity in the second half of 2015, somewhat slower than in the previous period. The GDP growth in the period under review was mostly favoured by personal consumption, while the last quarter pointed to the slight recovery in investment activity.

In Slovenia, favourable economic trends continued in the second half of the year, albeit at a somewhat slower pace than in the first half of the year. The most significant contribution to the growth in economic activity came from personal consumption and exports, which fell sharply at the end of the year after a noticeable growth in the third quarter.

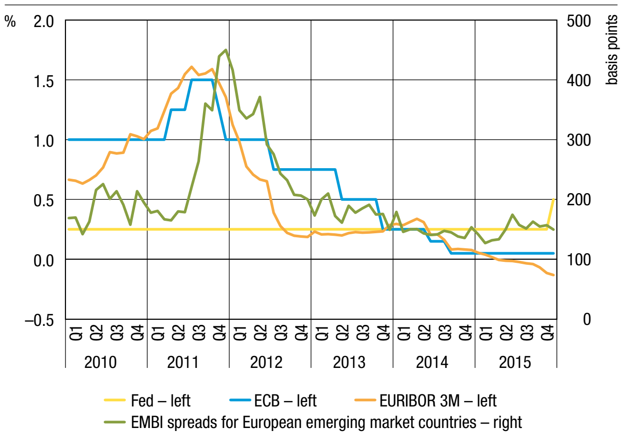
In the second half of 2015 the economy of Serbia recorded a slight decline in real economic activity, which was halted at the end of the year. Despite this, Serbia's economic activity grew slightly in 2015, after the recession in 2014 associated with floods. The growth was mostly due to investment and net exports, while personal and government consumption worked in the opposite direction, which was partially the reflection of the implementation of fiscal consolidation.

Following a sharp rise in economic activity recorded in the first half of the year, growth in Bosnia and Herzegovina slowed down considerably during the remaining part of the year. The recovery in economic activity from the negative effects of the floods in 2014 and an uptick in growth dynamics was observed at the level of the year. On the production side, the recovery was mostly aided by the growth in industrial production, principally owing to the growth in production in mining and manufacturing and production and distribution of electricity and gas.

## 2.3 Benchmark interest rate trends

Key interest rates in the US and in the euro area started to diverge when the Fed increased the target range for its benchmark interest rate to the level from 0.25 to 0.5 percentage points at the end of 2015. This first increase of the Fed's key interest rate in the past nine years signalled the beginning of the gradual tightening of its monetary policy as a consequence of the belief that the US economy had largely recovered from the financial crisis. Conversely, the ECB maintained its zero key interest rate and continued with its bond purchase programme in the secondary market in the monthly amount of a minimum of EUR 60bn, which was extended until the end of March 2017 and will be extended even further if necessary. In response to the negative risks of the prolongation of very low inflation, in December 2015 the ECB also expanded the scope of acceptable securities for purchase and lowered the interest rate on bank deposits into negative territory. The conditions of foreign financing for Central and Eastern European countries improved at the beginning of the second half of the year with the calming of the Greek debt crisis, and by the end of the year had reached a level similar to that of the end of 2014.

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

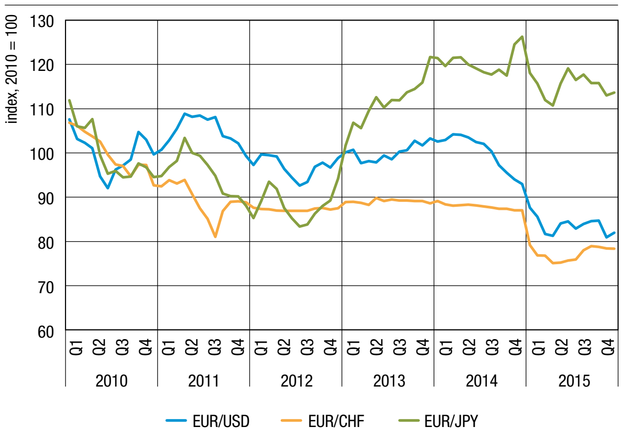



Source: Blomberg.

## 2.4 Exchange rates and price movements

The US dollar appreciated against the euro in the second half of 2015. The middle of the year was marked by the weakening of the US dollar against the euro, in particular after the easing of the debt crisis in Greece and the devaluation of the yuan renminbi in mid-August[1]. However, the strengthening of the US dollar against the euro by the end of the year was mostly the result of the Fed's announcement of its decision to raise the key overnight interest rate, as well as of the ECB president's announcement of the readiness to expand the quantitative easing programme for a faster achievement of the target inflation rate. The exchange rate of the US dollar thus appreciated against the euro from EUR/USD 1.11 at the end of June to EUR/USD 1.09 at the end of December 2015. After it strengthened in the first half of the year, the exchange rate

Figure 2.3 Exchange rates of individual currencies




Note: A growth in the index denotes a depreciation of a currency against the euro.
Source: Eurostat.

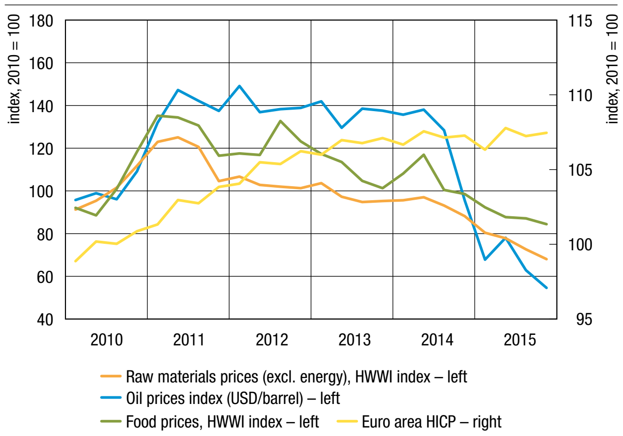
1 Which, among other things, raised expectations that the US monetary policy tightening had to be postponed.

of the Swiss franc depreciated slightly against the euro in the second half of the year, i. e. from EUR/CHF 1.04 at the end of June to EUR/CHF 1.08 at the end of 2015.

The downward trend in the prices of crude oil continued in the second half of 2015, after it rebounded somewhat by the end of June. The Brent crude oil price stood at USD 36 at the end of 2015 or down by 41% from the USD 61 recorded at the end of June. Such developments were mostly a result of several factors: the noticeable surplus of global supply over demand, the expected growth of exports from Iran after the lifting of international sanctions and the decision of the OPEC leaders at the last meeting in December 2015 to continue with the strategy of maintaining their market share. In addition, the slowdown in US production from the use of new technology was weaker than expected and additional downward pressure on crude oil prices came from a mild winter and growing concern over the economic growth in emerging market countries, primarily China, Brazil and Russia.

The decrease in the prices of raw materials measured by the HWWI index (excluding energy, in US dollars) continued in the second half of 2015, albeit at a slightly lower intensity. The prices of raw materials, excluding energy, were 14% lower in December 2015 relative to the value recorded in June. This was predominantly a result of the decline in the prices of iron ore (38.4%) due to the growth in global supply, despite the growing concern over the economic slowdown in China, one of the largest global consumers of the commodity. The fall in food raw material prices was supported by good weather conditions in most producing regions (despite the effects of El Niño), record yields for some crops, primarily of cereals, and the strengthening of the exchange rate of the US dollar. For this reason, the prices of food raw materials in the US were reduced in efforts to preserve global competitiveness.

Figure 2.4 Prices

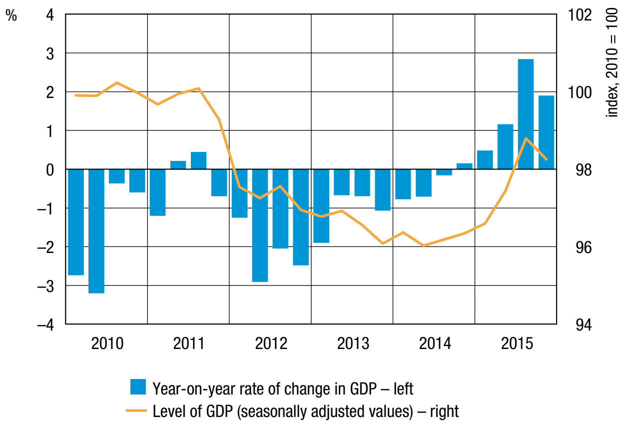



Sources: Eurostat, Bloomberg and HWWI.

# 3 Aggregate demand and supply

The growth of economic activity continued in the second half of 2015, i. e. by a slightly stronger dynamics than in the first half of the year. This primarily reflected the high growth in the third quarter, when GDP on a quarterly basis increased by 1.4%, largely due to the favourable developments in the exports of services, investments and personal consumption. Although all components of domestic demand, including exports, grew in the last quarter of 2015, there was also a concomitantly strong increase in imports, so that the total level of domestic activity was slightly lower than in the previous quarter. At the level of the whole of the second half of 2015, economic activity was 2.4% higher than in the same period in 2014, while 1.6% growth was recorded at the level of the whole year.

Figure 3.1 Gross domestic product
real values




Source: CBS data seasonally adjusted by the CNB.

## 3.1 Aggregate demand

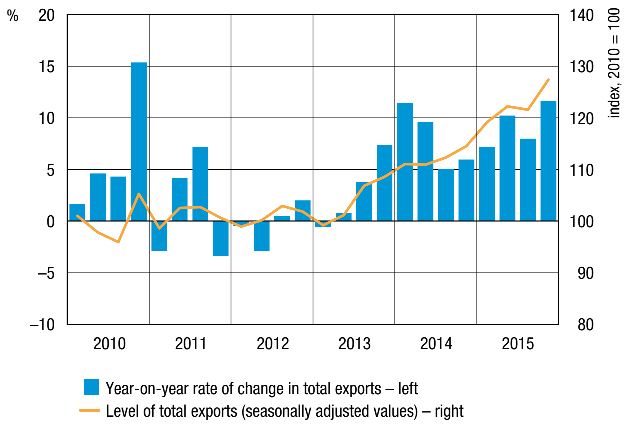
Real exports of goods and services slowed down in the second half of 2015 from the previous six months. Exports of services rose sharply, while goods exports grew strongly again at the end of the year after being stagnant in the third quarter. Nominal data on trade in goods by the main industrial groupings show that the acceleration of the growth in exports of goods in the last quarter is the reflection of favourable developments in non-durable and intermediate consumer goods and capital goods. A strong growth in the exports of services continued in the second half of 2015, fuelled by the increase in the exports of tourist services. If analysed on an annual basis, the exports of goods and services made the largest contribution to the growth in economic activity in the second half of 2015.

Throughout 2015, the total exports of goods and services were 9.2% higher than the performance in 2014, i. e. considerably higher than the growth in economic activity and imports of the main foreign trade partners. It was precisely this category of aggregate demand that made the largest contribution to the start of economic recovery in 2015.

In the second half of 2015, personal consumption continued its growth at the same pace as in the first half of the year. The recovery in personal consumption started at the beginning of 2015, simultaneously with the changes in the income tax system that increased the average net wage by about 2%. Overall purchasing power of the household sector was also boosted by the growth in the number of employed persons and the decline in the prices of energy and food. In addition, consumer confidence, which increased considerably at the beginning of 2015, continued to grow until the very end of the year, when the consumer confidence index reached its highest level since 2007. Personal consumption throughout 2015 was up by 1.2% from the previous year so that, after the exports of goods and services, it made the largest contribution to the economic growth.

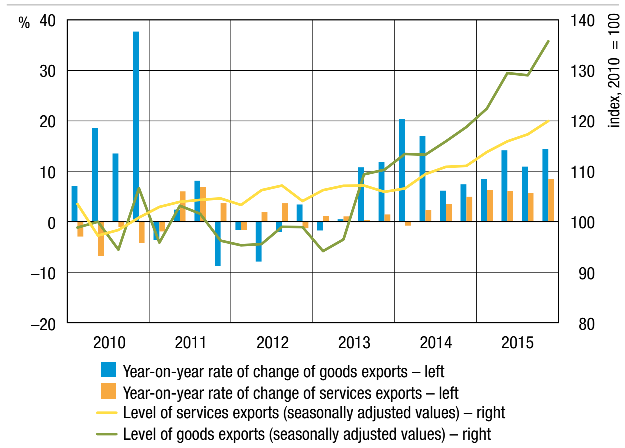
The growth of investment activity continued in the second half of 2015, but it was lower than in the first half of the year.

Figure 3.2 Exports of goods and services
real values



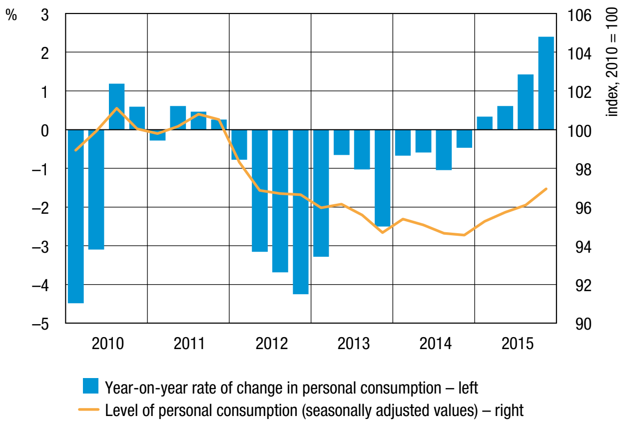

Source: CBS data seasonally adjusted by the CNB.

Figure 3.3. Real exports of goods and services



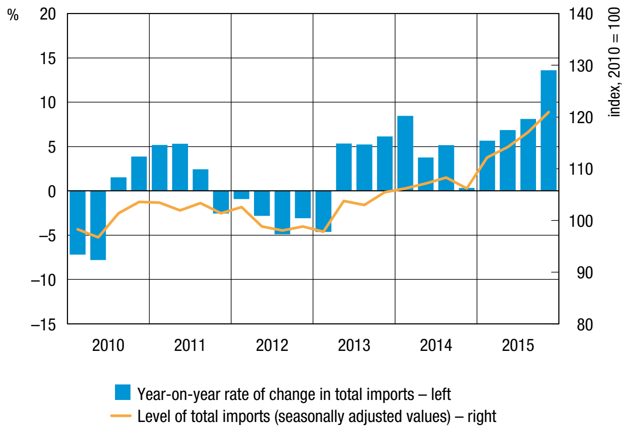

Source: CBS data seasonally adjusted by the CNB.

## Figure 3.4 Personal consumption
real values



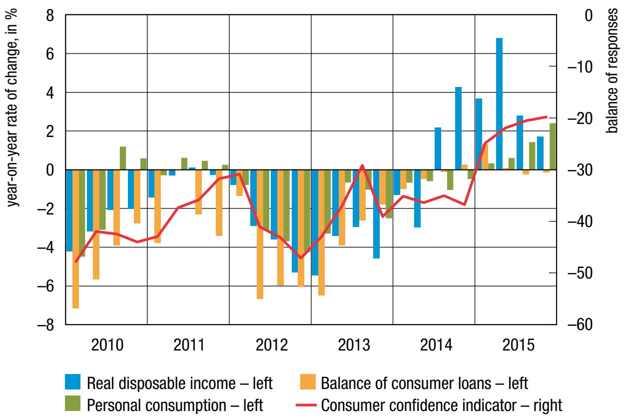

Source: CBS data seasonally adjusted by the CNB.

## Figure 3.7. Imports of goods and services
real values



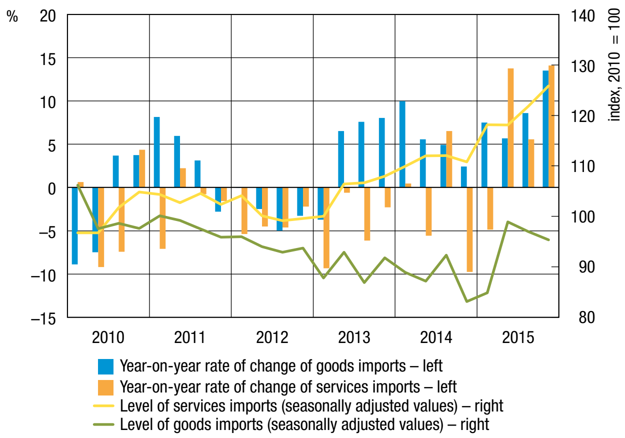

Source: CBS data seasonally adjusted by the CNB.

## Figure 3.5 Determinants of personal consumption



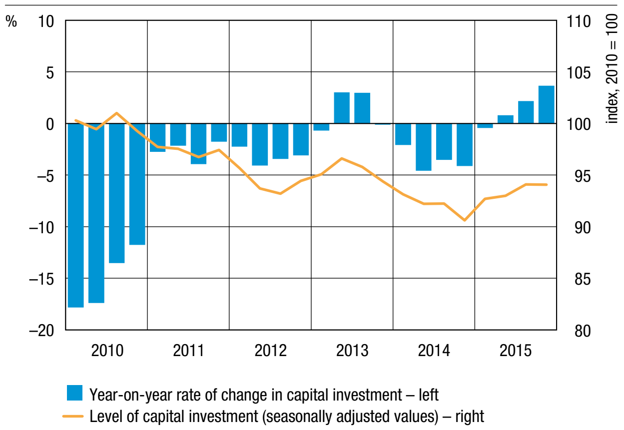

Note: The values of the consumer confidence indicator in a month are calculated as averages of monthly data.
Sources: CBS, Ipsos and CNB.

## Figure 3.8 Real imports of goods and services



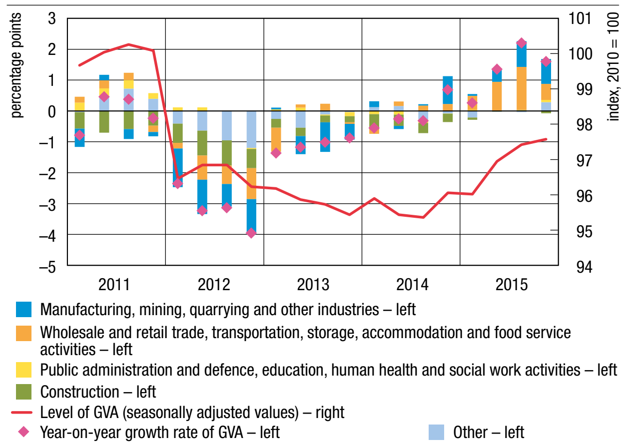

Source: CBS data seasonally adjusted by the CNB.

## 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



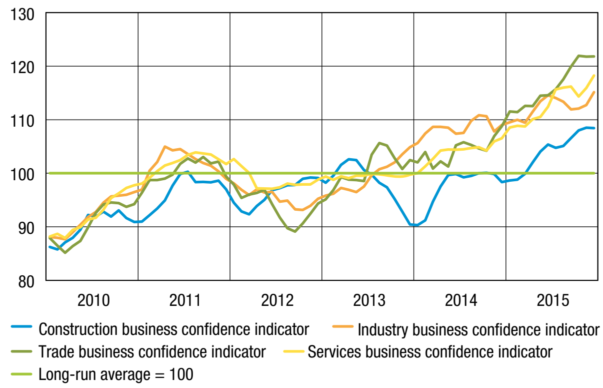

Source: CBS data seasonally adjusted by the CNB.

High growth in the third quarter of 2015 was followed by stagnation at the end of the year, most probably because of decreased government investment activity, as indicated by the data on the decline in civil engineering works. On the other hand, the recovery of private investments observed in the first six months of 2015 continued in the last three months, when construction works on buildings increased, mostly associated with private sector investments. The growth in production and imports of capital goods point to the continuation in the recovery of private investments. At the level of 2015, gross fixed capital formation increased by 1.6% relative to the previous year. It is worth noting that in the last quarter the annual growth rate of investments stood at 3.7%, the highest annual rate since 2008.

Government consumption increased in the second half of 2015 by 0.6% relative to the first six months, when it had stagnated. The data on the number of employed persons and the nominal data on government expenditures from the second half of the year indicate that this rise in government consumption is linked to the growth in employment and intermediary consumption. Government consumption rose 0.6% in 2015 from 2014 and made a positive contribution to the economic growth, which was contrary to the expectations from the beginning of the year that government consumption would decrease due to attempts to reduce the budget deficit.

The imports of goods and services continued to grow strongly in the second half of 2015, with an additional acceleration of growth at the very end of the year. Nominal data on trade in goods by the main industrial groupings show that the imports of goods rose in almost all of the categories, except in energy, in the fourth quarter. Throughout 2015, the imports of goods and services increased by 8.6% from 2014 under the impact of the strengthening of domestic demand, as well as strong growth in exports.

Figure 3.10 Business confidence indicators
standardised seasonally adjusted values, three-member moving averages



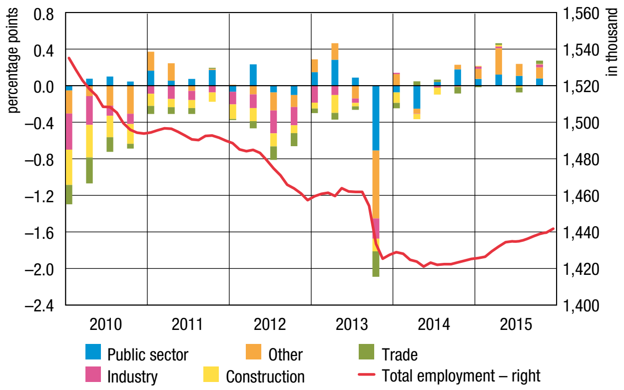

Note: New weights have been applied to the series of business confidence indicators; as of July 2014, the weights are based on total income instead of the number of employees. The Business Confidence Survey has been carried out since May 2008.
Sources: Ipsos and CNB data seasonally adjusted by the CNB.

## 3.2 Aggregate supply

The growth in gross value added accelerated in the second half of 2015, increasing by 1.9% on an annual basis. The acceleration of growth on the level of the whole economy relative to the first half year was almost entirely determined by the strong increase in GVA in industry. The data on industrial production according to the main industrial groupings show that growth accelerated in the production of capital goods and non-durable and durable consumer goods during the observed period. In addition, a noticeable contribution to the growth of total GVA in the domestic economy in the second half of 2015 came from the activities of wholesale and retail trade, transportation and storage, accommodation and food service activities, which may be linked to the good results during the peak tourist season. However, the growth in these areas was somewhat slower than in the first half of the year. Construction is the only activity in which GVA dropped in the second half of the year relative to the first half. It seems that unfavourable developments reflect a weaker government investment activity, which can be concluded from the decline in the value of the volume indices of civil engineering works, which primarily refer to infrastructure facilities. At the level of the whole of 2015, total GVA increased by 1.4%, which was the first annual increase recorded since 2008.

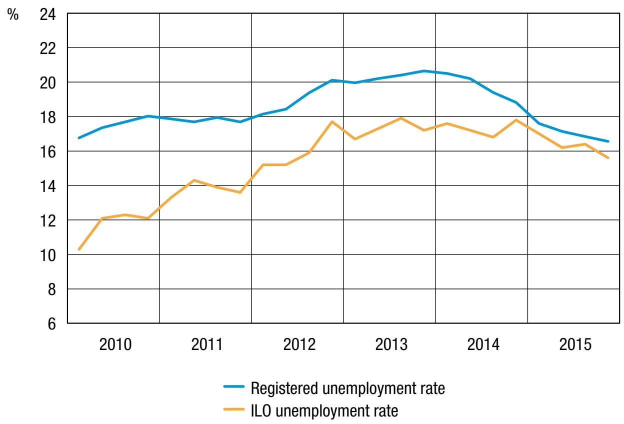
# 4 Labour market

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



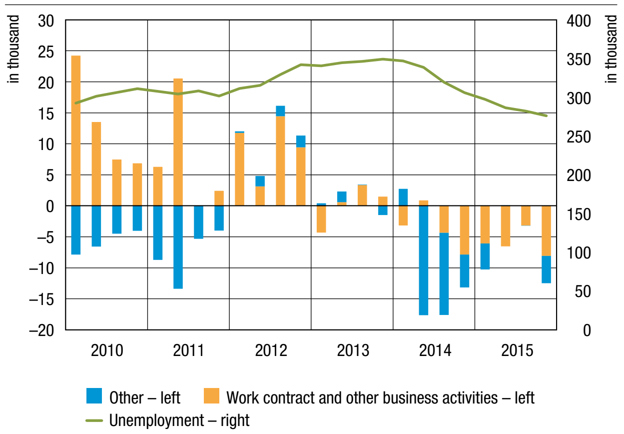

Note: Public sector includes public administration and defence, compulsory social security, education and human health and social work activities. Around 20,000 insured persons were removed from the CPIA register due to administrative reasons in October 2013.
Source: CPIA data seasonally adjusted by the CNB.

Figure 4.3 Unemployment rate
seasonally adjusted data



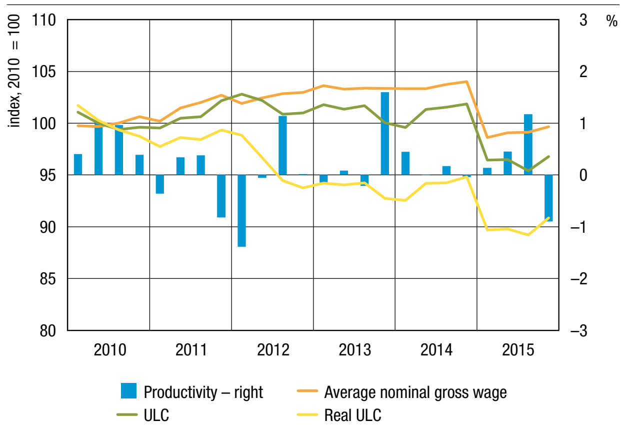

Note: Monthly ILO unemployment rate is Eurostat's estimate.
Sources: Eurostat and CES data seasonally adjusted by the CNB.

Figure 4.2 Total unemployment and net inflows from unemployment
seasonally adjusted series




Source: CES data seasonally adjusted by the CNB.

Figure 4.4 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.

Favourable labour market trends marked the second half of 2015. The number of employed persons (persons insured with the CPIA) continued its growth trajectory in the third and the fourth quarter of 2015, albeit at a slightly slower pace than in the first half of the year. The growth was mainly attributed to private (excluding trade, which stagnated) and public sector services, while the contribution from industry and construction was negligible. Employment also increased on an annual level, so that the average number of employed persons in the second half of 2015 was 1% higher than in the same period of 2014, while it grew by 0.7% throughout 2015, by which the multi-annual negative trend in employment was stalled[2].

The number of unemployed persons continued to decline in the third quarter of 2015, although at a slower pace relative to the first half of the year. However, the decline in the number of unemployed persons accelerated again at the end of the year due to larger net outflows on the basis of employment and other business activities and to other reasons. In line with movements in employment and unemployment, the registered unemployment rate went down from 17% in June to 16.4% in December 2015 (seasonally adjusted data). The number of unemployed persons decreased considerably on an annual basis, so that in the second half of 2015 it was 10.6% lower than in the same period in 2014.

The survey data (Eurostat's estimate) also point to the decline in unemployment in the second half of 2015, according to which the internationally comparable ILO unemployment rate

2 Employment of persons without work experience (i. e. on-the-job training without a work contract) also contributed to the growth of employment, which accounted for approximately one third of the increase in the number of employed persons.

averaged 16% (compared to 16.6% in the first half of 2015).

In the second half of 2015, nominal gross wages continued to drift up slowly on a quarterly basis, while net wages declined slightly in the third quarter, recording growth at the end of the year. The growth of real wages accelerated at the end of 2015. It should be noted that the monthly data on wages beginning from January 2015 are not comparable with the previous data because of the revision of the CBS statistical data on wages and the number of employed persons in legal entities (see Box 1 Revision of labour market data). The revision of statistical data also showed that unit labour costs in the economy as a whole were considerably lower.

## Box 1 Revision of labour market data

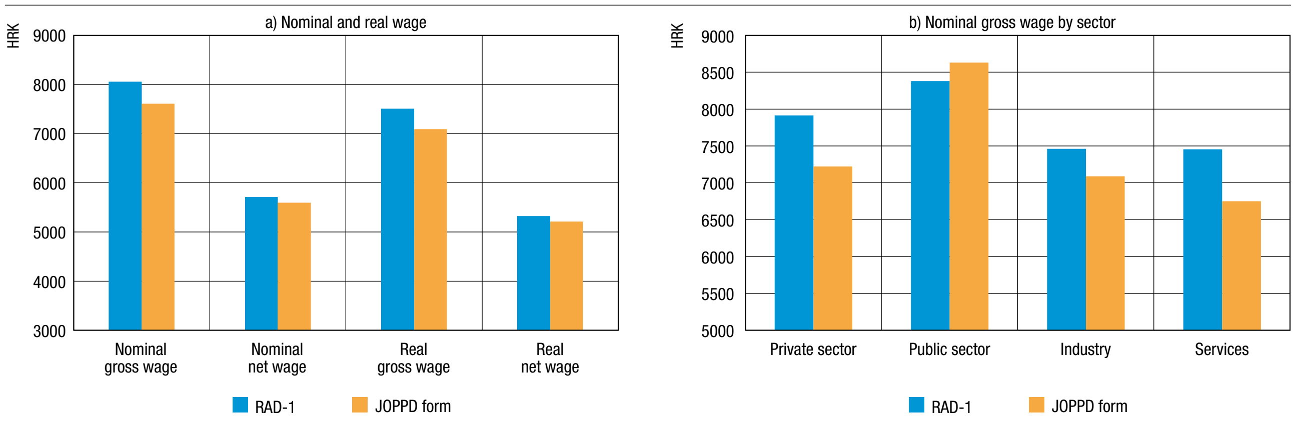
*In late March 2016, the Croatian Bureau of Statistics published employment and wage data for January and February 2016 according to the updated methodology and revised the data for 2015. The statistics revision resulted in lower values of gross and net wages in 2015 and higher employment. The changes are primarily a result of corrections in statistical data for the private sector.*

In late March 2016, the Croatian Bureau of Statistics published employment and wage data for January and February 2016 according to the updated methodology and revised the data for 2015. The previous method of data collection through the RAD-1 monthly survey, which covered 70% of those employed in legal entities from each NCA 2007 section and the annual survey with a full coverage (RAD-1G), was replaced by the data from the Report on income, income tax and surtax as well as contributions for mandatory insurances (JOPPD form) with a full coverage of employment in legal entities. Due to changes in the methodology for data collection and processing, the data for 2015 and 2016 according to the JOPPD form are not comparable with the previously released data according to the RAD-1 monthly survey and the RAD-1G annual survey on employment and wages.

The transition to the JOPPD form resulted in lower values of gross and net wages in 2015 compared with the data from the RAD-1 monthly survey. Under the new methodology, the average nominal gross wage was more than 5% lower in 2015, standing at HRK 7,610 (compared with HRK 8,054), while the average nominal net wage in 2015 was 2% lower, standing at HRK 5,594 (compared with HRK 5,710, Figure 4.5. a). The decrease in the average gross wage may largely be attributed to the correction of wages in the private sector (trade and other service activities and industry), while the public sector made a much smaller contribution. Broken down by activity, the nominal gross wage in the private sector was lower by around 9% (HRK 7,222 vs HRK 7,913), while in trade, accommodation and food service activities alone it was around 10% lower (HRK 6,752 vs HRK 7,455). In addition, the nominal gross wage in industry was 5% lower (HRK 7,090 vs HRK 7,460), while it was 3% higher in the public sector (HRK 8,629 instead of HRK 8,378), primarily due to the higher level of wages in public administration and defence and compulsory social security (Figure 4.5. b).

In contrast to wages, the number of employed persons in 2015 was larger according to the JOPPD form than according to the data obtained in the annual survey, RAD-1G. The average number of persons in paid employment in legal entities was higher, by 34 thousand, or 3%, than in the annual survey data, while total employment was 2.5% higher[3]. The increase in employment in legal entities was largely a result of the upward correction in the number of persons employed in the private sector, in particular trade and other service activities and in industry, while the number of persons employed in the public sector decreased (Figure 4.6). In the same period, as a result of the rise in employment, the registered unemployment rate, which averaged 17% in 2015 (17.4% under the old methodology), was reduced.

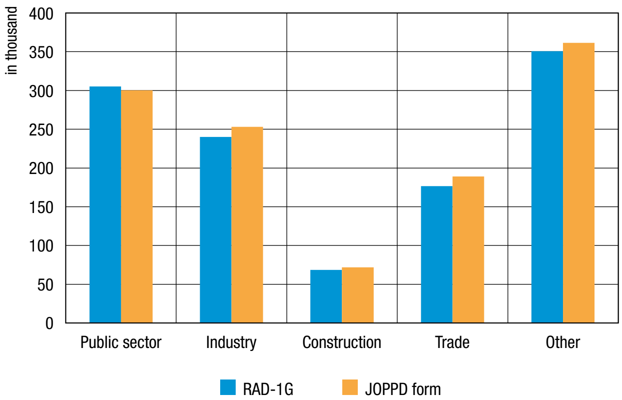
Figure 4.5 Average wages in 2015, before and after the change in methodology




Note: Public sector includes public administration and defence, compulsory social security, education, human health and social work activities. Services refer to wholesale and retail trade, transportation and storage, accommodation and food service activities.
Source: CBS.

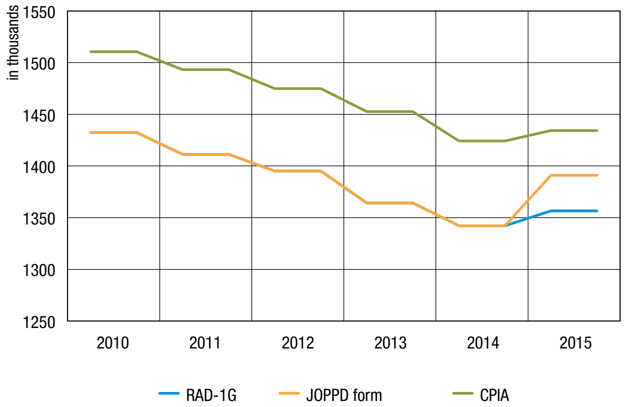
3 The data on the number of craftsmen, persons who are self-employed in a professional activity and individual farmers continued to be taken over from the CPIA, so that they did not change.

Figure 4.6 Number of persons in paid employment in legal entities by sector in 2015, before and after the change in methodology




Note: Public sector includes public administration and defence, compulsory social security, education, human health and social work activities.
Source: CBS.

Figure 4.7 Comparison of total employment according to different administrative sources (2010-2015)




Sources: CBS and CPIA.

Notwithstanding the increase following the transition to the JOPPD form, total employment is still lower than that approximated by the number of persons actively insured with the Croatian Pension Insurance Administration (Figure 4.7).

# 5 Inflation

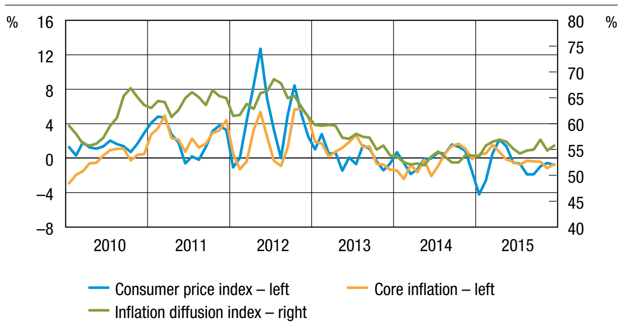
The average annual consumer price inflation rate in Croatia was negative in the second half of 2015, standing at –0.7% (in the first half of the year it was –0.2%). This was largely a result of the spillover of lower crude oil and food raw material prices in the global market onto domestic prices. Crude oil prices in the global market had been declining since mid-2014, and the continuation of the trend in the second half of 2015 was due to additional factors (the lifting of sanctions on Iran, the keeping of existing production quotas by the OPEC countries and the expected slowdown in the global economic growth). The price of a barrel of Brent crude oil dropped to only USD 36 at the end of 2015, or down by 42% from the price recorded in mid-2015. In addition, 2015 was marked by a record yield for the main agricultural crops, so that food raw materials prices in the global market in 2015 were on average 17% lower than in 2014. In such conditions in the second half of 2015 there was a trend for a decrease in the annual inflation rate measured by the harmonised index of consumer prices in the majority of Central and Eastern European countries.

On the other hand, the average core inflation rate in Croatia, which is calculated by excluding the prices that are volatile from the basket (agricultural products and refined petroleum products), as well as administrative prices, was mildly positive (0.1%) in the second half of 2015. Furthermore, the inflation diffusion index shows that the share of the number of products the prices of which rose in the total number of products in the HICP basket in Croatia reached almost 56% at the end of 2015, which means that the prices of most of the products continued to grow, while the negative inflation rate was diffused to a smaller share of the products.

The annual change in the consumer price inflation rate decreased from 0% in June 2015 to –0.6% in December 2015 (Figure 5.2). These trends were mostly due to the accelerated annual decline in energy prices because of the fall in the prices of refined petroleum products and crude oils in the domestic market. The annual decrease in energy prices increased from –3.0% in June to –5.0% in December 2015. The contribution of energy to inflation of –0.9 percentage points at the end of the year was somewhat lower than in the previous few months because of the base effect (a sharp fall in the prices of refined petroleum products at the end of 2014). In addition, the annual rate of change in the prices of services and food products declined in the second half of 2015. Conversely, the increase in the prices of industrial products had an effect on the increase in consumer price inflation, and the contributions of the prices of clothing and sewerage services increased in particular.

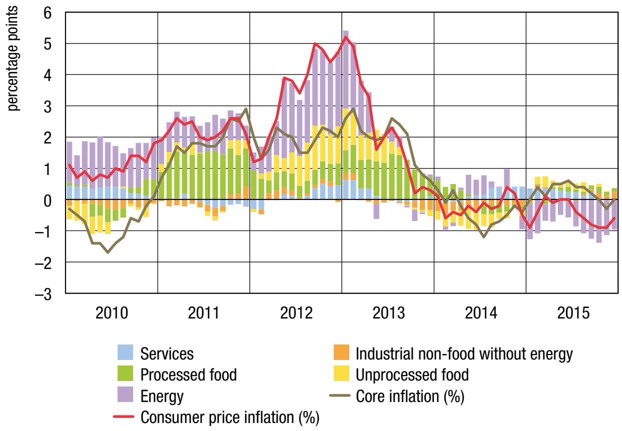
The annual core inflation rate decreased from 0.6% in June to 0% in December 2015. This was mainly due to the slowdown in market-based service prices (recreational and sporting services) and, to a lesser extent, the prices of communication activities and milk, the prices of which decreased after the suspension of quotas for the production of milk in the EU countries, as well as the suspension of the compensation for

Figure 5.1 Consumer price index, core inflation and inflation diffusion index
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 consumer price indices. The inflation diffusion index is measured by a 6-month moving average. Core inflation does not include agricultural product prices and administrative prices. 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 and is based on the monthly rates of change derived from the seasonally adjusted components of the HICP.
Sources: CBS, Eurostat 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 Deflators of exports and imports of goods and services and the terms of trade index


Source: CBS.

the return of its packaging. The trend of perceptible acceleration in the annual growth rate of processed food product prices present in the first half of 2015 was interrupted.

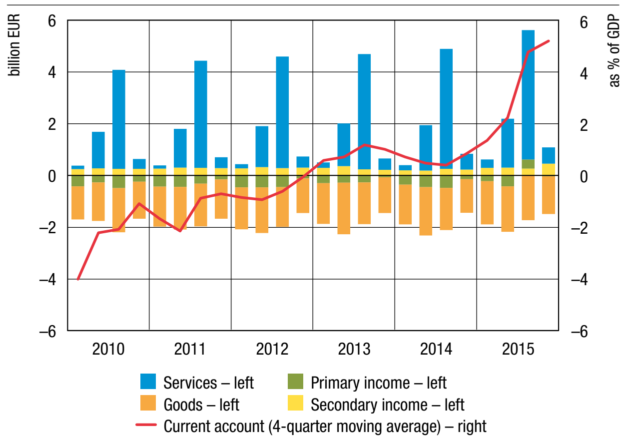
An improvement in trade conditions was observed from the second quarter of 2014 (Figure 5.3). Lower prices of oil and other raw materials in the global market, i. e. the fall in the prices of imported products improved international trade conditions. The annual rate of fall in the deflator of goods and services imports rose in the second half of 2015, indicating the growth of pressures for domestic prices to fall arising from the decline in the prices of imported raw materials and final goods during that period. On the other hand, the annual rate of decline of the deflator of exports of goods and services accelerated to a lesser extent, resulting in the continuation of improvement in trade conditions.

# 6 Foreign trade and competitiveness

The current account balance continued to improve in the second half of 2015, displaying a surplus of EUR 3.5bn, which was an increase of more than a half from the same period of the previous year. Such developments were mostly the result of improvement in primary income, to which a noticeable decrease in expenditures from direct equity investment made a contribution, as a consequence of the cost for banks in foreign ownership caused by the recording of the anticipated effects from the conversion of loans in Swiss francs. The growth in the current account surplus can also be attributed to the growth in net exports of services because of the much better performance of tourism, while the stronger absorption of available EU funds had an impact on net inflows in secondary income. By contrast, the goods trade deficit deepened (according to balance of payments data) because the absolute growth in imports exceeded the growth in exports, despite the stronger relative growth in exports than in imports. If cumulative values over the last four quarters are taken into account, the current account surplus reached 5.2% of GDP in the last quarter, while, for purposes of comparison, it was 2.2% of GDP in the second quarter of 2015.

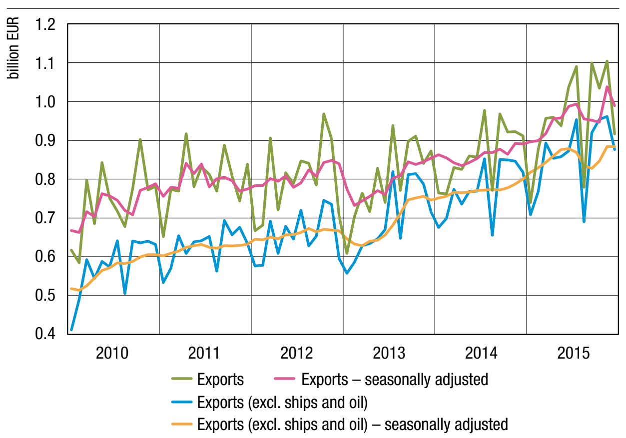
In the second half of 2015, unlike the usual deficit, a surplus in the primary income account was recorded. This is mostly the result of a significant decline in expenditures based on direct investments from the same period of the previous year, due to the losses of enterprises in foreign ownership. The largest losses were recorded in financial mediation, connected with the cost of the anticipated conversion of loans in Swiss francs, and, to a lesser extent, in the production of refined petroleum products[4]. At the same time, better business results were achieved in the majority of other enterprises in foreign ownership, particularly in hotels and services and wholesale and retail trade. Revenues from direct investments also decreased, but to a considerably lesser extent than expenditures. The decrease resulted from poorer business results of foreign enterprises in domestic ownership, recorded not only in the production of refined petroleum products but also in the extraction of crude oil and natural gas. A contribution to the improvement in the overall balance of primary income also came from the growth in revenues from compensations to residents working abroad. The annual increase in net inflows in secondary income was largely the result of the higher absorption of available EU funds, which also determined the growth in revenues from capital transfers. An analysis of the current and capital funds utilised in the second half of 2015 (as recorded in the secondary income and capital accounts) will show they

Figure 6.1 Current account balance and its structure



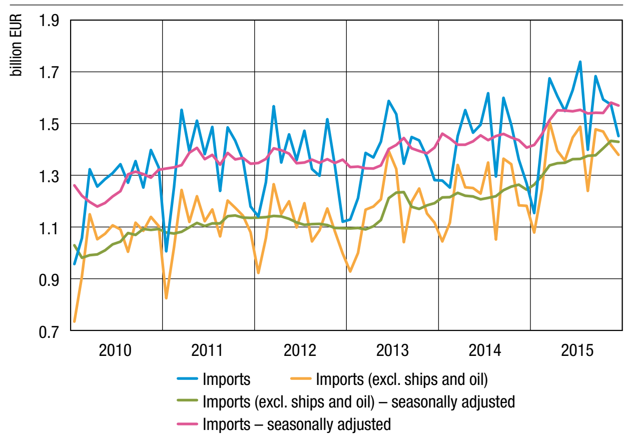

Source: CNB.

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




Note: Seasonally adjusted values are shown as three-member moving averages of monthly data.
Source: CBS data seasonally adjusted by the CNB.

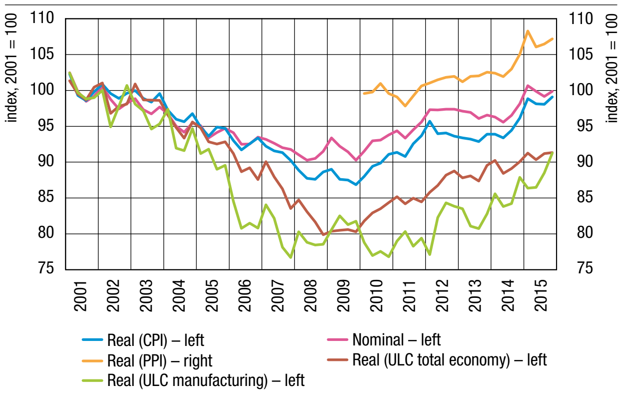
Figure 6.3 Goods imports (c.i.f.)




Note: Seasonally adjusted values are shown as three-member moving averages of monthly data.
Source: CBS data seasonally adjusted by the CNB.

4 Losses in the mentioned activity were also reported by foreign subsidiaries of a domestic enterprise in foreign ownership based on the value adjustment of assets, which also affected reinvested earnings within foreign direct investments (on the side of assets and liabilities) in the financial account of the balance of payments. At the end of 2013 and 2014, losses were also recorded in this activity.

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.

were almost double the total amount of funds received from the EU, as funds received in previous years were also allocated to the end users.

The surplus in the international trade in services was 7.3% larger in the second half of 2015 than in the same period of the previous year. It was mostly triggered by the growth in revenues from travel services (8.9%), with a sharp growth in volume indicators. Tourists from Austria, Germany, Hungary and Slovenia particularly contributed to the increase in the number of foreign tourist arrivals and nights of 9.4% and 7.9% respectively. At the same time, the number of tourist arrivals from Russia decreased steadily. The services balance surplus increased on the back of the improvement of the balance in other services, in particular the increase in net exports of personal, cultural and recreational services, advertising and market research services and computer services.

Total goods exports, after growing sharply in the first half of 2015, continued to increase in the second half of the year, but at a slower pace. Goods exports increased by 1.9% in the second half of the year from the previous half year. Exports of other transportation equipment (mostly ships) expanded noticeably, while negative trends were seen in the exports of oil and refined petroleum products. In addition, the exports of other goods, excluding ships and oil, decreased mildly (by 0.6%) from the first half of the year, mostly because of the decline recorded in the third quarter. A decrease in the exports of capital goods was particularly pronounced among individual divisions in the second half of the year (notably power-generating machinery and equipment and machinery specialised for particular industries), cereals and cereal preparations and metalliferous ores and metal scrap. However, more favourable results were achieved in certain segments, especially in the increase of the exports of medical and pharmaceutical products, scientific and control instruments, road vehicles and beverages and tobacco.

The imports of goods also slowed down in the second half of 2015. The total imports of goods increased by 1.7% in the second half of the year from the previous half. This was attributed to the upsurge in the imports of ships previously exported for finishing purposes, whereas the imports of oil and refined petroleum products dropped in the same period. Ships and oil excluded, imports grew slightly faster (3.9%), largely due to the increase in the imports of capital goods (mostly of general industrial machinery and telecommunications, sound recording and reproduction apparatus) and road vehicles. The imports of sugar and sugar preparations, electricity and artificial fertilisers increased considerably. The imports of natural and manufactured gas continued to decrease. In line with the growth in imports and the simultaneous moderate decrease in the exports of the narrow aggregate, the goods trade balance (excluding ships and oil) deteriorated from the previous half-year.

The indicators of price and cost competitiveness of Croatian goods exports improved in the second half of 2015. If data at the level of the whole of 2015 are observed, the price and cost competitiveness of Croatian goods exports also improved perceptibly, significantly boosted by the nominal effective depreciation of the kuna.

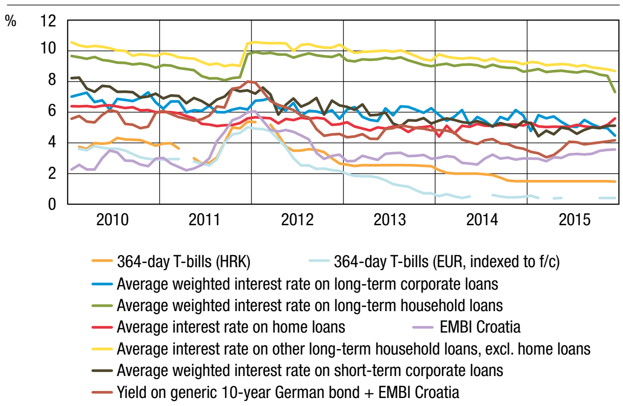
# 7 Financing conditions and capital flows

In the conditions of high liquidity of the monetary system supported by the expansionary monetary policy of the CNB, the government's borrowing costs in the domestic market remained at very low levels in the second half of 2015. The interest rate on one-year kuna T-bills at the end of the year dropped slightly and in December it stood at 1.48%, whereas the interest rate on one-year T-bills with a currency clause remained at the levels of the end of the first half of the year (0.4%). On the other hand, the conditions of government borrowing abroad were worse than in the first half of the year (Figure 7.1). The price of government borrowing abroad, estimated by the sum of yields on the German government bond and the EMBI index for Croatia fell in March 2015 to the lowest level since the beginning of the crisis, and in the remaining part of the year the foreign cost of borrowing remained at a higher level.

The risk premium for Croatia remained much higher than for other Central and Eastern European countries and the difference increased additionally in the second half of the year. Following relative stability in the first eight months, the credit default swap (CDS) spread for Croatia increased noticeably at the end of September and remained at the level of approximately 300 basis points until the end of the year (Figure 7.2). On the other hand, CDS for parent banks of the largest Croatian banks decreased by almost one fourth in the period from the end of June to the end of December 2015.

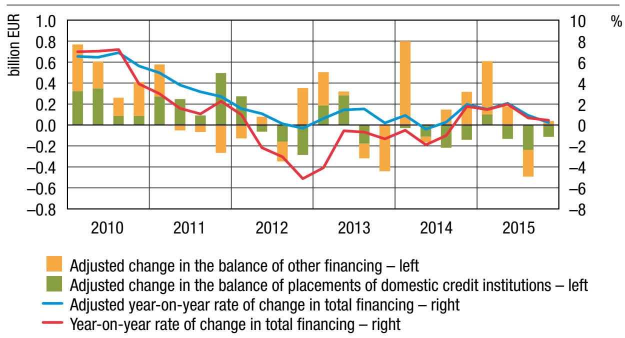
Total non-financial corporate debt declined by EUR 0.6bn or 1.5% in the second half-year (excluding the effects of the exchange rate and the write-off of placements by domestic credit institutions). The decline in domestic and foreign financing (Figure 7.3) made almost an equal contribution, while both public and private enterprises deleveraged. At the level of the whole year, total corporate debt grew slightly, by 0.2%,

Figure 7.1 Costs of domestic and foreign financing



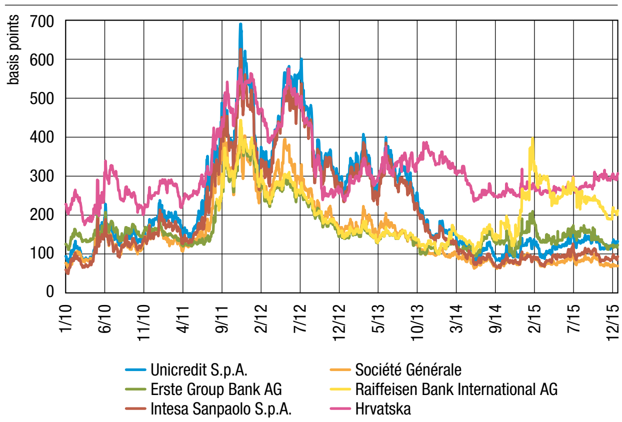

Note: EMBI (Emerging Market Bond Index) is the spread between yields on government securities of emerging markets, including Croatia, and risk-free securities of developed countries.
Sources: Bloomberg, MoF and CNB.

Figure 7.3 Corporate financing by sources



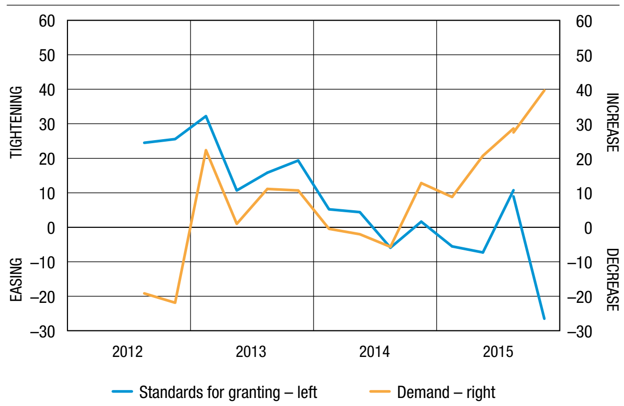

Note: Other financing includes corporate borrowing from domestic leasing companies and direct borrowing from the CBRD, as well as borrowing from foreign banks and affiliated enterprises abroad. The adjusted changes are calculated on the basis of data on transactions in placements of domestic credit institutions and data on the developments in external debt which do not include the effect of the assumption of loans to the shipyards by the Ministry of Finance in 2012 and the effect of the transformation of debt into equity.
Sources: HANFA, CNB and CNB calculations.

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




Note: Credit default swaps (CDS) spread is an annual premium that a CDS buyer pays for protection against credit risk associated with an issuer of an instrument.
Source: S&P Capital IQ.

Figure 7.4 Standards for granting loans and corporate demand for loans

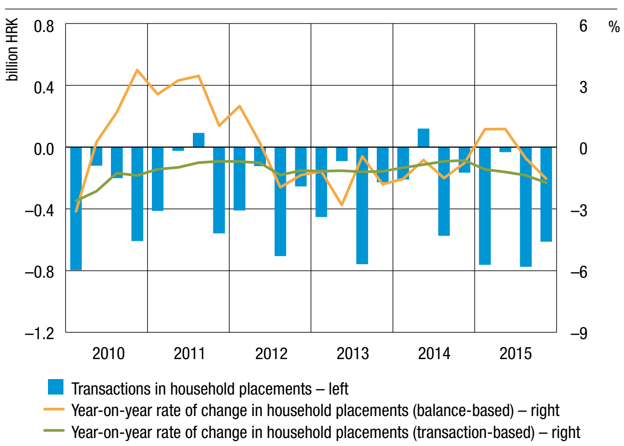



Note: Data represent the net percentage of banks weighted by the share in total loans to corporations.
Source: CNB.

primarily as a result of the rise in foreign borrowing in the first half of the year.

The decline in the placements of domestic credit institutions to the corporate sector continued for the second consecutive year, albeit at a slightly slower pace. There was an annual decrease in bank placements to corporates at the end of 2015 of –2.9%, down from –3.7% in 2014, (transaction-based, i. e. excluding the effects of the exchange rate and the write-off of placements). Domestic enterprises' long-term financing costs decreased in the second half of the year, while interest rates on short-term corporate loans increased slightly in the same period relative to the first half of the year. The dominant effect on domestic lending activity came from the debt overhang of certain corporate sector segments and the associated need for deleveraging (for more on the estimation of the debt overhang of non-financial corporations see Box 2 Sustainability of debt of non-financial corporations), while the Bank Lending Survey results pointed to the increase in demand for loans and the easing of credit standards for granting loans in the second half of the year (Figure 7.4).

Figure 7.5 Placements to households

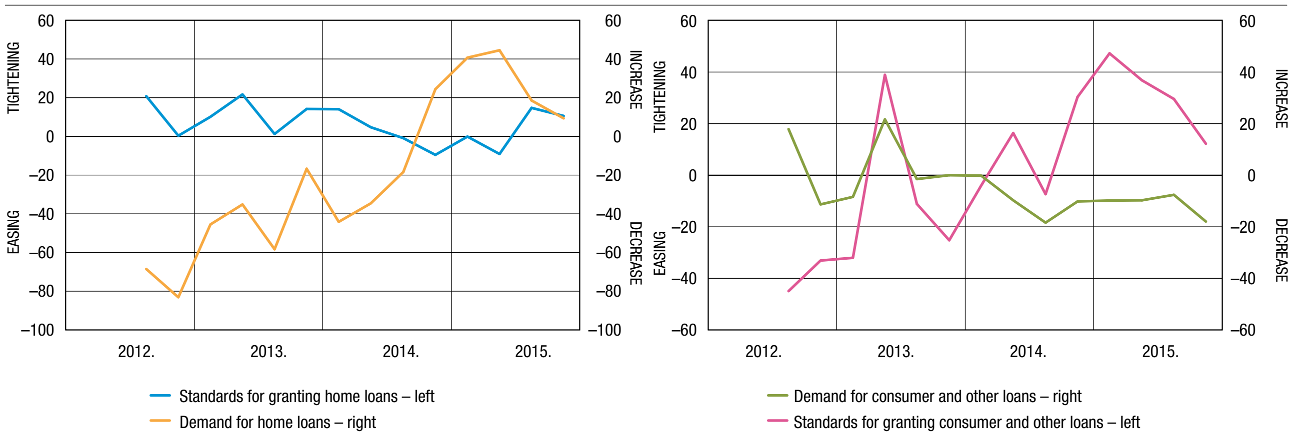



Source: CNB.

Household financing conditions in the domestic market were maintained at relatively more favourable levels in the second half of 2015 than in the first half of the year (Figure 7.1). The most significant decline was recorded in short-term loans, which was primarily the result of amendments to the Civil Obligations Act and the Consumer Credit Act by which the highest permissible effective interest rate on consumer credits was reduced from 11.0% to 10.14%. The decrease in the interest rates on new household loans was attributed to the reduction of the cost of funding in the form of the decline in the NRR or EURIBOR, which in addition to the fixed part are used to legally determine the level of interest rates (for more on the regulation of interest rates and the interest rate risk in the Republic of Croatia see Box 3 Interest rate risk in the Republic of Croatia). On the other hand, the average interest rate on newly granted home loans in the first five months of the second half of the year was the same as that in the first half of the year. Such developments were mostly attributed to the higher share of newly granted kuna loans with interest rates that are on average still maintained at higher levels than those on euro loans. Additionally, in December 2015, the average interest rate on home loans increased because of the conversion of loans indexed to the Swiss franc into euro loans. Interest rates on converted loans (which in the statistics on interest rates are recorded as newly contracted euro loans) are mostly higher than the current market interest rates, and they are determined by a special law. With this regard, the conversion of Swiss franc loans into euro loans, which started to a larger extent in December, raised the average interest rate on total newly contracted home loans in the month. At the same time, the conversion also led to the decrease in the average interest rate on total newly granted long-term household loans because the share of home loans (including converted loans) increased in total newly granted long-term loans, because, as a rule, interest rates on home loans are much lower than those on long-term non-home loans. If the effect from the conversion is excluded, the average interest rate on newly granted home loans recorded the lowest level in December 2015 because of the additional fall in the interest rate on home loans indexed to the euro.

The several-year trend of household deleveraging continued into the second half of 2015, when household loans

Figure 7.6 Standards for granting loans and household demand for loans




Note: Data represent the net percentage of banks weighted by the share in total loans to households.
Source: CNB.

decreased by HRK 1.4bn (Figure 7.5). The annual rate of decrease in placements in this sector remained around the level recorded in the previous years, standing at –1.7% (transaction-based) at the end of 2015. As with corporates, lending declined despite the increase in credit demand and the easing of the standards for granting loans, consumer and other household loans (Figure 7.6), while standards for home loans tightened in the second half of 2015 (which was the consequence of the change in the risk policy at the level of banking groups of large banks).

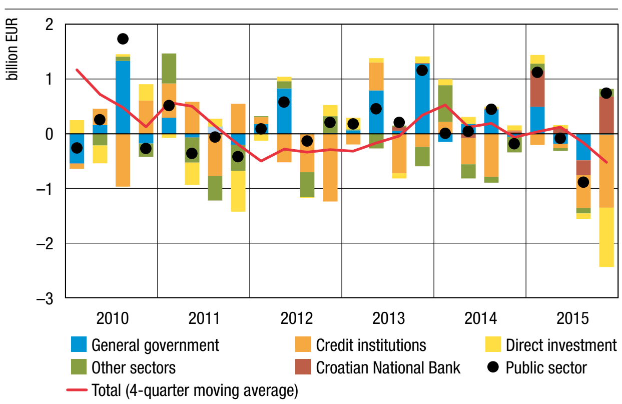
## 7.1 Capital flows between Croatia and foreign countries

In the second half of 2015, EUR 3.2bn in net foreign capital outflows was recorded in the financial account of the balance of payments, excluding the transactions of the central bank, which were more pronounced than in the same period of the previous year. This was the result of a marked improvement in the net debt position of domestic sectors, while highlighting a pronounced reduction in foreign liabilities of credit institutions, driven by the adjustments of currency positions of banks with the effects of write-off of a share of Swiss franc loans based on a special act. Consequently, relative indicators of gross and net external debt (expressed as a share in GDP) were more favourable than at the end of June 2015.

Net inflows from direct equity investments were more pronounced in the second half of the year than in the same period of 2014. A portion was related to investment inflows in the manufacture of tobacco products in the third quarter of 2015. However, the majority of equity investments in the fourth quarter involved recapitalisation and simultaneous repayments of debt to affiliated enterprises, which in fact looks like a transaction that transforms debt into equity. In addition, actual transactions of the transformation of debt of non-financial corporations into equity were recorded, although to a much smaller extent. If the above recapitalisation transactions are excluded, moderate net outflows of equity based on direct equity investments were recorded in the second half of 2015. The main reason for this were high negative reinvested earnings on the liabilities side, mostly as a consequence of the effects from the conversion of Swiss franc loans in the third quarter and, to a lesser extent, a value adjustment of long-term tangible assets of enterprises with their market value at the end of the year. In addition, negative values in reinvested earnings were also observed on the assets side, to the greatest extent also relating to value adjustments.

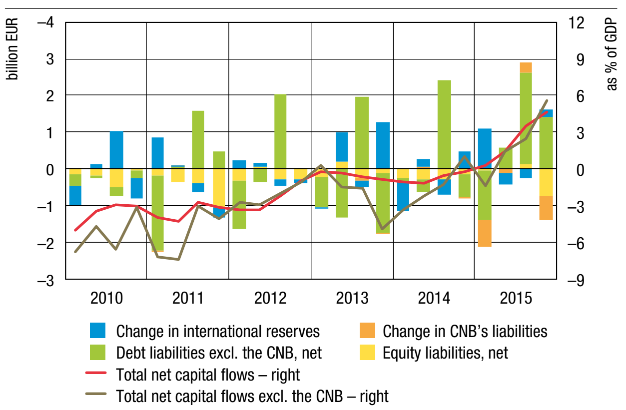
In the second half of 2015, after an increase in the first part of the year, the net debt liabilities of domestic sectors to foreign creditors declined by EUR 3.0bn. Such developments were marked by the sharp decrease in total liabilities, while a moderate fall in foreign assets had the opposite effect. An improvement in the net foreign position materialised at credit institutions, which deleveraged strongly, at the same time increasing foreign funds to a smaller extent. The deleveraging of banks was stronger than the usual seasonal deleveraging, due to the adjustments of currency positions of banks with the effects of the expected write-off of the share of Swiss franc loans. The drop in total net liabilities was also the consequence of the deleveraging of private corporations to affiliated creditors

Figure 7.8 Gross external debt transactions by sectors



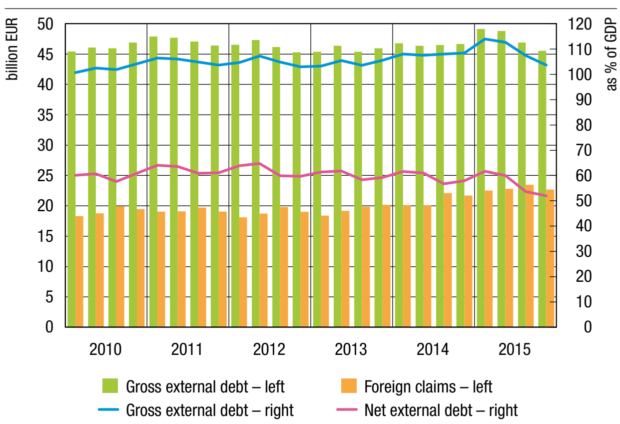

Note: Public sector includes the general government, the Croatian National Bank, public financial institutions (excl. CNB and CBRD) and public non-financial corporations. Total gross external debt includes the debt of the general government, the Croatian National Bank, credit institutions and other sectors and the debt on the basis of direct investment.
Source: CNB.

Figure 7.7 Financial account flows




Note: A positive value denotes net outflow of equity abroad (including on the basis of the growth in international reserves). Net liabilities represent the difference between the change in assets and the change in liabilities. Total net capital flow series are shown as a 4-quarter moving average.
Source: CNB.

Figure 7.9 Gross and net external debt




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

(the majority relating to the above mentioned transactions of the transformation of debt into equity). The net debt position of the government improved in the same period, primarily due to the decrease in long-term liabilities on the basis of debt securities and loans. By contrast, net foreign liabilities of other domestic sectors to non-affiliated creditors rose as a result of a reduction in foreign claims.

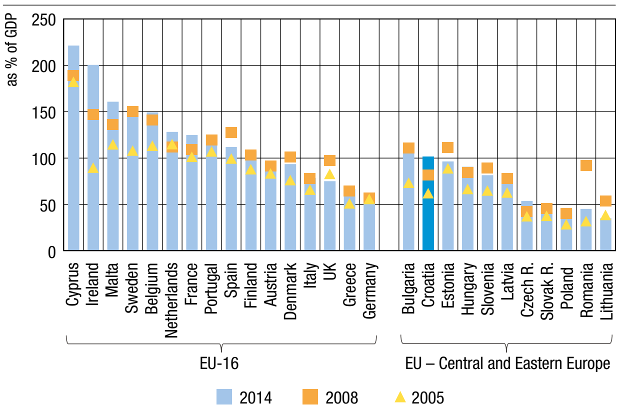
The net debt position of the central bank (cross-currency changes excluded) worsened in the second half of 2015 due to the increase in foreign liabilities and the fall in international reserves. The investment of a part of the reserves in repo agreements resulted in increases in CNB liabilities and assets in equal amounts. However, reserves were negatively affected by the decrease in the foreign exchange of the government deposited with the CNB and the foreign exchange intervention of the central bank, which resulted in a sale of EUR 268.3m to banks with a view of mitigating depreciation pressures on the kuna caused by the anticipated effects from the conversion of Swiss franc loans. At the end of December 2015, gross international reserves stood at EUR 13.7bn and were sufficient to cover 8.0 months of goods and services imports and 96.5% of short-term debt on a remaining maturity basis.

In the second half of 2015, total gross external debt declined by EUR 3.2bn (cross-currency changes and other adjustments excluded), following the increase in the first half of the year. This was largely the result of the previously mentioned strong deleveraging of banks and other domestic sectors to affiliated creditors. The government also reduced its gross external liabilities after raising the required funds in the first half of the year. Conversely, the central bank's gross debt growth was the consequence of the investment of a portion of international reserves in repo agreements, while debt of other domestic sectors to other creditors remained at the level from the end of June. In addition to transactions, favourable cross-currency changes (EUR 0.1bn) had an impact on the decrease in gross debt. At the end of 2015, gross external debt stood at EUR 45.5bn, or 103.7% of GDP. At the same time, net external debt decreased, standing at EUR 22.8bn or 52.0% of GDP at the end of December.

## Box 2 Sustainability of debt of non-financial corporations

*The assessment of the sustainability of debt of the sector of non-financial corporations in Croatia indicates that almost a third (32%) of corporate sector debt is excessive. In the event of the materialisation of the shock of an economic activity downturn and a rise in interest rates, the needs of the corporate sector for deleveraging would increase by over one fourth because of which 40% of the existing debt might become unsustainable. Excessive debt is concentrated in a small number of large enterprises, while small and medium-sized enterprises (SMEs) are considerably less indebted and have better debt sustainability indicators. In addition, enterprises that operate exclusively in the domestic market are more indebted and burdened with excessive debt than exporters. Among individual activities, enterprises in the construction activity and enterprises that provide services to the construction sector have the highest needs for deleveraging, followed by enterprises in electricity supply and accommodation and food service activities.*

Figure 7.10 Debt of the sector of non-financial corporations




Note: Debt includes loans and debt securities from non-consolidated financial accounts. Luxembourg (in which corporate debt stood at 346% of GDP in 2014) is not shown in the figure.
Source: Eurostat.

The high debt of the sector of non-financial corporations, and the accompanying need for deleveraging have a series of negative consequences for economic activity and financial stability. Excessive debt and deleveraging create pressures on the profitability of enterprises and make the recovery of the investment cycle more difficult because over-indebted enterprises cannot take advantage of potentially good investment opportunities. Moreover, excessive corporate debt hinders the reallocation of economic resources from enterprises with low productivity to lending to more productive and promising enterprises. Finally, excessive debt is also a risk for financial stability because of the difficulty of loan collection as well as increased corporate vulnerability to the shock of an increase in interest rates.

The high debt of Croatian enterprises, mostly accumulated during the expansive period of the business cycle, has become a heavy burden on their operations. Moreover, in contrast to most of the Central and Eastern European countries that carry a similar debt burden, only in Croatia there has been no deleveraging since the beginning of the crisis; instead, debt has actually increased since 2008. Thus total debt of non-financial corporations in Croatia now exceeds 100% of GDP, which means that the Croatian corporate sector is among the most indebted in Central and Eastern Europe (Figure 7.10). It is precisely the high indebtedness of the private sector and the related necessity for deleveraging that are frequently cited as the key limitations to a faster and stronger economic recovery. For this reason, the question is raised if and to what extent the existing corporate debt in Croatia is unsustainable and how much more deleveraging can be expected in the medium term.

There is no uniform approach to the assessment of corporate debt sustainability in the literature, but, most frequently, comparative methods based on relative indicators of debt and the debt servicing burden are used, in which the selected indicators are compared with other countries or with arbitrarily selected threshold values. The most frequent indicators of over-indebtedness include the share of corporate debt in GDP, total assets or equity.[5] These indicators, however, only point to the relative debt amount, but do not reveal whether debt is too heavy a burden for the future operations of enterprises, i. e. whether enterprises can repay that debt without a strain.

For the assessment of debt sustainability in this Box, the IMF[6] method is used, in which it is estimated what share of debt an enterprise can finance from its current operations. The method is based on the calculation of net free cash flow (NFCF) at the level of individual enterprises. NFCF is operating cash flow (before interest expense, capital expenditures and dividends, and is calculated as follows:

$$\begin{aligned} NFCF &= \text{Net free cash flow / Assets} = \\ &= \text{Operating cash flow before interest / Assets} - \\ &- \text{Interest expense / Debt} \times \text{Debt / Assets} - \\ &- \text{Capital expenditures / Assets} - \\ &- \text{Dividends / Assets} \end{aligned} \tag{1}$$

A positive NFCF value indicates that corporate debt is sustainable, i. e. that the enterprise can finance the cost of debt from its current operations. In contrast, if NFCF is negative, it means that the enterprise is unable to generate sufficient cash flow to finance the existing debt level (while retaining the existing level of capital investment and payment of dividends), i. e. that the company is over-indebted.

Corporate debt sustainability is assessed based on the projection of NFCF in the medium term (up until 2017). This is done so that operating cash flow before interest and interest expense are projected (the first two elements on the right side of the equation 1), while the other NFCF elements are kept unchanged at the levels of the latest available performance (for 2014). Keeping capital expenditures and dividends at the 2014 levels is considered suitable for the assessment of debt sustainability because it can be assumed that enterprises have reduced this type of expenditure significantly during several years of recession and that they have no more room for adjustment to improve the sustainability of their debt.

Operating cash flow is projected according to the estimation of the link between operating cash flow and real GDP movements for the period from 2005 to 2014 in the panel by enterprises. Rates of change in real GDP in years $t$ and $t-1$, in addition to the inclusion of time fixed effects by enterprise are used in the regression for explanatory variables. Then, using the coefficients estimated in this way, the movement of operating cash flow by enterprise up to 2017[7] is projected. Interest expenses are projected with the assumption that interest rates will remain at a very low level until 2017, i. e. approximately at the level of the average of the first nine months of 2015 and with the assumption of the retention of the corporate debt structure by sources of financing and by maturities at the 2014 levels[8].

The analysis is focused on those enterprises that initially have high debt, i. e. debt exceeding 30% of total corporate assets[9]. Highly indebted enterprises can be expected to be more exposed to the risk of default. For this reason, enterprises with a debt-to-assets ratio above 30% and a negatively projected value of net free cash flow ($NFCF_{2017} < 0$) are considered over-indebted. For over-indebted enterprises specified in this way, the sustainable level of their debt (i. e. the level at which $NFCF_{2017} = 0$) and the share of their debt that is excessive are estimated. The difference between the existing debt level and the sustainable debt level of over-indebted enterprises is the debt overhang. The debt overhang is the amount of the necessary deleveraging in the medium term.

The analysis is based on data from the balance sheets and profit and loss accounts of enterprises obtained from the Amadeus[10] database. The sample comprises 31,656 enterprises, accounting for about 62% of total corporate sector assets and 63% of total corporate debt[11]. The sample was obtained by excluding enterprises with fewer than two employees, enterprises with negative assets or assets equalling zero and enterprises with extreme indicator values, included in equation 1[12], from the total population of non-financial corporations. In the sample, 6,726 enterprises have high debt (debt-to-assets ratio above 30%), which is 21% of the total number of the enterprises in the sample, but they hold as much as 50% of total assets of the whole sample.

The assessment of debt sustainability shows that 2,132 enterprises have debt overhang, i. e. negative $NFCF_{2017}$, accounting for 7% of the total number of enterprises in the sample (or 19% of the total assets of the sample). Of the total debt of the enterprises in the sample, approximately one third of the debt (31.6%) is excessive (Figure 7.11). The 100 enterprises with the highest debt overhang hold as much as three quarters of the entire debt overhang of the sample. The results indicate that in the medium term corporate sector debt – under the assumption that enterprises with debt overhang reduce their debt, and other enterprises do not increase their debt-to-assets ratio – should decrease from 102% of GDP to about 70% of GDP to become sustainable.

In addition to the medium-term baseline scenario, an analysis

5 For a detailed overview of the methods and indicators of indebtedness see Bruggeman, A., and Ch. Van Nieuwenhuyze (2013): *Size and Dynamics of Debt Positions in Belgium and in the Euro Area*, NBB Economic Review, June.

6 IMF (2013): *Corporate Debt Sustainability in Europe*, World Economic Outlook, Washington, D. C., April.

7 The projected real GDP growth rates of 1.2% in 2015, 1.5% in 2016 and 1.8% in 2017 are used for this purpose.

8 The assumption is that enterprises have 41% of debt from domestic sources (predominantly loans) and 59% of debt from abroad (36% accounted for by loans of non-affiliated creditors, 18% by debt to affiliated enterprises and 5% are debt securities).

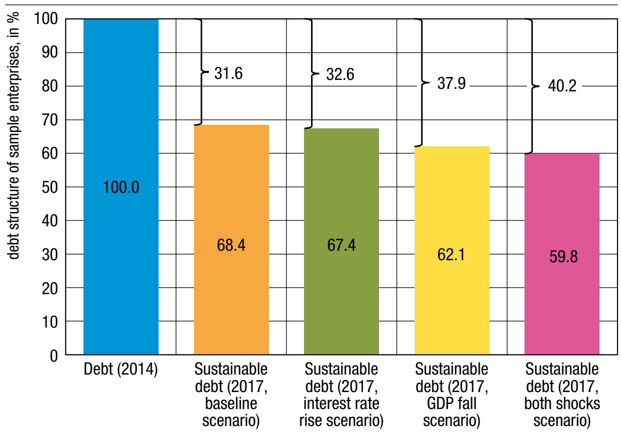
9 In its analysis of corporate debt sustainability in Europe, the IMF (2013) defined the corporate debt-to-assets threshold at 30% based on the then current levels of debt of the core EU countries and the pre-crisis levels of debt of EU peripheral countries. This level may also be considered a suitable threshold value for Croatia. The share of debt in corporate sector assets of 30% corresponds to the share of this debt in GDP of about 90% (calculated on the data from 2013); according to the assessment by Cecchetti et al. (2011), the threshold value of corporate debt above which it becomes detrimental for the economy, stands at about 90% of GDP.

10 The Amadeus database is compiled by *Bureau van Dyjk.* It contains data from financial reports of enterprises for all European countries. Interest expenses and data on exports that were not available in the Amadeus database were obtained from the annual databases of financial reports created by FINA.

11 Corporate sector debt from non-consolidated financial accounts compiled by the CNB.

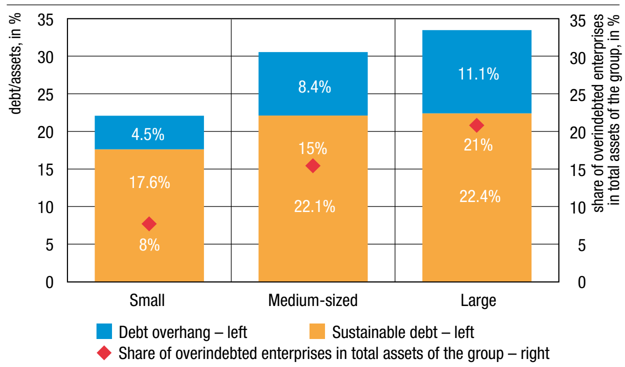
12 Extreme values are those values outside the range from the 2nd to 99th percentile and outside the range of "median ± 10 × interquartile range". Finally, non-financial corporations that according to the sector classification under ESA 2010 were classified under the government sector were excluded.

Figure 7.11 Corporate sector debt sustainability and needs for deleveraging



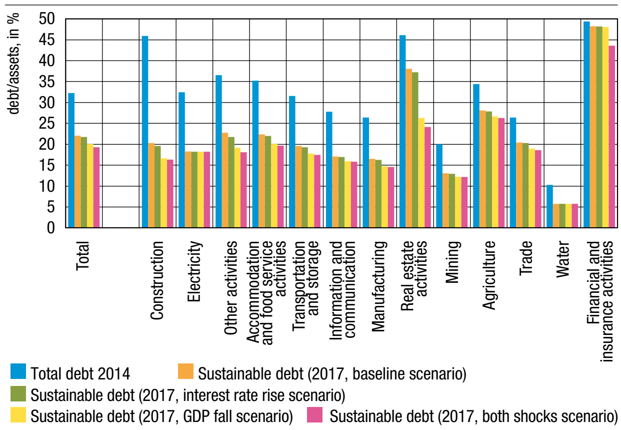

Note: The data next to the brackets show the needs for deleveraging, expressed as % of the debt of sample enterprises.
Sources: Amadeus and FINA.

Figure 7.13 Debt sustainability by the size of the enterprise



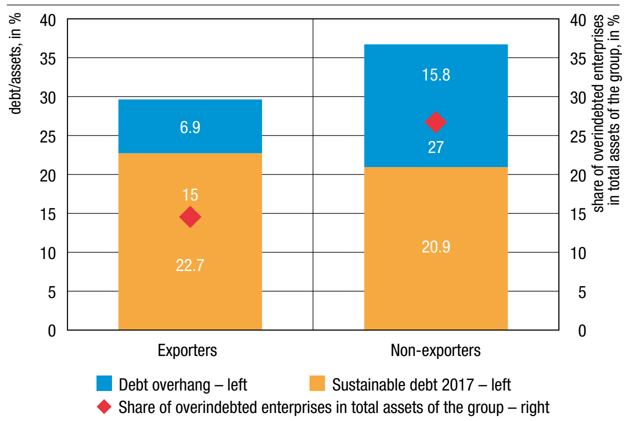

Note: The categorisation of enterprises by size was obtained from the Amadeus database. Large enterprises meet at least one of the following criteria: (a) operating income ≥ EUR 10m, (b) total assets ≥ EUR 20m, (c) number of employees ≥ 150. Medium-sized enterprises are those that meet at least one of the following criteria: (a) operating income ≥ EUR 1m, (b) total assets ≥ EUR 2m, (c) number of employees ≥ 15, and are not large.
Sources: Amadeus and FINA.

Figure 7.12 Corporate debt sustainability by activities




Note: Activities are ordered by the amount of the share of debt overhang in assets (under the baseline scenario).
Sources: Amadeus and FINA.

Figure 7.14 Corporate debt sustainability depending on participation in exports




Note: Data on exports by enterprises are obtained from the database of FINA for 2014.
Sources: Amadeus and FINA.

of sensitivity of corporate debt sustainability to different macroeconomic shocks was performed. The following effects were analysed: (a) the shock from the rise of interest rates by one percentage point annually, (b) the shock of decline in annual economic growth by 2.1 percentage points[13] relative to the baseline scenario and (c) the combination of both shocks. The sensitivity analysis shows that the shock of a rise in interest rates would increase the needs for deleveraging from 10.2% to 10.5% of the total assets of enterprises. The relatively moderate effect of the rise in interest rates on debt sustainability partially reflects the assumption that only that part of debt that is refinanced is subject to interest rate changes (the assumption is that about two thirds of domestic debt and one third of external debt[14] mature each year), which means that the effect might be even larger if the large share of the debt with variable interest rates is taken into account. On the other hand, the shock of the decline in real GDP would have a stronger effect on corporate debt sustainability. In the event of materialisation of the economic activity downturn scenario, 37.9% of total corporate debt would become excessive (relative to 31.6% in the baseline scenario). Finally, if both unfavourable shocks materialised (both the shock of the rise in interest rates and the shock of the decline in GDP), the sensitivity analysis shows that 40.2% of total corporate debt would become excessive, and the needs for deleveraging would increase to 13% of total corporate assets.

The analysis of debt sustainability by activities shows that the most severe pressures on deleveraging are still present in the construction sector (Figure 7.12). Despite several years of deleveraging,[15] this sector still has a very high debt level (over 45% of assets), and its profitability has been distorted because

13 In line with the assumptions from the stress test (Financial Stability, No. 15, CNB, July 2015).
14 For domestic debt, this is the share of loans that mature within the next 12 months in the total corporate lending of the banks, and for external debt, the share of short-term debt and long-term debt maturing within the next 12 months in total corporate debt (according to the data from end-2015).

of a continued decline in prices driven by weak demand for real estate and the surplus supply of real estate, which is then reflected in the high share of non-performing loans in total loans of domestic banks (33% at end-2014). In addition to construction, high needs for deleveraging are also observed in the sectors of electricity supply, accommodation and food service activities and other activities[16] (particularly enterprises from the sector of professional, scientific and technical activities, especially those that provide services to the construction sector). On the other hand, the financial services sector is to the largest extent able to service high debt thanks to a slightly higher profitability than in other sectors[17].

SMEs are considerably less indebted than other corporates and have a noticeably lower need for deleveraging than the rest of the sector (Figure 7.13). The share of debt in the assets of SMEs ranges around 22%, while in large enterprises debt exceeds 33% of their assets. These results indicate that smaller enterprises, despite their growth potential and a relatively low current level of debt, have a limited access to new financing because a large part of creditors' lending potential is tied up in large over-indebted enterprises.

The grouping of enterprises according to the criterion of participation in exports shows that exporters have a noticeably lower level of debt than non-exporters and that their debt overhang is significantly smaller (Figure 7.14). The average share of debt in assets in the group of exporters is below 30%, while it is 37% in the group of enterprises that do not export. In addition, there are significantly fewer over-indebted enterprises among exporters – over-indebted enterprises account for only 15% of total exporters' assets, while in the group of non-exporters the share of over-indebted enterprises is almost double (27%). With regard to the need for deleveraging, less than one fourth of debt in exporters has been assessed as excessive, while in non-exporters as much as 43% of debt is excessive. Larger debt sustainability in exporters may be linked to the fact that exporters are on average more profitable than non-exporters, so that they may easily finance a higher debt level from their current operations.

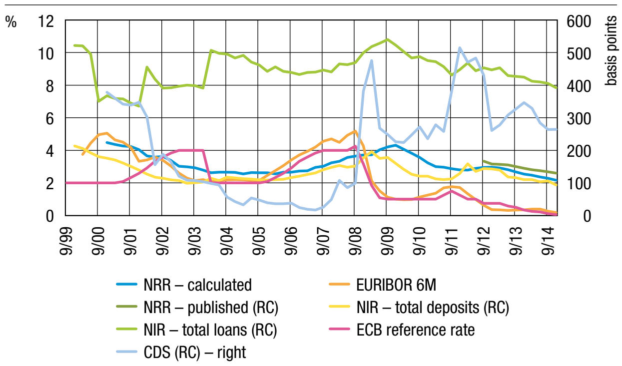
The results of this analysis confirm that the corporate sector will probably continue to be under pressure from the need to deleverage in the medium term, particularly those segments of the corporate sector that are most burdened by debt overhang. This points to the need for a proactive and coordinated action of economic policies to facilitate the process of deleveraging. Accordingly, the desired amendments to the regulatory and institutional framework should go in two directions – on one hand, to the stimulation of debt restructuring for promising enterprises, and on the other hand, to simplification of the liquidation process for those enterprises that would not be sustainable in the long term even with debt restructuring.

## Box 3 Interest rate risk in the Republic of Croatia

*While the Consumer Credit Act raised the degree of regulation and transparency of interest rates on loans to natural persons and introduced partial protection for clients against interest rate risk through the mechanism of legal limits on interest rates, bank clients that have loans with variable interest rates are still exposed to interest rate risk. In an environment characterised by extremely low interest rates for several years, it is clear that an increase in reference interest rates is to be expected in the future. The increase could adversely affect interest rates on loans and lead to the materialisation of interest rate risk for clients and, in the second step, interest rate-induced credit risk for banks. Therefore, it is necessary to pay special attention to interest rate risk, to which both clients and banks are exposed, and to examine the availability and price of certain instruments for hedging against interest rate risk.*

The regulation of loan interest rate variability began with the Consumer Credit Act adopted in 2009, while the 2013 amendments to the Act (Article 11 Information concerning the interest rate) further enhanced the transparency of the determination of interest rates, which have, since then, consisted of a reference rate and a fixed part. However, as the Act was adopted during the period of low reference rates, interest rates on household loans mostly consist of a fixed part. Consequently, any increase in current reference interest rates from their exceptionally low levels or a deterioration of the risk perception for Croatia could lead to a sharp increase in lending interest rates and a materialisation of interest rate risk for clients. In addition, any increase of the loan servicing burden will give rise in turn to the materialisation of credit risk for banks. In line with CNB models for

Figure 7.15 Trends in selected rates




Note: CDS is the credit default swap for the Republic of Croatia. The ECB reference rate is the reference rate of the European Central Bank. Nominal interest rates refer to newly-granted loans and deposits received by Croatian banks. (6M) EURIBOR is the reference interest rate at which banks lend funds to other banks in the European money market for a period of 6 months.
Sources: Bloomberg and CNB.

15 Loans of domestic banks to the construction sector decreased in the 2011-2014 period by about 15%.

16 Other activities, according to the NCA 2007 classification, include the following: professional, scientific and technical activities, administrative and support service activities, public administration and defence, compulsory social security, education, human health and social work activities, arts, entertainment and recreation and other service activities.

17 Financial services activity includes enterprises performing the activities of holding companies for affiliated non-financial corporations, i. e. having the role of their financial service provider.

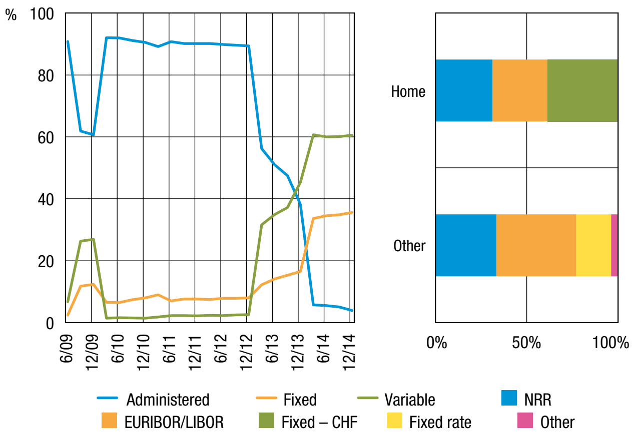
assessing household credit risk, a rise of two percentage points in interest rates on loans would trigger an increase of 0.3 percentage points in the share of non-performing loans in home loans and 3.2 percentage points in consumer loans. On the other hand, current circumstances are favourable for taking measures to hedge against interest rate risk in view of the relatively favourable price of instruments for hedging against interest rate risk. Although the simplest way to reduce interest rate risk for clients is to use loans with a fixed interest rate, such loans are usually initially more expensive and do not offer the positive effects of a possible decrease in the interest rate.

Over a longer period of time, both reference interest rates of central banks of major global economies and the market interest rates usually influenced by them exhibit significant oscillations. Since the onset of the global financial crisis and the related substantial slowdown in economic growth, reference interest rates of central banks and market interest rates have stood at their lowest levels to date. Until the escalation of the financial crisis in late 2008, lending interest rates in Croatia had displayed a downward trend, reflecting a relatively low risk premium, but also a relatively large share of home loans (which have a lower interest rate) in newly granted loans. Following the outbreak of the financial crisis, interest rates jumped, primarily as a result of an increase in the risk premium, which, in addition to exceptionally low reference rates, became the main determinant of interest rates in Croatia after 2009. An analysis of the average cost of sources of bank financing (excluding owner capital) shows that trends in banks' lending interest rates primarily follow the developments in deposit interest rate expenses (Figure 7.15). Trends in the average cost of bank financing correspond to movements in the national reference rate (NRR), which is calculated in the same manner, while nevertheless taking into account the currencies and maturity of bank liabilities.

In the period until 2013, administered interest rates were permissible under Croatian interest rate regulations, which allowed banks to change interest rates on existing loans depending on internal procedures. When the Consumer Credit Act was adopted in 2013, administered interest rates were replaced by variable interest rates, which the banks had to link to one of the following variable parameters: the NRR, EURIBOR, deposit rate or yield on MoF T-bills, increased by a fixed margin. At the same time, the share of loans with a fixed interest rate, which do not expose clients to interest rate risk, was negligible until 2013, when it began to increase gradually. The change is attributable to an increase in the consumer preference for such loans following the materialisation of interest rate risk during the crisis. After 2014, the proportion of such loans increased further due to the legal fixing of the interest rate on loans indexed to the Swiss franc (Consumer Credit Act, Official Gazette 143/2013) at 3.23% (Figure 7.16).

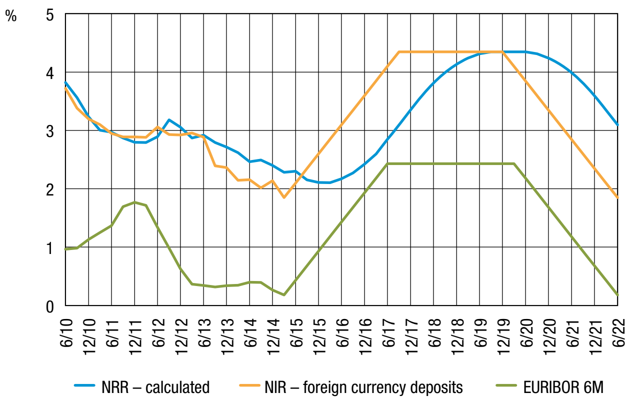
In the event of an increase in reference interest rates, households' debt servicing burden would spill over to loans linked to the NRR more slowly (with a lag of several quarters on average) than to those linked to the EURIBOR. Using the methodology for the calculation of the NRR[18], it is also possible to simulate its future developments in the event of nominal deposit interest rate growth and compare it with a simulated increase of the EURIBOR (Figure 7.17). Such an approximation demonstrates that the NRR as a reference rate reacts to EURIBOR changes with a certain lag for several reasons. First, the NRR is calculated

Figure 7.16 Structure of household loans according to interest rate variability (left) and the variable parameter at end-February 2015 (right)




Sources: Bank websites and CNB.

Figure 7.17 Trends in variable interest rates depending on trends in interest rates paid by banks




Note: The imagined interest rate growth of 0.25 percentage points has a quarterly duration of 8 quarters from the beginning of 2015, followed by a stagnation in interest rates for one year, and finally, a fall of 0.25 percentage points.
Source: CNB.

on the basis of previous data (e. g. its level in the May-August period is calculated according to the data from the first quarter). Furthermore, it is calculated on the basis of banks' costs which, in turn, depend on the average balance of liabilities and their average price. On the other hand, the EURIBOR would reflect an increase in reference interest rates within a much shorter period of time. Although the Consumer Credit Act does not expressly stipulate the term within which banks have to adjust their interest rates to a EURIBOR increase, banks usually adjust their lending interest rates to reference rates within a period of six months. Consequently, due to a slightly slower spillover of nominal deposit interest rates on the NRR relative to EURIBOR, lending interest rates on loans with the NRR as the reference rate would increase at a slower pace in the event of an increase in reference interest rates.[19]

However, an increase in bank deposit interest rates triggered by the rise in reference interest rates such as EURIBOR is not the only change that could influence the materialisation of interest

18 The methodology of NRR calculation is available at: http://www. hub. hr/sites/default/files/2015_metodologija_nrs.pdf.

Table 7.1 Advantages and disadvantages of the NRR and EURIBOR from the perspective of clients and banks

| CLIENTS' POSITION | |
|---|---|
| **NRR** | **EURIBOR** |
| **ADVANTAGES** | |
| Increases more slowly in the case of an overall deposit rate increase | Decreases faster in the case of an overall deposit rate decrease |
| Implicitly reflects the country's risk premium so that in case of its decrease interest rates on loans should be reduced | Unaffected by the possible increase in the risk premium for Croatia |
| **DISADVANTAGES** | |
| Decreases more slowly in the case of an overall deposit rate decrease | Increases faster in the case of an overall deposit rate increase |
| | Locks the currently high risk premium |
| **BANKS' POSITION** | |
| **ADVANTAGES** | |
| Decreases more slowly in the case of an interest rate decrease | Increases faster in the case of an interest rate increase |
| Reflects the banks' funding costs | Offers interest rate risk hedging options |
| Implicitly reflects the country's risk premium | |
| **DISADVANTAGES** | |
| Increases more slowly in the case of an interest rate increase | Decreases faster in the case of an interest rate decrease |
| Cannot easily be fixed | Does not reflect the cost of total bank liabilities |
| Aggregate indicators used in its calculation may not be favourable for some banks | |

Source: CNB.

rate risk. For example, if the EURIBOR remains at low levels and the risk premium for Croatia increases, interest rates on these two types of loans would exhibit divergent trends. Interest rates on loans linked to the EURIBOR would remain unchanged, as for such loans the country's risk premium is implicitly locked at the moment of loan approval, i. e. fixing of the margin. In case of loans linked to the NRR, interest rates would, with a certain lag, follow the increased cost of bank funding prompted by the raised country risk. On the other hand, should the risk premium for Croatia fall, the NRR would gradually decrease as a result of lower borrowing costs of banks. However, as the EURIBOR would remain the same, the banks could, but would not have to, lower the borrowing costs for their clients by reducing margins. Since the Consumer Credit Act prohibits the increase of margins once they have been lowered, banks could hesitate to lower fixed margins even in favourable market conditions.

The difference between variable parameters NRR and EURIBOR is also due to the specific moment of transition to new regulations which stipulate the distinction between the fixed and the variable part of the interest rate. In late 2015, average euro home loans linked to the NRR had a variable part of around 1.9 percentage points and a fixed part of around 3.7 percentage points. On the other hand, the variable and the fixed interest rate part of loans linked to the EURIBOR hovered around 0 percentage points and 5.6 percentage points respectively. Therefore, euro home loans linked to the EURIBOR have an interest rate almost entirely made of the fixed part. Banks may influence the fixed part through their internal procedures, but are not required to do so under the Act.

Slow reaction in the context of interest rate increase, irrespective of the reference rate, may also result from the rules on the maximum allowed level of interest rates in line with the Consumer Credit Act. As the Act defines the maximum nominal interest rates on household loans as a function of the average weighted rate on loans of all banks, it is evident that the distribution of interest rates among banks may affect their ability to raise the interest rate[20]. In this way, banks with higher average interest rates have less room to raise lending rates, which may cause a temporary substantial decline in their interest margins. However, if interest rates rise, the averages defining maximum interest rates will also grow gradually, making the distribution effect only temporary. Therefore, in the event of significant interest rate growth, the restrictions would not affect all clients equally; the manner of adjustment would rather depend on the client's position in the distribution of interest rate level, making the interest rate increase at a slightly slower pace for clients of banks that are closer to the legally allowed interest rate maximum.

Advantages and disadvantages of the NRR and EURIBOR as reference interest rates from the perspective of clients and banks are summarised in Table 7.1.

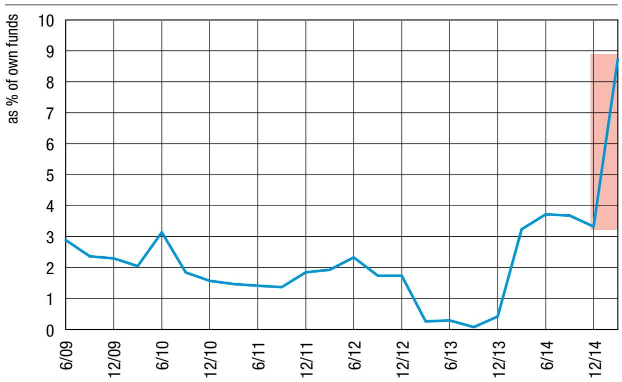
Even though the amendments to the Consumer Credit Act increased the transparency of interest rate structure from the clients' perspective, interest rates may still be influenced by the banks' decisions, particularly in the case of loans for which the variable parameter is the EURIBOR, where the interest rate consists almost entirely of a fixed part.

From the banks' point of view, interest rate risk is manifested both directly and indirectly, i. e. through potential losses the banks may suffer due to interest rate risk in their balance sheets, or through the credit risk they are exposed to on account of their clients' interest rate risk. The Decision on the management of interest rate risk stipulates that banks have to regularly assess the interest rate risk in the non-trading book based on the assumed increase in interest rates of 2 percentage points for all maturities. At the end of 2015, the loss the banks would suffer in the event of such a shock stood at around 1.2% of total own funds. However, the actual interest rate risk faced by the banks is in fact larger because the aforementioned method of interest rate risk calculation assumes that all concluded agreements will remain unchanged, i. e. it is assumed that, in the case of a sharp growth in interest rates, all deposit agreements will continue to be fulfilled under the previously arranged lower interest rates. However, in reality a substantial amount of deposits would be withdrawn and then again placed as fixed-term in order to earn a higher interest rate. It is important to note that, besides the

19 The stabilisation role of the NRR primarily derives from the fact that newly received bank deposits account for a relatively small share in the banks' total liabilities, which is why nominal interest rates increase with a time lag. However, a substantial deposit rate increase may result in an early withdrawal of existing deposits with a view to achieving a higher interest rate. In this case, the spillover of nominal deposit rates to a higher NRR, and, subsequently, to interest rates on loans linked to the NRR, will be much faster.

20 For instance, the interest rate must not exceed the average interest rate by one third for home loans, or by one half in the case of consumer loans.

Figure 7.18 Interest rate risk in the non-trading book




Note: The red area marks the effect of a simulated conversion of all household loans with a variable interest rate to loans with a fixed interest rate.
Source: CNB.

interest rate risk in the non-trading book, a part of the interest rate risk and the hedge against interest rate risk from the non-trading book are also contained in the trading book covered by capital requirements, rendering the full quantification of interest rate risk impossible for the time being due to that effect as well. The mentioned part of interest rate risk is governed by the CRD IV package and is subject to SREP.

All of the above indicates that the interest rate risk in the system is currently impossible to measure precisely, but the actual effect of a shock caused by a parallel increase in the overall level of interest rates of 2 percentage points would currently most probably exceed the 1.2% of own funds shown in Figure 7.18. In addition, interest rate shock may actually materialise through the increased steepening of the yield curve, which would aggravate the negative impact on banks in view of the existing maturities of assets and liabilities. Finally, due to the provisions of the Consumer Credit Act regarding the distribution of lending interest rates by loans, banks would not be able to compensate for the increase in interest rate expenses within such a short period of time.

It should be noted that the risk cannot be reduced but only redistributed among market participants, which implies that the reduction of the interest rate risk for households would raise the interest rate risk for the other part of the system, i. e. banks. Banks might react to such an increase either by hedging against the risk on the international markets or by retaining it in the non-trading book. The current exposure of banks to interest rate risk in the non-trading book stands around 1.2% of own funds, but it would grow to around 9.3% if banks assumed the entire interest rate risk should all household loans be converted to loans with a fixed interest rate (Figure 7.18).

To sum up, the currently low interest rates and the formal abolition of administered interest rates failed to eliminate interest rate risk. Nevertheless, today all banks offer loans with fixed interest rates, and some even offer specific instruments for hedging against interest rate risk.

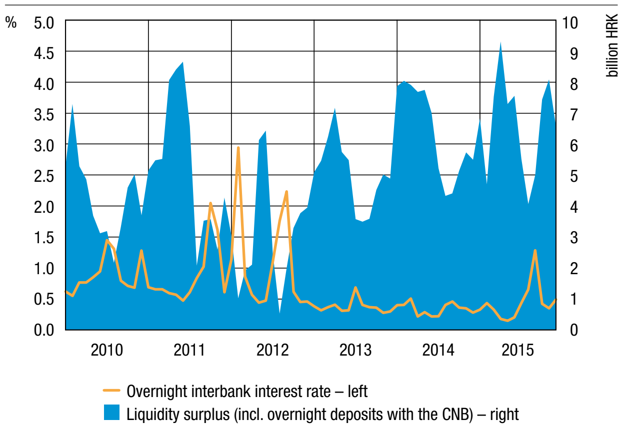
# 8 Monetary policy

In the second half of 2015, the CNB continued to pursue an expansionary monetary policy, keeping at the same time the stability of the exchange rate of the kuna against the euro. Using a line of connected measures, the central bank increased monetary system liquidity, easing the pressures on the foreign exchange and money markets that emerged in the second half of September due to the adoption of legislative changes regulating the conversion and a partial write-off of loans with a currency clause in Swiss francs (for more details on loans in Swiss francs and legislative measures, see Box 4 Swiss franc loans). At the beginning of October, the CNB revoked compulsory CNB bills, thus releasing HRK 3.4bn. On 30 September, the central bank also started conducting regular weekly reverse repo operations again. After the fixed repo rate was cut from the initial 0.8% to 0.5% at the November 11 auction, the average daily balance of weekly reverse repo operations in the last quarter of 2015 stood at HRK 0.3bn. CNB measures led to an increase in surplus kuna liquidity which stood on average at HRK 6.1bn in the second half of 2015, compared to HRK 5.1bn in the same period of 2014. These measures were conducive to the reduction in the overnight interbank interest rate which stood on average at 0.49% in December, after reaching almost 2.0% in mid-September.

In the second half of 2015, the CNB sold net EUR 251.8m of foreign exchange at its foreign exchange auctions, thus withdrawing HRK 1.9bn in reserve money. A foreign exchange intervention was conducted towards the end of September 2015 for the purpose of adjusting the currency position of the banks. Namely, as a result of the recording of the cost of the expected write-off of a share of Swiss franc loans in the process of their conversion against capital, the banks started purchasing foreign exchange on the market with the aim of adjusting total foreign assets and liabilities. On 30 September[21], the CNB sold to the banks EUR 268.3m, withdrawing HRK 2.0bn from the market. By contrast, in the second half of 2015 it continued to purchase foreign exchange from the government, purchasing a total of EUR 158.7m during that period and selling EUR 142.2m at the same time to the European Commission. Thus, observed from the beginning of the year, the CNB purchased at all its foreign exchange transactions net EUR 167.9m of foreign exchange in 2015, creating HRK 1.2bn in reserve money.

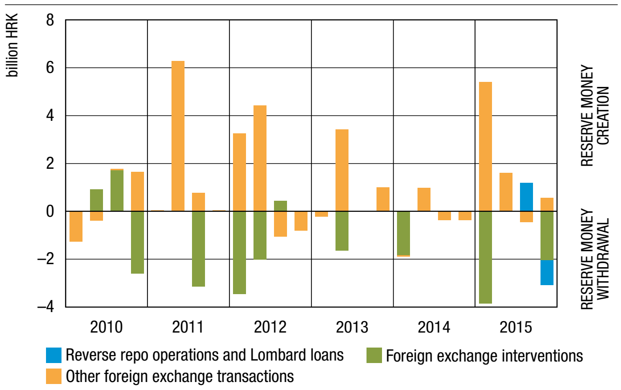
The nominal exchange rate of the kuna against the euro, influenced by seasonal developments throughout a major part of the third quarter, held steady at slightly lower levels than in the first half of the year. However, the kuna weakened against the euro in the second half of September, pushing up the exchange rate level in the last quarter, with increased fluctuations, from the previous three months' level. Nevertheless,

Figure 8.1 Bank liquidity and overnight interbank interest rate



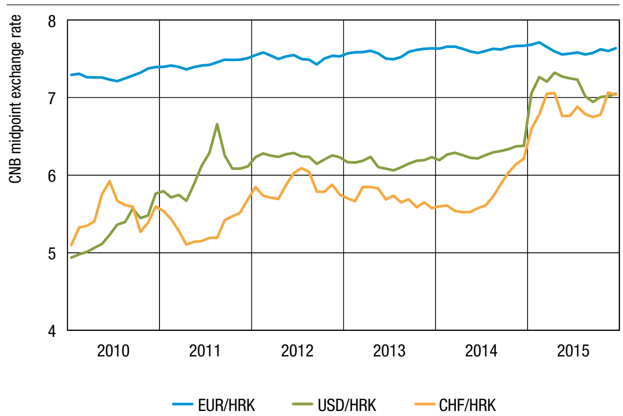

Source: CNB.

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.

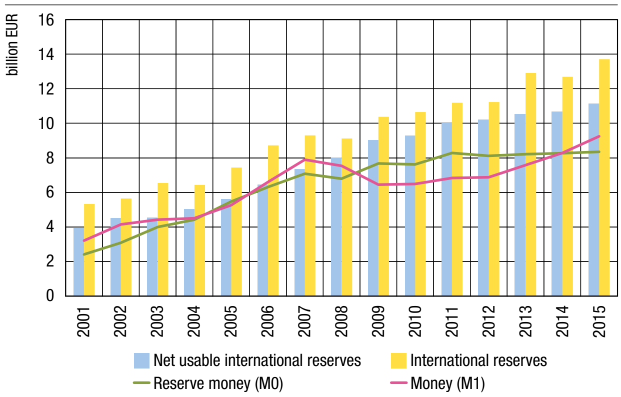
Figure 8.3 Nominal exchange rates of the kuna against selected currencies




Source: CNB.

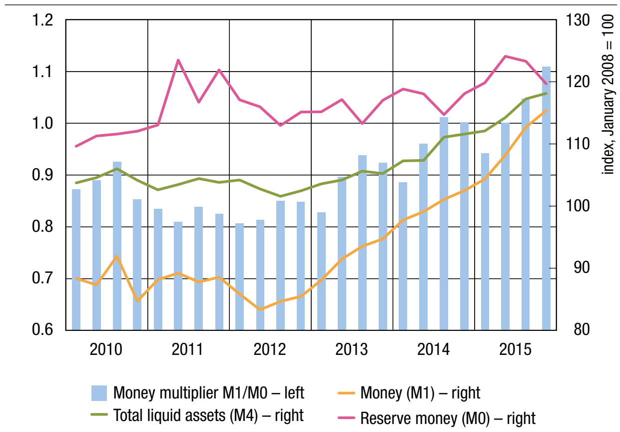
21 Since foreign exchange interventions are settled two working days after the day they are conducted, which in this case was 30 September, this transaction influenced reserve money and the level of liquidity in early October, as shown in Figure 8.2.

Figure 8.4 International reserves of the CNB and monetary aggregates




Note: Net usable international reserves are defined as international reserves net of foreign liabilities of the CNB, reserve requirements in f/c, government foreign currency deposits and off-balance sheet liabilities (swaps). The most recent data available for M1 refers to end-October 2015.
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.

the average exchange rate in the second half of 2015 stood at EUR/HRK 7.59, a decrease of 0.6% from its average during the same period of 2014. The exchange rate of the kuna against the Swiss franc held steady in the second half of 2015, at much higher levels than in 2014. Still, the Swiss franc weakened slightly from the first half of 2015. The American dollar, after having weakened seasonally, strengthened again against the kuna in the fourth quarter, reflecting the strengthening of the American dollar against the euro on the global foreign exchange markets due to expectations of diverging Fed and ECB monetary policies.

At the end of 2015, gross international reserves remained almost unchanged compared to their mid-year balance, but rose by EUR 1.0bn or 8.0% from the end of 2014. Their growth was mostly due to investment of a part of the international reserves in repo agreements, which resulted in a simultaneous increase in gross reserves and foreign liabilities of the CNB, and, to a lesser extent, due to the strengthening of the American dollar and net purchases of foreign exchange. Net usable international reserves rose moderately, by EUR 0.5bn or 4.4% at the end of 2015 from the end of 2014, also due to positive exchange rate differences and total foreign exchange transactions. Net usable international reserves fell by EUR 0.2bn (1.7%) in the second half of 2015, from the end of the first half of 2015 due to the net sale of foreign exchange by the CNB. Towards the end of 2015, gross and net international reserves remained considerably higher than the narrowest monetary aggregates M0 and M1.

In the conditions of subdued inflation, the real values of money (M1) and total liquid assets (M4) continued to trend upwards into the second half of the year. The increased propensity of domestic sectors, most notably households, to hold more liquid forms of assets, in the conditions of falling deposit interest rates, contributed to the real growth in the narrower monetary aggregate (M1). Considerable inflows from the tourist season and foreign investments also fuelled the growth in the real value of the broadest monetary aggregate (M4). The real value of reserve money fell in the second part of 2015 due to the net sale of foreign currency and liquidity outflows to government kuna deposits with the CNB, while on the entire year level, it rose nominally by HRK 0.4bn or 0.7%.

## Box 4 Swiss franc loans[22]

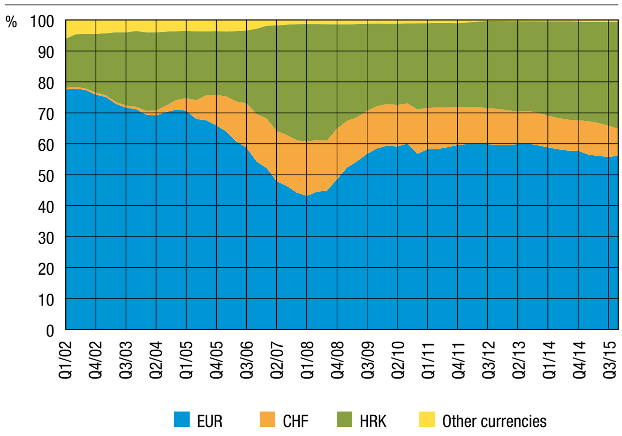
*The conversion of Swiss franc loans to euro loans began towards the end of 2015 on the basis of the act adopted in late September 2015. The CNB supervises the implementation of the act and the process of loan conversion and has taken a number of measures on the basis of that supervision. The loan conversion created a cost for banks of about HRK 7.3bn, while the debt of households is to be reduced by the same amount once the conversion process is finished. Notwithstanding the reduction in the capital adequacy ratio, the banking system has remained well capitalised thanks to previously created reserves. Nevertheless, the adoption and implementation of these measures also includes legal risk.*

Swiss franc loans started to grow more vigorously after 2004 and peaked in 2005-2007, when almost 90% of individual Swiss franc home loans were granted (Figure 8.6). The total amount of Swiss franc home loans granted after 2000 stood at HRK 28bn, while the total number of individual Swiss franc home loans granted was 73,700; the average home loan in that currency amounted to approximately CHF 82,000 at a weighted nominal interest rate of 4.62% and with an initial maturity of 22 years.

The problems associated with Swiss franc loans started after 2007, when the burden of repayment increased as interest rates began to grow. However, the burden also increased for borrowers with euro loans, while it continued to be lower for debtors with Swiss franc loans. Interest rates on both Swiss franc and euro loans continued to grow through to the end of 2009. The CHF/EUR exchange rate was stable prior to the financial crisis

22 The term “Swiss franc loan” refers to a loan granted in or indexed to Swiss francs; the same applies to the term “euro loan”.

Figure 8.6 Currency structure of loans in Croatia




Source: CNB.

when the Swiss franc started to strengthen steadily against the euro and thus against the kuna. Later on, from the end of 2011 to the beginning of 2015, the CHF/HRK exchange rate was stable at around 6 kuna per franc owing to the decision of the Swiss national bank to set a cap of 1.2 on the exchange rate of the Swiss franc against the euro. However, when the Swiss national bank decided to abandon the Swiss franc-euro cap in early 2015, the Swiss franc appreciated abruptly against the euro and, in turn, against the kuna, which had the strongest impact on the rise in the repayment burden for debtors with Swiss franc loans.

In that period, a number of measures were taken in Croatia to alleviate the position of debtors with Swiss franc home loans.

1) Even before the escalation of the global financial crisis and appreciation of the Swiss franc against the kuna, some banks offered their clients the option to convert Swiss franc loans to euro or kuna loans, but these offers were received without enthusiasm.
2) The government, banks and the CNB took coordinated action in June and August 2011 to enable the clients to repay the loans at a fixed exchange rate of 5.8 kuna per franc, transferring the remaining debt to later maturity years. This offer generated a weak response from the debtors, with only 26 debtors with 35 loans accepting this option.
3) The Act on Amendments to the Consumer Credit Act entered into force in January 2014, fixing the interest rate on all Swiss franc home loans to 3.23%.
4) Due to a significant appreciation of the Swiss franc against the euro and, in turn, against the kuna, amendments were again made to the Consumer Credit Act, in mid-January 2015, providing for freezing the exchange rate for the annuities for Swiss franc home loans repaid regularly at 6.39 kuna per Swiss franc over the following year.

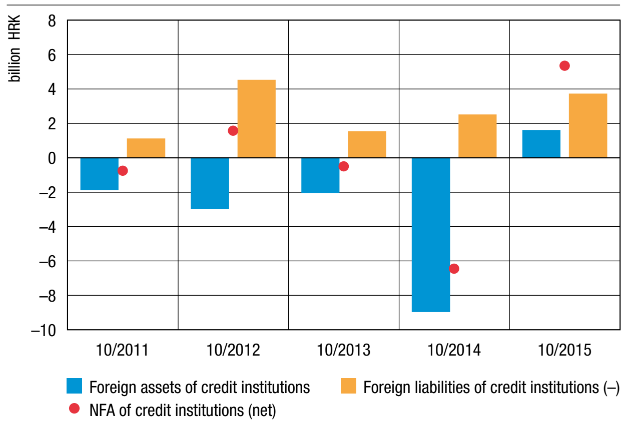
These measures eased the burden for debtors with Swiss franc loans, but the fixing of the interest rate on Swiss franc home loans at 3.23% decreased banks' interest income by some HRK 400m a year; fixing the CHF/HRK exchange rate at 6.39 reduced this income by another HRK 220m in 2015.

In addition, the Act on Amendments to the Consumer Credit Act, which entered into force on 30 September 2015, enabled all clients to convert their Swiss franc loans to euro loans, i. e. it provided for their equalisation by means of a retroactive application of euro interest rates and EUR/HRK exchange rates applied to comparable euro loans as well as a write-off of a part of the principal. The outstanding principal amount of home loans with a currency clause as at the date of the entry into force of the Act, 30 September 2015, stood at around HRK 17.9bn (including the effect of the depreciation of the kuna versus the Swiss franc), while the outstanding principal of other (non-home) Swiss franc loans amounted to around HRK 0.5bn.

The preliminary Ministry of Finance data on the conversion process as at the end of March 2016 show that around 54.7 thousand or 94% of the total number of conversion offers have been accepted and that some 90% of accepted offers have been effected. Out of the total number of contracts, 81% involved overpayment in relation to a comparable euro loan. Due to subsequent changes to contract annexes, some banks extended the period for accepting offers for conversion through to May 2016, while continuing to apply a fixed exchange rate.

The costs of the effect of legal changes related to the conversion of Swiss franc loans to euro loans according to preliminary MoF data stood at HRK 6.6bn at end-March 2016, while an additional cost of HRK 0.75bn was associated with loan overpayment, which totals HRK 7.3bn. A reduction of the overall capital adequacy ratio of the banking system stemming from the conversion was slightly over 3 percentage points from end-June 2015 to end-September 2015.

Figure 8.7 Change in net foreign assets of credit institutions in October (transactions in billion HRK)




Note: A positive value for a change in foreign liabilities of credit institutions represents deleveraging, i.e. a decrease in external debt.
Source: CNB.

The conversion process also led to a noticeable adjustment in the net foreign position of credit institutions. The banks anticipated the effect of a write-off of some Swiss franc loans on their currency position by increasing foreign assets and deleveraging abroad in October 2015 (Figure 8.7). As a result, there was no seasonal decline in net foreign assets of banks on a quarterly level.

While the total cost of conversion did not create immediate risk to the resilience of banks, which have remained well capitalised, the adoption and implementation of these measures involves also legal risk.

## CNB activities in the conversion process

Within the activities of supervising the implementation of the provisions of the Act on Amendments to the Consumer Credit Act (Official Gazette 102/2015, hereinafter: AACCA), which governs the conversion of Swiss franc loans, the CNB started communicating intensively with the banks concerned immediately on the adoption of the AACCA. After the elapse of 45 days from the entry into force of the AACCA, banks were, among other things, required to provide:

1) reports on the performance of all obligations associated with the conversion of Swiss franc loans;
2) draft annexes to loan contracts (to gain an insight and assess whether they contain disputable provisions);
3) a historical overview of interest rates applied in proposals for the conversion of Swiss franc loans;
4) additional detailed information from all the banks involved, as follows: about types and models of Swiss franc loans, conditions for their approval, conditions for interest rate reduction, exchange rates and terms for consumer groups of the same type, conditions for granting more favourable terms (lower interest rates, a more favourable exchange rate and other more favourable terms), nominal interest rates, collateral instruments etc., broken down by all years since the inception of such loans. At the same time, the banks were required to submit corresponding and similar information regarding euro loans granted in the same period, including banks' internal bylaws governing the rules applied to equalise the position of debtors with Swiss franc loans and debtors with euro loans – in order to assess the application of the provisions of Article 19. c, paragraph (1), item (2) and Article 19. e, paragraph (8) of the Consumer Credit Act.

Based on the documentation and information received from the banks, and in order to assess the AACCA application in the loan conversion process, the CNB communicated further with the banks – requiring additional explanations and, when deemed necessary, corrections of submitted documents and detected irregularities in reported bank actions.

Following the CNB's supervisory activities or in the course of such activities, as well as during intensive communication with the banks, the following was done after the entry into force of the AACCA:

1) in subsequent decisions, several banks excluded disputable provisions from draft annexes to loan contracts submitted and resubmitted amended annexes to clients – in this way 27,220 annexes were amended, offered and resubmitted to bank clients;
2) in subsequent decisions, two banks recalculated their conversions for all clients eligible for loan conversion (in the process of conversion it became evident that some banks applied a different approach to conversion, which was more favourable for their clients, and so the two banks subsequently decided to make a new calculation for their clients so as not to put them in a less favourable position than clients of other banks) – as a result, 6,954 new, or repeated, calculations were offered and submitted to clients of these banks;
3) in subsequent decisions, two banks made and submitted to clients conversion calculations for cancelled loan contracts where, on the date of the entry into force of relevant AACCA provisions, debtors' liabilities were not met or enforced – in this way 544 additional conversion calculations were made and offered to clients;
4) a subsequent conversion calculation was made in one bank for debtors for which an interest rate applied in loan conversion was the rate applicable to a corresponding euro loan on the date of loan approval and not the rate applicable on the date of approval of the loan being converted. In that bank, 400 new conversion calculations were made and offered to clients;
5) formal measures were taken against the banks in cases of detected illegalities in the implementation of the AACCA (reports on examination findings, decisions and minor offence proceedings) – the CNB issued five reports on examination findings and two decisions, and initiated three minor offence proceedings.

Parallel to the above activities and immediately after expiry of 45 days from the entry into force of the AACCA, consumers began to forward numerous complaints to the CNB. In the period from mid-November 2015 to the second half of April 2016, the CNB received 2,251 consumer complaints related exclusively to the conversion of loans denominated in or indexed to the Swiss franc. Out of that number, more than 1800 consumer complaints were received in the first month and a half, i. e. second half of November and December 2015.

Each complaint received was processed by CNB experts in such a way that, depending on the subject of the complaint, a response was sent directly to the consumer (if the complaint was associated with regulations so that the CNB response referred to the AACCA provisions relevant for the particular disputed behaviour of a bank) or the CNB forwarded complaints to the particular banks concerned and required them to respond to their clients and forward a copy of that response to the CNB (as a rule, such complaints were directly associated with bilateral contractual relations concerning which the CNB lacked all necessary information to assess the justification of a particular complaint). At CNB request, banks delivered regularly copies of responses to their clients' complaints. The responses provided additional information within the supervisory procedures that were initiated to establish the legality of bank behaviour in the application of AACCA provisions.

Bearing in mind the fact that the CNB does not address individual consumer complaints, the complaints received were broken down by banks to which they were addressed and by areas or topics.

The grounds and legal basis for complaints differed substantially depending on the period of their receipt by the CNB. In the first month, consumers complained mostly about non-observance of the prescribed time limit for submission of required documentation, unavailability of calculators to check calculations, unavailability of and contents of some published audit opinions and unavailability of historical overviews of interest rates and their changes. In view of the number of such complaints, the CNB, in line with its powers, warned the banks about their obligations under the AACCA and published its position on particular issues in the form of a press release on its website.

The second most important topic in that period related to complaints disputing particular provisions of draft annexes, i.e. annexes to loan conversion contracts, where the CNB warned the banks and issued a press release thereon on its website.

At the later stage, complaints related to the actions of banks which failed to provide conversion calculations and corresponding documentation related to previously cancelled loan contracts where, as at the date of the entry into force of the AACCA, debtors' liabilities were not met or enforced.

Later on, most complaints disputed the level of interest rates applied in the conversion, while a much smaller number of complaints related to other associated topics (application of different exchange rates in conversion, the choice of parameters for variability of the applied interest rate, time limit for signing annexes to loan contracts and for issuing letters of intent for the purpose of refinancing the converted loan by a loan from another bank, fees for early repayment of converted loans, etc.).

All disputed actions of banks were covered by supervisory activities of the CNB, whereby information from individual consumer complaints were also used to some extent. In view of CNB activities throughout the conversion process, numerous complaints were addressed in such a way that banks themselves decided to change disputed practices so as not to put their clients in a worse position than clients of other banks, while the CNB took appropriate measures within its competence in cases when particular illegalities were detected.

# 9 Public finance

A visible reduction in the general government deficit (ESA 2010 methodology) which marked the first six months of 2015 continued into the second half of last year as a result of growth in revenues and a fall in expenditures.[23] However, while revenue growth slowed down, the reduction in expenditures accelerated slightly.

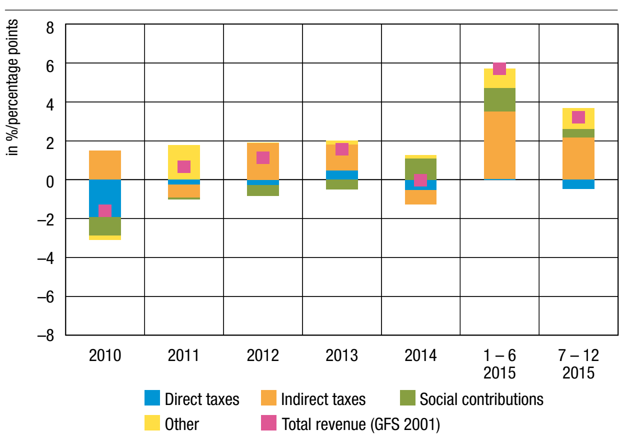
In the second half of the year, general government revenues rose by 3.2% from the same period of 2014. Revenues from indirect taxes again made the biggest contribution to total revenue growth, with the increase in revenues from VAT benefiting from growth in personal consumption and a good tourist season and the revenues from excise duties being also influenced by higher excise duties on cigarettes and refined petroleum products. Revenues from social contributions also continued to grow, due to favourable developments in the gross wage bill. Other revenues also made a big contribution to growth, particularly revenues from sales and capital revenues. The increase in revenues from sales was largely affected by one-off revenue from legalisation of residential facilities built without a permit, while capital revenues growth was spurred by greater absorption of EU funds. By contrast, revenues from direct taxes declined on an annual level. The fall in this item may be associated with changes in income taxation introduced in January 2015. The fall in direct taxes was largely mitigated by positive developments in revenues from profit tax.

General government expenditures fell from July to December 2015 by 1.1% on an annual level. The fall in total general government expenditures in the second half of the year was mostly due to a reduction in capital expenditures, particularly local government and public enterprises investments in road and railway infrastructure. Expenditures for employees and subsidies also fell. Expenditures for social benefits, the largest expenditure category in terms of their share, held steady, after having grown in the first half of the year. By contrast, interest expenditures and expenditures for intermediary consumption and other current transfers continued to rise sharply.

The rise in total revenues and the reduction in expenditures resulted in a further improvement in the consolidated general government balance in the second half of 2015, with the deficit standing at HRK 2.3bn compared to the HRK 5.5bn in the corresponding period in 2014. At the entire-2015 level, the general government deficit fell considerably from 2014, standing at HRK 10.7bn (3.2% of GDP) or HRK 7.4bn (2.3 percentage points of GDP) less than in 2014. However, the deficit was still above the ceiling envisaged by EU fiscal rules.

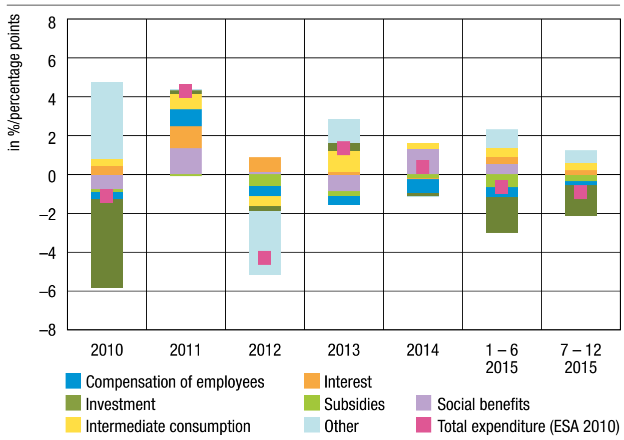
The general government debt continued to rise at a relatively slow pace in the second half of the year, reaching HRK

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



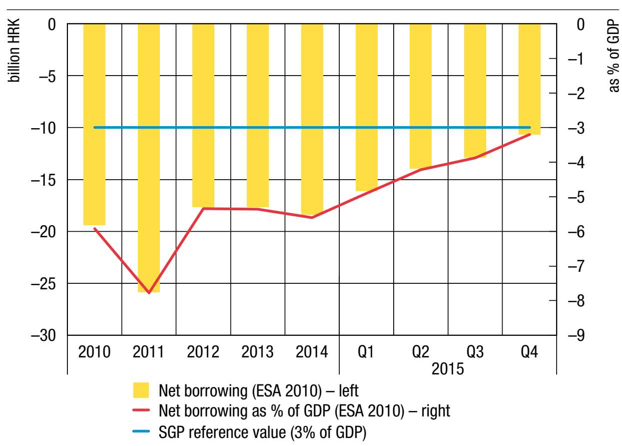

Note: Structural columns show the contributions of individual revenue categories to the change in total revenue.
Sources: Eurostat and CNB calculations.

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




Note: Structural columns show the contributions of individual expenditure categories to the change in total expenditure.
Sources: Eurostat and CNB calculations.

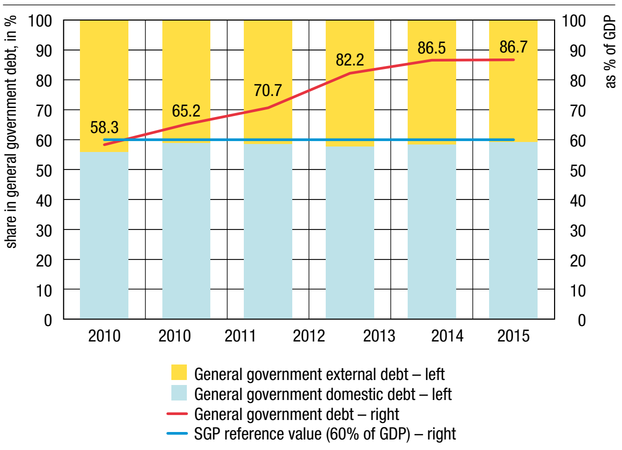
Figure 9.3 Consolidated general government balance (ESA 2010)




Note: Data for 2015 show 4-quarter moving averages.
SGP – Stability and Growth Pact
Sources: Eurostat and CNB calculations.

23 The new quarterly data for 2015 differ considerably from the previously published data for the first nine months of 2015. The difference between the general government deficit based on the old and the updated data is not so pronounced, but there are noticeable differences in individual revenue and expenditure categories, particularly capital expenditures, which are much smaller.

Figure 9.4 General government debt
end of period




Source: CNB.

289.6bn or 86.7% of GDP[24] at the end of 2015 which is much above the ceiling envisaged under the EU fiscal rules. Government financing benefited from exceptionally favourable financing conditions on the domestic and foreign financial markets and in July and December 2015, kuna domestic bonds worth HRK 6.0bn were issued. The bonds issued were 10 and 11 year bonds and they were issued at an interest rate averaging 4.375%, which is 1 percentage point below the interest on a similar feature bond issued the year before.

24 In the context of the April 2016 Excessive Deficit Procedure Report, the consolidated general government debt includes the debt of the enterprise BINA Istra d. d., as a result of which the level of debt in 2015 rose by 1.3% of GDP.

# 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 Manner of international reserves management

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 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 in 2015

In 2015, financial markets were marked by the lowest ever interest rate in euro area member states, by the start of monetary policy divergence between the Fed and the ECB and the growth in the value of the US dollar against the euro. Amid the conditions of low inflation and slow recovery of the euro area economy, the ECB launched its quantitative easing programme early in 2015, while the Fed raised its key interest rate at the end of the year. The expansionary monetary policy of the ECB led to additional decrease in bond market yields, so at the end of 2015 yields on almost a half of all issued government securities in euros were negative. Yields on safer euro investments were negative even for maturities of up to five years, while the average yield of all German bonds with maturities up to five

Table 10.1 Monthly changes in total and net CNB international reserves

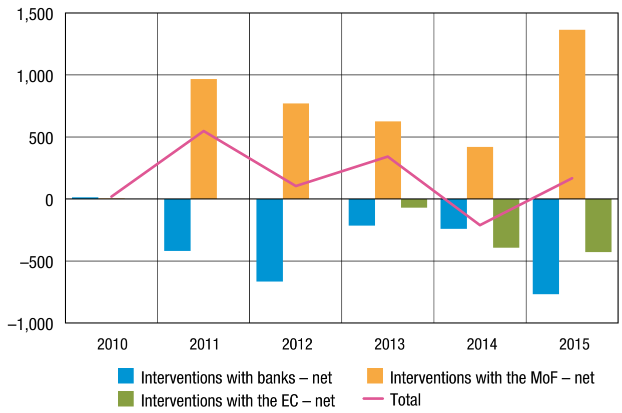
end of period, in million EUR

| 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 |
| July 2015 | 14,990.13 | 11,337.05 |
| August 2015 | 14,404.70 | 11,256.98 |
| September 2015 | 13,436.23 | 11,262.88 |
| October 2015 | 14,231.50 | 11,036.49 |
| November 2015 | 14,023.07 | 11,279.94 |
| December 2015 | 13,706.35 | 11,152.45 |
| Change Dec. 2015 – Dec. 2014 | 1,018.91 | 473.45 |

Source: CNB.

Figure 10.1 Foreign exchange interventions of the CNB with the banks, the EC and the MoF

in net amounts, from 2010 to 2015, in million EUR




| Year | Banks | MoF | EC | Total |
|---|---|---|---|---|
| 2010 | 13.60 | 5.91 | 0.00 | 19.51 |
| 2011 | –419.40 | 966.54 | 0.00 | 547.14 |
| 2012 | –666.30 | 770.21 | 0.00 | 103.91 |
| 2013 | –214.90 | 625.66 | –69.44 | 341.33 |
| 2014 | –240.20 | 420.63 | –392.22 | –211.79 |
| 2015 | –767.20 | 1,363.98 | –428.89 | 167.89 |

Source: CNB.

years totalled –0.30% at the end of the year. Additional insecurity in the market was caused by the devaluation of the Chinese currency and the influence of the slowdown in its economy on other developing markets and the decline in the price of oil. All this together gives rise to risk to the recovery of the global economy and contributes to exceptionally low market yields.

The total international reserves of the CNB as at 31 December 2015 stood at EUR 13,706.35m, an increase of EUR 1,018.91m or 8% 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 international reserves in 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 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 473.45m or 4.4% in 2015, from EUR 10,678.99m to EUR 11,152.45m in the first half of 2015.

### 10.2.1 Total CNB turnover in the foreign exchange market in 2015

In 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 1,364.04m and the total amount sold by the CNB stood at EUR 1,196.15m, resulting in a net purchase of EUR 167.89m. As a result, the sum of HRK 1,213.32m was put into circulation.

The amount of foreign currency sold to the banks stood at EUR 767.20m (the amount of EUR 326.20m was sold in January and of EUR 172.70m was sold in February and EUR 268.3m in October) during which time there were no foreign currency purchases from banks. The amount sold to the European Commission was EUR 428.89m.

In 2015, the CNB purchased EUR 1,364.04m from the MoF and sold EUR 0.06m.

Table 10.2 Total CNB turnover in the foreign exchange market, 1 January – 31 December 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 | 767.20 | 5,892.86 | –767.20 | –5,892.86 |
| European Commission | 0.00 | 0.00 | 428.89 | 3,270.60 | –428.89 | –3,270.60 |
| Ministry of Finance | 1,364.04 | 10,377.25 | 0.06 | 0.48 | 1,363.98 | 10,376.78 |
| Total | 1,364.04 | 10,377.25 | 1,196.15 | 9,163.94 | 167.89 | 1,213.32 |

Source: CNB.

## 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 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 lion's share of CNB foreign currency portfolios is invested in government securities of selected countries, collateralised deposits and instruments issued by international financial institutions and central banks.

Compared with end-December 2014, there was an increase in the share of investments in reverse repo agreements and deposits with central banks and international financial institutions. By contrast, there was a decrease in the share of investments in deposits with banks, government bonds, securities of international financial institutions, securities guaranteed by German federal states and covered bonds.

The change in the structure of investments in 2015 was stimulated by the reduction in the credit exposure to banks, that is, by the withdrawal of unhedged deposits with commercial banks and redirecting of investments into reverse repo agreements (collateralised deposits) with banks.

The Reserves and Advisory Management Program (RAMP) was launched early in April, within which a share of funds in US dollars was entrusted to the World Bank.

On the last day of 2015, approximately 62% of total CNB international reserves were invested in countries, banks and institutions within the two highest credit rating categories or invested in the BIS and the IMF or in foreign cash in the CNB vault.

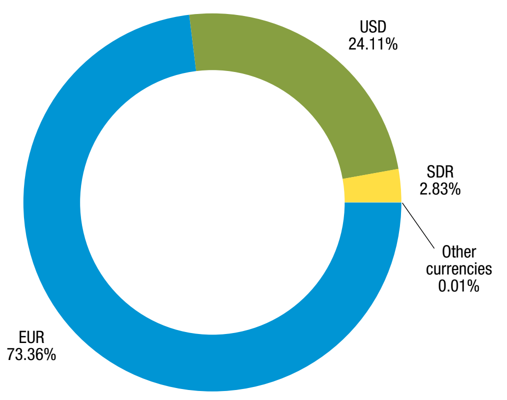
Table 10.3 Structure of international reserves investment as at 31 December 2015

in %

| Investment | 31 December 2015 | | 31 December 2014 | |
|---|---|---|---|---|
| | Net reserves | Total reserves | Net reserves | Total reserves |
| 1 Countries | | | | |
| Government bonds | 68.77 | 55.95 | 73.38 | 61.76 |
| Reverse repo agreements | 10.07 | 21.25 | 0.00 | 4.54 |
| Central banks | 6.66 | 5.98 | 4.04 | 3.56 |
| Covered bonds | 0.92 | 0.75 | 1.21 | 1.02 |
| 2 International financial institutions | | | | |
| Deposits | 0.80 | 5.66 | 0.31 | 3.13 |
| Securities | 5.18 | 4.22 | 6.57 | 5.53 |
| Reverse repo agreements | 4.45 | 3.62 | 1.03 | 0.93 |
| RAMP | 1.64 | 1.34 | 0.00 | 0.00 |
| 3 Banks | | | | |
| Deposits | 0.42 | 0.35 | 11.50 | 17.49 |
| Securities[a] | 1.09 | 0.88 | 1.97 | 2.04 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 |

[a] Refers to securities guaranteed by German federal states.
Source: CNB.

Figure 10.2 Currency structure of total international reserves as at 31 December 2015




Source: CNB.

## 10.4 Currency structure of international reserves

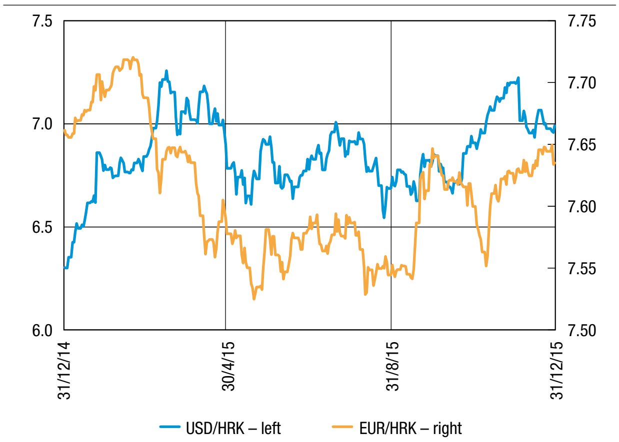
As at 31 December 2015, the euro accounted for 73.06% of the total international reserves, a decline from the 79.83% at the end of 2014. The share of the American dollar in total international reserves that stood at 17.29% at the end of 2014 had risen to 24.11% by the end of December 2015. In 2015, the US dollar strengthened against the euro by 11.33%.

The share of SDRs also dropped, from 2.87% to 2.83% 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 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

Figure 10.3 Daily changes in USD/HRK and EUR/HRK exchange rates in 2015




Source: CNB.

of international reserves in their assets. As at 31 December 2015, the share of total international reserves in CNB assets was as high as 99.84%, 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.

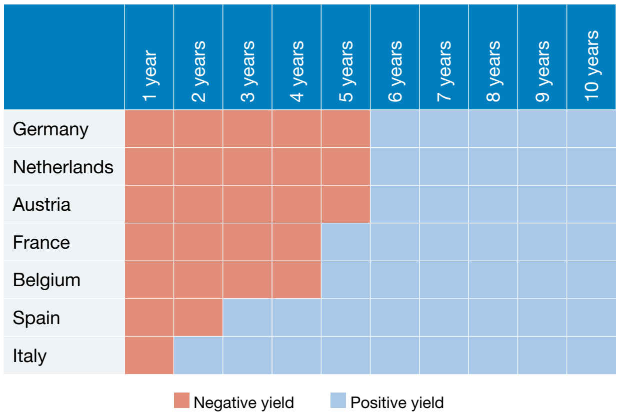
In 2015, the EUR/HRK exchange rate fell from 7.661 to 7.635 (–0.34%), with the result that unrealised foreign exchange losses on the CNB euro portfolio totalled HRK –192m. The US dollar strengthened in relation to the kuna from 6.302 to 6.992 in the same period or by as much as 10.94%. As a result, unrealised foreign exchange gains on the US dollar portfolio totalled HRK 1,740m in 2015. Realised foreign exchange gains arising from interventions of the CNB were HRK 39m in the reporting period.

As a result of fluctuations in the EUR/HRK and USD/HRK exchange rates and realised foreign exchange gains resulting from the CNB interventions, net foreign exchange gains totalled HRK 1.587m in the reference period. Unrealised foreign exchange gains are transferred to general reserves of the central bank and serve, among other things, as reserves for possible future unfavourable developments in the exchange rates of the currencies of international reserves.

## 10.6 Results and analysis of CNB foreign currency portfolio management in 2015

At its meeting on 3 December 2015, the European Central Bank additionally eased its monetary policy in the euro area. The interest rate on the ECB's deposit facility was lowered from –0.20% to –0.30%, while the bond purchase programme was extended another six months until March 2017. The expansionary monetary policy led to a decrease in bond market yields in the euro area, so at the end of 2015 yields on almost a half of all issued government securities in euros were negative.

Figure 10.4 Yields on euro government bonds of selected countries by years to maturity
as at 31 December 2015




Source: Bloomberg.

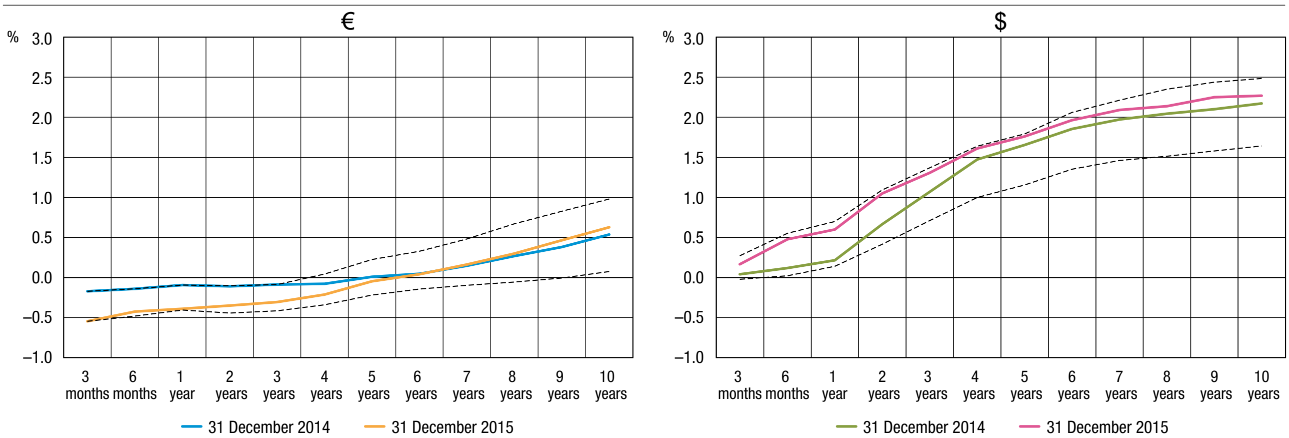
At the Federal Open Market Committee (FOMC) meeting of the American Federal Reserve on 16 December 2015 the key overnight rate was raised by 25 basis points, ranging between 0.25% to 0.50% thereafter.

German government bond yields moved further down in 2015 from the end of 2014 in the part of the yield relating to maturities of up to six years, while it went up mildly in the part relating to maturities of seven to ten years. On the last day of 2015, the German yield curve was in the negative territory for all maturities of up to five years.

Yields on US government bonds increased in 2015 across the entire maturities spectrum. This yield growth was more pronounced in relation to bonds with shorter maturities due to the increase in the key rate, while deflationary pressures subdued the growth of yields on bonds with longer maturities.

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).

Figure 10.5 German and American yield curves as at 31 December 2014 and 31 December 2015 and their spread in 2015




Source: Bloomberg.

Table 10.4 Realised income and rates of return on the CNB foreign currency portfolios
in million EUR and USD and %

| Portfolio | Realised income | Annual rate of return | | | | | |
|---|---|---|---|---|---|---|---|
| | 2015 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Held-for-trading euro portfolio | –0.12 | 1.09% | 1.36% | 0.30% | 0.01% | 0.42% | 0.00% |
| Held-for-trading dollar portfolio | 6.56 | 0.67% | 0.56% | 0.35% | 0.14% | 0.24% | 0.25% |
| Held-to-maturity euro portfolio | 67.15 | – | 2.31%[a] | 2.31% | 2.27% | 2.06% | 1.44% |
| RAMP | 0.22 | – | – | – | – | – | 0.15%[b] |

[a] Effect in the period from 23 May 2011 to 31 December 2011, on annual basis.
[b] Effect in the period from 31 March 2015 to 31 December 2015, on annual basis.
Source: CNB.

In 2015, the annual rate of return on the CNB dollar-denominated held-for-trading portfolio was 0.25%, while the rate of return on the euro-denominated held-for-trading portfolio was 0.00%. 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 1.44% in 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. In the period from 31 March to 31 December 2015, the RAMP portfolio realised a rate of return of 0.15% in annual terms.

Investments in net international reserves generated a total income of EUR 73.03m in 2015.

# 11 Business operations of credit institutions

In 2015, bank assets went down slightly, by 0.4% (or 1.2% effectively, excluding the exchange rate effects), continuing the trends from the previous three years. The absence of credit growth and bank deleveraging contributed to the decline in the balance sheet, as did regulations pertaining to loans in Swiss francs, which ultimately resulted in operating losses and a write-off of a part of the principal of loans in the Swiss franc. An additional influence came from the sale of irrecoverable claims, as a result of which, after an unfavourable trend that had lasted several years, the level of partly recoverable and fully irrecoverable bank loans went down.

Repayment of funds to foreign owners continued in 2015, even more intensively than in the year before, with the impact of the decrease in sources denominated in the Swiss franc. A significant fall in the sources denominated in that currency is linked to the regulations on the conversion of loans in Swiss franc into loans in euros, which entered into force on 30 September 2015. Preparations for conversion, that is, adjustments of bank currency positions created pressure on the money and the foreign exchange market, which was alleviated by a series of CNB measures aiming at easing the pressures. The kuna liquidity coefficient that was temporarily disrupted recovered by the end of the year. As at 31 December 2015 banks reported HRK 2.1bn loans arising from conversion. The write-off of the principal, totalling HRK 979.8bn, was charged to reserves made for conversion. In addition, the registered amount of overpayments reached HRK 205.7m.

In contrast to household loans granted in Swiss francs, whose balance went down under the influence of repayments and conversions, household loans in kuna went up noticeably in 2015. This goes especially for general-purpose cash loans and home loans, reflecting a change in household preferences. However, overall home financing decreased, as did total household loans, the declining trend continuing for the seventh year in a row. The decrease in the corporate sector made the greatest contribution to the fall in bank loans granted in 2015, even when the effect of claims sold is excluded. Loans in almost all activities within that sector decreased. A more noticeable increase was registered only in lending to activities associated with tourism and agriculture.

The amount of claims sold increased significantly, thanks primarily to a large transaction by one bank in the last quarter of the year. The ageing of the portfolio, strengthened by the influence of regulatory rules on the gradual value adjustment increase for placements with long history of non-payment contributed to the noticeable growth in the coverage of B and C category loans by value adjustments (from 51.3% to 56.6%). In other words, their net book value fell and their attractiveness in the secondary market grew. Construction stood out due to the growth in value adjustments of loans, which resulted from a high level of claims with long-term delinquencies. As regards the food industry and then tourism, there is a noticeable inflow of new loans with collection difficulties, a potential source of losses in the upcoming periods.

The sale of claims, especially relating to the corporate sector, had a key influence on the trend observed by loan quality indicators. The growth of the share of B and C category loans that had started in 2008 was interrupted. The share of the said risk categories decreased from 17.1% at the end of 2014 to 16.6% at the end of 2015. This was due to the decline in loans classified into risk categories B and C, which would have, had the effect of the sale been excluded, stagnate. These developments are a result of activity directed at resolving irrecoverable loans but also of bank estimates of the improvement of the creditworthiness of individual borrowers. Banks partially wrote off or forgave debts and took over real estate property or other client assets in pre-bankruptcy and bankruptcy proceedings. In addition, debt write-off not related to pre-bankruptcy or bankruptcy proceedings and sales increased, probably as a result of bank estimates regarding impossibility of recovery.

In 2015, banks recorded HRK 6.8bn worth of expenses on provisions for the conversion of loans in Swiss francs and reported losses (before taxes) totalling HRK 4.7bn. The effect of these costs excluded, bank profit increased mildly, mostly as a result of lower loss provision expenses in the credit portfolio. In 2014, the level of provisions was significantly affected by the recording of additional value adjustments, primarily based on the AQR[25] and additional assessments related to the AQR in line with the EU Council recommendations. However, in 2015 the operating profitability of banks (profitability before charges for value adjustments and provisions) stagnated, primarily due to the decision to fix the exchange rate of the Swiss franc in 2015. In addition, bank operating income was affected by other costs related to the conversion of loans (such as costs spurred by the adjustment of currency position, costs of early repayment of sources in that currency, etc.) and other administrative measures such as increased costs of deposit insurance premiums (due to the wider insurance coverage) and of the first contribution to the resolution fund, as well as tighter restrictions of the level of default interest rates and thus indirectly of effective loan rates. At the same time, further savings on interest expenses were made due to declining interest rates and deleveraging, which fostered the growth of net interest income of banks. The fall in interest income from loans continued under the rising influence of low credit activity. On the other hand, the deposit base increased thanks to the growth of household deposits and, in particular, corporate deposits. The strong growth in corporate deposits was largely a consequence of two transactions, income from the sale of an enterprise and a bond issue. Household deposits went up at a more noticeable pace than the year before. However, their largest and most stable component, time deposits, decreased, which might be connected with the introduction of the tax on savings interest in 2015.

The implementation of regulatory provisions on the conversion of loans contributed to the decline in banks' total capital ratio, on one hand through the reduction of own funds due to current year losses and on the other through the increase in

25 The AQR is the asset quality review of European banks conducted in 2014 by the European Central Bank (ECB) and the European Banking Authority (EBA) in cooperation with national supervisors. Based on an agreement with the consolidating supervisors from Italy and Austria, the CNB was involved in the AQR of domestic banks. Details are available in the CNB's press release of 26 October 2014, www.hnb.hr.

exposure of banks to currency risk, as a consequence of the adjustment of currency position. The decrease in own funds was also affected by dividend payments, totalling HRK 2.5bn (as compared to the HRK 1.8bn paid in 2014). However, the total capital ratio remained high – totalling 20.9% at the end of 2015. Two banks had capital ratios and own funds below the statutory minimum. Resolution proceedings were opened against one in October 2015, while the other became subject to supervisory measures.

## 11.1 Business operations of banks

There were 33 credit institutions – 27 banks, one savings bank and five housing savings banks operating in the Republic of Croatia at the end of 2015 (Table 11.1). There were no changes in the number of credit institutions from the end of 2014. Since the criteria for resolution were met, resolution proceedings were opened against one bank early in October 2015.[26]

Bank assets (the savings bank included) declined slightly by 0.4% in 2015, standing at HRK 393.5bn according to the preliminary unaudited data. At the same time, the assets of housing savings banks remained almost unchanged at HRK 7.8bn. As a result of such minor developments the system's structure remained unchanged, with banks accounting for the dominant share of total assets of credit institutions, totalling 98.1%, and housing savings banks accounting for the remaining 1.9%.

System concentration, measured by the share of the first five banks in the total assets of all banks, after having decreased in the previous three years, increased in 2015, ending the year at 74.5%. There were no changes in the ownership structure of banks during the year, so the domination of banks in majority

Table 11.1 Number of credit institutions
end of period

| Banks | 2013 | 2014 | 2015 |
|---|---|---|---|
| Number of banks at the beginning of the year | 30 | 29 | 27 |
| Banks that merged with other banks | – | 1 | – |
| Authorised banks | – | – | – |
| Banks whose authorisation has been withdrawn | 1 | 1 | – |
| Number of banks at the end of the year | 29 | 27 | 27 |
| Savings banks | | | |
| Number of savings banks at the beginning of the year | 1 | 1 | 1 |
| Authorised savings banks | – | – | – |
| Savings banks whose authorisation has been withdrawn withdrawn | – | – | – |
| Number of savings banks at the end of the year | 1 | 1 | 1 |
| Housing savings banks | | | |
| Number of housing savings banks at the beginning of the year of the year | 5 | 5 | 5 |
| Authorised housing savings banks | – | – | – |
| Housing savings banks whose authorisation has been withdrawn withdrawn | – | – | – |
| Number of housing savings banks at the end of the year | 5 | 5 | 5 |

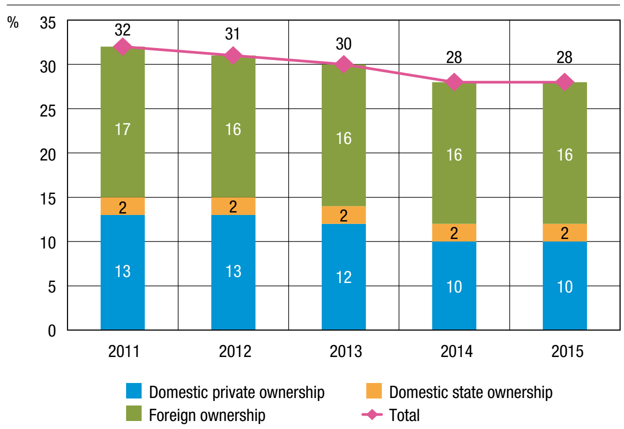
Source: CNB.

Table 11.2 Bank assets by ownership residence and form of ownership
in %

| Banks by ownership residence and form of ownership | Share of bank peer group assets in total bank assets | | |
|---|---|---|---|
| | 2013 | 2014 | 2015 |
| Banks in majority ownership of domestic shareholders | 5.1 | 4.7 | 4.4 |
| Banks in majority state ownership | 5.3 | 5.2 | 5.3 |
| Banks in majority ownership of foreign shareholders | 89.7 | 90.1 | 90.3 |
| Total | 100.0 | 100.0 | 100.0 |

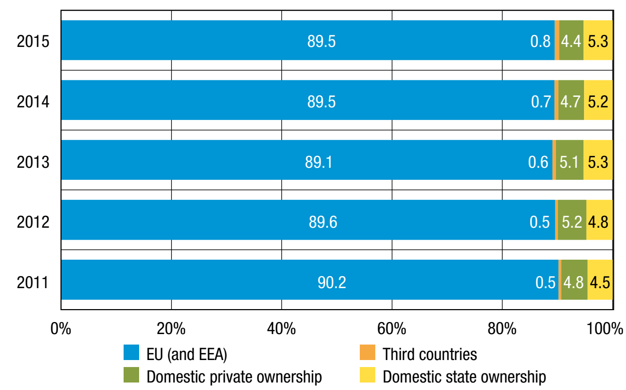
Source: CNB.

Figure 11.1 Number of banks by ownership residence and form of ownership
end of period




Source: CNB.

Figure 11.2 Bank assets by shareholder domicile
end of period




Note: For the purpose of this overview, a shareholder's domicile means the head office of a legal person or the residence of a natural person. Third country is a foreign country which is not a member state of the EU or a party to the Agreement on the European Economic Area.
Source: CNB.

26 Acting on the proposal of the CNB, the DAB Board opened resolution proceedings against Jadranska banka d. d. on 9 October 2015.

foreign ownership continued (16) over the ten banks in domestic private ownership and two banks in majority state ownership (Figure 11.1). The changes in the share of bank assets by the domicile of their owners were slight, the share of assets of foreign banks in the total assets of banks continued growing, to 90.3% (Table 11.2), while the share of assets of banks in domestic ownership decreased proportionally, to 9.7%.

The majority of banks, twelve, was owned by shareholders from the European Union. Their share in total bank assets totalled 89.5% at the end of 2015, the same as at the end of the previous year (Figure 11.2). Third country shareholders (San Marino, Switzerland, Serbia and Turkey) continued to have one bank each in their ownership. Their importance, although somewhat enhanced, remained marginal, at 0.8%. Banks under domestic ownership registered a decline in their assets (some of them noticeably), reflected in the reduction of their share in the system to 4.4%. In contrast, banks in domestic state ownership reclaimed some of their importance, their share strengthening to 5.3%, after having fallen in the year before due to strong losses.

## 11.1.1 Balance sheet and off-balance sheet items

### Assets

The key trends observed in the banking system over the previous three years continued in 2015. The fourth year in a row was marked by increased caution of banks and their clients in assuming risks and a decline in balance sheet potential. There was no new credit activity and due to the optimisation of their operation banks continued deleveraging abroad, directing assets raised in the domestic market predominantly into deposits with foreign financial institutions. The developments in 2015 were additionally underlined by the effects of extraordinary regulatory measures aimed at protecting debtors who borrowed in Swiss francs, which affected the business performance of several banks and resulted in current year losses and a reduction in total capital.

At the end of 2015, total bank assets amounted to HRK 393.5bn, a decrease of HRK 1.7bn or 0.4% from the end of 2014 (Table 11.3). The amount of asset change was affected by the developments in the exchange rate of the kuna against the three most widely represented currencies (the euro, Swiss franc and US dollar). The influence of the strengthening of the Swiss franc against the kuna following the decision by the Swiss central bank of January 2015 to stop maintaining its exchange rate against the euro was of particular significance. A consequence of this decision was a substantial rise in the liabilities of debtors who had borrowed in Swiss francs. As a result, the Government of the Republic of Croatia proposed statutory amendments aimed at alleviating the position of these debtors.

A direct reaction of the Government to the exchange rate change in January 2015 was to propose a measure fixing the exchange rate to HRK 6.39 for one franc for instalments/annuities in that currency maturing within the period of one year. The measure was implemented by the Croatian Parliament, which adopted the Act on Amendments to the Consumer Credit Act[27] in relation to loan contracts with natural persons and the Act on Amendments to the Credit Institutions Act[28] in relation to loan contracts with natural persons who perform the activity of freelancers, craftsmen, sole traders and family farm holders.

A new regulatory intervention followed in the second half of 2015, with a view to making the position of debtors who borrowed in Swiss francs (or in kuna indexed to the Swiss franc) equal to the position they would have been in had they opted for a loan denominated in euro. For that purpose, the Government of the Republic of Croatia proposed and the Parliament adopted the Act on Amendments to the Consumer

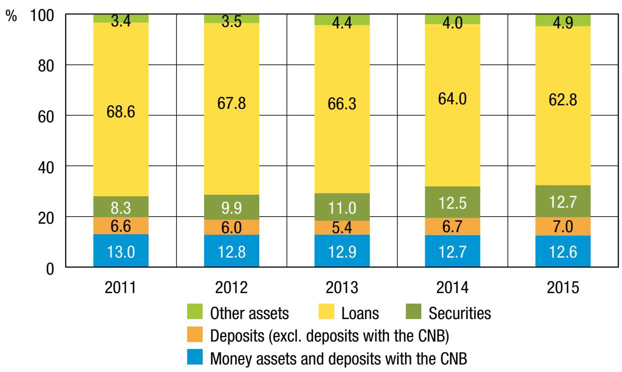
Table 11.3 Structure of bank assets
end of period, in million HRK and %

| | 2013 | | 2014 | | | 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 | 49,425.3 | 12.6 | –1.6 |
| Money assets | 6,369.7 | 1.6 | 6,462.7 | 1.6 | 1.5 | 7,289.7 | 1.9 | 12.8 |
| Deposits with the CNB | 44,914.3 | 11.3 | 43,789.9 | 11.1 | –2.5 | 42,135.6 | 10.7 | –3.8 |
| Deposits with financial institutions | 21,464.2 | 5.4 | 26,369.8 | 6.7 | 22.9 | 27,734.0 | 7.0 | 5.2 |
| MoF treasury bills and CNB bills | 13,634.0 | 3.4 | 15,353.5 | 3.9 | 12.6 | 12,258.7 | 3.1 | –20.2 |
| Securities | 30,033.7 | 7.5 | 34,236.2 | 8.7 | 14.0 | 37,772.8 | 9.6 | 10.3 |
| Derivative financial assets | 1,583.6 | 0.4 | 1,357.0 | 0.3 | –14.3 | 2,431.1 | 0.6 | 79.2 |
| Loans to financial institutions | 8,912.2 | 2.2 | 6,355.2 | 1.6 | –28.7 | 5,633.7 | 1.4 | –11.4 |
| Loans to other clients | 254,910.2 | 64.1 | 246,777.2 | 62.4 | –3.2 | 241,556.2 | 61.4 | –2.1 |
| Investments in subsidiaries, associates and joint ventures | 3,185.7 | 0.8 | 2,722.1 | 0.7 | –14.6 | 4,186.4 | 1.1 | 53.8 |
| Foreclosed and repossessed assets | 1,541.2 | 0.4 | 1,544.8 | 0.4 | 0.2 | 1,558.8 | 0.4 | 0.9 |
| Tangible assets (net of depreciation) | 4,253.5 | 1.1 | 4,243.0 | 1.1 | –0.2 | 4,461.8 | 1.1 | 5.2 |
| Interest, fees and other assets | 7,061.5 | 1.8 | 6,026.3 | 1.5 | –14.7 | 6,506.0 | 1.7 | 8.0 |
| Total assets | 397,863.7 | 100.0 | 395,237.7 | 100.0 | –0.7 | 393,524.8 | 100.0 | –0.4 |

Source: CNB.

27 OG 9/2015.
28 OG 19/2015.

Figure 11.3 Structure of bank assets
end of period




Note: As of October 2013, loan amount is reduced by the amount of collected fees (formerly recorded as deferred income in liabilities), and the amount of financial instruments (formerly recorded cumulatively as deduction item in assets and included in item Other assets) is reduced by the amount of the corresponding collectively assessed value adjustments (for category A).
Source: CNB.

Credit Act and the Act on Amendments to the Credit Institutions Act[29], regulating the conversion of loans for the purpose changing the currency or currency clause, the manner of its calculation and the obligations of creditors and debtors in conversion proceedings.[30] In line with legal provisions, banks reported the effect of conversion of loans in Swiss francs into loans in euros and loans denominated in kuna indexed to the Swiss franc into loans denominated in kuna indexed to euros (hereinafter referred to as loan conversion) in their business books as at 30 September 2015, forming adequate provisions, that is, provision expenses in that amount, in accordance with IAS 37 – Provisions, Contingent Liabilities and Contingent Assets. Banks assessed the conversion effect arising from legal provisions at HRK 6.9bn as at 30 September 2015, as the difference between the balance of unpaid instalments/annuities in Swiss francs and the amount of unpaid annuities/instalments in euros calculated under new repayment plans.

Banks and their clients continued to be very cautious as regards risk assumption, which was reflected in the decline in net loans for the fourth year in a row, which overpowered changes in all other asset items in 2015. Apart from the reduced lending activity, the growth of value adjustments also contributed to the fall in net loans, with the write-off of the principal, that is, the effect of conversion of loans to debtors whose conversion proceedings were completed by the end of 2015 as an additional factor. The intensive sale of claims had a mild effect on developments in net loans because claims sold were claims that had small net book value or claims were well covered by value adjustments. The decrease in net loans of HRK 5.9bn (2.4%) from the end of 2014 was a result of the reduction in the portfolio of loans to corporates, households and financial institutions. A small increase in loans was registered by loans to government units, while a more substantial increase, although without effect on the overall change, was noticed in the non-residents sector.

In addition to the decrease in net loans, the fall in total assets was under the additional influence of the decrease in bank deposits with the CNB by HRK 1.7bn (3.8%). Their reduction was a consequence of the repealing of regulations and the maturing of purchased compulsory CNB bills worth HRK 3.4bn[31]. Those are compulsory CNB bills that banks purchased in mid-December 2013 in the amount of reduced reserve requirement rate and thus released funds from the kuna component of the reserve requirement that aimed to spur lending to the economy. Other items of deposits with the CNB, the reserve requirements set aside and settlement account balances, went up in an amount lower than the said decrease, partly offsetting the overall change in deposits with the CNB.

In contrast to deposits with the CNB, deposits with financial institutions grew by HRK 1.4bn (5.2%), which upped their share in total assets to 7.0%. The increase was largely achieved in the item of deposits with foreign financial institutions, while deposits with domestic financial institutions accounted for a smaller share of the increase. Deposits with foreign financial institutions that are part of bank group linked by ownership went down by HRK 3.2bn (61.8%), their share in the structure of deposits with financial institutions reducing substantially as a result. At the end of 2015, it totalled 7.2%, almost 13 percentage points lower than at the end of 2014. Banks kept the bulk of their deposits abroad with financial institutions other than the majority foreign owners and the amount of these deposits increased by HRK 4.1bn (20.3%) within a one-year period.

Banks' investments in securities went up as well, by HRK 441.7m (0.9%), mostly due to investments in equity securities of foreign financial institutions and corporates. Despite the noticeable increase in 2015 (78.3%), equity securities continued to account for a very small portion of total investments in securities of only 1.9%. Investments in debt securities stagnated although there were some developments in their structure, mostly associated with the change in debt instruments of government units. Namely, banks' investments in MoF T-bills went down by HRK 3.1bn (20.2%), while at the same time investments in RC bonds went up (HRK 3.4bn or 23.3%), ultimately ending in the increase of total investments into securities of government units of only 1.2%. Debt securities of government units continued to account for the lion's share of the portfolio of total debt securities (62.1%), followed by securities of foreign issuers (24.2%). The share of total investments in securities grew to a high 12.7% of bank assets, that is, almost reached the all-time high of 12.8% registered at the end of 2015. Banks

29 OG 102/2015.
30 As part of the conversion proceedings the initially paid amount of principal is converted into euros (at the then applicable exchange of the euro) and a new repayment plan is created based on the then applicable euro interest rate. All received payments on the basis of the loan are also converted to euros and are compared with liabilities arising from the new repayment plan. The cost of reduction of the book value of loan principal is the difference between the balance of unpaid principal in Swiss francs as at 30 September 2015 and the outstanding principal in euro determined as at the same date in accordance with new repayment plans and is borne entirely by banks. The comparison of amounts paid and of the new repayment plan provides for the amount of overpayment or underpayment (that needs to be settled). The amount of overpayment may not be used for principal write-off, rather, depending on the size, it is used to reduce future instalments/annuities or is paid out to the debtor. For banks it also represents a cost which is embedded in the expenses on provisions for conversion together with the cost of principal write-off.
31 Decision on the purchase of compulsory CNB bills (OG 105/2015).

distributed the majority of their debt securities, almost 70% as at the end of 2015, in the portfolio of instruments available for sale. The increase in the portfolio and the marking to market of these securities resulted in the unrealised profit in bank capital rising by 49.1% from the previous year.

All other, less important, items in the asset structure also increased from the end of last year and mitigated the negative effect on the change in total assets. The largest among them was the increase in investments in the capital of subsidiaries (HRK 1.5bn or 53.8%), which was predominantly related to investments in the financial sector in the region and was a consequence of bank participation in intragroup ownership restructuring during 2015. The substantial increase in the fair value of derivative financial instruments in banks' balance sheets, of derivative financial assets (by 79.2% or HRK 1.1bn), as well as of derivative financial liabilities (by 98.2% or HRK 1.2bn) is, to the greatest extent, a reflection of the increase in fair value of agreements with foreign financial institutions (assets) and government units (liabilities). This is a consequence of the hedge against market risks, provided to the MoF for bond issues denominated in foreign currencies on one side and on the other of the hedges of banks against those same risks contracted with foreign parents. The downward trend in the growth of assets acquired in exchange for claims continued in 2015, reducing the growth rate to below 1%. However, the noticeable ageing of this portfolio, visible in the rise in assets acquired more than two years ago of 25.3% indicates further difficulties encountered by banks in the process of collecting their claims. Banks increased their investments in tangible assets by 5.2%, mostly by increasing investments in real estate property so the ratio of total investments in tangible assets and eligible capital went up slightly to 11.2%, which was still considerably below the permitted 40%.

### Liabilities and capital

At the end of 2015, total bank liabilities stood at HRK 343.4bn, up HRK 3.7bn (1.1%) from the end of 2014 (Table 11.4). This increase was a direct consequence of the implementation of regulatory provisions on the conversion of loans, recognised in bank liabilities in the growth of the item Interest, fees and other liabilities of HRK 6.1bn or 54.5%. Provisions for loan conversion set aside by banks as at 30 September 2015 in the amount of HRK 6.9bn are reported in this item. The realisation of loan conversions in the fourth quarter of

Table 11.4 Structure of bank liabilities and capital
end of period, in million HRK and %

| | 2013 | | 2014 | | | 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 | 12,966.5 | 3.3 | –11.3 |
| Short-term loans | 2,124.8 | 0.5 | 2,428.3 | 0.6 | 14.3 | 1,342.0 | 0.3 | –44.7 |
| Long-term loans | 13,021.2 | 3.3 | 12,188.9 | 3.1 | –6.4 | 11,624.5 | 3.0 | –4.6 |
| Deposits | 282,805.6 | 71.1 | 286,075.4 | 72.4 | 1.2 | 294,215.0 | 74.8 | 2.8 |
| Transaction account deposits | 54,245.1 | 13.6 | 67,556.2 | 17.1 | 24.5 | 76,324.3 | 19.4 | 13.0 |
| Savings deposits | 21,785.7 | 5.5 | 18,045.1 | 4.6 | –17.2 | 21,360.5 | 5.4 | 18.4 |
| Time deposits | 206,774.8 | 52.0 | 200,474.1 | 50.7 | –3.0 | 196,530.2 | 49.9 | –2.0 |
| Other loans | 26,337.2 | 6.6 | 21,944.3 | 5.6 | –16.7 | 11,314.5 | 2.9 | –48.4 |
| Short-term loans | 4,531.3 | 1.1 | 3,806.9 | 1.0 | –16.0 | 1,378.7 | 0.4 | –63.8 |
| Long-term loans | 21,805.9 | 5.5 | 18,137.4 | 4.6 | –16.8 | 9,935.9 | 2.5 | –45.2 |
| Derivative financial liabilities and other financial liabilities held for trading | 1,878.1 | 0.5 | 1,180.5 | 0.3 | –37.1 | 2,339.2 | 0.6 | 98.2 |
| Debt securities issued | 299.9 | 0.1 | 299.9 | 0.1 | 0.0 | 300.8 | 0.1 | 0.3 |
| Short-term debt securities issued | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 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 | 2,724.0 | 0.7 | 32.9 |
| Hybrid instruments issued | 3,005.9 | 0.8 | 2,319.4 | 0.6 | –22.8 | 2,198.4 | 0.6 | –5.2 |
| Interest, fees and other liabilities | 11,445.8 | 2.9 | 11,231.2 | 2.8 | –1.9 | 17,348.1 | 4.4 | 54.5 |
| Total liabilities | 342,371.9 | 86.1 | 339,717.8 | 86.0 | –0.8 | 343,406.5 | 87.3 | 1.1 |
| Share capital | 33,964.7 | 8.5 | 33,757.2 | 8.5 | –0.6 | 34,275.4 | 8.7 | 1.5 |
| Current year profit (loss) | 477.6 | 0.1 | 1,534.6 | 0.4 | 221.3 | –4,378.4 | –1.1 | – |
| Retained earnings (loss) | 16,315.3 | 4.1 | 15,943.0 | 4.0 | –2.3 | 15,605.8 | 4.0 | –2.1 |
| 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 | 2,918.1 | 0.7 | 12.2 |
| Revaluation reserves | 610.4 | 0.2 | 727.9 | 0.2 | 19.2 | 990.2 | 0.3 | 36.0 |
| Previous year profit (loss) | –20.2 | 0.0 | –89.1 | 0.0 | 342.2 | –328.0 | –0.1 | 267.9 |
| Total capital | 55,491.8 | 13.9 | 55,519.9 | 14.0 | 0.1 | 50,118.4 | 12.7 | –9.7 |
| Total liabilities and capital | 397,863.7 | 100.0 | 395,237.7 | 100.0 | –0.7 | 393,524.8 | 100.0 | –0.4 |

Source: CNB.

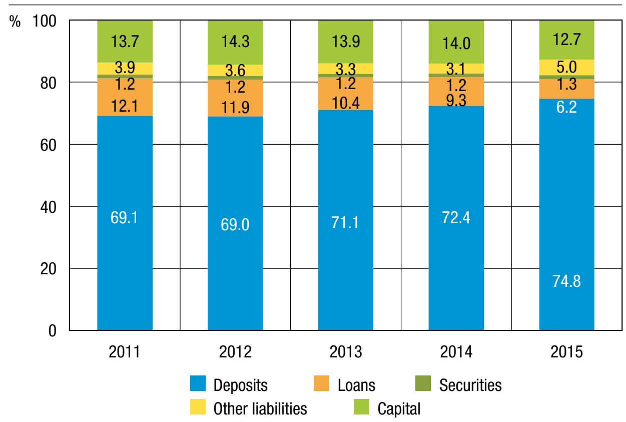
2015 decreased the initially determined amount of provisions to HRK 5.5bn, indicating a relatively small number of completed conversions. Given the regulatory time limits provided, noticeable conversion activities were initiated in the second half of December 2015.[32]

The sources of bank financing decreased by HRK 3.6bn (1.1%) in the observed one-year period. The key influence came from banks continuing to deleverage with respect to majority foreign owners for the fourth consecutive year. Although the change in total sources of financing was relatively small, changes in individual instruments and their currency structures were noticeable. The intensity of bank deleveraging with respect to majority foreign owners increased from 2014 (18.8%). The overall decrease of these sources in 2015 totalled HRK 19.0bn (45.5%). It was caused by the almost equal decrease in deposits and received loans, with more than a half of the overall decrease being accounted for by liabilities in Swiss francs. This was a consequence of the loans conversion which decreased the banks' need for sources of financing in Swiss francs. Banks liabilities in Swiss francs were reduced as a result, by HRK 11.5bn (74.2%), dwindling almost exclusively to household deposits. The share of these liabilities in foreign currency liabilities of banks went down to 1.8% at the end of 2015, which is five percentage points less than at the end of the previous year, while the share of financing received from majority foreign owners in total sources decreased from 12.8% to 7.0%. This also reduced the concentration of sources in bank liabilities, that is the share of sources received from clients whose funds account for over 2% of total bank liabilities, from 20.2% at the end of 2014 to 15.8% at the end of 2015.

Total bank deposits went up by HRK 8.1bn (2.8%), thanks to the growth of deposits of domestic sectors. The bulk of the growth of domestic deposits was accounted for by corporates (HRK 9.2bn or 20.6%), while the remainder of the increase was accounted for by household deposits (HRK 4.8bn or 2.7%). A strong growth of corporate deposits is predominantly owed to the extraordinary effect of two transactions realised in the second half of 2015: the inflow of funds arising from the sale of an enterprise to foreign investors and an inflow of funds arising from the securities issue by a public enterprise.

The several-year downward trend in the growth of household deposits was interrupted during the year under review due to the growth of giro and current account deposits (HRK 4.9bn or 19.1%) and savings deposits (HRK 2.1bn or 16.1%). During this period, for the first time on an annual level, the most stable of deposits, that is, household time deposits, decreased by HRK 2.2bn or 1.6%. In the pre-crisis period they went up at two-digit annual growth rates, their growth slowing down suddenly since 2008. This reflects a gradual restructuring of household deposits, that is, the share of time deposits in total household deposits decreased and the share of sight deposits increased. The share of time deposits reached its all-time high of 80.2% at the end of 2012. By the end of 2015 it decreased to 74.7%. The increase in giro and current account deposits accounted for the growth in kuna deposits. The rise in foreign currency deposits on these accounts was also noticeable, which might be the reaction of households to the introduction of the tax on savings interest at the beginning of 2015[33]. The currency structure of total deposits did not change much. It continues to reflect household preference for foreign currency savings. The share of foreign currency deposits in total household deposits was 75.5%, which includes 75.2% of deposits in foreign currency and 0.3% of kuna deposits with a currency clause. The currency accounting for the largest share, two thirds of total household deposits, was the euro.

Figure 11.4 Structure of bank liabilities and capital
end of period




Note: As of October 2013, the amount of granted loans in assets is reduced by the amount of fees collected on loans (formerly recorded as deferred income in liabilities).
Source: CNB.

Loans received went down by HRK 12.3bn or 33.6% during 2015, which is a much greater fall than the year before. Bank deleveraging with their majority foreign owners had the key impact on the decline in loans received for the fourth year in a row. An additional influence on the overall developments in 2015, came from loans received from domestic and foreign financial institutions. The share of loans received in total sources of bank financing thus declined from 11.2% at the end of 2014 to 7.5% at the end of 2015, while relative to total assets this share went down from 9.3% to 6.2%. The decline in loans received and their importance in bank financing paired with the parallel growth of deposits additionally increased the dominant share of deposits in sources of bank financing, to 90.9%. However, the use of deposits to finance lending continued decreasing, as reflected in the further decline in the ratio of deposits to net loans, which totalled 84.0% at the end of 2015. The amount of other sources of financing went up (11.9%), exclusively due to the growth of subordinated instruments. Despite this, the share of total debt instruments with the characteristics of equity in total sources of financing remained very low, totalling 1.6%.

Total balance sheet capital of banks decreased by HRK 5.4bn or 9.7% in 2015, while its amount and share in the structure of liabilities and capital went down to the level seen at the beginning of the crisis. The decrease in capital was a consequence of the current year losses, arising predominantly due

32 Banks had to supply debtors with conversion calculations paired with proposed new or amended loan contracts by 14 November 2015, while debtors, if they agreed to the conversion, had to notify the bank thereof within 30 days.

33 The Act on Amendments to the Income Tax Act (OG 143/2014) 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 is not subject to tax provided that the interest rate does not exceed 0.5% a year.

to loan conversion expenses which were higher than the developments in all other capital items. In 2015, ten banks were recapitalised, through payments in cash or using instruments with the characteristics of equity, which led to an increase in the share capital of all banks by HRK 518.2m (1.5%). The rise in revaluation reserves, that is, the rise in unrealised gain on value adjustments of financial assets available for sale, also had a positive impact on capital. By retaining a portion of earnings generated in 2014, some banks strengthened their capital reserves, while others used them in 2015 for dividend payments and to cover previous years' operating losses. A result of these divergent developments was that the level of capital reserves was maintained and that their share in total bank capital increased, to more than 39.0%. Banks used more than 80.0% of earnings generated in 2014 to pay out dividends to their shareholders. Together with a portion of retained earnings, dividends paid reached slightly over HRK 2.5bn.

### Standard off-balance sheet items

At the end of 2015, total standard off-balance sheet items stood at HRK 54.8bn, which is an increase of HRK 0.9bn or 1.6% from the end of the previous year. The growth of standard off-balance sheet items was under the greatest influence of revolving loans, due to their growth of HRK 1.8bn (22.6%), and guarantees, which grew by HRK 0.6bn (3.7%). Standard off-balance sheet item grew predominantly due to transactions concluded with enterprises, more precisely revolving loans with public enterprises and guarantees with other enterprises. Credit lines and commitments, predominantly contracted with the central government, went down more noticeably from 2014 (HRK 1.5bn or 5.8%).

The divergent developments in total standard off-balance sheet items and bank assets resulted in the renewed growth of their ratio to 13.9% (Figure 11.5).

Banks contracted the greatest amount of standard off-balance sheet items with enterprises (57.7%), this share rising slightly from the previous year. Next to follow by the amount of their share in standard off-balance sheet items were households (36.7%), predominantly due to credit lines and commitments.

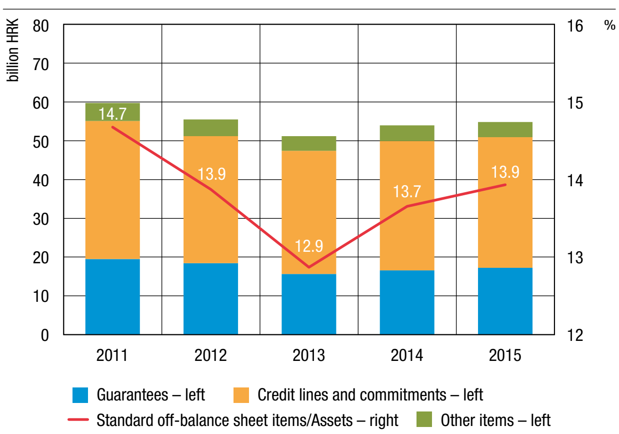
Credit lines and commitments continued to account for the greatest share of standard off-balance sheet items, despite their decline of over three percentage points to 43.3%. According to share size, guarantees came next (31.4%), followed by revolving loans (18.2%), whose share was the only one boasting a sizeable increase, of more than three percentage points. The shares of remaining items were not significant.

### Derivative financial instruments

In 2015, the notional value of the assets and liabilities items of derivative financial instruments increased by HRK 14.5bn (9.4%) in total, to HRK 168.3bn. The key influence on the increase in the notional value of derivative financial instruments came from the implementation of regulatory provisions on loan conversion. A noticeable increase in these instruments became evident at the end of the third quarter 2015, when banks, actively managing their foreign exchange position, hedged themselves against risks arising as a result of the obligation to implement these provisions. These risks were a result of increased open positions in Swiss francs and euros that arose due to the obligation of banks to determine the effect of conversion of the overall loan portfolio subject to the mentioned regulatory provision at the specified date of 30 September 2015. A share of instruments used by banks in the process was formed in the form of embedded derivatives, with a portion of them being arranged with majority foreign owners. The realisation of loan conversions in the fourth quarter of 2015, gradually reduced the amount of instruments arranged for this purpose.

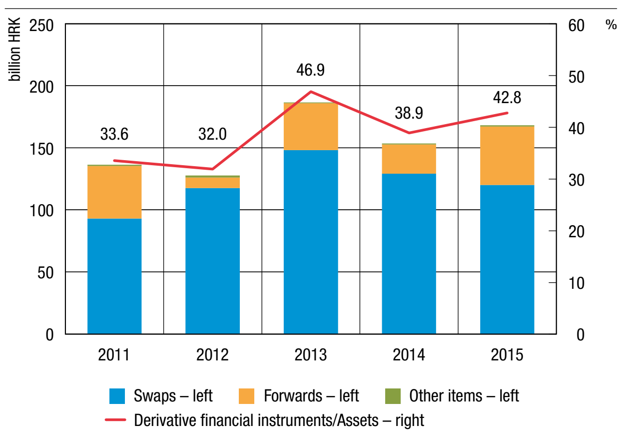
To manage their foreign exchange position banks predominantly used forwards, so the increase in these instruments, totalling HRK 23.7bn (101.0%) contributed the most to the overall increase in the total notional value of derivative financial instruments in 2015. At the same time, the notional value of the majority of other instruments, predominantly swaps, went down by HRK 9.1bn or 7.1%. The changes in the period under review resulted in a noticeable increase of the share of forward agreements in the structure of derivative financial instruments, to 28.0%, and a decrease in the share of swaps to 71.4%. These two instruments traditionally dominate the structure of derivative financial instruments. All other types of derivative financial instruments accounted for the remaining 0.6% and changes in their amounts in 2015 did not affect total developments.

Figure 11.5 Bank standard off-balance sheet items
end of period




Source: CNB.

Figure 11.6 Bank derivative financial instruments (notional amount)
end of period




Source: CNB.

At end-2015, the major share of the total amount of derivative financial instruments was arranged with foreign financial institutions (47.8%), including majority foreign owners and other financial institutions from parent banking groups. By the size of their share, instruments arranged in the domestic financial sector (33.3%) came next, their share almost tripling due to the influence of the growth of embedded derivatives formed for the purpose of managing risks arising from loan conversion.

The overall growth in the notional value of derivative financial instruments was related to the increase in the notional amount of instruments with exchange rate as the underlying variable so the share of these instruments went up to 58.7% of the total. Next to follow by the size of the share (30.4%) were cross-currency interest rate swaps, while the remaining 10.9% were accounted for by instruments with interest rate as the underlying variable.

The increase in the notional value of derivative financial instruments and the parallel decrease in bank assets was reflected in the growth of their ratio, from 38.9% in 2014 to 42.8% at the end of 2015. Only a few banks used derivative financial instruments in a volume higher than the stated system average, while the majority of banks that operate with derivative financial instruments used them in an amount equalling less than 10% of their assets.

### 11.1.2 Earnings

#### Income statement

The income statement of banks in 2015 was strongly affected by the regulatory changes aimed at alleviating the position of debtors with loans in the Swiss francs or indexed to the Swiss franc and the attempt to make it equal to the position they would have been in had they borrowed in euros. This meant that all other changes were muted. Among these one-off expenses, the single largest expense, expressed as the cumulative cost of conversion in expenses on provisions, totalled HRK 6.8bn. As a result, overall expenses on provisions reached their historical high and exceeded net operating income (before loss provisions), which resulted in an aggregate loss from continuing operations (before tax) of HRK 4.7bn.

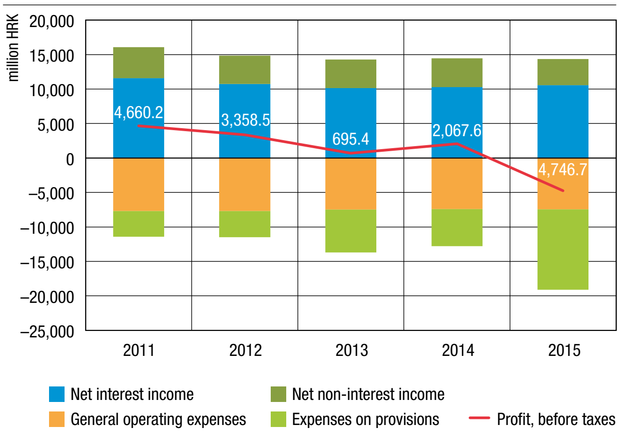
As a result of noticeable savings in interest expenses, banks continued the positive trends in net interest income, despite a further decrease in interest income from almost all items. Decisive for the decline in operating income was the decline in its two remaining constituents, net income from fees and commissions and net other non-interest income. Both of these items of the income statement were under the key influence of expenses connected with the portfolio of loans in the Swiss franc. The fall in net other non-interest income (which was even negative at the end of the first quarter) can be attributed to losses on

Table 11.5 Bank income statement
in reference periods, in million HRK and %

| | Amount | | Change |
|---|---|---|---|
| | Jan. – Dec. 2014 | Jan. – Dec. 2015 | |
| Continuing operations | | | |
| Interest income | 18,844.8 | 18,131.7 | –3.8 |
| Interest expenses | 8,575.2 | 7,580.6 | –11.6 |
| Net interest income | 10,269.6 | 10,551.1 | 2.7 |
| Income from fees and commissions | 4,378.7 | 4,612.8 | 5.3 |
| Expenses on fees and commissions | 1,283.5 | 1,579.4 | 23.1 |
| Net income from fees and commissions | 3,095.2 | 3,033.3 | –2.0 |
| Income from equity investments | 215.6 | 349.1 | 61.9 |
| Gains (losses) | 1,262.4 | 861.3 | –31.8 |
| Other operating income | 422.5 | 641.4 | 51.8 |
| Other operating expenses | 792.2 | 1,066.8 | 34.7 |
| Net other non-interest income | 1,108.2 | 785.1 | –29.2 |
| Total operating income | 14,473.0 | 14,369.5 | –0.7 |
| General administrative expenses and depreciation | 7,428.7 | 7,437.5 | 0.1 |
| Net operating income before loss provisions | 7,044.3 | 6,932.0 | –1.6 |
| Expenses on value adjustments and provisions | 5,371.1 | 11,677.5 | 117.4 |
| Other gains (losses) | 394.5 | –1.2 | – |
| **Profit (loss) from continuing operations, before taxes** | **2,067.6** | **–4,746.7** | **–329.6** |
| Income tax on continuing operations | 688.9 | –355.8 | – |
| Profit (loss) from continuing operations, after taxes | 1,378.7 | –4,390.9 | – |
| Discontinued operations | | | |
| Profit (loss) from discontinued operations, after taxes | 155.9 | 12.5 | –92.0 |
| **Current year profit (loss)** | **1,534.6** | **–4,378.4** | **–** |
| Memo item: | | | |
| Number of banks operating with losses, before taxes | 12 | 15 | 25.0 |

Source: CNB.

Figure 11.7 Bank profit (loss), before taxes
end of period




Source: CNB.

net exchange rate changes, embedded derivatives and currency trading, most of which arose as a result of regulatory measures fixing the exchange rate of the Swiss franc and later from adjustment of bank currency position due to loan conversion.

According to preliminary unaudited data for 2015, banks generated HRK 4.7bn of losses from continuing operations (before tax), in contrast to the end of the previous year when they generated HRK 2.1bn in profit (Figure 11.7). More than a half of banks (15) reported losses, while one more reported losses after tax, thus pushing the number of banks with current year losses to 16 (there were 12 at the end of 2014).

As mentioned earlier, expenses on value adjustments and provisions, which grew by HRK 6.3bn or 117.4% (Table 11.5) relative to 2014, had the strongest negative effect on the income statement (and thus on the total bank operating results). The crucial contribution to the exceptional rise in these expenses came from conversion cost reported in expenses on provisions, which totalled HRK 6.8bn at the end of the year. Banks reported the effect of conversion for the first time on the date of conversion (30 September 2015). It represents the difference between the book value of the outstanding principal of the loan in Swiss francs and the principal calculated in euros in the conversion procedure. These expenses excluded, the remaining expenses on value adjustments and provisions were 10.1% lower than at the end of 2014, due to 11.2% lower expenses on placement value adjustments and provisions for risk categories B and C. In 2014, these expenses were under the influence of the AQR[34], which was subsequently, in accordance with the recommendations of the EU Council[35], expanded to additional portfolios and banks. The reporting of income from cancelled provisions for risk category A was, for the most part, a consequence of the decrease in exposures distributed into this risk category, and subsequently of the reclassification of these exposures to other risk categories.

In addition to expenses on provisions for loan conversion, one more extraordinary regulatory measure raised bank expenses. This was the measure on freezing the exchange rate of the Swiss franc against the kuna at 6.39. The implementation of these regulatory amendments resulted in bank expenses that were immediately and in full recognised in their income statement, totalling HRK 223.4m.[36] These losses, in addition to the increase in losses from embedded derivatives by which banks adjusted their currency position, negatively affected the level of net other non-interest income, which ended the year HRK 323.1m or 29.2% lower than the year before. This continued the negative trend of decline in the importance of other non-interest income (shortly interrupted in 2013) in total bank operating income, to merely 5.4% (Figure 11.8), its lowest share in annual terms since 2004.[37] In addition, net other non-interest income fell under the influence of the higher operating expenses, which went up by a third due to the increase in expenses for insurance premiums for savings deposits and payment of the first contribution tranche into the resolution fund formed by the State Agency for Deposit Insurance and Bank Resolution. The increase in insurance premiums for savings deposits is a reflection of the rise in insured savings but also of the widening of insurance coverage[38] in the second half of 2015 to include deposits of large and medium-sized enterprises and smaller local government units.

Net income from fees and commissions also fell on an annual level, but at a noticeably slower rate than net other non-interest income (by 2.0%). The fall in net income was a consequence of the noticeable increase in expenses on fees and commissions, which went up by almost a quarter, especially fees and commissions for other banking services (other than payment operation services). The most pronounced were the expenses on changes in the currency of funding lines from the Swiss franc into euro associated with the loan conversion. The growth of these expenses offset the effects of the growth of income from fees and commissions, which although modest (5.3%), was generated from almost all types of business. By the size of its growth, income from fees and commissions associated with credit cards led the way, with the dynamic of their growth (the strongest in the third quarter) reflecting a noticeable influence of the tourist season. Banks aimed to increase income from other services under contracted agreements, especially agreements for insurance undertakings and investment fund management companies.

The most important component of operating income, net interest income, was the only one that went up from the year before, by HRK 281.4m or 2.7%, pushing this income item to 72.9% of total bank operating income (Figure 11.8). The growth of net interest income continued to be based on the noticeable decline in interest expenses which exceeded the effects of the decline in bank interest income. Interest expenses went

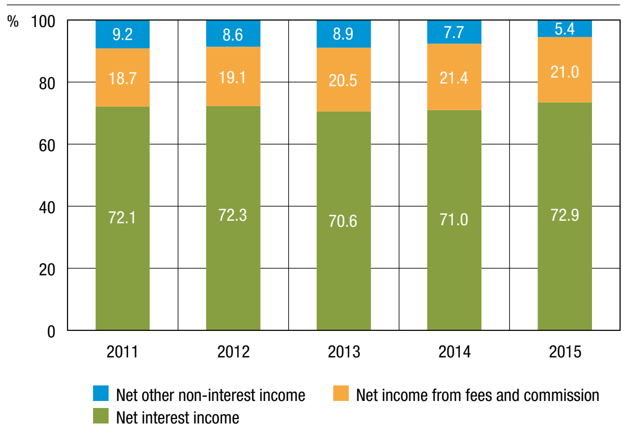
34 See footnote 25.
35 See point 8 of the Council Recommendation of 8 July 2014.
36 Fixing of the exchange rate was recognised as embedded derivative (derivative financial instrument connected with the principal instrument, the loan contract) whose contracted value is the amount of annuities/instalments (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 expense was treated as negative fair value of derivative arising from the difference between annuities/instalments calculated by applying the administratively set exchange rate and the annuities/instalments calculated by applying the market exchange rate.
37 A comparison with periods before 2004 is made difficult due to regulatory changes in the reporting of items from the income statement.
38 Deposit Insurance Act (OG 82/2015).

down from the previous year, by almost HRK 1.0bn (11.6%), primarily due to lower interest expenses associated with deposits, as well as loans received. Interest expenses fell at two-digit rates in relation to almost all sectors, the bulk of the saving being generated in relation to household deposits (HRK 613.5m or 15.3%) despite the annual rate of growth in their base of 2.7%. This was a consequence of the decline in interest rates[39] and changes in the structure of deposits by this sector in favour of cheaper forms of deposits (especially deposits on transaction accounts and savings deposits), while time deposits decreased. Next to follow with lower costs from loans and deposits were foreign financial institutions (HRK 242.9m or 18.1%) and domestic corporates (HRK 128.9m or 26.1%). Savings on expenses by foreign financial institutions were a result of bank deleveraging, while lower expenses for corporates were primarily a result of lower interest rates[39] and the growth dynamics of deposits by corporates which was realised in the second half of the year. As expected, the impact on the income statement was weaker as a result.

The fall of interest income, totalling HRK 713.1m or 3.8%, was primarily a reflection of lower interest income from loans (HRK 774.0m or 5.0%) and interest income from debt securities, which decreased by 13.9% (HRK 212.6m). A smaller positive contribution to interest income (net) came from items distributed in the portfolio of financial assets held for trading, followed by interest income from previous years. The latter was under the key influence of developments in one bank due to its deal with the UBS AG regarding the debt under the Alternative Participation Instruments (API bonds)[40].

The continuation of the downward trend in interest income from loans (observed in the last three years) was a result of developments in all domestic sectors, with the corporate sector (HRK 403.9m or 8.5%), the household sector (HRK 306,6m or 3.7%) and government units (HRK 56.5m or 2.6%) leading the way. The decline in interest income is a result of several parallel trends – poor credit activity, the continued deterioration in the portfolio quality and declining interest rates. As regards the sector of government units the latter had the greatest influence in the past year since the overall level of loans to this sector remained almost unchanged while the quality of loans improved. The fall in interest income from the corporate sector accounted for more than a half of the overall decline in the interest income of banks. It was generated by almost all types of loans to corporates, in particular by investment loans, which fell by 10.7%, and loans for working capital, which fell by 6.3%. The fall in both these types of loans is to be attributed to a lower base and to the decline in interest rates. Interest income from most types of loans declined in the household sector as well. The only exception was interest income from other loans and credit card loans (increasing by 8.7% and 1.2% respectively). Interest income from home loans had the predominant influence on the fall in interest income from the household sector, which was lower by 4.6% primarily due to the decrease

Figure 11.8 Structure of bank operating income
end of period




Source: CNB.

in the euro component. In addition to the fall in the portfolio and deterioration of the portfolio quality, developments in interest income from home loans in 2015 (especially concerning loans in Swiss francs) were strongly influenced by the regulatory changes mentioned earlier. By the size of their decrease the next group to stand out was interest income from overdraft facilities and car loans, under the predominant influence of the decline in their base. Despite the years-long downward trend in bank lending to the household sector, interest income from loans to this sector continued to account for the majority of the total bank interest income from loans (54.0%) thanks to their large share. Next to follow were corporates and government units with 29.4% and 14.2% respectively. A weaker influence on interest income might have also come from amendments to the regulations on the establishment of default interest rates and maximum effective interest rates on consumer credits and home loans[41], which in practice resulted in the decline of interest rate.

Banks maintained almost the same level of general administrative expenses and depreciation as in 2014. The increase in general administrative expenses was offset by the decrease in employee expenses, representation, advertising and marketing expenses and amortisation. The downward trend in the number of employees, uninterrupted since 2012, continued in 2015, with a further decrease by 355 employees or 1.7%. Accordingly, assets per employee continued growing to HRK 19.3m (Figure 11.10).

### Returns indicators

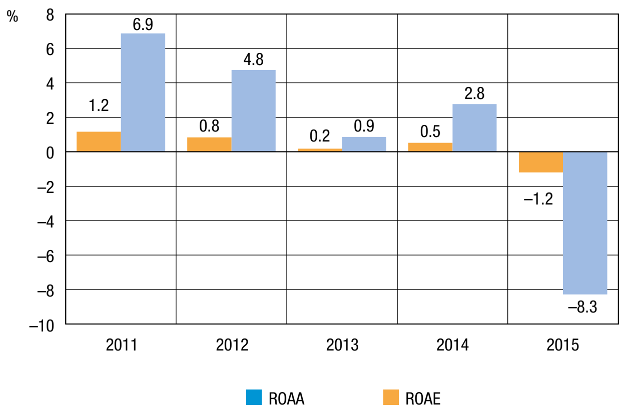
Operating profitability of banks, measured by the ratio of net operating income (before loss provisions) to average assets remained almost unchanged last year at some 1.8%. A lower

39 The weighted monthly averages of interest rates on deposits (for total and new business) of households and non-financial corporations. Source: Tables G5a to G5c and G6a to G6c, CNB Bulletin No. 221.

40 In the first quarter 2015, a settlement was reached between the Republic of Croatia and three domestic banks (as guarantors) on one side and the UBS AG on the other in connection with the debt arising from API (Alternative Participation Instruments) bonds that the former Republic of Yugoslavia issued in 1988 and the Republic of Croatia inherited after its dissolution. As one bank paid a lower amount in the settlement than the amount that had been previously reported on the books, the difference was reported as operating income.

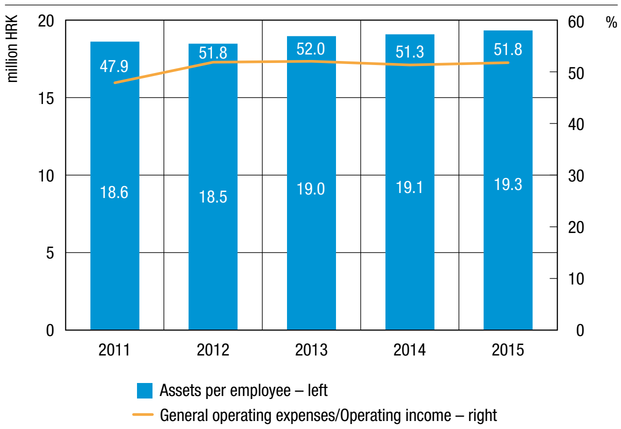
41 The Act on Amendments to the Civil Obligations Act (OG 78/2015) came into force on 1 August 2015. The maximum effective interest rate is referenced to the default interest rate. The effective interest rate on home loans is equal to the statutory default interest rate and on all other consumer loans to the statutory default interest rate increased by two percentage points.

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




Source: CNB.

Figure 11.10 Bank cost efficiency
end of period




Source: CNB.

value was last registered in 2001 (when it totalled 1.6% due to losses in Riječka banka). The operating profitability of banks has been lower than usual since 2012, predominantly under the influence of declining lending activity amid the conditions of decreasing interest rates and still-present high credit risk levels. Accordingly, the average interest rate on interest-bearing assets reached its historical low of 4.9%, which prompted banks to make sizeable cuts in interest expenses to maintain the interest spread at a satisfactory 2.6% (2.5% in 2014). In 2015, this was exacerbated by high extraordinary conversion expenses, pushing total expenses on value adjustments and provisions to 3% of average bank assets (1.4% in 2014) so they noticeably exceeded net operating income (before loss provisions). This, in turn, pushed ROAA and ROAE into negative territory: –1.2% and –8.3% (Figure 11.9). The last time the said indicators were negative on an aggregate level was back in 1998.

The cost to income ratio deteriorated slightly in comparison to 2014, from 51.3% to 51.8% (Figure 11.10), amid the decrease in operating income. Some banks continued to be heavily burdened by general operating expenses, especially smaller institutions. Six banks, including one larger institution, were operationally non-profitable, i. e. their operating income was insufficient to cover general operating expenses and depreciation.

### 11.1.3 Credit risk

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

After several years of unfavourable trends, the level of partly recoverable and fully irrecoverable placements and off-balance sheet liabilities went down, primarily as a reflection of increased activities aimed at resolving the issue of claims with collection difficulties. Regardless of this, risk aversion remained high and credit activity slowed down. Total placements and assumed off-balance sheet liabilities, which are exposed to credit risk and subject to classification into risk categories[42], stood at HRK 411.9bn at the end of the observed year (Table 11.6). They went down slightly from the end of 2014 (by 1.1%), primarily due to the fall in loans granted, which was under a noticeable influence of the sale of claims, as well as principal write-offs in the course of conversion of loans in

Table 11.6 Classification of bank placements and assumed off-balance sheet liabilities by risk categories
end of period, in million HRK and %

| Risk (sub)category | 2013 | | | 2014 | | | 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 | 3,326.4 | 0.9 | 365,613.1 | 3,363.4 | 0.9 | 362,948.0 | 3,358.5 | 0.9 |
| B-1 | 19,330.6 | 3,055.0 | 15.8 | 15,728.9 | 2,364.5 | 15.0 | 12,575.6 | 1,847.3 | 14.7 |
| B-2 | 15,913.8 | 7,500.3 | 47.1 | 19,774.4 | 9,768.0 | 49.4 | 18,155.2 | 9,375.5 | 51.6 |
| B-3 | 4,339.3 | 3,547.4 | 81.8 | 5,559.4 | 4,615.6 | 83.0 | 7,837.3 | 6,447.5 | 82.3 |
| C | 8,991.4 | 8,972.1 | 99.8 | 10,022.5 | 10,020.4 | 100.0 | 10,407.0 | 10,407.8 | 100.0 |
| Total | 417,864.4 | 26,401.2 | 6.3 | 416,698.2 | 30,131.8 | 7.2 | 411,923.1 | 31,436.6 | 7.6 |

Source: CNB.

42 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

Swiss francs into loans in euros. The amount of claims sold increased significantly compared to 2014, which had a key effect on the decrease in partly recoverable and fully irrecoverable claims (risk categories B and C) which were 4.1% lower. As a result, their share in total exposure decreased as well, from 12.3% to 11.9%. However, due to the ageing of the portfolio and regulatory rule on the gradual value adjustment increase for placements with long-term delinquency, losses in the loan portfolio continued to grow, which continued to place a considerable burden on banks' business performance. Total value adjustments and provisions for categories B and C increased in 2015 by 4.9% so the coverage of these categories continued growing, reaching 57.3%.

All portfolios that make up the total exposure to credit risk decreased, with the exception of off-balance sheet liabilities. They increased slightly, due to the growth of guarantees issued and different financing commitments, primarily towards public enterprises and other banks. As for larger changes, there is only the fall in compulsory CNB bills. The regulation on compulsory CNB bills was repealed in October 2015, as part of the measures aimed at restoring kuna liquidity, jeopardised by the regulation on the conversion of loans in Swiss francs and thus connected adjustments of bank currency positions. At the end of 2015, banks reported HRK 2.1bn loans arising from conversion (of which 97.1% were home loans). The write-off of the principal, totalling HRK 979.8m, was charged to reserves made for conversion and the registered amount of overpayments reached HRK 205.7m.

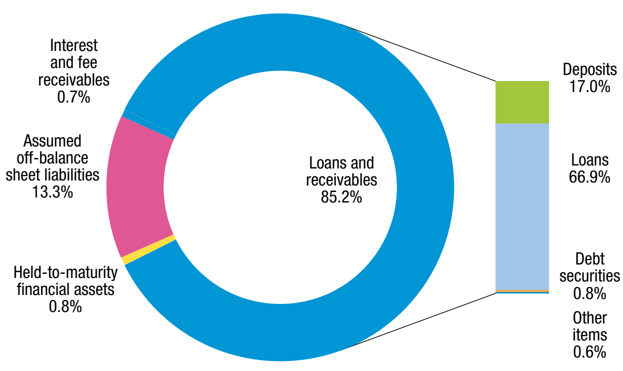
The amount of claims sold increased significantly in 2015, primarily thanks to a large transaction by one bank in the last quarter of the year. During the year banks sold a total of HRK 2.8bn of (gross) claims of risk categories B and C, their net book value totalling HRK 396.7m. In addition, the associated HRK 931.0m of off-balance sheet claims, relating to interest rates (regular and default) and other claims, were sold as well. Almost 60% of the amount sold was accounted for by one bank. The sale of receivables from enterprises dominated the process, accounting for almost two thirds of the overall amount. The buyers were to the greatest extent firms specialised in collecting claims. For the sake of comparison, banks sold HRK 1.3bn of their claims in 2014, with households accounting for some 60% of the amount. The bulk of the sale at the time was made by three banks. Portfolio ageing, underlined by the influence of the rule regarding the gradual value adjustment increase for claims with long-term delinquency (adding a 5% value adjustment every six months for claims older than two years), contributed to a fall in net book value of loans classified into risk categories B and C, thus increasing their attractiveness in the secondary market. As a rule, banks generated income from the sale (due to the sale at prices higher than the net book value of claims in the balance sheet)[43]. They also resulted in the stabilisation of the level of irrecoverable loans, which might favourably affect credit growth.

## Loans

Granted bank loans (classified into the loans and receivables portfolio, gross) stood at HRK 275.4bn at the end of 2015, down HRK 4.5bn or 1.6%, from the end of the previous year (Table 11.12). The strong appreciation of the Swiss franc (resulting from the sudden decision by the Swiss central bank of January 2015 to stop maintaining its exchange rate against the euro), prompted the effective rate of loans granted to decline significantly to 2.4%.

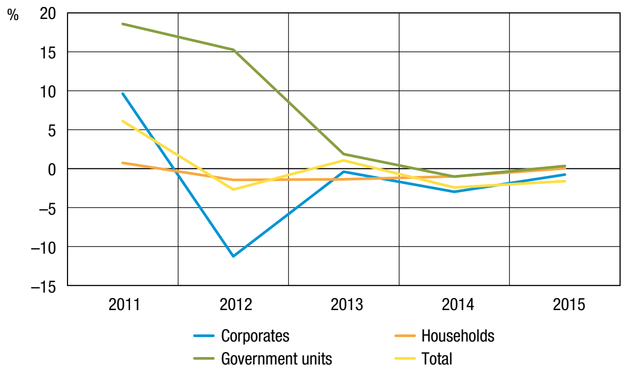
Developments that had started in 2014 continued throughout 2015 – loans to all domestic sectors decreased (with the exception of a slight growth in loans to government units),

Figure 11.11 Structure of bank placements and assumed off-balance sheet liabilities
as at 31 December 2015




Source: CNB.

Figure 11.12 Rates of change of bank loans




Note: The distribution of exposure by institutional sectors is conducted by the CNB in accordance with the European System of Accounts 1995 (ESA 1995). Households include households and non-profit institutions serving households. As of 31 October 2013, loan amount is reduced by the amount of collected fees (formerly recorded as deferred income in liabilities).
Source: CNB.

covered by a separate item (receivables based on income). The portfolios of financial assets comprise various instruments such as loans, deposits, bonds and T-bills, and 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-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.

43 Banks suffered losses from these claims in the previous periods so their overall effect on bank operations is not favourable.

Table 11.7 Bank loans

end of period, in million HRK and %

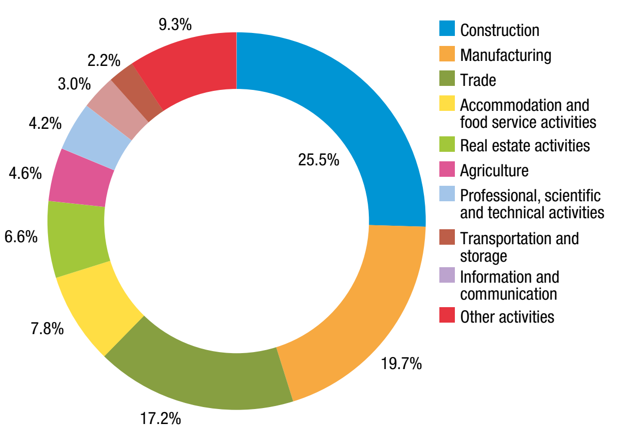
| | 2013 | | 2014 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change | Amount | Share | Change |
| Loans | | | | | | | | |
| Government units | 43,460.8 | 15.2 | 43,017.4 | 15.4 | –1.0 | 43,250.4 | 15.7 | 0.5 |
| Corporates | 107,989.4 | 37.6 | 104,781.2 | 37.4 | –3.0 | 100,999.3 | 36.7 | –3.6 |
| Households | 123,595.3 | 43.1 | 122,346.5 | 43.7 | –1.0 | 120,426.6 | 43.7 | –1.6 |
| Home loans | 57,629.7 | 20.1 | 56,127.3 | 20.1 | –2.6 | 54,998.8 | 20.0 | –2.0 |
| Mortgage loans | 3,007.4 | 1.0 | 2,843.3 | 1.0 | –5.5 | 2,599.4 | 0.9 | –8.6 |
| Car loans | 2,162.6 | 0.8 | 1,439.3 | 0.5 | –33.4 | 1,057.3 | 0.4 | –26.5 |
| Credit card loans | 3,834.6 | 1.3 | 3,831.0 | 1.4 | –0.1 | 3,716.2 | 1.3 | –3.0 |
| Overdraft facilities | 8,353.5 | 2.9 | 8,157.5 | 2.9 | –2.3 | 7,856.8 | 2.9 | –3.7 |
| General-purpose cash loans | 37,229.0 | 13.0 | 39,123.4 | 14.0 | 5.1 | 39,812.2 | 14.5 | 1.8 |
| Other household loans | 11,378.5 | 4.0 | 10,824.7 | 3.9 | –4.9 | 10,385.9 | 3.8 | –4.1 |
| Other sectors | 11,822.1 | 4.1 | 9,784.8 | 3.5 | –17.2 | 10,745.6 | 3.9 | 9.8 |
| Total | 286,867.6 | 100.0 | 279,929.8 | 100.0 | –2.4 | 275,422.0 | 100.0 | –1.6 |
| Partly recoverable and fully irrecoverable loans | | | | | | | | |
| Government units | 47.4 | 0.1 | 47.4 | 0.1 | 0.1 | 14.7 | 0.0 | –69.1 |
| Corporates | 30,542.9 | 67.8 | 32,248.3 | 67.5 | 5.6 | 30,227.3 | 66.3 | –6.3 |
| Households | 13,755.2 | 30.5 | 14,718.9 | 30.8 | 7.0 | 14,630.8 | 32.1 | –0.6 |
| Home loans | 4,690.6 | 10.4 | 4,934.7 | 10.3 | 5.2 | 5,351.3 | 11.7 | 8.4 |
| Mortgage loans | 894.1 | 2.0 | 929.1 | 1.9 | 3.9 | 870.4 | 1.9 | –6.3 |
| Car loans | 121.3 | 0.3 | 92.7 | 0.2 | –23.5 | 76.3 | 0.2 | –17.7 |
| Credit card loans | 174.3 | 0.4 | 157.7 | 0.3 | –9.5 | 139.8 | 0.3 | –11.3 |
| Overdraft facilities | 1,241.9 | 2.8 | 1,052.0 | 2.2 | –15.3 | 958.9 | 2.1 | –8.9 |
| General-purpose cash loans | 3,522.3 | 7.8 | 3,807.8 | 8.0 | 8.1 | 3,671.3 | 8.0 | –3.6 |
| Other household loans | 3,110.8 | 6.9 | 3,745.0 | 7.8 | 20.4 | 3,562.8 | 7.8 | –4.9 |
| Other sectors | 681.9 | 1.5 | 740.4 | 1.6 | 8.6 | 736.6 | 1.6 | –0.5 |
| Total | 45,027.3 | 100.0 | 47,755.1 | 100.0 | 6.1 | 45,609.3 | 100.0 | –4.5 |
| Value adjustments of partly recoverable and fully irrecoverable loans | | | | | | | | |
| Government units | 10.1 | 0.0 | 11.7 | 0.0 | 15.4 | 4.2 | 0.0 | –63.7 |
| Corporates | 12,596.9 | 60.6 | 15,714.9 | 64.2 | 24.8 | 16,594.0 | 64.2 | 5.6 |
| Households | 7,790.8 | 37.5 | 8,273.8 | 33.8 | 6.2 | 8,722.0 | 33.8 | 5.4 |
| Home loans | 1,848.7 | 8.9 | 2,161.0 | 8.8 | 16.9 | 2,802.0 | 10.8 | 29.7 |
| Mortgage loans | 338.8 | 1.6 | 439.1 | 1.8 | 29.6 | 459.3 | 1.8 | 4.6 |
| Car loans | 99.2 | 0.5 | 76.3 | 0.3 | –23.1 | 60.8 | 0.2 | –20.2 |
| Credit card loans | 161.3 | 0.8 | 147.1 | 0.6 | –8.8 | 129.7 | 0.5 | –11.8 |
| Overdraft facilities | 1,181.9 | 5.7 | 1,001.4 | 4.1 | –15.3 | 913.8 | 3.5 | –8.7 |
| General-purpose cash loans | 2,641.2 | 12.7 | 2,660.7 | 10.9 | 0.7 | 2,583.9 | 10.0 | –2.9 |
| Other household loans | 1,519.7 | 7.3 | 1,788.2 | 7.3 | 17.7 | 1,772.4 | 6.9 | –0.9 |
| Other sectors | 390.4 | 1.9 | 479.4 | 2.0 | 22.8 | 516.5 | 2.0 | 7.7 |
| Total | 20,788.2 | 100.0 | 24,479.8 | 100.0 | 17.8 | 25,836.6 | 100.0 | 5.5 |

Note: The distribution by institutional sectors is conducted in accordance with the European System of Accounts 1995 (ESA 1995). Households include households and non-profit institutions serving households. Data on financial institutions and non-residents are included in item Other sectors.
Source: CNB.

while loans to non-residents, due to the rise in loans to foreign parent institutions, increased sharply. The amount of loans granted to corporates went down the most, even when the effect of claims sold is excluded. The decline in loans granted was observed also in relation to public enterprises and other corporates and almost all activities within that sector, while noticeable growth was observed only in loans to accommodation and food preparation (6.9%) and agriculture (2.3%).

Despite their strong growth, loans to non-residents continued to account for a small share of the credit portfolio (1.8%). The leading share in the structure of loans granted was maintained by household loans (43.7%, Table 11.7), regardless of the decrease in loans to this sector observed for the seventh year in a row. The decline was evident in almost all types of loans granted to this sector. The only exception, as the year before, came in general-purpose cash loans. They went up 1.8% with a noticeable currency restructuring, that is, a strong growth of the amount (24.1%) and the share of the kuna component (from 38.3% to 46.8%). Similar developments were observed in relation to home loans as well. The kuna component increased strongly (by 21.7%, to 9.3% of total home loans) but the overall home financing decreased, even if the effect of the write-off of the principal of converted loans is excluded. As a result of significant changes in these two types of loans the share of kuna loans in total loans to households went up noticeably, by 3.7 percentage points, reaching almost one

Figure 11.13 Structure of bank loans to corporates by activities
as at 31 December 2015




ESA 1995, NCA 2007
Source: CNB.

third of the total loans granted to this sector. The growth of kuna loans is a reflection of changes in household preferences, which were surely affected by the materialisation of currency-induced credit risk (CICR)[44] related to loans in Swiss francs. At the end of 2015, some 71.4% of total bank loans (net) were exposed to this risk, of which 87.1% were not hedged against the effects of CICR, that is, was placed to borrowers with an unmatched foreign currency position.[45] The share of loans in Swiss francs (including those in kuna indexed to the Swiss franc) in the currency structure of loans went down from 8.3% to 7.3% under the influence of conversions and repayments. The loans in that currency are concentrated in the household sector (92.6%), especially in the form of home loans, where they continued to account for a sizeable share of 32.1%. The currency structure of total loans was again dominated by euro loans (including loans indexed to the euro), with 62.8%.

The growth of the share of B and C category loans that had started in 2008 was interrupted. The share of these risk categories decreased from 17.1% at the end of 2014 to 16.6% at the end of 2015 (Figure 11.15). These developments were mostly affected by the sale of loans classified into risk categories B and C. However, it is noteworthy that if the effects of the sale were excluded, loans classified into risk categories B and C would stagnate. This would primarily be a result of developments in the corporate sector, as a result of increased efforts regarding the resolution of irrecoverable loans. After having stagnated for several months, the share of loans classified into risk categories B and C in total loans stabilised at a very high level of 29.9%. On the other hand, in the household sector, which reacted to the crisis with a time lag, the growth of the share of B and C risk category loans is still present. In 2015, this share went up slightly to 12.1%.

The growth of value adjustments for loans classified into risk categories B and C continued, being reflected in the noticeable increase in the coverage of these loans, despite the fact that the claims sold were well covered by value adjustments. As compared to the end of 2014, when it stood at 51.3%, coverage increased by 5.3 percentage points, reaching 56.6%. The increase in the coverage of B and C category loans by value adjustments is a consequence of the increase in losses arising in connection with these loans, due to portfolio ageing. In addition, there is the possible influence of the decline in the value of collateral, especially that in the form of real estate property. The coverage increased especially in the corporate sector, so the difference in the level of coverage of B and C category loans in these two sectors continued to decrease. However, it remained higher in the household sector (59.6% vis-à-vis 54.9% in the corporate sector) due to the importance of loans that are less well covered, like general-purpose cash loans and overdraft facilities. In connection to these loans, banks as a rule, reclassify their claims and increase value adjustments on the basis of the number of delinquency days.

The B and C category loans of the corporate sector went down by 6.3%, predominantly under the influence of the sale of claims, but also other factors, such as concluded pre-bankruptcy settlements and completed bankruptcy proceedings. Banks partially wrote off or forgave debts[46] and took over real estate property or other client assets. In addition, debt write-off not related to pre-bankruptcy or bankruptcy proceedings and sales increased at the end of the year. A portion of the decrease was a result of the improvement in the creditworthiness of borrowers, as indicated by the reclassification of individual clients into a better risk category, risk category A (fully recoverable loans).

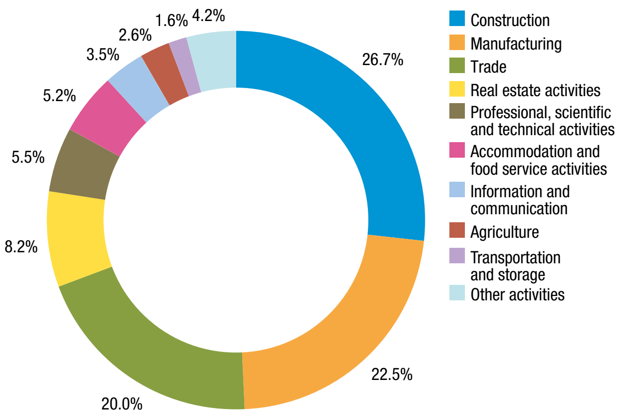
There was a decrease in B and C risk category loans in relation to almost all activities within the corporate sector. The exceptions were manufacturing, in particular of food products, and accommodation and food service activities, where B and C category loans increased by 2.5% (15.1% in the food industry) and 5.3% respectively. As a result of new lending activity the share of B and C risk category loans in the accommodation and food service activities went down (to 19.9%) while in the food industry it went up noticeably from 21.9% to 25.7%. A rise in the subcategory B-1 (with value adjustments of up to 30% of the book amount of the claim) was present in both of these activities, indicating an inflow of new loans with collection difficulties, that is, potential sources of additional losses in the periods to come. In contrast, construction, the activity which is the greatest source of B and C risk category loans to corporates (Figure 11.14), stood out by the growth of risk subcategory B-3 (value adjustments greater than 70%, but smaller than 100% of the book amount of the claim), as well as by the growth of value adjustments. This means that despite the decrease in B and C categories, predominantly as a result of sales, construction continues to contribute strongly to the growth of losses in credit portfolios of banks due to the high level of claims with long-term delinquency. The exceptional sensitivity of this activity to the economic cycle and portfolio ageing

44 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.

45 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.

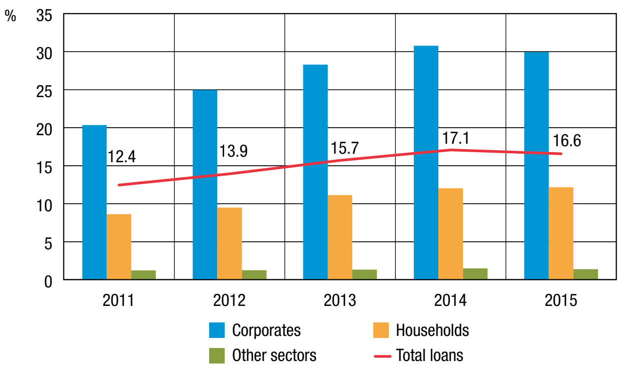
46 According to the Civil Obligations Act (OG 35/2005, 41/2008 and 78/2015) debt forgiveness is one of the ways to terminate an obligation. An obligation is terminated when the creditor states to the debtor that its fulfilment will not be required and the debtor agrees.

Figure 11.14 Structure of bank partly recoverable and fully irrecoverable loans to corporates by activities
as at 31 December 2015




ESA 1995, NCA 2007
Source: CNB.

Figure 11.15 Share of bank partly recoverable and fully irrecoverable loans
end of period




Note: The distribution of exposure by institutional sectors is conducted by the CNB in accordance with the European System of Accounts 1995 (ESA 1995). Households include households and non-profit institutions serving households. As of 31 October 2013, loan amount is reduced by the amount of collected fees (formerly recorded as deferred income in liabilities).
Source: CNB.

resulted in a high coverage of B and C risk category loans, totalling 59.2%, the highest among all activities.

The data on the age of due but unpaid loan receivables best illustrate how long it takes for the collection process to be completed. Receivables amounting to almost HRK 26bn are more than 90 days overdue, of which as much as HRK 23bn (or 80.5% of total due but unpaid loan receivables) is receivables more than one year overdue.

As for the household sector, B and C category loans decreased slightly (0.6%) exclusively due to the sale of claims. The amount of loans classified in this category declined in relation to most types of household loans. However, in relation to the most important component, home loans, it increased, by a noticeable 8.4%. Because of this, and also because of a fall in the overall amount of home loans, the loan quality indicator deteriorated, the share of B and C category loans in home loans going up from 8.8% at the end of 2014 to 9.7% at the end of 2015. Losses arising from home loans increased sharply, and value adjustments went up by as much as 29.7%. This significantly raised the coverage of B and C category home loans by value adjustments from 43.8% at the end of 2014 to 52.4% at the end of 2015.

Conversion had no material impact on the quality of home loans due to the relatively small amount realised and that at the very end of the year. In fact, deterioration of the portfolio continued more dynamically than the year before, the greatest contribution coming precisely from the component in Swiss francs (adjusted for the conversion impact). The share of B and C category loans in total home loans in Swiss francs (including kuna loans indexed to the Swiss franc) was 16.5%. This indicator was much lower for the kuna and the euro component (including kuna loans indexed to the euro), totalling 9.6% and 6.0%. The share of B and C category loans in the kuna component decreased from the previous year, under the influence of new credit activity but also the decline in the loans of these risk groups. In addition to home loans, the growth in the level of B and C category loans was registered for mortgage and car purchase loans as well, because the fall in the overall credit activity was more pronounced than the fall of B and C category loans. The downward trend observed in car purchase loans that started in 2009 was noticeable (26.5%) so the share of this type of loans declined below 1% of the total household loan portfolio.

### 11.1.4 Liquidity risk

#### Sources of financing

The total sources of bank financing[47] stood at HRK 323.7bn at the end of 2015, which is a decrease of 1.1% from the end of 2014 (Table 11.8). Changes in total sources were a reflection of opposite developments in their components – the growth of domestic sources in 2015 (HRK 12.1bn or 4.6%) was slower than the decrease in foreign sources (HRK 15.7bn or 25.4%) which ultimately led to the fall in total sources of bank financing.

Foreign sources of financing made up 14.3% of all banks' sources. A reduction in foreign sources of funds has traditionally been related to majority foreign owners, whose sources went down by almost a half, totalling HRK 22.8bn at the end of the year. Intensive deleveraging vis-à-vis foreign parent banks started in 2012, with the annual rate of decline in 2015 totalling 45.5% – these sources went down by as much as HRK 19.0bn, while sources from other non-residents increased (16.7%). The share of sources from majority foreign owners thus decreased by another 5.7 percentage points, that is to 7.0% of all bank sources, which was the lowest value of this indicator in the last decade[48]. If the last four years are excluded, another decline in sources from owners on an annual level in the whole of the observed period was recorded only in 2007, when a significant amount of sources from parent banks was used for the capital strengthening of banks. In contrast to sources from majority foreign owners, sources from other non-residents (primarily deposits) accounted for a slightly more

47 Sources of financing are composed of received deposits, received loans, issued debt securities and issued subordinated and hybrid instruments.

48 Since 2004 the CNB has had access to data on sources (loans, deposits, subordinated and hybrid instruments) received from majority foreign owners.

Table 11.8 Structure of bank sources of financing
end of period, in million HRK and %

| | 2013 | | 2014 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change | Amount | Share | Change |
| Deposits | 282,805.6 | 85.9 | 286,075.4 | 87.4 | 1.2 | 294,215.0 | 90.9 | 2.8 |
| Loans | 41,483.1 | 12.6 | 36,561.4 | 11.2 | –11.9 | 24,281.1 | 7.5 | –33.6 |
| Debt securities issued | 299.9 | 0.1 | 299.9 | 0.1 | 0.0 | 300.8 | 0.1 | 0.3 |
| Hybrid and subordinated instruments issued | 4,459.3 | 1.4 | 4,369.4 | 1.3 | –2.0 | 4,922.4 | 1.5 | 12.7 |
| **Total sources of financing** | **329,048.0** | **100.0** | **327,306.2** | **100.0** | **–0.5** | **323,719.1** | **100.0** | **–1.1** |
| Sources of financing from majority foreign owner | 51,514.6 | 15.7 | 41,849.3 | 12.8 | –18.8 | 22,819.6 | 7.0 | –45.5 |

Source: CNB.

Table 11.9 Sectoral structure of received loans
end of period, in million HRK and %

| | 2013 | | 2014 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change | Amount | Share | Change |
| Loans from government units | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Loans from financial institutions | 15,146.0 | 36.5 | 14,617.1 | 40.0 | –3.5 | 12,966.5 | 53.4 | –11.3 |
| Loans from corporates | 317.0 | 0.8 | 723.1 | 2.0 | 128.1 | 896.9 | 3.7 | 24.0 |
| Loans from foreign financial institutions | 25,714.6 | 62.0 | 21,029.7 | 57.5 | –18.2 | 10,245.0 | 42.2 | –51.3 |
| Loans from other non-residents | 305.5 | 0.7 | 191.6 | 0.5 | –37.3 | 172.6 | 0.7 | –9.9 |
| **Total loans received** | **41,483.1** | **100.0** | **36,561.4** | **100.0** | **–11.9** | **24,281.1** | **100.0** | **–33.6** |
| Loans from majority foreign owner | 20,113.3 | 48.5 | 14,087.0 | 38.5 | –30.0 | 4,453.5 | 18.3 | –68.4 |

Source: CNB.

significant share (7.2%), ending the year at HRK 23.3bn.

Domestic sources accounted for HRK 277.6bn at the end of 2015, which strengthened their share in total sources by additional 4.6 percentage points to 85.7%, primarily arising from household and corporate deposits.

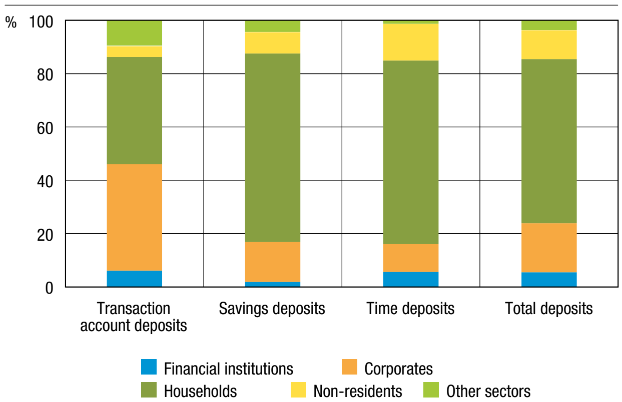
Broken down by instrument type, the decline in sources of funds in 2015 was a result of developments regarding received loans, which went down by a third or HRK 12.3bn, totalling HRK 24.3bn, thus underlining a long trend of decline in received loans. Loans received from non-residents, which went down by a half from 2014, had a key influence on this decline, with their decrease being caused predominantly by loans received from majority foreign owners, which declined by HRK 9.6bn or 68.4% to HRK 4.5bn. Their share in total received loans thus fell to slightly over 18%, which is a steep fall given that two years ago the share of majority foreign owners accounted for more than a half of received loans.

In contrast, the rise in received deposits continued at a slightly more intensive rate than over the previous year, by 2.8% or HRK 8.1bn. The share of deposits thus continued gaining strength, reaching 90.9%, its all-time high. Instruments with the characteristics of equity (hybrid and subordinated instruments) increased slightly, to 1.5% of all sources, while issued debt securities maintained their small share of 0.1%.

Household deposits totalled HRK 181.2bn at the end of the observed period, growing HRK 4.8bn or 2.7%. The share of household deposits continued to grow, reaching 56.0% of total sources, while their share in total deposits remained almost unchanged at 61.6%, with household time deposits decreasing and all other types of household deposits increasing.

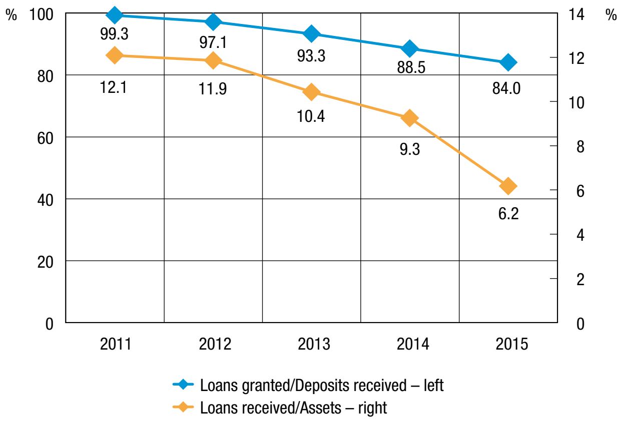
Increasing by HRK 9.2bn (20.6%) corporate deposits ended the year at HRK 54.1bn. Despite the strong growth, their share (18.4% of all deposits) is still substantially below the share before the onset of the crisis. The rise in 2015 was generated by the increase in all types of deposits. Transaction account deposits of corporates increased by 12.2%, savings deposits by 56.0% and time deposits by 30.5%. In comparison with 2014, when corporate deposits grew at a rate of 4.3%, in 2015 this growth rate was much stronger.

Figure 11.16 Sectoral structure of received deposits
as at 31 December 2015



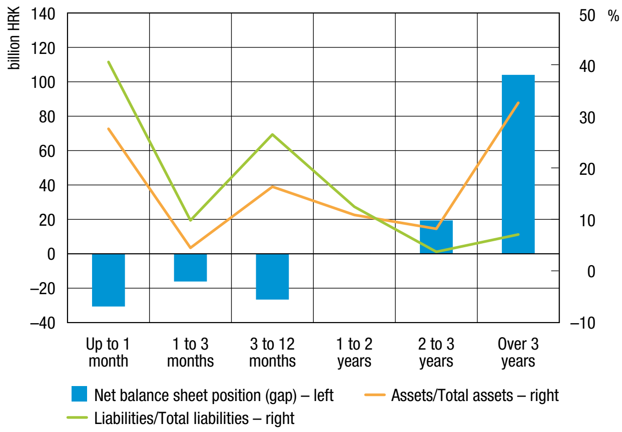

Note: The distribution by institutional sectors is conducted in accordance with the European System of Accounts 1995 (ESA 1995). Data on households refers to households.
Source: CNB.

Figure 11.17 Bank liquidity indicators
end of period




Source: CNB.

Figure 11.18 Asset and liability maturity match or mismatch
as at 31 December 2015




Source: CNB.

Deposits of non-residents were noticeably lower (HRK 5.7bn or 15.1%), primarily amid the decline in time deposits (17.6%), totalling HRK 31.9bn at the end of 2015. The major portion of this decrease was realised by other foreign financial institutions.

More substantial changes in the currency structure of deposits over the last year were observed in the rise of transaction account deposits and savings deposits, which went up by HRK 8.8bn and HRK 3.3bn respectively, with a parallel decrease in time deposits, by HRK 3.9bn. According to size of increase in transaction accounts and savings deposits, the household and corporate sectors led the way. The decline in time deposits was a result of the already mentioned decline in deposits by majority foreign owners and household deposits. According to these changes, the share of transaction account deposits in total deposits continued growing, gaining 2.3 percentage points, reaching 25.9% at the end of 2015, while the share of time deposits declined to 66.8%. Savings deposits also increased, accounting for the remaining 7.3%.

Funds on transaction accounts are normally mostly kuna funds. However they were slightly reduced in comparison with 2014, from 73.7% to 72.2%, with the foreign currency part increasing from 26.3% to 27.8%. On total deposits level, currency changes remained the same, traditionally a third of total deposits were kuna deposits, while the remaining share consisted of foreign currency deposits (deposits in foreign currency and kuna deposits indexed to foreign currency). Deposits in euros (88.5%) continued to account for the largest share of foreign currency deposits, followed by deposits in US dollars (8.0%) and deposits in Swiss francs (2.0%), whose share was reduced by 2.9 percentage points from 2014. Deposits in all other foreign currencies continued to be poorly represented, accounting for only 1.5% of all foreign currency deposits.

### Maturity adjustment of bank assets and liabilities

The mismatch between the short-term assets and short-term liabilities of banks increased slightly at the end of 2015. The traditionally negative short-term cumulative gap[49] stood at HRK –73.4bn at the end of 2015. A considerable widening of the gap from HRK –20.6bn to –37.2bn was still present in the shortest maturity band of up to 15 days. The increase of mismatches in that maturity band reflects the rise in transaction account liabilities of almost HRK 9bn or 13.0%. At the same time, assets within the same maturity band saw a slight decline (of 0.7%), primarily as a result of a drop in loans. Maturity bands of remaining maturity of up to 3 months recorded an increase in mismatches, mostly due to the fall in liabilities (received loans and to a smaller extent time deposits), while the remaining short-term maturity bands recorded a substantial decrease in mismatches (due to the rise in loans and available-for-sale debt instruments).

A stronger growth of short-term liabilities over short-term assets reflected itself in the decrease in their ratio of almost 1 percentage points, to 72.2%. The liquidity coefficient[50]also trended down slightly, to 0.8. The amount of the greatest maturity mismatch between assets and liabilities was, as already mentioned, in the maturity band of up to 15 days.

### Minimum liquidity coefficient[51]

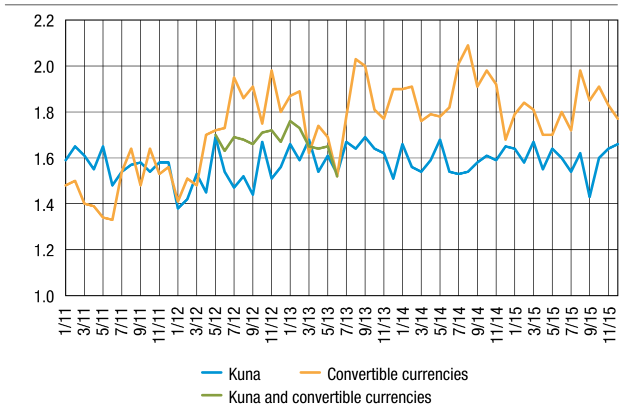
During the whole of 2015, banks continued, on aggregate level, to maintain considerably higher values of minimum coefficients in kuna and convertible currencies in both given

49 The maturity match or mismatch between assets and liabilities is shown by remaining maturity, i. e. by maturity bands and on a net basis, adjusted for the estimated capacity of each debtor or entity subject to payment to actually execute the payment in the agreed amount and within the agreed time limit. There are in all 13 maturity bands, starting from up to *15 days* and ending with more than *240 months*. The gap is net cash flow excess or shortfall in each maturity band. The short-term cumulative gap is the sum of net cash flow excesses or shortfalls in all maturity bands of up to 12 months.

50 This is the ratio of total assets with maturity up to one month to total liabilities with the same maturity.

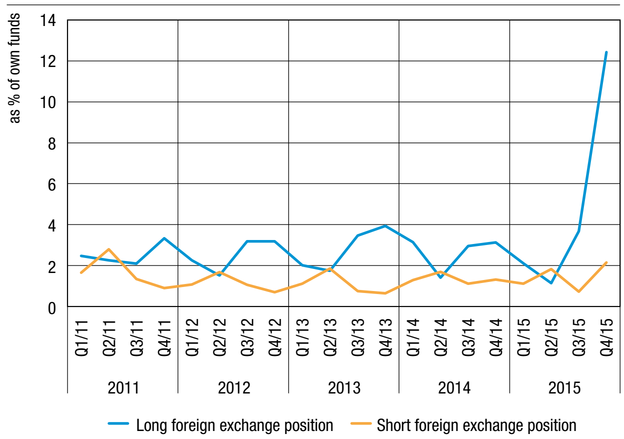
51 Minimum liquidity coefficient (MLC) is calculated as the ratio of expected inflows (currently negotiable assets included) and expected outflows in periods of stress in the two given periods (up to 1 week and up to 1 month) and must be equal to or higher than 1. MLC is calculated for kuna, all convertible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

Figure 11.19 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.

Figure 11.20 Foreign exchange positions of banks
quarterly averages




Source: CNB.

periods[52], whereby coefficients in convertible currencies were traditionally at slightly higher levels than coefficients in kuna. At the end of the year, MLC in kuna stood at 2.2 for the period of up to one week and at 1.7 for the period of up to one month, while MLC in convertible currencies stood at 2.6 and 1.8.

Readily marketable assets (RMA)[53] of banks stood at HRK 77.5bn at the end of 2015, growing by HRK 8.8bn or 12.8% from the end of the previous year. This caused a noticeable increase in the share of these assets in total bank assets, from 17.4% in 2014 to 19.7% in 2015. The rise in RMA reflected the increase in bank investments in deposits/loans with credit institutions and securities available for sale. In contrast to the end of the previous year, deposits with the CNB are no longer the most significant item in the RMA structure, given the decline in their share from 25.4% to 20.5%. At the same time, the rise in the share of deposits/loans with credit institutions of 3.1 percentage points made them the most significant RMA item, accounting for 27.4%. Banks held 43.9% (42.2% in 2014) of RMA in securities that meet the conditions for inclusion in this category of assets. As compared to the end of last year, there has been a noticeable rise in the share of securities allocated to the held-for-trading portfolio, from 19.2% to 22.1%, at the expense of the share of MoF T-bills (which dropped by 3 percentage points to 15.5%). The share of money assets remained almost unchanged at 8.0% of RMA.

### 11.1.5 Currency adjustment of bank assets and liabilities

The shares of foreign currency assets and liabilities decreased slightly in 2015, but were still dominant.[54] Foreign currency assets thus accounted for 60.6% of total assets, while foreign currency liabilities made up 64.8% of total bank liabilities. The bulk of foreign currency assets and liabilities of banks was accounted for by three currencies: the euro, Swiss franc and American dollar.

The kuna strengthened only negligibly against the euro in 2015 (0.3%) and against the Swiss franc and the US dollar it weakened by 10.9%. At the end of the year, the average quarterly open foreign exchange position of banks was long, standing at 12.4% of average own funds[55], indicating big leap in the second half of the year (Figure 11.20). The rise in the ratio of foreign exchange position and own funds was under the influence of the extension of the position due to conversion and new own funds calculation. The effects of losses from conversion were included. It should be noted that the rise in this position was exclusively a consequence of the treatment of individual items for the purpose of reporting, that is, the treatment of provisions for conversion as a kuna item. If this item is viewed as a foreign exchange item, as in its economic essence it was, the overall net open foreign exchange position of banks did not register substantial changes, thanks to the active bank management of currency risk (using derivative financial instruments, foreign currency sale/purchase, deleveraging in the Swiss franc, etc.).

period, but no longer than for seven calendar days during the reporting month, banks are exceptionally allowed to maintain MLC only in one currency (in kuna or all convertible currencies together or non-convertible currencies separately) at a level 10% below 1 (i. e. 0.9), regardless of the time zone (up to 1 week or up to 1 month). By way of exception, in the period from 1 May 2012 until 30 June 2013, banks were allowed to meet MLC on a collective basis, i. e. for both kuna and all convertible currencies combined.

52 For the purposes of calculating the minimum liquidity coefficient, inflows and outflows are reported according to an acute short-term stress scenario specified by the CNB that is much more stringent than actual cash flows because of various requirements and haircuts. The purpose of the stress scenario is to determine whether a credit institution has sufficient liquid assets to meet its liquidity needs in stressed conditions within a given period.

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

54 In this chapter, foreign currency assets and liabilities encompass assets and liabilities in foreign currency and in kuna indexed to foreign currency.

55 Due to the harmonisation with EU regulations, the cap on open foreign exchange position of banks, previously set at 30% of own funds, was abolished as of 30 June 2014.

Foreign currency assets of banks decreased by 2.4% (which in real terms, given the developments in the most represented currencies, is a decrease of 3.7%). They stood at HRK 238.5bn at the end of 2015, down by HRK 6.0bn from the end of 2014. At the same time, the kuna asset items amounted to HRK 155.0bn, accounting for an increase of HRK 4.3bn or 2.8%.

A review of the changes in the currency structure of total bank foreign currency asset items compared to 2014 shows that the most significant nominal decrease was observed in the position of euro items, totalling HRK 5.0bn (2.4%). The foreign currency asset items in Swiss francs decreased by HRK 3.2bn or 14.4%. However, their effective decrease was much greater, totalling HRK 5.5bn (25.2%), a reflection of the decline in household loans arising from loan conversion.

Foreign currency liabilities of banks in the observed period declined more significantly than foreign currency assets, by 2.6% (which is 3.8% in real terms). Totalling HRK 222.5bn they maintained the most significant share in total bank liabilities. As for the currency structure of foreign currency liabilities, the most visible change as compared to 2014 was in the Swiss franc item, which registered a decline of as much as HRK 11.5bn or 74.2%. If the exchange rate changes are taken into account the decrease was even stronger, totalling HRK 13.1bn or a high 85.0%. This reduced the share of liabilities in the Swiss franc in total foreign currency liabilities from 6.8% to a low 1.8%. The decrease in liabilities in the Swiss franc was most affected by the fall in deposits from foreign financial institutions and loans of non-residents as a consequence of the conversion of loans in the Swiss franc into loans in euros, as well as by credit institutions no longer needing sources of funds in the Swiss franc. The liabilities in euros went up by HRK 3.3bn or 1.7% (HRK 3.9bn or 2.0% effectively) solely under the influence of the rise in domestic deposits. The share of euro items continued to dominate total liabilities with 89.5% at the end of 2015.

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

Banks' exposure to interest risk in the non-trading book remained very low, which has become common since the rules on the management of interest rate risk began to be applied, that is, since 2010.[56] Banks boasted such low exposure primarily thanks to well matched interest rate-sensitive assets and liabilities in individual time zones, while the prevailing share of the mismatched interest rate-sensitive assets and liabilities was in time zones with a low weight.

At the end of last year, exposure of banks to interest rate

Table 11.10 Interest rate risk in the non-trading book
in million HRK and %

| Currency | Interest rate type | 2013 | 2014 | | 2015 | |
|---|---|---|---|---|---|---|
| | | Net weighted position | Net weighted position | Change | Net weighted position | Change |
| HRK | Administered interest rate | –660.3 | –672.3 | 1.8 | –821.1 | 22.1 |
| | Variable interest rate | 462.0 | 432.7 | –6.3 | 431.5 | –0.3 |
| | Fixed interest rate | 508.6 | 469.1 | –7.8 | 579.9 | 23.6 |
| EUR | Administered interest rate | –184.2 | –285.4 | 54.9 | –377.7 | 32.4 |
| | Variable interest rate | 435.8 | 388.6 | –10.8 | 320.2 | –17.6 |
| | Fixed interest rate | –479.2 | –630.6 | 31.6 | –656.4 | 4.1 |
| CHF | Administered interest rate | 63.8 | –12.3 | –119.3 | –18.5 | 50.1 |
| | Variable interest rate | 67.5 | –26.8 | –139.8 | 3.3 | –112.4 |
| | Fixed interest rate | –177.3 | 1,864.9 | –1,152.1 | 1,224.8 | –34.3 |
| USD | Administered interest rate | –24.7 | –34.6 | 40.3 | –57.3 | 65.5 |
| | Variable interest rate | 1.0 | 2.4 | 136.0 | 2.6 | 10.3 |
| | Fixed interest rate | –20.1 | –2.3 | –88.7 | –17.4 | 662.3 |
| Other | Administered interest rate | –59.7 | –37.8 | –36.7 | –52.1 | 37.8 |
| | Variable interest rate | 0.1 | –7.6 | –6,035.2 | –3.6 | –53.2 |
| | Fixed interest rate | –10.4 | 300.9 | –3,006.1 | 67.9 | –77.4 |
| Change in the economic value of the non-trading book | | 77.1 | 1,748.8 | 2,167.6 | 626.0 | –64.2 |
| Own funds | | 53,388.1 | 53,780.0 | 0.7 | 51,203.1 | –4.8 |
| Ratio between the change in the economic value of the non-trading book and own funds | | 0.14 | 3.3 | 2,221.4 | 1.2 | –62.5 |

Source: CNB.

56 Interest rate risk in the non-trading book is due to maturity mismatch/revaluation of interest rates of non-trading book positions. For the purposes of measuring the effect of interest rate risk in the non-trading book, credit institutions are obligated to apply the standard interest rate shock which assumes a simultaneous parallel positive or negative shift in all interest bearing positions in the non-trading book (regardless of the interest rate type and currency) on the reference yield curve of 200 basis points (2%). All interest rate-sensitive items of the non-trading book are distributed into 13 time zones and weighted by appropriate weights, calculated by multiplying the estimated modified duration for each time zone and assumed interest rate shock. The result is the estimate of the change in the economic value of the non-trading book, i. e. the estimate of the present value of all expected net cash flows measured by the net weighted position, which may not exceed 20% of own funds.

risk amounted to 1.2% of own funds (Table 11.10), down by 2 percentage points compared with the end of 2014. Although own funds of banks went down by 4.8% in the observed period, the said decrease in the ratio was caused by the fall in the economic value of the non-trading book of 64.2% to HRK 626.0m.

The effect of conversion was visible in the fall of exposure to interest rate risk in the non-trading book arising from the decrease in positions with a fixed interest rate that otherwise have a considerable effect on total exposure. In contrast to the previous year, dominated by the position with a fixed interest rate, at the end of 2015 it went down by a significant 40.1%, totalling HRK 1.2bn, while the position with an administered interest rate accounted for a stronger share of HRK 1.3bn. The position with a variable interest rate decreased slightly, totalling HRK 754.0m.

Broken down by time zone, the greatest net negative gap, totalling HRK 960.5m, was visible in the time zone of 6-12 months. In contrast to 2014, the sharpest decline, in nominal terms, was registered by weighted positions in time zones longer than seven years, which was caused by the conversion of loans that were reported as loans with a fixed interest rate.

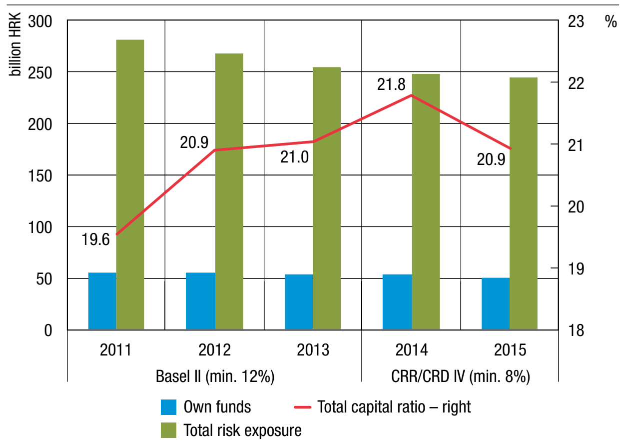
### 11.1.7 Capital adequacy[57]

At the end of 2015, the common equity tier 1 capital ratio of banks stood at 19.2%, as did the tier 1 capital ratio. The total capital (own funds) ratio stood at 20.9%, down 0.8 percentage points over 2014 (Figure 11.21). Both components in the calculation of the total capital ratio were decreased, own funds at a stronger rate (4.8%) than total risk exposure (1.0%) so the total capital ratio went down. Both of these components were affected by the implementation of the regulatory provisions on the conversion of loans in Swiss francs, own funds decreased as a consequence of current year losses on one side and bank exposure to market risk increased on the other as a consequence of banks adjusting their foreign currency position which then substantially reduced the decline in banks' total exposure to credit risk.

Own funds of banks totalled HRK 51.2bn at the end of 2015, down HRK 2.6bn or 4.8% from the year earlier (Table 11.11). This was almost exclusively a consequence of the recognised current year losses, which reduced common equity tier 1 capital by HRK 4.9bn at the end of 2015. At the end of the previous year their negative effect was noticeably weaker (HRK 1.2bn). Under this influence, retained earnings decreased by as much as 27.9% and tier 1 capital by HRK 4.1bn or almost 8.0%. The increase in common equity tier 1 realised by recapitalisation due to parallel simplified reductions in the share capital (aiming to cover losses from previous years) in the end had a weak effect on capital instruments recognised as common equity tier 1 capital, HRK 238.8m (0.7%). The described negative impact on own funds was partially mitigated by the increase in tier 2 capital, which went up by HRK 1.5bn or 52.0%, through the roll-over or increase in capital instruments recognised as tier 2.

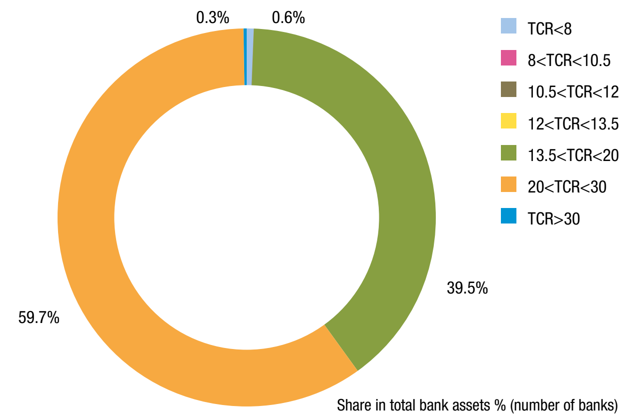
On aggregate level, starting from 1999, only on one other occasion did own funds go down (in 2013) in annual terms, as a consequence of several parallel negative factors: increased losses, decreased current year profit, exit of one small bank from the system and finally the increase in deduction items

Figure 11.21 Bank total capital ratio
end of period




Source: CNB.

Figure 11.22 Distribution of the bank total capital ratio (TCR)
as at 31 December 2015




Source: CNB.

57 As of 1 January 2014, the Regulation (EU) No 575/2013 and Directive 2013/36/EU (transposed into the Croatian legislation via the Credit Institutions Act) set out the framework for determining the capital and capital ratios of credit institutions. 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%. In addition, since 1 January 2014 credit institutions have been 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 in the amount of 2.5% of total risk exposure, while the requirement for structural systemic risk is set at 1.5% of the total risk exposure for all credit institutions and the additional 1.5% for institutions of relatively larger scope and complexity of operations.

Table 11.11 Own funds, risk exposure and capital ratios of banks

in million HRK and %

| | 2014 | | 2015 | | |
|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change |
| Own funds | 53,780.0 | 100.0 | 51,203.1 | 100.0 | –4.8 |
| Tier 1 capital | 50,931.0 | 94.7 | 46,872.4 | 91.5 | –8.0 |
| Common equity tier 1 capital | 50,931.0 | 94.7 | 46,872.4 | 91.5 | –8.0 |
| Capital instruments eligible as common equity tier 1 capital | 33,482.2 | 62.3 | 33,721.0 | 65.9 | 0.7 |
| Retained earnings | 16,707.9 | 31.1 | 12,048.2 | 23.5 | –27.9 |
| Other items | 740.9 | 1.4 | 2,187.4 | 4.3 | – |
| Additional tier 1 capital | 0.0 | 0.0 | 0.0 | 0.0 | – |
| Tier 2 capital | 2,849.0 | 5.3 | 4,330.7 | 8.5 | 52.0 |
| **Total risk exposure amount** | **246,959.2** | **100.0** | **244,593.0** | **100.0** | **–1.0** |
| Risk weighted exposure amounts for credit, counterparty credit and dilution risks and free deliveries | 218,615.5 | 88.5 | 212,482.0 | 86.9 | –2.8 |
| Standardised approach | 185,416.7 | 75.1 | 182,951.3 | 74.8 | –1.3 |
| Central governments or central banks | 2,843.2 | 1.2 | 3,769.6 | 1.5 | 32.6 |
| Corporates | 63,408.8 | 25.7 | 62,243.4 | 25.4 | –1.8 |
| Retail | 61,537.1 | 24.9 | 60,363.4 | 24.7 | –1.9 |
| Exposures in default | 26,710.5 | 10.8 | 21,481.7 | 8.8 | –19.6 |
| Other items | 30,917.2 | 12.5 | 35,093.3 | 14.3 | 13.5 |
| Internal ratings based approach (IRB) | 33,198.8 | 13.4 | 29,530.6 | 12.1 | –11.0 |
| Position, foreign exchange and commodities risks | 4,193.0 | 1.7 | 8,676.5 | 3.5 | 106.9 |
| Operational risk | 23,796.0 | 9.6 | 22,813.3 | 9.3 | –4.1 |
| Credit valuation adjustment | 354.7 | 0.1 | 621.3 | 0.3 | 75.2 |
| Other | 0.0 | 0.0 | 0.0 | 0.0 | – |
| **Common equity tier 1 capital ratio** | **20.6** | **–** | **19.2** | **–** | **–7.1** |
| **Tier 1 capital ratio** | **20.6** | **–** | **19.2** | **–** | **–7.1** |
| **Total capital ratio** | **21.8** | **–** | **20.9** | **–** | **–3.9** |

Source: CNB.

from original own funds and additional own funds.

To cover capital requirements from the first pillar of the capital adequacy framework, banks needed HRK 19.6bn, while coverage of other capital requirements and capital buffers necessitated HRK 15.8bn more. Considering the amount of own funds, banks were left with HRK 16.1bn or 31.4% of own funds. This was HRK 1.9bn or 10.5% less unutilised own funds than at the end of the previous year.

Several banks experienced difficulties in maintaining the total capital ratio in 2015. However, the situation improved during the year so at the end of the year two banks registered a below-8% ratio. Due to losses above the amount of capital one of these banks reported a negative total capital ratio and entered resolution proceedings in October, while the other, with a ratio below the minimum is subject to supervisory measures. The share of assets of these banks in the system was small, 0.6% (Figure 11.22). Despite losses that noticeably lowered own funds, the majority of banks remained well-capitalised, particularly the leading banks in terms of asset size. Seventeen banks, accounting for almost 40% of all bank assets, boasted ratios ranging from 13.5% to 20%, while in seven banks, whose assets make up more than a half of the assets in the system, they ranged between 20% and 30%.

Banks' total risk exposure continued to decrease in 2015, by a further HRK 2.4bn or 1.0%. The slight rate of decrease in total risk exposure is a reflection of the opposite movements of its components, with exposure to credit risk leading the way with a decrease of HRK 6.1bn or 2.8% (Table 11.11). Exposure to operational risks reduced by HRK 1.0bn or 4.1% predominantly amid weaker business results that affected the value of the relevant indicator. In contrast, exposure to market risks increased strongly (HRK 4.5bn or 106.9%) as did exposure to credit valuation adjustment risk[58] (HRK 266.6m or 75.2%). The latter resulted from the rise in exposures arising from securities-financing transactions. Despite this, the share of this risk in the structure of total exposure remained small (0.3%). The increase in market risks exposure was primarily a reflection of the strong growth in exposure to currency risk (from HRK 1.5bn to almost HRK 5.5bn). In the process of conversion (through embedded derivatives), at the end of September banks noticeably increased their foreign exchange positions, which remained at those levels until the end of the year.

These developments affected the distribution of total risk exposure so the share of market risks exposure reached 3.5%

58 Counterparty credit risk for over-the-counter (OTC) derivative financial instruments and securities financing transactions. Over-the-counter (OTC) derivative financial instruments are traded directly among counterparties (and not on regulated markets).

(its highest level since 2014) predominantly at the expense of the share of credit risk exposure, which decreased to 86.9% (Figure 11.23). There were no changes in the method for the calculation of credit risk exposure from the previous year; the prevailing share is calculated by applying the standardised approach, while the internal ratings based approach (IRB approach) continued to be applied by only one bank. Exposures calculated via the IRB approach went down at a noticeable rate (11.0%), predominantly under the influence of the change in approach of assessing the exposure to the central bank. This softened the decline in exposures calculated using the standardised approach to 1.3%, while the effect on the change in the distribution of exposures by weights was mild.

Exposures to central governments and central banks thus accounted for the greatest change in the distribution of exposures weighted by credit risk weights under the standardised approach, raising the amount of exposure weighted by 0% (by HRK 7.1bn or 6.1%). This additionally increased the share of 0% risk weight in the structure of total exposure weighted by risk weights to 35.7%.

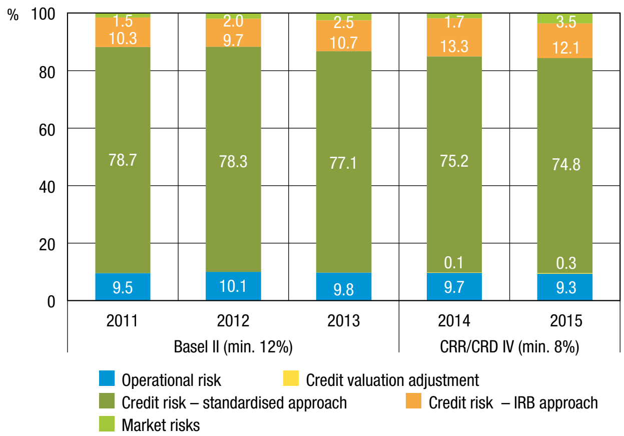
The decline of exposures in default[59] (by HRK 3.8bn or 17.1%) determined changes in exposures that are weighted by 150% and 100%. The decline of exposures in the category of exposures in default was predominantly a result of the decrease in the base, as was particularly evident in the second half of the year. The decrease arose from the sale of claims and placement restructuring, which increased as usual in the last quarter and at the end of the year. The only other category that registered more significant changes was exposures weighted with 50% that grew by almost a double, HRK 3.6bn, which was predominantly realised in the institutions category. This was to a lesser extent a result of the rise in the base and to a greater extent a consequence of the move from exposures weighted by the risk weight of 20%.

Exposures assigned a 250% risk weight stood out by the rate of increase on an annual level (HRK 1.4bn or 124.3%). Those are exposures arising from equity investments in financial sector entities up to 10% of the institution's common equity tier 1 that does not exceed the established threshold and the increase reflects the increase in investments of two banks that had each taken over one credit institution from Bosnia and Herzegovina within the framework of regional intragroup restructuring.

The use of a preferential weight for exposures secured by residential real estate (35%) continued trending downward, mostly under the influence of the decrease in lending to households and shift to higher risk weights. As a result, at the end of the year the 35% risk weight was assigned to only 4.3% of the overall exposure weighted under the standardised approach.

Accordingly, the increase in exposures was realised in the less risky segments (risk weights 0%, 20% and 50%), which was paired with the most prominent decrease in bank exposures in the category of exposures in default that are weighted with 100% and 150%. The increase of investments in the capital of foreign financial institutions raised the amount of exposure that is assigned a high risk weight. However, the share of this category and thus its impact on overall exposure remained low. As a result, the average credit risk weight continued its downward trend (except in 2014) that started in 2009, decreasing from 53.7% to 52.5%.

Figure 11.23 Structure of bank total risk exposure
end of period




Source: CNB.

## 11.2 Business operations of housing savings banks

The number of housing savings banks that operated in the Republic of Croatia in the past year remained the same as at the end of 2014. There were five housing savings banks operating in the country and their assets, due to the fact that they remained almost unchanged as compared with the asset decline of 0.4% observed by banks, increased their share in the total assets of credit institutions to 1.9%. Four housing savings banks were directly or indirectly owned by foreign shareholders (accounting for 96.3% of total assets of housing savings banks) while one was in domestic ownership.

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

In comparison with the end of 2014, the assets of housing savings banks went down negligibly, by less than 0.1% (Table 11.12). However, their operations stagnated, primarily due to the narrowing of the main source of funding – household time deposits. The slowdown was probably also affected by the repealing of state incentives on housing savings in 2014, followed by their reintroduction in 2015 but in a much smaller amount.

The asset items of housing savings banks experienced a certain redistribution. The largest item, loans granted (accounting for more than a half of their assets) suffered a decline of 3.6% (HRK 155.3m). This was most evident in connection to loans to financial institutions (which went down by as much as 63.3% or HRK 89.6m) as well as loans granted to non-financial corporations (which were 20.7% or HRK 39.5m lower) but also to the most important asset item, home loans to

59 It includes all exposures to clients who have at least one due but unpaid receivable which has been overdue for more than 90 days or who are considered unlikely to settle their obligations in full (excluding the option of collection from collateral). Exposures are assigned a 100% risk weight, except where specific values adjustments for credit risk do not exceed 20% of the unsecured part of total exposure, when risk weight 150% is assigned.

Table 11.12 Structure of housing savings bank assets

end of period, in million HRK and %

| | 2013 | | 2014 | | | 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 | 42.9 |
| Money assets | 0.0 | 0.0 | 0.0 | 0.0 | –48.1 | 0.0 | 0.0 | 42.9 |
| 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 | 563.9 | 7.3 | 29.9 |
| MoF treasury bills and CNB bills | 435.9 | 5.8 | 350.8 | 4.5 | –19.5 | 162.4 | 2.1 | –53.7 |
| Securities | 2,256.5 | 29.8 | 2,481.2 | 31.9 | 10.0 | 2,706.7 | 34.8 | 9.1 |
| Derivative financial assets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Loans to financial institutions | 20.8 | 0.3 | 141.6 | 1.8 | 580.6 | 52.0 | 0.7 | –63.3 |
| Loans to other clients | 4,013.8 | 53.1 | 4,239.8 | 54.6 | 5.6 | 4,174.0 | 53.7 | –1.5 |
| 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 | 1.4 | 0.0 | 783.8 |
| Tangible assets (net of depreciation) | 3.9 | 0.1 | 3.0 | 0.0 | –22.1 | 2.2 | 0.0 | –28.7 |
| Interest, fees and other assets | 310.8 | 4.1 | 120.2 | 1.5 | –61.3 | 110.1 | 1.4 | –11.5 |
| Total assets | 7,564.7 | 100.0 | 7,770.8 | 100.0 | 2.7 | 7,772.6 | 100.0 | 0.0 |

Source: CNB.

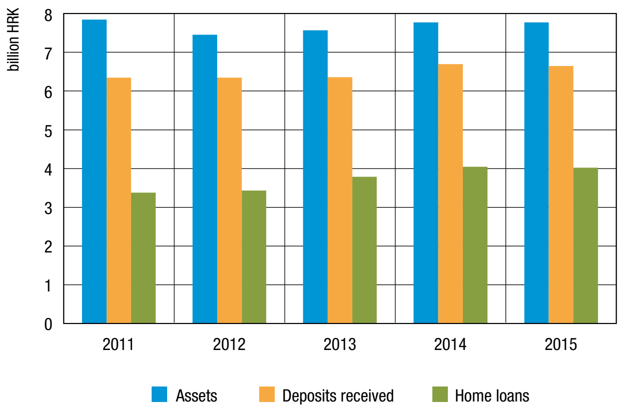
Table 11.13 Structure of housing savings bank liabilities and capital

end of period, in million HRK and %

| | 2013 | | 2014 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change | Amount | Share | Change |
| Loans from financial institutions | 139.6 | 1.8 | 60.5 | 0.8 | –56.7 | 42.0 | 0.5 | –30.6 |
| Short-term loans | 139.6 | 1.8 | 60.5 | 0.8 | –56.7 | 42.0 | 0.5 | –30.6 |
| 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 | 6,645.0 | 85.5 | –0.7 |
| 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 | 0.0 | 0.0 | –99.4 |
| Time deposits | 6,135.2 | 81.1 | 6,689.6 | 86.1 | 9.0 | 6,645.0 | 85.5 | –0.7 |
| Other loans | 95.5 | 1.3 | 95.8 | 1.2 | 0.3 | 95.4 | 1.2 | –0.3 |
| 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 | 95.4 | 1.2 | –0.3 |
| 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 | 83.2 | 1.1 | –0.2 |
| Interest, fees and other liabilities | 278.9 | 3.7 | 118.7 | 1.5 | –57.4 | 130.2 | 1.7 | 4.3 |
| Total liabilities | 6,961.4 | 92.0 | 7,052.7 | 90.8 | 1.3 | 6,995.9 | 90.0 | –0.9 |
| Share capital | 487.9 | 6.4 | 487.9 | 6.3 | 0.0 | 487.9 | 6.3 | 0.0 |
| Current year profit (loss) | 29.9 | 0.4 | 58.8 | 0.8 | 96.9 | 47.5 | 0.6 | –19.5 |
| Retained earnings (loss) | 91.1 | 1.2 | 120.1 | 1.5 | 31.9 | 177.6 | 2.3 | 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 | – | –10.7 | –0.1 | 33.7 |
| Revaluation reserves | –17.2 | –0.2 | 50.2 | 0.6 | – | 64.0 | 0.8 | 32.9 |
| Previous year profit (loss) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total capital | 603.4 | 8.0 | 718.1 | 9.2 | 19.0 | 776.7 | 10.0 | 8.5 |
| Total liabilities and capital | 7,564.7 | 100.0 | 7,770.8 | 100.0 | 2.7 | 7,772.6 | 100.0 | 0.0 |

Source: CNB.

Figure 11.24 Assets, deposits and home loans of housing savings banks
end of period




Source: CNB.

households. They make up more than 95% of loans by housing savings banks so their 0.6% decrease (HRK 25.8m) was the main cause of the decline in their assets.

In contrast, deposits with domestic credit institutions increased (29.9%), as well as investments in securities (1.3%). Investments in securities grew thanks to the increase in investments in government bonds (9.1%) and despite the substantial fall of investments in MoF T-bills, to less than the half of their value thus far (by 53.7%).

All sources of financing of housing savings banks underwent a reduction in 2015. This decrease was primarily associated with deposits (85.5% of the balance sheet total), in which the decrease of 0.7% totalled HRK 49.2m. Received loans were also lower, by 12.1% (HRK 18.9m). In contrast, capital increased by HRK 60.6m (8.5%). The profit of 2014 was fully distributed in retained earnings and reserves, which increased by 47.8% or 16.4%. However, despite the slowdown in operations housing savings banks generated a profit (after tax), although 19.5% lower than in 2014. Revaluation reserves increased as well (by one third or HRK 15.8m) as a result of the increase in unrealised gain on value adjustments of financial assets available for sale (the value of the portfolio went up by a quarter or 26.7% last year).

Due to the increase of 13.3% or HRK 4.3m, standard off-balance sheet items totalled HRK 36.6m at the end of 2015. However, their share in total assets of housing savings banks remained at a low 0.5%. They included credit lines and commitments (granted, but unrealised home loans).

### 11.2.2 Income statement

Housing savings banks reported profit from continuing operations (before tax) which went down by a noticeable 17.1% last year after having risen in 2014, totalling HRK 59.2m (Table 11.14). Although all components of operating income were responsible for its 12.4% decrease, the rise in the amount of negative net other non-interest income was dominant. It was caused by the steep fall in gains on financial assets (debt instruments) distributed to the held-for trading portfolio. All housing savings banks reported a profit.

The most important segment of operating income, net interest income decreased by 2.8% in 2015 due to greater growth of interest expenses (2.5%) than of interest income, which, as expected, stagnated amid the reduction in credit activity of housing savings banks (up only 0.3%). The decline in net income from fees and commissions was slightly lower, by 2.5%, resulting also from the expected decrease in the greatest share of this income, that stemming from fees and commissions for contracts on housing savings, which went down by 7.7%. Nevertheless, the decline in total operating income was predominantly influenced by the increase in the negative amount of net other non-interest income of HRK 18.4m arising from the outspoken decline in gain on assets held by housing savings banks for trading (93.8%), primarily debt securities (bonds of the RC and MoF T-bills) which went down by 81.7%.

The said decline in net operating income caused a deterioration of the share of general operating expenses in operating income, that is, the cost-to-income ratio of housing savings banks to 65.8% (from 60.5%), because general administrative

Table 11.14 Housing savings bank income statement
in reference periods, in million HRK and %

| | Amount | | Change |
|---|---|---|---|
| | Jan. – Dec. 2014 | Jan. – Dec. 2015 | |
| Continuing operations | | | |
| Interest income | 353.8 | 354.8 | 0.3 |
| Interest expenses | 205.9 | 211.2 | 2.5 |
| Net interest income | 147.9 | 143.7 | –2.8 |
| Income from fees and commissions | 55.8 | 52.0 | –6.8 |
| Expenses on fees and commissions | 8.8 | 6.2 | –29.3 |
| Net income from fees and commissions | 47.0 | 45.8 | –2.5 |
| Income from equity investments | 0.0 | 0.0 | 0.0 |
| Gains (losses) | 20.0 | 1.9 | –90.6 |
| Other operating income | 2.7 | 8.1 | 198.6 |
| Other operating expenses | 25.3 | 31.0 | 22.3 |
| Net other non-interest income | –2.6 | –21.0 | 709.6 |
| Total operating income | 192.3 | 168.5 | –12.4 |
| General administrative expenses and depreciation | 116.3 | 110.8 | –4.7 |
| Net operating income before loss provisions | 76.0 | 57.7 | –24.1 |
| Expenses on value adjustments and provisions | 4.6 | –1.5 | –132.0 |
| Other gains (losses) | 0.0 | 0.0 | 0.0 |
| **Profit (loss) from continuing operations, before taxes** | **71.4** | **59.2** | **–17.1** |
| Income tax on continuing operations | 12.4 | 11.7 | –5.9 |
| Profit (loss) from continuing operations, after taxes | 58.9 | 47.5 | –19.5 |
| Discontinued operations | | | |
| Profit (loss) from discontinued operations, after taxes | 0.0 | 0.0 | 0.0 |
| **Current year profit (loss)** | **58.9** | **47.5** | **–19.5** |
| Memo item: | | | |
| Number of housing savings banks operating with losses, before taxes | 0 | 0 | 0.0 |

Source: CNB.

Table 11.15 Classification of housing savings bank placements and assumed off-balance sheet liabilities by risk categories
end of period, in million HRK and %

| Risk category | 2013 | | 2014 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Share | Amount | Share | Change | Amount | Share | Change |
| A | 6,234.4 | 99.2 | 5,907.3 | 98.8 | –5.2 | 5,537.2 | 98.8 | –6.3 |
| B | 48.3 | 0.8 | 67.1 | 1.1 | 38.9 | 58.3 | 1.0 | –13.1 |
| C | 3.8 | 0.1 | 5.4 | 0.1 | 41.1 | 9.8 | 0.2 | 81.7 |
| Total | 6,286.5 | 100.0 | 5,979.7 | 100.0 | –4.9 | 5,605.3 | 100.0 | –6.3 |

Source: CNB.

Table 11.16 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 %

| | 2013 | 2014 | 2015 |
|---|---|---|---|
| Total value adjustments against placements and provisions for assumed off-balance sheet liabilities | 66.7 | 69.1 | 68.3 |
| Value adjustments and provisions | 12.1 | 17.5 | 20.0 |
| Collectively assessed value adjustments and provisions | 54.6 | 51.5 | 48.3 |
| Total placements and assumed off-balance sheet liabilities | 6,286.5 | 5,983.9 | 5,605.3 |
| Coverage | 1.1 | 1.2 | 1.2 |

Source: CNB.

expenses and depreciation fell at a slower rate, by 4.7%. The decline in profit caused deterioration in the profitability indicator of housing savings banks so ROAA (return on average assets) decreased from 0.9% to 0.8%. Due to the increase in capital of housing savings banks the influence on ROAE (return on average equity) was even greater, causing it to fall from 8.9% to 6.4%.

## 11.2.3 Credit risk

The slowdown in the business activities of housing savings banks became evident in the reduction of their placements (items exposed to credit risk that are classified into risk categories), which went down by HRK 374.4m or 6.3% (Table 11.15). This was primarily a consequence of the fall in lending, which makes up 87.7% of total placements and off-balance sheet liabilities, down by 4.6% (HRK 234.2m). Investments in government bonds decreased as well, by 16.7% (a further HRK 126.5m).

The quality of placements was quite high, as usual, remaining almost unchanged over the past year. Thus, the highest quality placements, risk category A, accounted for 98.8% of total placements, with a minimum deterioration to be spotted only in the shift of a small portion of placements from risk category B to risk category C. These highest risk placements almost doubled. However, this caused a shift of only one tenth of a percentage point in their share in total placements.

Value adjustments behaved in line with the described developments. They went up only in relation to risk category C. However, the overall ratio of value adjustments to exposures (the coverage ratio) remained unchanged (Table 11.16).

The share of home loans granted by housing savings banks at system level went down from 7.3% to 6.9%.

## 11.2.4 Capital adequacy

The total capital ratio of housing savings banks continued growing, ending the year at 25.1% as compared with 23.5% at the end of 2014. This was equally a result of the increase in own funds, which went up by 3.0% and totalled HRK 730.7m, and of the decrease in the overall amount of exposure to operational risks, which went down by 3.3% and totalled HRK 2.9bn. Also on the rise, reflecting high values, were the common equity tier 1 ratio and tier 1 capital ratio, totalling 22.6% (tier 2 capital, although increasing by 9.0%, continued to account for less than 10% of own funds). All housing savings banks met the prescribed minimum capital ratios.

This decrease in total risk exposure was to the greatest extent aided by the decrease in exposure to credit risk which made up 82.0% of the total exposure to risk at the end of last year. This exposure, due to the slowdown in credit activity, went down by 3.2%, which represented 79.1% of the total decrease in risk exposure of housing savings banks. All housing savings banks calculated the exposure to credit risk by applying the standardised approach. The amount of exposure to operational risk (accounting for 12.7% of total exposure) decreased by 8.5%, the only exposure increasing being the exposure to position, foreign exchange and commodities risks, which went up by 9.7%. Exposure to foreign exchange risk grew due to the increase in long positions in euros.

The average credit risk weight was slightly lower this year than in 2014, standing at 32.0%, which means that it fell by one percentage point. This was a result primarily of the decrease in exposure assigned higher weightings in favour of those assigned a risk weight of 35% and 100%. Both of these categories increased by some 18%. Given that in the first example the increase has to do with the increase in exposures arising from home loans secured by residential real estate and lending activity of housing savings banks stagnated, it is to be assumed that the case at hand has to do with adjustment and correction of criteria for assignment into different categories. The increase in exposure weighted with 100% is a result of the increase in credit lines and commitments which grew by 13.3% in the period under review.

Housing savings banks had to set aside slightly more common equity tier 1 capital as capital buffers than the year before. They set aside HRK 116.6m (11.4% more), HRK 72.8m being related to the capital conservation buffer and the remaining HRK 43.7m to the structural systemic risk buffer. The first figure was slightly lower than in 2014, due to the decrease in total exposure to the risks for which it is calculated, while the structural systemic risk buffer increased due to the obligation arising for two housing savings banks that had not been subject to the allocation requirement in 2014.

# 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
SGP – Stability and Growth Pact
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

HNB

ISSN 1849-3483 (online)