



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 First Half of 2017

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2017



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1 Summary

Global macroeconomic developments were relatively favourable in the first half of 2017. Economic growth strengthened and global trade recovered. Having increased at the beginning of the year, global raw material prices decreased towards mid-year, and financing conditions for European emerging market economies continued to improve. Croatia's risk premium narrowed faster than the average risk premium for other such economies thanks to improved government financial management.

Domestic economic trends were also favourable. Economic activity continued to expand in the first half of 2017, with real GDP up 2.7% from the same period in 2016. GDP annual growth was mainly driven by rising exports of goods and services, which at the beginning of 2017 continued the positive trends from 2016, annual export growth rate decreasing considerably in the second quarter, however. Personal consumption also made a significant positive contribution to economic growth, reflecting favourable labour market trends and consumer credit growth. Other domestic demand components also increased from the first half of 2016. Gross fixed capital formation rose relatively strongly in the first quarter of 2017 before decelerating considerably in the second quarter. General government investments declined at an especially high rate. Despite favourable current trends, economic growth is still markedly lower than in peer countries.

The number of employed persons continued to rise steadily in 2017, increasing by 1.8% in the first half of the year from the same period in the previous year, with the increase fully driven by the private sector. Unemployment continued to decrease at a fast pace, down to 170,000 in June, its record low since 1997. It should be noted that the decrease in unemployment partly resulted from a decline in the active labour force caused by the emigration of the population. In addition, the average gross wage increased sharply across the board, and the average net wage grew even more because of changes in income tax regulations.

Consumer price inflation increased considerably in the first half of 2017, due primarily to mounting imported inflationary pressures and to some extent to the strengthening of domestic demand. The annual inflation rate went up from 0.2% in December 2016 to 0.7% in June 2017. All of the main components of the consumer price index (except energy) contributed to the acceleration of the annual inflation rate in the first six months of 2017. The contribution of the prices of processed food products (especially milk and butter) to overall inflation increased the most.

Foreign economic relations remained positive in the first half of 2017. The current and capital account balance improved slightly from the same period in the previous year thanks to the widening of the surplus in foreign trade in services (especially tourism), a better absorption of EU funds and lower interest on foreign liabilities. The deepening of the foreign trade deficit had the opposite effect on the current and capital account balance. As regards the indicators of external imbalances, the relative indicators of gross and net external debt improved further in the first six months of 2017, while the relative indicator of

the net international investment position remained at the level reached at the end of the previous year.

The CNB pursued an expansionary monetary policy in the first half of 2017, thus providing continued support to economic recovery. The large amount of reserve money created through foreign exchange interventions alleviated appreciation pressures on the domestic currency and boosted gross international reserves. Banks' free reserves in the accounts held with the CNB were almost double what they were in the same period last year, reaching record highs. As a result, banks had no need to borrow from the central bank. Domestic financing conditions improved as a result, including bank interest rates on almost all types of loans, while the continued easing of credit standards and an increase in loan demand were accompanied by the further recovery of domestic sector placements, especially those to the household sector.

CNB's total international reserves increased by 3.8% at the end of June 2017 from the end of 2016, and net international reserves grew by 3.2% in the same period. Net international reserves were boosted by the purchase of foreign exchange from banks and the government as well as by earnings from reserve management, while the increase in total international reserves was due, in addition to the already mentioned factors, to a higher level of agreed repo transactions. Despite negative rates of the euro yield curve with a maturity of up to six years, the total annual rate of return on the euro part of net reserves was 0.20% in the first six months of 2017, while the annual rate of return on the dollar part totalled 1.39%.

Bank assets (net of value adjustments) decreased by 2.3% in the first half of 2017. The decrease was strongly influenced by exchange rate trends: if this effect is excluded, bank assets decreased effectively by 0.9%. In addition, the materialisation of credit risk and the sale of claims also played an important role. Bank profit and profitability indicators decreased sharply from the first half of 2016, primarily as a result of the materialisation of credit risk, an increase in expenses on value adjustments and provisions, and the base period effect.

The share of partly recoverable and fully irrecoverable loans continued to drop, standing at 13.2% at the end of the first half of 2017, while their quality improved in both major sectors, the non-financial corporation sector and the household sector. This was primarily due to the sale of delinquent claims, but the household sector would have recorded an improvement even if the effect of the sale of claims had been excluded. Bank total capital ratio increased slightly to 23.2% due to a mild decrease in risk exposure (1.1%), especially in exposure to credit risk, whereas the amount of own funds remained unchanged.

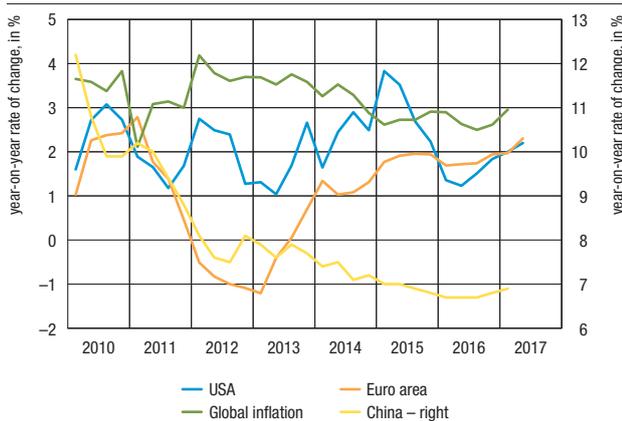
Developments in the fiscal area were favourable in the first half of 2017. The budget deficit (ESA methodology) was HRK 1.1bn (0.3% of GDP), which is a sharp decrease from HRK 3.8bn (1.1% of GDP) in the previous year. General government debt stood at HRK 287.3bn at the end of June 2017, a decrease of HRK 1.8bn from the end of 2016, deriving primarily from the appreciation of the kuna versus the euro in the observed period.

2 Global developments

Global growth strengthened and global trade recovered in the first half of 2017. Economic activity accelerated considerably in most large developed economies (the US, euro area, Japan), with the exception of the United Kingdom, and growth also accelerated in all major emerging market economies (China, India, Brazil and Russia). However, inflationary pressures remained quite subdued in most of the countries due, among other things, to a weak growth of the prices of energy products and raw materials. Mostly very accommodative monetary conditions provided for favourable financing conditions.

US economic growth accelerated further and, despite political turbulence, recovered more than expected in the second quarter, reaching an annual rate of 2.2%. This was primarily due to personal consumption and private sector investments growing on the back of rising consumer and business confidence. Although the US labour market is highly dynamic, inflationary pressures remained rather weak, as in many other developed economies.

Figure 2.1 Economic growth in selected markets and global inflation



Sources: Eurostat, BEA, NBS and IMF.

Euro area economic growth also accelerated, up by 2.1% in the first half of 2017, which is the highest rate since the end of the global financial crisis. Growth accelerated the most in the Baltic countries, while the largest positive contribution to the strengthening of recovery in the euro area came from its old (and the largest) members: Italy, France and Germany. Domestic demand remained the main growth driver, with the contribution split equally between personal consumption and investments, the latter benefiting from favourable financing conditions and the strengthening of the labour market. After quite a while, foreign demand once again positively contributed to growth.

2.1 Croatia's main trading partners

Most of Croatia's major euro area trading partners recorded very favourable economic developments in the first half of 2017. Germany's economy grew at an annual rate of 2%,

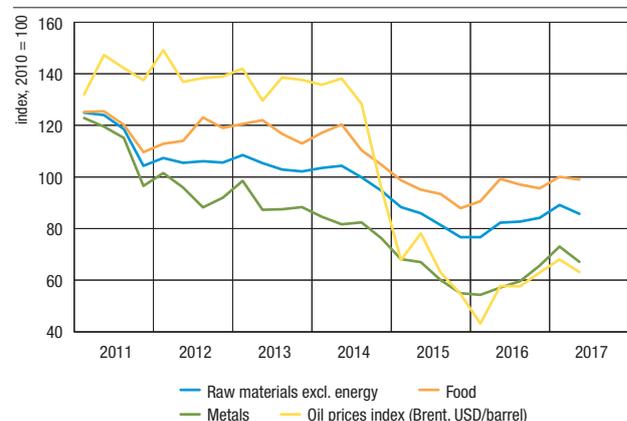
slightly more than in the previous years, primarily as a result of a recovery in investment activity. Austria's domestic demand also strengthened significantly as did that of Italy, where economic growth rates reached their record highs over a several-year period. Growing at an annual rate of 5% in the first half of 2017, Slovenia's was among the more dynamic economies in the EU.

In contrast, the economic activity of regional trading partners showed no signs of acceleration in the first half of 2017. The GDP growth rate in Bosnia and Herzegovina was the only one to remain close to the previous year's level (standing slightly above 2% and slowing down noticeably in the second quarter). Serbia's economic growth rate fell to slightly above 1% due to the adverse influence of unfavourable weather conditions on the energy sector and investment activity.

2.2 Prices, exchange rates and financing conditions

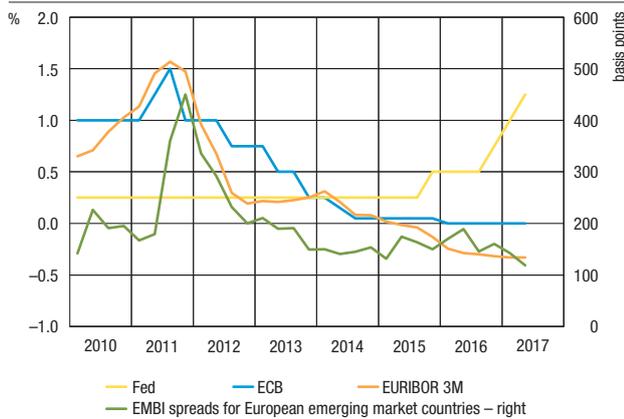
Global raw material prices showed uneven trends in the first half of 2017, trending downwards after an increase at the beginning of the year. Global crude oil prices increased slightly in the first two months of 2017 due to a daily output cut, agreed between OPEC members and Russia, before falling sharply on account of high reserve levels and production growth in the US stemming from the use of advanced technologies. The average price of Brent crude oil, expressed in US dollars, was 13.3% lower in June 2017 than in December 2016. Having increased sharply at the beginning of the year, global metal prices were on the decrease until mid-year. The decrease was mostly caused by a slowdown in China's demand for metals, attributed to the effort of Chinese regulatory authorities to restrict lending by shadow banks, considered to be the main lenders to the metal sector. Food product prices grew in the first half of 2017, with the prices of meat, cereals and dairy products up at an especially high rate.

Figure 2.2 Raw material prices in the world market in US dollars



Sources: IMF and Bloomberg.

Figure 2.3 Benchmark interest rates and the average yield spread on bonds of European emerging market countries end of quarter

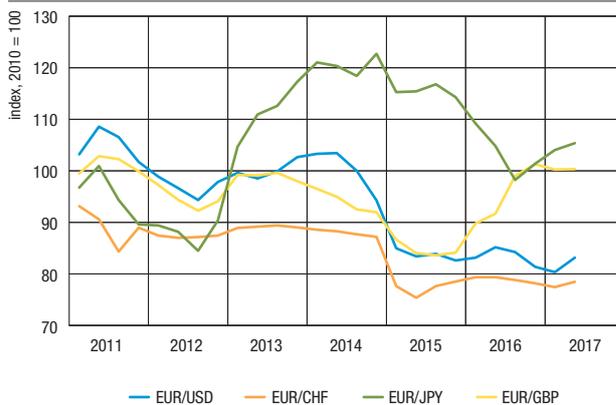


Source: Bloomberg.

The divide between US and euro area policies continued in the first half of 2017. As expected, the Fed raised its benchmark interest rate by a total of 50 basis points in March and June 2017. The ECB, on the other hand, left its interest rates unchanged, but, as part of unconventional monetary policy measures, reduced monthly purchases within the asset purchase programme from the previous EUR 80bn to EUR 60bn in April 2017.

Financing conditions for European emerging market countries, including Croatia, mostly improved during the first half of 2017. The EMBI index for European emerging market economies decreased by about 40 basis points from the end

Figure 2.4 Exchange rates of individual currencies against the euro



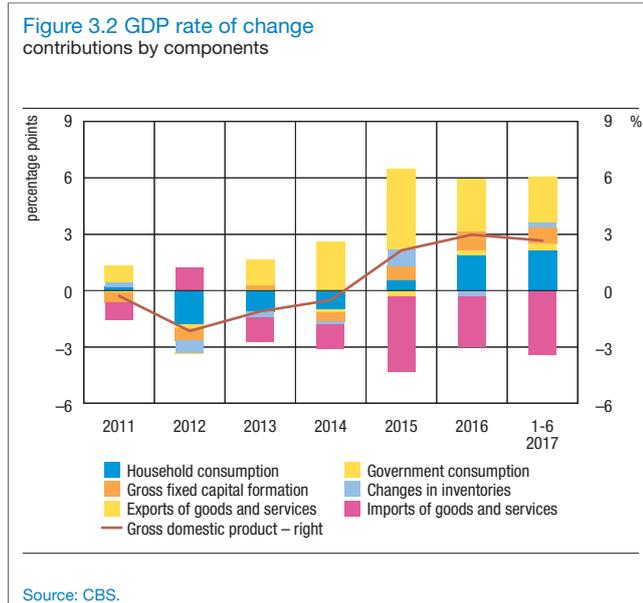
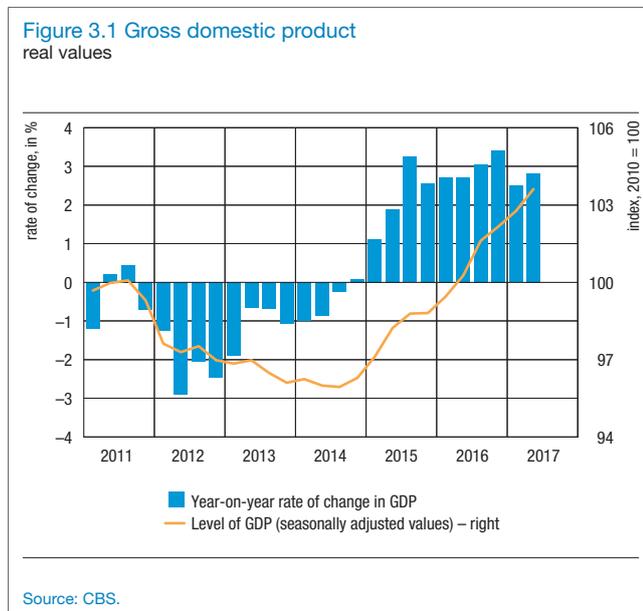
Note: A growth in the index indicates a depreciation of a currency against the euro.
Source: Eurostat.

of 2016. The favourable trend notwithstanding, the occasional strong volatility exhibited by the index points to continued uncertainties in global financial markets.

Most major global currencies depreciated against the euro in the first half of 2017. The US dollar/euro exchange rate stood at USD 1.14/EUR at the end of June, a rise of 8.2% from the end of 2016. The US dollar weakened against the euro due to favourable economic indicators in the euro area and alleviating political pressures following France's presidential elections as well as because of the absence of reforms announced by the new American president and uncertainty related to the economic policy of the new administration.

3 Aggregate supply and demand

Real GDP increased by 2.7% in the first half of 2017 from the same period in 2016, with the bulk of the increase due to increases in goods and services exports and in personal consumption. Investment activity made a significant positive contribution and government consumption also increased. Total exports and domestic demand growth boosted imports, with the result that net foreign demand made a negative contribution to overall economic growth. GDP by the production approach showed that GVA increased at an annual rate of 2.2%. The increase was primarily due to GVA growth in trade, transport and storage as well as in accommodation and food service activities. GVA also increased in other activities, stagnating only in agriculture, forestry and fishing. It should be noted that 2016 was a leap year so that these rates to some extent underestimate the uptick in economic activity in the first half of 2017. As suggested by seasonally and calendar adjusted data,



GDP rose at an annual rate of 3.4% in the first half of 2017, compared with 2.2% in the same period in 2016.¹

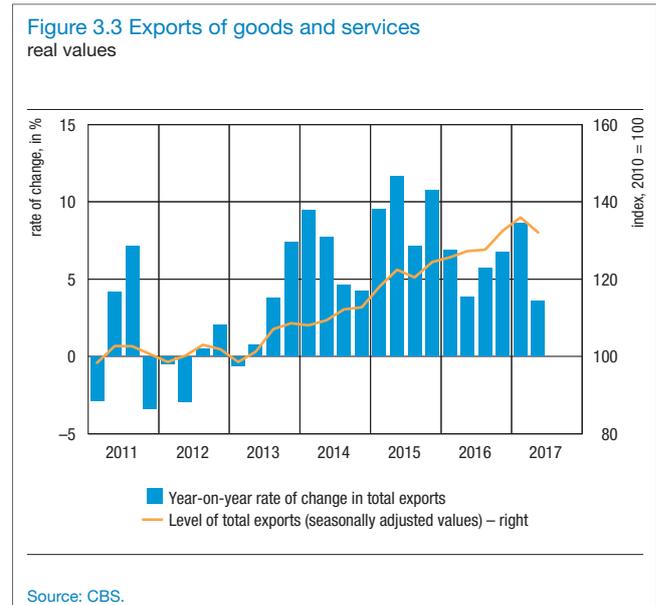
However, despite the positive fact that the Croatian economy continued on the recovery path for eleven successive quarters, Croatia's growth rates are among the lowest among those of peer countries in Central and Eastern Europe and the Baltics.

3.1 Aggregate demand

Real exports of goods and services increased by 5.8% in the first half of 2017 from the same period in the previous year. Total exports, after having surged at an annual rate of 8.6% in the first three months of the year, decelerated considerably to 3.6% in the second quarter, mainly as a result of a slowdown in goods exports.

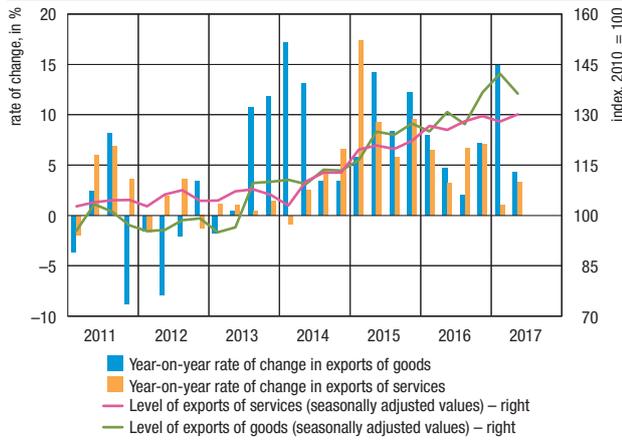
The annual growth rate of goods exports increased from 4.7% in the second half of 2016 to 9.3% in the first half of 2017. Trends in foreign trade in goods were extremely favourable in the first quarter, with goods exports growing by 14.9% from the same period in 2016. As suggested by nominal data on foreign trade in goods, the exports of energy increased at the highest rate, due equally to increases in prices and in exported quantities, and other industrial groupings also recorded growth. However, the growth rate of goods exports decelerated markedly to 3.6% in the second quarter. Nominal data suggest that the deceleration was spread broadly across the main industrial groupings. Services exports grew at a lower rate in the first half of 2017 than in the same period in 2016.

Personal consumption grew at an increased annual rate of 3.6% in the first half of 2017 (compared with 3.0% in the first half of 2016 and 3.5% in the second half of the same year). As



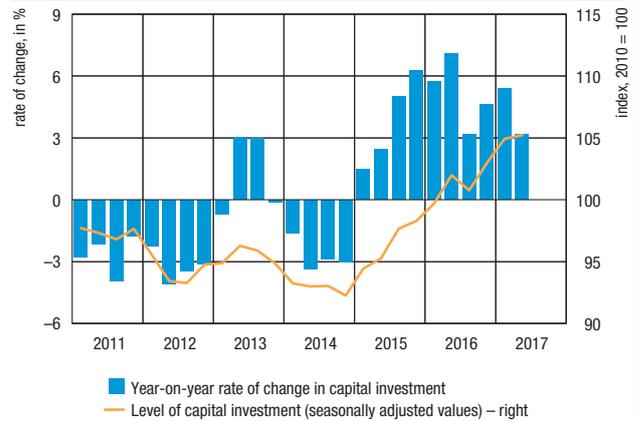
¹ GVA grew at an annual rate of 2.9% in the first half of 2017 compared with 2.2% in the same period in 2016.

Figure 3.4 Real exports of goods and services



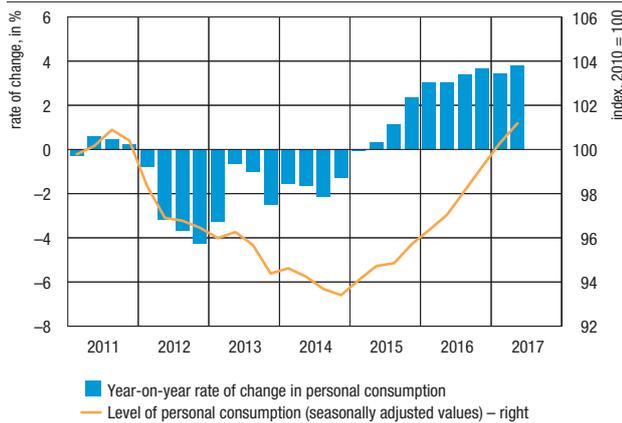
Source: CBS (seasonally adjusted by the CNB).

Figure 3.7 Gross fixed capital formation
real values



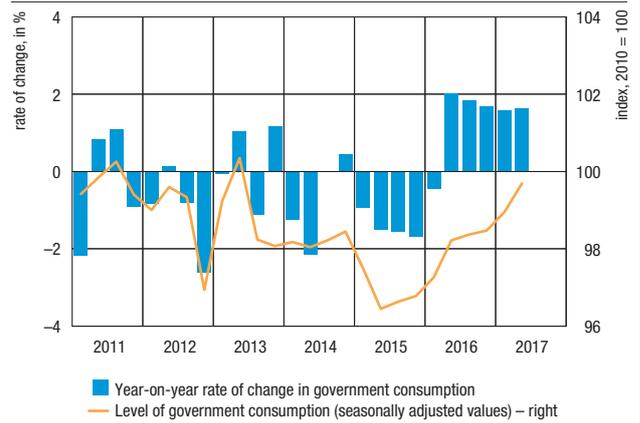
Source: CBS (seasonally adjusted by the CNB).

Figure 3.5 Personal consumption
real values



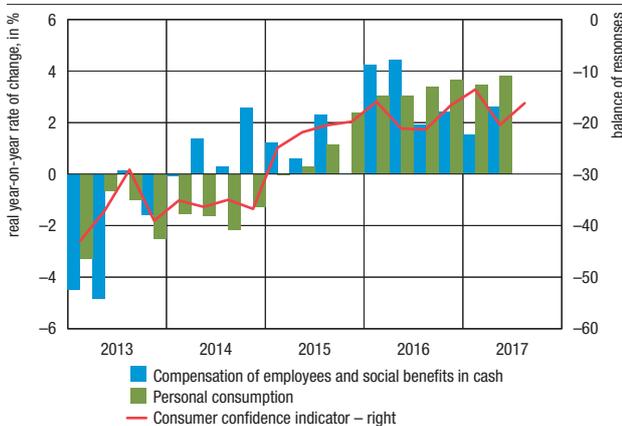
CBS (seasonally adjusted by the CNB).

Figure 3.8 Government consumption
real values



Source: CBS (seasonally adjusted by the CNB).

Figure 3.6 Determinants of personal consumption
real values and index



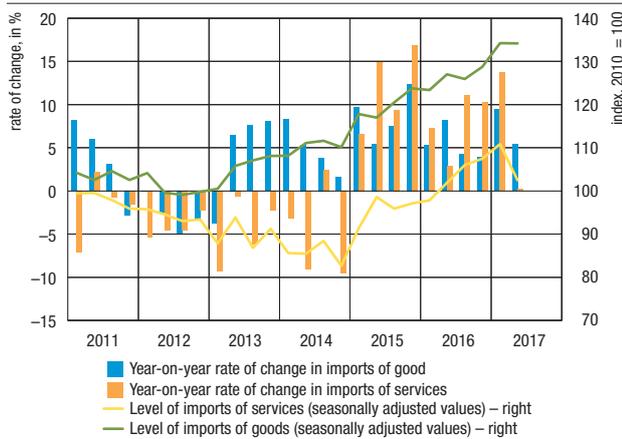
Note: Real values of compensation of employees and social benefits in cash were calculated by deflating nominal values using the personal consumption deflator.
Sources: CBS, Ipsos and CNB.

Figure 3.9 Imports of goods and services
real values



Source: CBS (seasonally adjusted by the CNB).

Figure 3.10 Real imports of goods and services



Source: CBS.

is the case with GDP, original annual growth rates underestimate the actual growth of personal consumption because 2016 was a leap year. Favourable developments reflected the continued growth of employment (as shown by data on the number of persons insured with the CPII) and real net wages as well as of consumer credit. In addition, the consumer confidence index was on average slightly higher than in 2016, which also had a beneficial effect on propensities to consume. Having reached the highest level since household expectations started to be measured, household confidence deteriorated significantly in April, probably due to uncertainties regarding the financial problems of the Agrokor Group. However, consumer confidence improved as soon as in May. As a result, household consumption made the second largest contribution to the growth of total economic activity, the first being the contribution of goods and services exports.

Gross fixed capital formation grew at an annual rate of 4.2% in the first half of 2017, compared with 3.9% in the same period six months previously. Investment activity was supported by developments in the private sector in the first quarter of the year, which is confirmed by monthly indicators on construction works on buildings and the imports of capital goods, while government investment activity stagnated. Investment growth decelerated from 5.4% to 3.2% in the second quarter, which may be attributed to a sharp slowdown in government investment activity.

Government consumption increased at an annual rate of

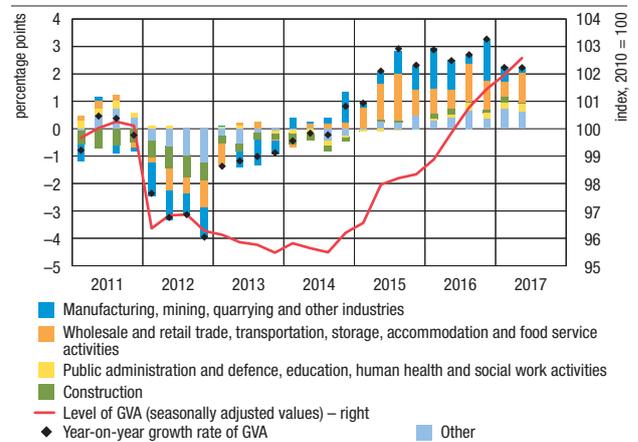
1.6% in the first half of 2017. As suggested by fiscal data, the increase was primarily caused by the growth of intermediary consumption.

Goods and services imports grew annually by 7.1% from January to June 2017, which is a faster growth rate than that in the same period in 2016. The surge of goods exports and domestic demand in the first quarter of 2017 gave a boost to goods imports in all main industrial groupings except in non-durable consumer goods, as shown by nominal data on foreign trade in goods. However, adverse developments in foreign trade in goods and a decline in investment activity in the second quarter of 2017 led to an annual growth of goods imports lower than in the previous three months. Due to the described developments in the exports and imports of goods and services, net foreign demand made a negative contribution to total GDP growth (-1.0 percentage point).

3.2 Aggregate supply

Gross value added grew at an annual rate of 2.2% in the first half of 2017, due largely to retail trade, transportation and storage, accommodation and food service activities, which can be associated with the growth of household consumption and favourable developments in tourism. All other activities also recorded growth, with the exception of agriculture, forestry and fishing, which stagnated.

Figure 3.11 GVA rate of change contributions to the annual change by components



Source: CBS (seasonally adjusted by the CNB).

4 Labour market

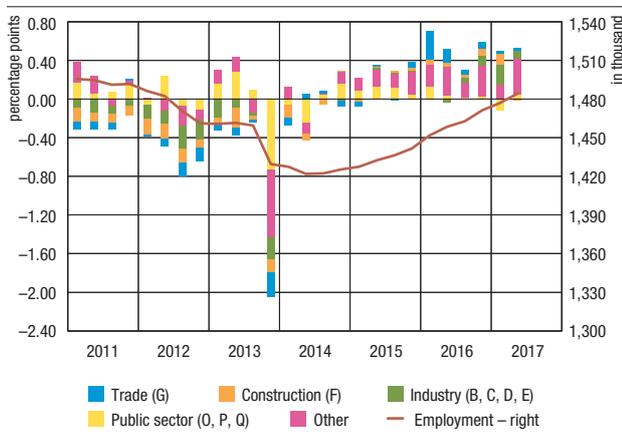
4.1 Employment and unemployment

The number of employed persons continued to rise steadily in 2017, up by 1.8% from the same period in the previous year. The increase was fully driven by the private sector, while the public sector made a slightly negative contribution. The highest rise was recorded in youth employment thanks to tax reliefs for employers.²

Unemployment continued decreasing at a fast pace in the first six months of 2017, with the number of unemployed down to slightly below 170,000 in June, the lowest level since the

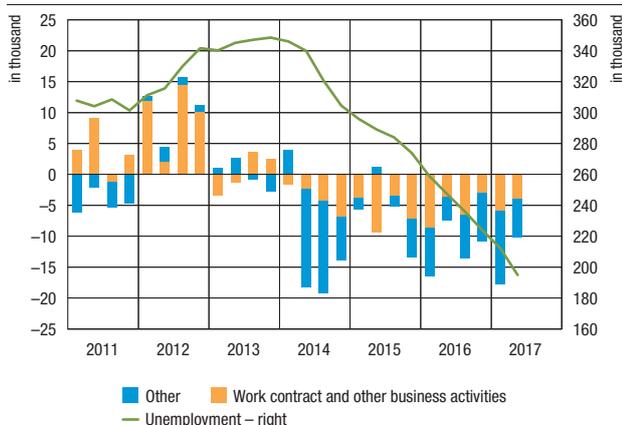
beginning of 1997. The number of unemployed persons decreased by an average of 19% (50,000) in the first half of the year compared with the same period in the previous year. The decrease was due to intensified removal from the CES register due to non-compliance with legal provisions, cancellation from the register and failure to report regularly (contributing 12 percentage points) and new employment (contributing 7 percentage points). The decline in unemployment was also due to the intensified emigration of the working age population to developed EU countries, with the official statistics probably underestimating the number of emigrants.³

Figure 4.1 Employment by NCA activities
seasonally adjusted data, contributions to the quarterly rate of change



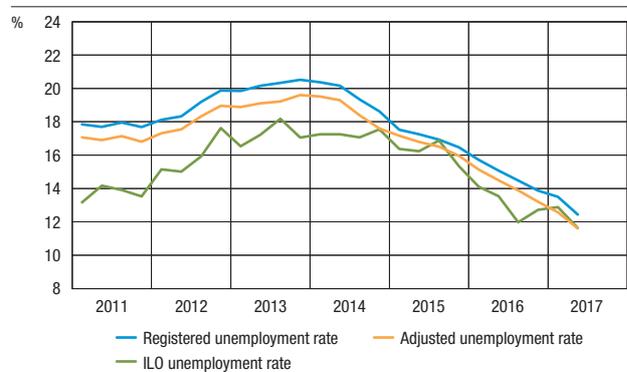
Source: CPII (seasonally adjusted by the CNB).

Figure 4.2 Total unemployment and net unemployment inflows
seasonally adjusted data



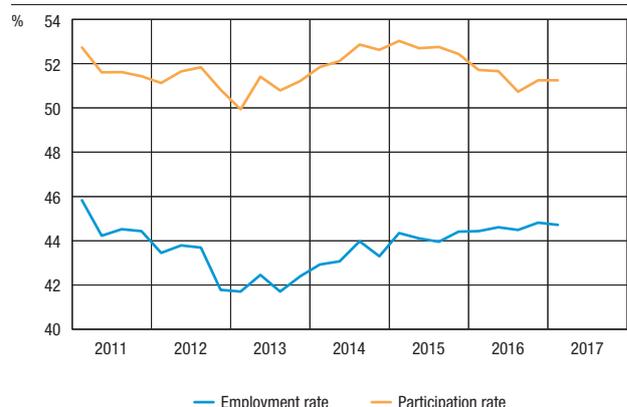
Source: CES (seasonally adjusted by the CNB).

Figure 4.3 Unemployment rates
seasonally adjusted data



Notes: The adjusted unemployment rate is the CNB estimate and is calculated as the share of the number of registered unemployed persons in the working age population estimated as the sum of unemployed persons and persons insured with the CPII. Since January 2015, the calculation of the registered unemployment rate published by the CBS has been made using the data on employed persons from the JOPPD form. Sources: CBS, CES and CNB calculations (seasonally adjusted by the CNB).

Figure 4.4 Labour Force Survey
seasonally adjusted series



Source: CBS (seasonally adjusted by the CNB).

2 The largest positive contribution to the annual growth in total employment in the first half of 2017 was recorded in the category of youth employment (persons under the age of 30) on open-ended contracts pursuant to the Contributions Act (OG 143/2014), under which employers are exempted from the payment of wage contributions for a period of five years.
3 Official CBS data show that almost 20,000 Croatian citizens (about 0.5% of the total population) emigrated in 2016 (the net migration rate)

The decrease in the number of unemployed persons was reflected in the further decline in the registered unemployment rate, which was down to 10.8% in June 2017 against 13.4% in June 2016.

Labour Force Survey data also suggest that the unemployment rate decreased in the first six months of 2017, showing that it stood at an average of 12.5% in that period, compared with 14.1% in the first half of 2016. The participation rate (i.e. the share of the labour force in the working age population) declined slightly, while the employment rate increased as a result of a rise in the number of employed persons according to survey data.

4.2 Wages and unit labour costs

The first half of 2017 saw a sharp annual increase in wages. Average gross wages were 3% higher in the first six months, the

Figure 4.5 Average nominal gross wage by NCA activities
seasonally adjusted data, contributions to the quarterly rate of change

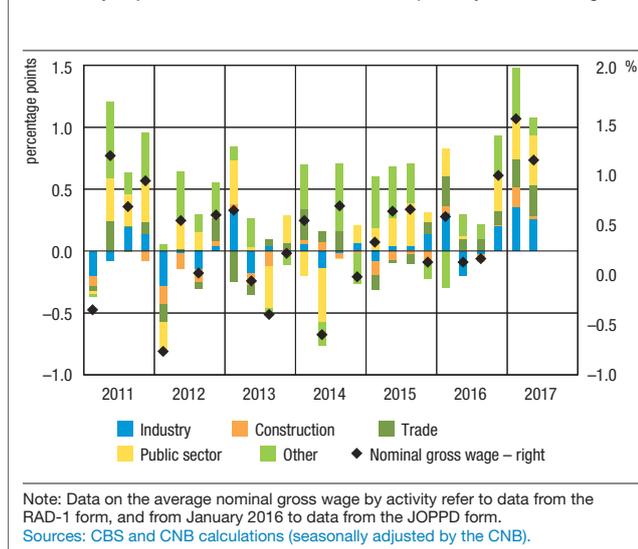
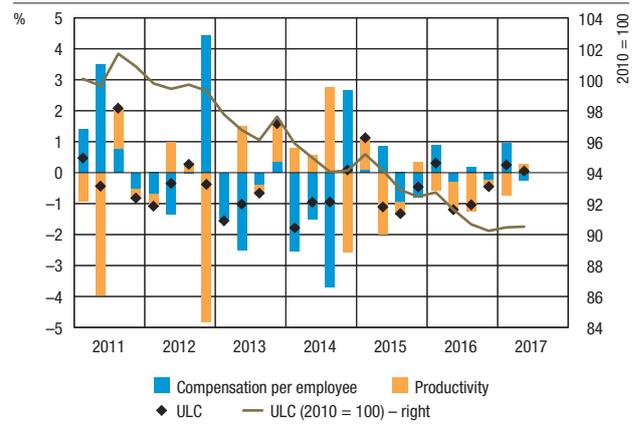


Figure 4.6 Compensation per employee, productivity and unit labour costs

seasonally adjusted data, quarterly rate of change and levels (2010 = 100)



wage increase being recorded at the level of the overall economy. Broken down by the NCA, wage growth was the strongest in the construction sector and in private sector services, while wages in industry and the public sector rose at a slower rate. Net wages increased at an even higher rate (4.6%) due to changes in income taxation in effect since January 2017. In contrast, the increase in real wages was less pronounced in the observed period because of consumer price growth.

Unit labour costs, as shown by original national accounts data, continued to decline on an annual basis, down by 1.1% in the first six months of 2017 from the first half of 2016, because the increase in labour productivity was more pronounced than that in employee compensation.

and that about 50,000 citizens have emigrated since Croatia's accession to the EU. The number of emigrants is underestimated by official statistical data as these data include only persons who changed their place of residence for a period longer than one year and notified the Ministry of Interior thereof. This conclusion is corroborated by the data of statistical offices of the countries to which most Croatian citizens emigrate (Germany, Austria, Ireland). According to these data, the number of immigrants to Germany exceed the total number of emigrants indicated by CBS data.

Box 1 Wage adjustments in Croatia and EU countries: results of a firm survey

Downward nominal wage rigidity occurs when firms exposed to adverse economic shocks are more inclined to wage freezes and/or reductions of labour input than to downward wage adjustments. Downward wage rigidity was significant in the EU in the 2010-2013 period, and it was somewhat less pronounced in Croatia as a smaller share of firms opted for base wage freezes and a larger share of firms for base wage cuts in comparison with the EU. By and large, this may be a reaction of firms to the deep and prolonged recession in Croatia. In part, it may also be due to a difference in the institutional environment – the coverage of employees by collective agreements in Croatia is lower than the

average for the EU, with collective agreements signed at firm-level prevailing in Croatia.

The latest firm survey on labour market characteristics and wage setting within the framework of the Wage Dynamics Network (WDN) of the European System of Central Banks was carried out late in 2014 and in the first half of 2015 in 25 countries of the European Union⁴. The survey gives an insight into the shocks (e.g. decrease in demand, access to foreign financing, customers' ability to pay etc.) with the greatest impact on firms' activity, the methods of employment and wage adjustments to these shocks and the widespread use and centralisation of collective

Table 1 Wage freezes and cuts under various shocks

percentage of firms that froze or cut base wages at least once in the 2010-2013 period

	Share of firms that froze wages, in %	Share of firms that cut wages, in %	Share of firms that experienced a fall in demand and cut wages, in %	Share of firms that experienced a fall in demand and financial restrictions and cut wages, in %	Share of firms that experienced a strong fall in demand and financial restrictions and cut wages, in %
Total, 1st group	30.5	4.8	5.7	10.0	18.6
Czech R.	26.6	6.8	10.6	17.7	17.0
Germany	14.1	3.5	4.3	7.6	0.0
Estonia	11.6	12.4	23.5	11.0	31.1
Hungary	6.8	1.2	2.5	3.7	11.9
Ireland	65.4	23.1	28.7	31.0	33.3
Lithuania	35.4	10.0	14.6	21.2	30.5
Latvia	29.9	16.3	24.4	47.5	76.6
Slovak R.	36.8	9.8	16.8	35.4	66.4
United Kingdom	53.3	5.1	2.3	6.4	17.0
Total, 2nd group	19.1	2.3	3.0	4.2	3.3
Austria	6.9	3.0	2.2	2.6	0.0
Belgium	19.0	1.4	0.8	2.1	0.0
Bulgaria	18.5	5.0	11.9	21.8	14.4
France	22.7	1.2	2.0	1.9	0.6
Luxembourg	19.9	0.8	1.6	5.5	7.3
Netherlands	29.8	1.9	2.7	3.5	3.2
Poland	10.7	2.9	3.2	4.2	3.7
Romania	19.0	6.7	13.6	17.6	22.1
Total, 3rd group	22.4	8.0	10.2	13.4	21.7
Cyprus	78.8	37.5	45.0	44.3	40.1
Spain	21.6	7.5	10.6	10.5	14.6
Greece	63.3	54.6	61.8	70.9	79.8
Croatia	17.6	25.7	37.5	50.7	70.0
Italy	16.3	2.3	2.6	4.6	11.4
Portugal	42.3	6.7	9.2	14.9	16.0
Slovenia	8.4	13.0	17.0	23.9	25.6
Total (EU-24)	25.4	4.5	5.8	9.2	13.4

Notes: Reported results are weighted by weights that reflect total employment in the population of firms. Results do not include Malta.

Source: Izquierdo et al. (2017).

4 The previous two WDN surveys carried out late in 2007/early in 2008 and in mid-2009 focused on the period of economic growth from 2002 to 2006, i.e. on the period immediately after the outbreak of the financial crisis in which most EU countries saw a fall in GDP and unemployment growth. Surveys are marked chronologically with WDN1, WDN2 and WDN3

agreements; it also assesses firms' efficiency as regards the reforms carried out in the labour market. In the 2010-2013 period (on which the most recent, third, survey, WDN3, was focused) economic developments in the EU countries were divergent. In line with this and for the purpose of the comparative analysis of the results⁵, three groups of countries were set up with respect to GDP developments and unemployment. The first group of countries included those in which the unemployment rate fell and GDP increased in the 2010-2013 period, the second group comprised the countries in which both the unemployment rate

and GDP grew in the reference period, while the third group of countries included those marked by an increase in the unemployment rate and a decrease in GDP.

Inter alia, the aim of the surveys was to examine the extent to which downward nominal wage rigidity (DNWR) is present in the economy, i.e. the extent to which firms in adverse conditions use different measures to reduce their operating expenses, in order to see whether they are more inclined to wage cuts, wage freezes and/or reductions of labour input.⁶ As indicators of downward nominal wage rigidity the shares of firms that cut

Table 2 Coverage by collective agreements in 2013

	Share of firms that applied collective agreements, in %			Share of employees covered by collective agreements, in %
	Reached at firm level	Reached at higher level	Reached at one of the levels	
Total, 1st group	18.3	29.2	44.0	35.3
Czech R.	30.6	10.0	39.0	33.2
Germany	16.1	47.2	56.9	48.3
Estonia	10.1	2.0	11.3	8.2
Hungary	20.2	6.7	23.2	20.3
Ireland	11.4	9.8	19.9	9.2
Latvia	16.7	2.3	18.9	18.3
Lithuania	17.4	1.9	18.2	16.0
Malta	31.0	0.5	31.0	23.8
Slovak R.	35.1	14.8	38.4	35.7
United Kingdom	17.4	7.2	32.7	21.3
Total, 2nd group	33.1	56.6	72.5	76.0
Austria	27.4	88.0	98.8	80.4
Belgium	30.8	63.0	72.0	94.4
Bulgaria	21.8	7.0	24.3	17.8
France	28.9	82.9	88.8	94.4
Luxembourg	25.1	33.4	54.9	54.0
Netherlands	51.1	54.6	79.7	90.0
Poland	17.9	1.0	20.9	20.9
Romania	69.4	7.7	73.0	71.6
Total, 3rd group	39.3	78.9	91.1	90.8
Cyprus	31.7	41.7	56.4	39.6
Spain	31.0	77.3	95.2	96.3
Greece	26.2	42.8	60.1	71.4
Croatia	35.4	23.3	45.2	47.1
Italy	60.4	89.0	99.5	99.0
Portugal	13.0	62.2	66.3	62.5
Slovenia	57.9	75.9	86.9	79.4
Total (EU-25)	26.8	50.0	63.7	60.7

Note: Reported results are weighted by weights that reflect total employment in the population of firms.

Source: Izquierdo et al. (2017).

5 As in Izquierdo, M. et al. (2017): Labour market adjustment in Europe during the crisis: microeconomic evidence from the Wage Dynamics Network survey, ECB Occasional Paper No. 192, June.

6 Research results on the impact of downward nominal wage rigidity on employment are diverse. For research papers pointing to employment decrease, see: Barwell, R. D., and M. E. Schweitzer (2007): The Incidence of Nominal and Real Wage Rigidities in Great Britain: 1978-98, *Economic Journal*, Vol. 117; Bauer, T. K., and H. Bonin et al. (2007): Real and nominal wage rigidity and rate of inflation: evidence from West German micro-data, *Economic Journal*, Vol. 117; Devicienti, F. et al. (2007): Downward wage rigidity in Italy: micro-based measures and implications, *Economic Journal*, Vol. 117; Fehr, E., and L. Goette (2005): Robustness and Real Consequences of Nominal Wage Rigidity, *Journal of Monetary Economics* 52(4). By contrast, much research has failed to establish a link between DNWR and employment growth.

or froze their base wages in a certain period are used. The frequency of wage cuts points to a certain heterogeneity among EU countries. Hence, the results of the WDN3 survey (Table 1) suggest that the share of firms in Croatia that cut their base wages at least once in the 2010-2013 period stood at 25.7%, or significantly above the average for EU countries (4.5%). The share of firms that opted for wage cuts is also sizeable in Ireland (23.1%) and it stands out in the countries that experienced a significant drop in their economic activity in the reference period (e.g. Greece and Cyprus in which the share reached 54.6% and 37.5% respectively).

By contrast, in eleven countries (mostly those from the first and second groups) the share of firms that cut wages hovered below/around 5%.

If only those firms that experienced a strong fall in demand and considerable financial restrictions are taken into account, the share of firms that cut their base wages at least once in the 2010-2013 period is larger and amounts to 13.4% for the EU and as much as 70% for Croatia. Extremely large shares of firms that cut wages in these conditions are found in third group: Greece (79.8%) and Cyprus (40.1%) and in the first group: Latvia (76.6) and Slovakia (66.4%).

If we take into account that the share of EU firms that froze their base wages at least once in the 2010-2013 period amounts to 25.4% and that the share of those that cut wage amounts to only 4.5%, it may be concluded that at the EU level there is significant downward wage rigidity and that in the reference period it was relatively less pronounced in Croatia (17.6% of firms froze base wages and 25.7% of firms cut them). To a large extent, this may be a reaction of firms to the deep and prolonged recession in Croatia. The firms' responses to the survey questions suggest that, inter alia, certain shocks were more intensive and long-lasting in Croatia (most notably the shock of illiquidity caused by customers' reduced ability to pay and the shock of reduced demand).

Among factors used to explain downward nominal wage rigidity the literature notably points out the employers' concern that a wage decrease may trigger the outflow of the most

productive workers and/or the fall in motivation of employees, which in turn may lead to a decrease in labour productivity in firms.⁷ Moreover, the firms' capacity to adapt to negative shocks through wage cuts depends largely also on the institutional environment, most notably the widespread use and centralisation of collective agreements.⁸ Empirical research on the basis of the data from the WDN3 survey showed that the larger the coverage of employees by collective agreements in firms, the lower the probability of wage cuts.⁹ This may result in increased wage inflexibility in countries with a widespread use of collective agreements.

The share of employees covered by collective agreements is the key indicator of the widespread use of collective agreements. The results of a firm survey show that in 2013 in Croatia through collective agreements wages for about 47.1% of employees were regulated (Table 2), which is a share lower than the EU average (60.7%), notably in comparison to the weighted average for the third group of countries which exceeds 90%. By contrast, the share of employees covered by collective agreements is the lowest in the first group of countries, especially in the Baltic countries, Ireland and Hungary (between 8% and 20%).

Moreover, it has been found that the decentralisation of collective bargaining is more pronounced in Croatia, i.e. that collective agreements signed at the firm-level prevail (35.4% in comparison with the EU average of 26.8%). These agreements are as a rule considered more flexible than those signed at a higher level because they enable firms to adapt to a larger extent to the specific shocks to which they are exposed. Agreements signed at a higher level are less accounted for in Croatia (23.3%), while the firm survey showed that their share in the second and third group of countries is large and that it on average amounts to 56.6% and 78.9% respectively, which is an indicator of significant centralisation of collective bargaining. Reforms were carried out in some EU countries during the crisis which enabled firms to conduct wage negotiations, above all, at a firm-level in order to take into account as much as possible the specific circumstances in which some enterprises operate.¹⁰

7 Efficiency wage theories. For more details see: Du Caju, P. et al. (2015): Why firms avoid cutting wages: survey evidence from European firms, *ILR Review*, Vol. 68, Issue 4.

8 See, among others, Anderton, R., and B. Bonthuis (2015): Downward Wage Rigidities in the Euro Area, GEP Research Paper Series, No. 2015/09, University of Nottingham, July.

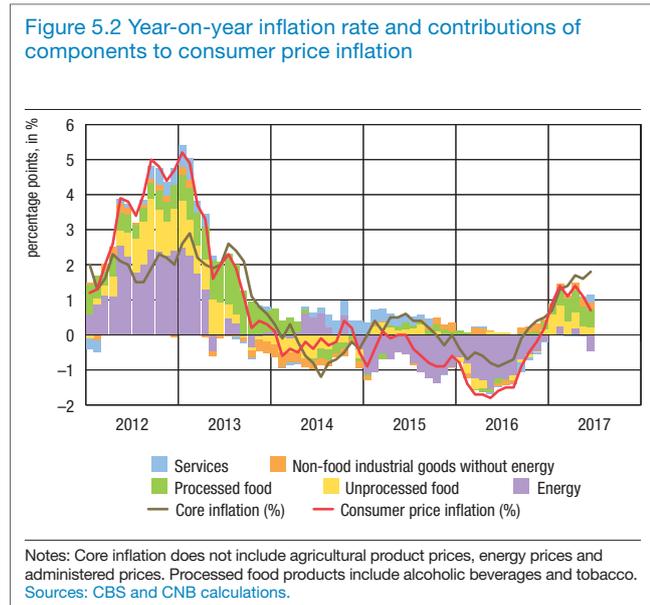
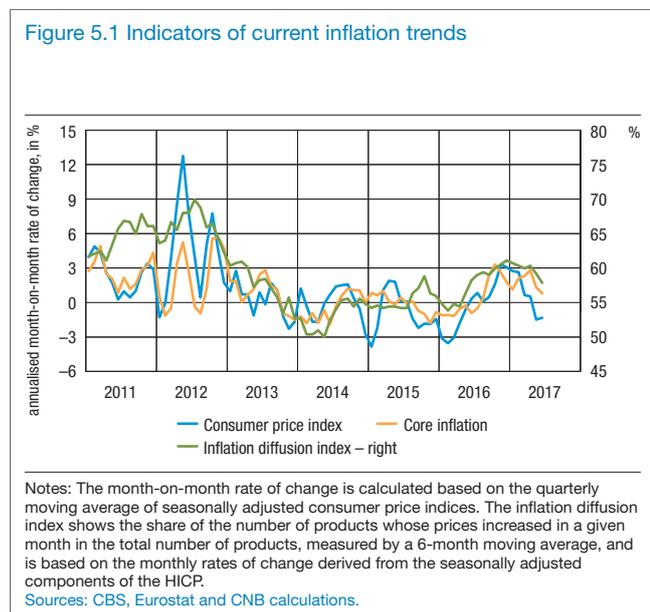
9 Marotzke, P. et al. (2016): Wage adjustment and employment in Europe, GEP Research Paper Series, No. 2016/19, University of Nottingham.

10 See box: Wage adjustment and employment in Europe: some results from the Wage Dynamics Network Survey, *Economic Bulletin*, Issue 1, ECB, 2017.

5 Inflation

The indicator of current trends in overall inflation decreased in the first half of 2017 (Figure 5.1), primarily as a result of a decline in world crude oil prices in the period from March to June. The decrease in the indicator of current trends in core inflation was less marked so that it remained positive. In addition, trends in the inflation diffusion index suggest that the number of products in the HICP basket whose prices grew declined somewhat in the first six months of 2017. However, the prices of most of these products continued to increase, while the negative rate of change encompassed a relatively smaller number of products.

The annual consumer price inflation rate (end of period) increased from 0.2% in December 2016 to 0.7% in June 2017,



with the bulk of the increase coming from the growth in the prices of processed food products (Figure 5.2).¹¹ Core inflation (which excludes agricultural product prices, energy prices and administered prices) accelerated from 0.5% in December to 1.8% in June.

All of the main components of the consumer price index (except energy) contributed to the acceleration of the annual inflation rate in the first six months of 2017. The contribution of processed food product prices to overall inflation increased the most, from 0.2 percentage points in December to 0.5 percentage points in June, mainly due to the growth of prices of fresh milk and, to a lesser extent, of butter. Dairy product prices increased in most other EU member states too because a rise in demand for these products (butter, cheese, etc.) on the global market, especially in China, boosted the exports of dairy products from the EU. The contribution to inflation of the prices of unprocessed food products grew slightly in the first half of the year due to rising meat prices. Global meat prices also went up, spurred by demand growth in emerging market economies. Vegetable prices surged in January because of the cold winter, but decreased in June, returning to the level close to that reached in June 2016.

The prices of services also contributed to the increase in overall inflation in the first six months of 2017. The contribution of the prices of catering services prices was especially high due to an increase from 13% to 25% in the VAT rate on these services in January and accompanied by an increase in

Table 5.1 Price indicators

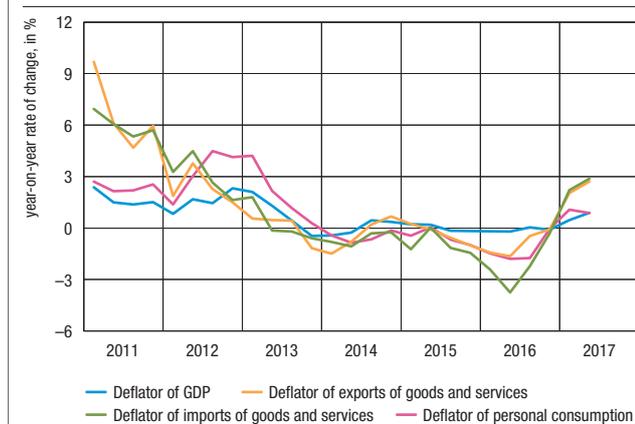
year-on-year rate of change

	6/2016	9/2016	12/2016	3/2017	6/2017
Consumer price index and its components					
Total index	-1.6	-0.9	0.2	1.1	0.7
Energy	-7.3	-4.2	-1.1	-0.1	-2.8
Unprocessed food	0.8	-0.8	1.7	4.2	2.2
Processed food	-0.7	0.2	1.0	2.8	2.3
Non-food industrial goods without energy	-0.3	0.6	0.2	0.3	0.8
Services	-0.1	-1.0	-0.1	-0.1	0.8
Other price indicators					
Core inflation	-0.9	-0.1	0.5	1.4	1.8
Index of industrial producer prices on the domestic market	-4.8	-3.0	-0.1	1.1	0.4
Index of industrial producer prices on the domestic market (excl. energy)	-1.5	-1.3	-0.9	0.1	0.5
Harmonised index of consumer prices	-1.2	-0.7	0.7	1.1	1.1
Harmonised index of consumer prices at constant tax rates	-1.2	-0.7	0.6	1.0	1.0

Sources: CBS and Eurostat.

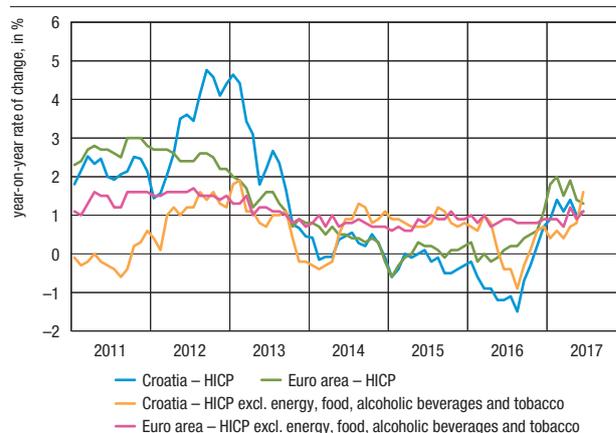
¹¹ The average annual consumer price inflation rate increased to 1.1% in the first half of 2017 from -0.8% in the previous half of the year.

Figure 5.3 Deflator of GDP and its individual components



Source: CBS.

Figure 5.4 Indicators of price developments in Croatia and the euro area



Source: Eurostat.

communication services. The contribution of industrial producer prices to overall inflation grew mostly due to increases in the annual rate of change in clothing and footwear prices and in car prices (resulting from the growth of excises on these goods in January).

In contrast, the negative contribution of energy prices to the overall annual inflation rate at the end of period grew from -0.2 percentage points in December to -0.5 percentage points in June due to a drop in electricity prices in January (resulting from the reduction of the VAT rate on this energy product from 25% to 13%) and a decrease in domestic refined petroleum product prices in the March to June period; global crude oil prices trended down after February due to the high reserves and the growth of output from unconventional sources of oil in the US. The average price of Brent crude oil, expressed in US dollars, was thus 15.5% lower in June than in February 2017.¹² Downward pressures on energy prices were considerably mitigated by an increase in the annual rate of change in natural gas prices caused by the base effect (the disappearance of the effect of decreases in natural gas prices in January and April 2016 on the annual rate of change in these prices).

Euro area inflation measured by the harmonised index of consumer prices (HICP) accelerated from 1.1% in December 2016 to 1.3% in June 2017 (Figure 5.4). The euro area annual

inflation rate increased primarily in consequence of the accelerating annual growth of processed food product prices (milk and dairy products) and service prices (accommodation and transport). Euro area core inflation (which excludes the prices of energy, food, beverages and tobacco) accelerated from 0.9% in December to 1.1% in June.

Croatia's annual inflation rate measured by the HICP went up from 0.7% in December 2016 to 1.1% in June 2017. The increase was predominantly caused by the acceleration of the annual growth of service prices (catering and accommodation services¹³). The contribution of processed food product prices to inflation increased to a lesser extent. As in the euro area, this was primarily due to price increases in milk and dairy products. The contribution of the prices of unprocessed food products and non-food industrial goods without energy to HICP inflation in Croatia also increased slightly. Croatia's overall inflation was 0.2 percentage points lower than euro area inflation in June 2017, mainly due to electricity prices, which were -9.6% lower in Croatia in June 2017 than in June 2016 (due to a reduction of the VAT rate on this energy product) and 2.2% higher in the euro area. Croatia's core inflation (which excludes the prices of energy, food, beverages and tobacco) grew from 0.7% in December to 1.6% in June, exceeding the euro area inflation rate by 0.5 percentage points.

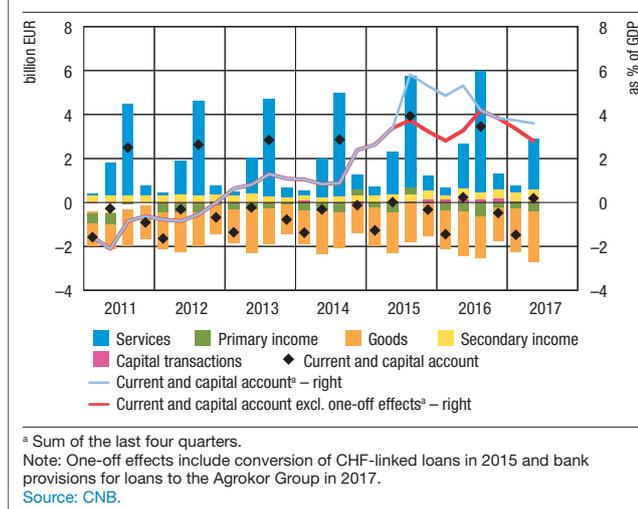
¹² The appreciation of the kuna against the US dollar brought about an even sharper decline in the kuna price of crude oil (20.3%).

¹³ The share of accommodation in the HICP is considerably higher – 7.3% (as it accounts for foreign residents' spending) whereas the same share in the CPI amounts to a low of 0.4%.

6 Current and capital account

The current and capital account balance improved slightly in the first half of 2017 from the same period in 2016. Contributors were further growth of net exports of services, increased use of EU funds and a smaller primary income account deficit. The foreign trade deficit widened in the same period. Observing cumulative values over the past year, the surplus in the current and capital account fell by 0.2 percentage points in the second quarter of 2017 relative to the outturn at the entire-2016 level, standing at 3.6% of GDP (or 2.8% of GDP excluding the effect of lower bank profits due to provisions associated with the Agrokor Group).

Figure 6.1 Current and capital account balance and its structure



6.1 Foreign trade and competitiveness

According to the balance of payments data, the annual growth of goods exports (12.9%) was somewhat faster in the first half of 2017 than the annual growth of goods imports (12.1%). However, imports grew faster than exports in absolute terms, causing the foreign trade deficit to increase by as much as 11.2%. Specifically, the growth of goods exports and imports was slower, while the deficit growth was more pronounced if the balance of payments data are compared to those published by the CBS. The difference between these two sources of data is attributable to the compilation requirements of the balance of payments, described in detail in Box 2 Foreign trade developments according to the balance of payments data.

The widening of the foreign trade deficit, according to the CBS data, which also provide for a breakdown by products, was mainly the result of the growth in net imports of energy products, notably oil and refined petroleum products, reflecting strong growth in prices from the same period in 2016. A deterioration was also seen in the balance of trade in capital goods, miscellaneous manufactured articles, road vehicles and food products. By contrast, favourable trends were observed in the trade in medical and pharmaceutical products and other transportation equipment (mostly ships).

According to the CBS data, the dynamics of the overall goods exports strengthened visibly in the first half of 2017, with an annual growth reaching 16.2%. Exports of ships and oil and refined petroleum products rose sharply. Moreover, the growth of the narrow aggregate (ships and oil and refined petroleum products excluded) was also pronounced (11.8%) and included a wide range of products. Exports of medical and pharmaceutical products grew substantially, notably to the USA, the same trend being observed in exports of metal industry products, i.e. non-ferrous metals and manufactures of metals (n.e.c.) to Germany, Slovenia and Italy. Also significant was the growth of exports of capital goods, primarily associated with the exports of electrical machinery, apparatus and appliances and machinery specialised for particular industries to Germany and Turkey. In addition, exports of electricity to Bosnia and Herzegovina strengthened.

Figure 6.2 Goods exports (f.o.b.)
year-on-year rate of change and contributions

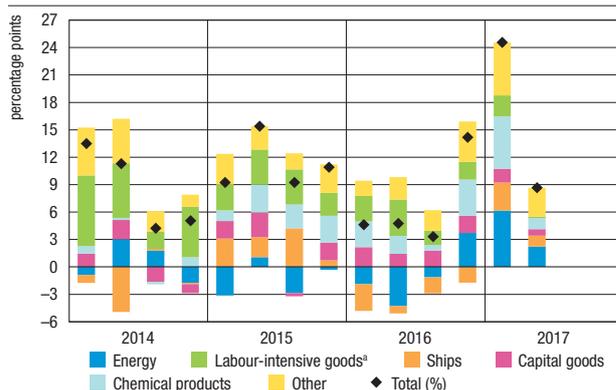


Figure 6.3 Goods imports (c.i.f.)
year-on-year rate of change and contributions

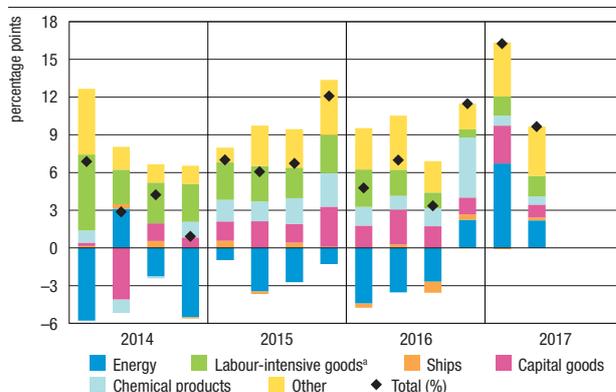
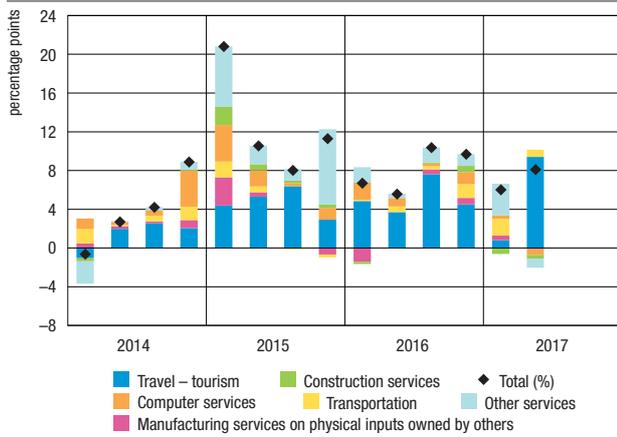
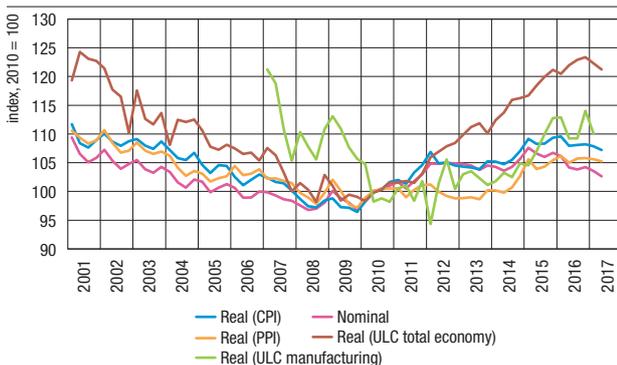


Figure 6.4 Services exports
year-on-year rate of change and contributions



Source: CNB.

Figure 6.5 Nominal and real effective exchange rates of the kuna



Notes: The 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. The unit labour cost is calculated as the ratio between compensation per employee and labour productivity (defined as GDP per person employed). A fall in the index indicates an effective appreciation of the kuna.
Source: CNB.

The growth of goods imports, according to the CBS data, also visibly accelerated in the first half of 2017, standing at 13.1% for the overall outturn and 11.0% for the narrow aggregate (excluding ships and oil). In addition to imports of oil and refined petroleum products, another contributor to stronger imports was imports of road vehicles from Germany and miscellaneous capital goods. Also notable was the growth of imports of metal industry products from Serbia and Bosnia and Herzegovina, other energy products (natural and manufactured gas from Hungary and Austria and electricity from Hungary and Bosnia and Herzegovina) and various food products.

Markedly favourable trends in the foreign trade in services were seen in the first half of 2017 as well, the main contributor being tourist services. In particular, total net exports of services grew by 7.8% on an annual level or at the same rate as net exports of travel services. Revenues from tourism consumption of non-residents grew by 11.6%, while the number of arrivals and nights stayed by foreign tourists in commercial accommodation facilities in Croatia grew even more sharply, by about one fourth, thanks primarily to guests from Germany, Austria

and the United Kingdom. Tourism consumption of residents abroad grew as well, by almost one third. An increase was also seen in net exports of other services, notably personal, cultural and recreational services.

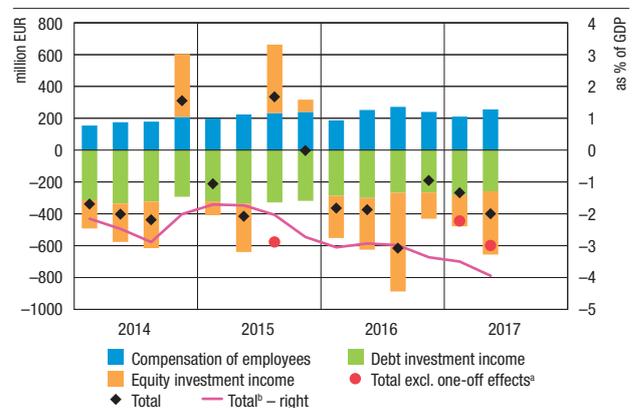
The real effective exchange rates of the kuna deflated by consumer prices and producer prices appreciated in the first six months of 2017, entirely due to the strengthening of the kuna against the basket of currencies of the major trading partners, which offset the effect of the slower growth in domestic than in foreign prices. As for the cost competitiveness of Croatian exports, the real effective kuna exchange rates deflated by unit labour costs at the level of manufacturing industry and the economy as a whole also appreciated, due mainly to the nominal effective appreciation of the kuna and in part due to relatively faster growth of unit labour costs in the country than in foreign trading partners.

6.2 Incomes and transactions with the EU

The deficit in the primary income account fell by EUR 0.1bn in the first half of 2017 from the same period in 2016. The major contributors were smaller interest expenditures for foreign liabilities, particularly of other domestic sectors (in part due to the fact that since the second quarter of 2017 interest has no longer been calculated on the foreign liabilities of the Agrokor Group) and credit institutions. In addition, revenues from compensation to residents working abroad increased. Concurrently, net expenditures on direct equity investment remained at the previous year's level. Specifically, the growth of profits of foreign enterprises owned by residents was offset by an almost equal rise in profits of domestic enterprises owned by non-residents, mainly accounted for by the pharmaceutical industry, manufacture of oil products, retail trade and real estate activities. By contrast, bank profits fell due to provisions associated with the Agrokor Group.

Total net revenues in the secondary income account and in the account of capital transactions grew by EUR 0.1bn in the first half of 2017, due mostly to increased use of EU funds. They were mostly used for the financing of current and, only in part, of capital projects. As a result, the average annual amount

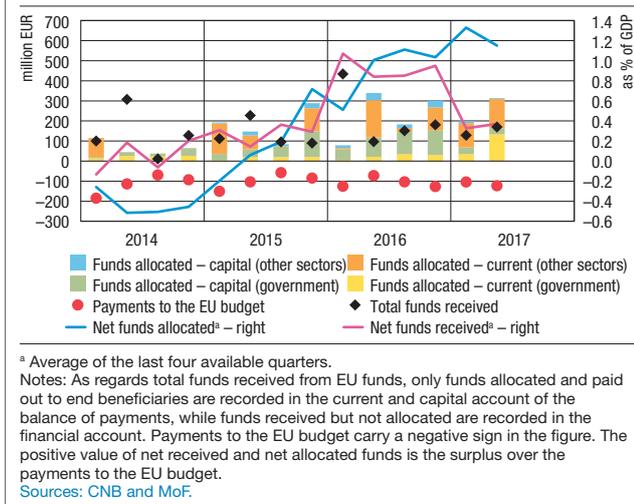
Figure 6.6 Primary income account balance and its structure



^a One-off effects include conversion of CHF-linked loans in 2015 and bank provisions for loans to the Agrokor Group in 2017. ^b Sum of the last four quarters, excluding one-off effects.

Source: CNB.

Figure 6.7 Transactions with the EU budget



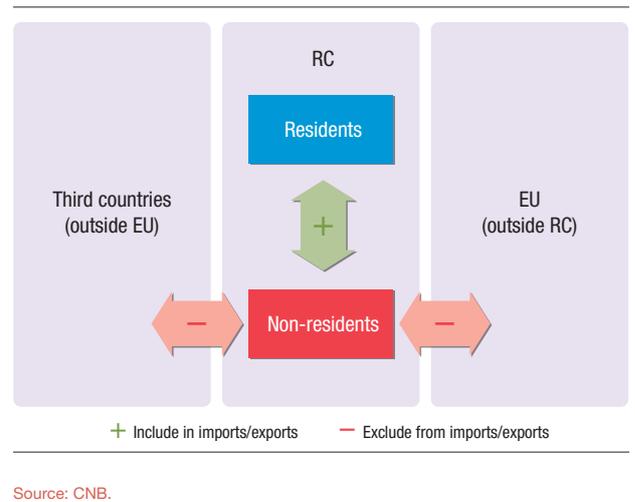
of the surplus of funds utilised from EU funds over the payments to the EU budget increased, standing at 1.2% of GDP in June 2017 (1.0% in 2016).

Box 2 Foreign trade developments according to the balance of payments data

Easier access to the EU market and the recovery of the trading partners and domestic demand contributed to a perceptible increase in the foreign trade of goods after Croatia joined the EU. Concurrently, an increase was also observed in re-exporting and manufacturing services on physical inputs owned by others and in trade of non-resident enterprises in Croatia. Due to the compilation requirements of the balance of payments, the value of manufacturing services on physical inputs owned by others and non-resident transactions is estimated and excluded from data published by the CBS, which in several previous years, together with other adjustments, resulted in lower absolute values and slower dynamics of foreign trade indicators according to the balance of payments data than according to the data published by the CBS.

Strong growth rates of exports and imports of goods, additionally accelerated at the beginning of 2017, have been recorded since Croatia's accession to the EU. In order to give at least a partial explanation of developments underlying these trends, it is useful to compare data on the foreign trade in goods published by the Croatian Bureau of Statistics (CBS) with the data on the goods account in the balance of payments current account that is compiled by the CNB. These two sources of data contain some methodological differences that arise from international statistical standards underlying the respective methodologies. The values of revenues and expenditures in the balance of payments goods account are based on data on the trade in goods published by the CBS. However, a change in goods ownership between residents and non-residents which does not always

Figure 1 Adjustments of the balance of payments data on trade in goods for quasi transit



coincide with the criterion of the movement of goods across the state border applied by the CBS is essential in the compilation of the balance of payments¹⁴.

The CNB excludes the gross value of goods imported and exported for the purpose of finishing, treatment or processing¹⁵ as well as of goods traded by non-resident enterprises¹⁶ in Croatia

14 According to the Balance of Payments and International Investment Position Manual, 6th edition (BPM6), which has been applied by the CNB from the end of 2014, when all balance of payments data series from 2000 onwards were revised.

15 Net value of completed operation (fees for the finishing of goods in someone else's ownership) is an integral part of the services account in the balance of payments.

16 These are enterprises from other EU countries, which do not have their headquarters in Croatia or branches but trade with EU countries through a non-resident tax number and with third countries through an EORI number. Transactions between residents and non-residents in the territory of the Republic of Croatia, which do not involve cross-border transfer of goods, are included in the balance of payments. For more details see the CNB's website: <http://www.hnb.hr/en/-/nastavlja-se-uskla-ivanje-statistike-platne-bilance-sa-standardima-eu-a> where it is inter alia explained that the adjustment of data on the trade in goods in the balance of payments for quasi transit has been carried out for the period from the beginning of 2014 onwards due to the lack of reliable data needed for the estimate of the earlier period.

(quasi transit). These transactions are excluded for two reasons: 1) they do not involve a change in ownership and 2) they are not a real indicator of economic activity in a country. Goods that are processed may cross the border several time before final export or import which in turn contributes to a significant increase in statistical data; earlier, this was particularly pronounced in the ship-building sector¹⁷. In these cases, the value added generated in a country is not significant. Similarly, in quasi transit (Figure 1) the value added belongs to a foreign business entity as it involves transactions of non-resident enterprises, which do not have employees, business premises, production capacities etc. in the domestic territory and only conduct trading activities. Their operations became more relevant after Croatia joined the EU. By contrast, the estimate of net merchanting exports where goods do not cross the customs border of a trader but are instead bought and then sold abroad is included in the balance of payments.

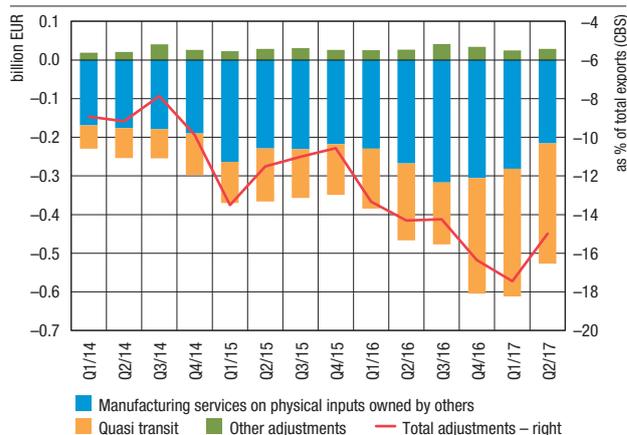
In addition, the CNB excludes from the value of imports at c.i.f. parity published by the CBS the estimate of transportation and insurance costs because the value of trade in goods in the balance of payments is reported at f.o.b. parity that excludes these costs. Other adjustments involve the estimate of purchases on the exports side (goods sold to foreign tourists and taken out from Croatia) and on the imports side (costs of residents for purchases made abroad) and acquisitions of domestic transporters abroad (e.g. fuel and other supplies). Re-exports carried out by residents (e.g. in trade with road vehicles) include both data sources. By contrast, real transit, i.e. transit through Croatia, is not captured by the CBS data or by the balance of payments data.

Moreover, it should be noted that the value of foreign trade in goods and services according to the balance of payments data is used in the compilation of the national accounts (GDP by expenditure method) in the CBS.

The largest adjustment of goods exports in the balance of payments (Figure 2) refers to the decrease on the basis of manufacturing services on physical inputs owned by others, which stood at EUR 1.1bn in 2016 and was much higher than in 2014 (EUR 0.7bn). Manufacturing services on physical inputs owned by others predominate in enterprises involved in the activities¹⁸ of manufacture of wearing apparel, leather and related products, fabricated metal products, computers, electronic and optical products, and machinery and equipment. In addition, from 2016 onwards exceptionally high values of goods under manufacturing services on physical inputs owned by others were also recorded in the trade of non-resident enterprises with pharmaceutical products. In terms of value, significant also was the adjustment made with respect to non-resident trade (quasi transit), which reduced exports by EUR 0.3bn 2014. However, it grew to EUR 0.8bn in 2016 and stood at as much as EUR 0.6bn in the first half of 2017. While the decrease in exports based on these items was significant, the increase in exports based on purchases made in the previous three years averaged only about EUR 0.1bn. The effect of the rise in net exports resulting from merchanting is still insignificant.

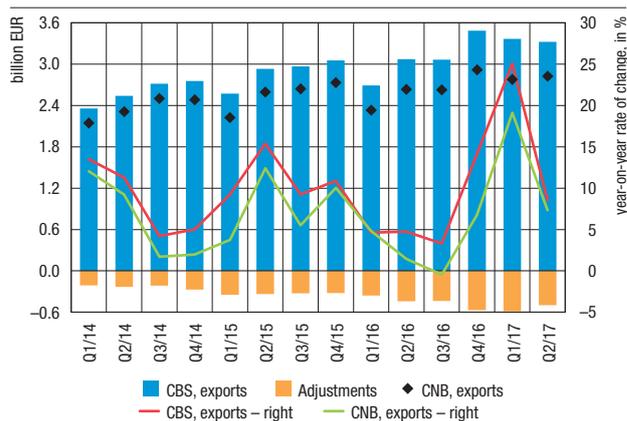
The previous three and a half years were marked by an increase of total adjustments on the exports side. In 2016,

Figure 2 Adjustments of goods exports in the balance of payments statistics



Sources: CBS and CNB.

Figure 3 Goods exports according to foreign trade (CBS) and balance of payments (CNB) statistics data



Note: The annual growth rates for 2014 are influenced by methodological changes related to EU accession.
Sources: CBS and CNB.

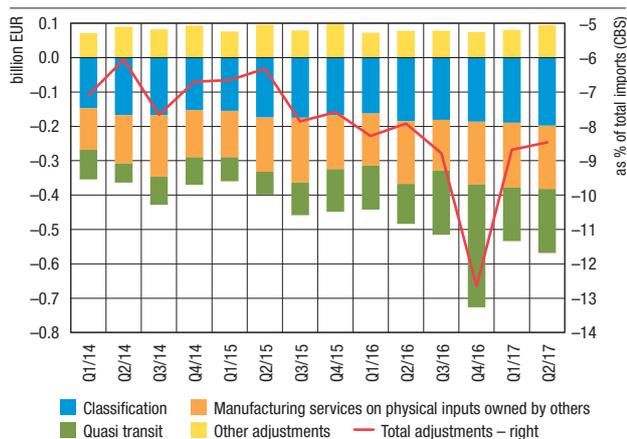
according to the CBS data, revenues in the balance of payments goods account were lower than exports by EUR 1.8bn or almost 15%. This is noticeably steeper than in 2014 due to the rise in the value of non-resident transactions and manufacturing services on physical inputs owned by others. In addition, adjustments were larger in the first half of 2017 than in 2016, accounting for more than 16% of the value of the foreign trade statistics. As a result, the growth of goods exports is lower according to the balance of payments data than according to the foreign trade statistics data (Figure 3). In 2015 and 2016, the annual growth of exports was more than 3 percentage points lower according to the balance of payments data than according to the CBS data (8.0% and 3.1% vs 11.2% and 6.8%), this trend continuing in the first half of 2017 (12.9% vs 16.1%¹⁹).

17 Privatisation and restructuring of shipyards with the framework of the alignment with the EU acquis adversely influenced their export performance. Other transport equipment (mostly ships) accounted for only 2.1% of total goods exports in 2016 according to the CBS data compared to an average of 11.4% in the 2005-2011 period.

18 In line with the results of the research launched following the implementation of the BPM6.

19 This Box comments on preliminary CBS data for the first six months of 2017 (published in 7 September 2017), included in the preliminary data in the goods account in the balance of payments current account for the second quarter of 2017 (published on 29 September 2017).

Figure 4 Adjustments of goods imports in the balance of payments statistics

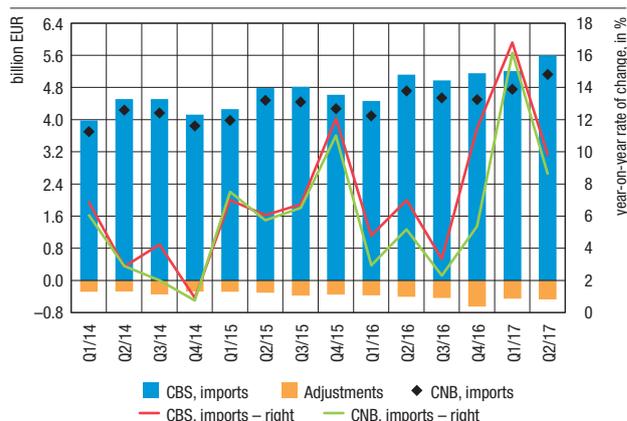


Sources: CBS and CNB.

Adjustments on the exports side on the basis of manufacturing services on physical inputs owned by others and quasi transit are related to adjustments on the imports side as they include the trade in goods that are similar or the same. The largest volume of adjustments of goods imports in the balance of payments (Figure 4) in 2016 was accounted for by quasi transit (EUR 0.8bn) which grew considerably from the previous two years (about EUR 0.3bn). Very high values of imports by non-residents were recorded at the end of 2016, which was mostly due to the trade in pharmaceutical products not subject to manufacturing services on physical inputs owned by others. The decrease in imports of goods under manufacturing services on physical inputs owned by others stood at EUR 0.7bn in 2016 or slightly more than in the previous two years (EUR 0.6bn). The structure of imports of goods under manufacturing services on physical inputs owned by others by activities matches that on the side of exports. Due to the adjustment for the classification (c.i.f./f.o.b.), imports trended down by about EUR 0.7bn in the balance of payments in the previous three years. By contrast, the increase in imports in the balance of payments owing to the estimated costs of purchases stood at about EUR 0.3bn in the previous three years. The effect of the increase in imports by the value of fuel and other supplies acquired by domestic transporters abroad is negligible.

As a result of the described adjustments, total differences between goods imports according to the foreign trade statistics and goods imports according to the balance of payments statistics also increased in the previous three years, although at a weaker intensity than in exports. Imports of goods in the balance of payments were lower than imports measured by foreign trade statistics by EUR 1.2bn or 7% in 2014, with the difference increasing to EUR 1.9bn or 9% in 2016, a slightly lower ratio being observed at the beginning of 2017. As regards the dynamics of goods imports (Figure 5), its annual growth rate according to the balance of payments data and the CBS data was almost the same in 2015 (7.6% vs 7.9%). In 2016, the growth of imports according to the balance of payments data was almost 3

Figure 5 Goods imports according to foreign trade (CBS) and balance of payments (CNB) statistics data



Note: The annual growth rates for 2014 are influenced by methodological changes related to EU accession.

Sources: CBS and CNB.

percentage points lower (4.0% vs 6.6%), due mostly to high imports by non-residents at the end of the year. In the first half of 2017, the annual growth rates measured by these two data sources were again less divergent (12.1% vs 12.7%).

The deficit in the goods account of the balance of payments may be larger or smaller than the foreign trade deficit reported by the CBS depending on whether the described adjustments contribute more to the fall in exports or the fall in imports (Table 1). Hence, the decrease in imports exceeded the fall in exports in 2016, resulting in a smaller deficit in the goods account of the balance of payments than in the deficit calculated from the CBS data. By contrast, the CNB reported a larger deficit in the first half of 2017 because the fall in exports exceeded the decrease in imports. Specifically, high values of quasi transit continued to be recorded on the exports side (after appreciable imports observed at the end of 2016) but not on the imports side.²⁰

In addition, it should be taken into account that these adjustments also in part affect the services account in the balance of payments. The gross value of goods under manufacturing services on physical inputs owned by others is not included in the goods account, while at the same time the net value of rendered or received manufacturing services on physical inputs owned by others is included in the trade in services. Net exports of these services stood at about EUR 0.2bn in the previous three years, marked by a slight upward trend. The adjustment for the classification (c.i.f./f.o.b.) reduces goods imports. However, more than a half of its volume (about EUR 0.4bn annually), as the estimated portion of costs of transportation and insurance that belongs to non-residents, is returned through imports of freight transportation services. Moreover, with the implementation of the BPM6, goods repair and maintenance services have become a part of the services account, earlier reported in the goods account, and amount to about EUR 0.1bn annually. These adjustments had a slight adverse effect on total net exports of services in the previous three and a half years.

In summary, adjustments of trade in goods for the purpose of the compilation of the balance of payments decrease the value

²⁰ The value of adjustment for quasi transit does not have to be the same on the exports side and on the imports side, which may be explained by a time mismatch due to the storing of imported goods and differences in export and import prices (e.g. due to transportation costs, storage and insurance of goods in circulation, the system of transfer prices used by multinational companies etc.).

Table 1 Effect of adjustments in the balance of payments on the foreign trade balance

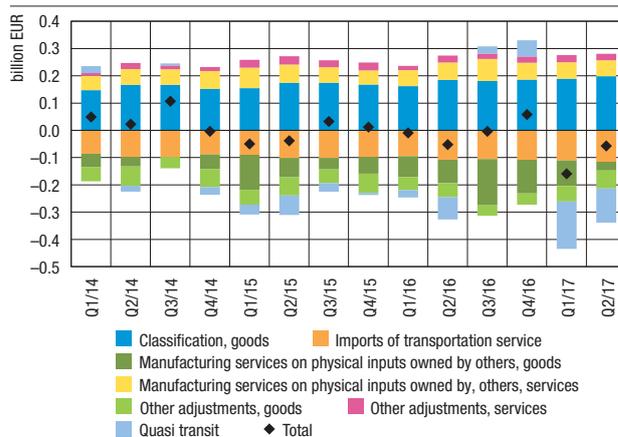
	2014	2015	2016	1st half of 2016	1st half of 2017
In million EUR					
CBS, balance (1)	-6,761	-6,955	-7,395	-3,821	-4,114
CNB, balance (2)	-6,512	-6,974	-7,337	-3,844	-4,274
Difference (3=2-1)	248	-19	58	-23	-160
As % of GDP					
CBS, balance (4)	-15.7	-15.8	-16.1	-17.7	-18.2
CNB, balance (5)	-15.1	-15.8	-16.0	-17.8	-18.9
Difference (6=5-4)	0.6	0.0	0.1	-0.1	-0.7
Year-on-year rate of change (% and percentage points)					
CBS, balance (7)	-2.6	2.9	6.3	7.9	7.7
CNB, balance (8)	-1.1	7.1	5.2	5.6	11.2
Difference (9=8-7)	1.4	4.2	-1.1	-2.3	3.5

Notes: Relative indicators for the first half of the year are shown as a ratio to a semi-annual GDP. The annual growth rates for 2014 are influenced by methodological changes related to EU accession.

Sources: CBS and CNB.

of goods exports and goods imports published by the CBS, with a portion of the adjustments also being reflected in the services account of the balance of payments. The effect of all these adjustments on the balance of total foreign trade in goods and services (Figure 6) may be positive or negative. In the previous three years, it moved in the range of the favourable effect of EUR

Figure 6 Effect of adjustments on the balance of total foreign trade in goods and services



Source: CNB.

0.2bn annually to a slightly adverse effect that accelerated at the beginning of 2017 to about EUR 0.1bn (measured as the previous year sum). Observed by types of adjustments, only the adjustments for classification had a continuously favourable effect on the current account balance, while quasi transit and other adjustments worked in the opposite direction. In contrast to 2014 in which manufacturing services on physical inputs owned by others had a favourable effect, in the previous two years these adjustments had an unfavourable effect on the current account balance, which came to a halt in the first half of 2017 and had a negative effect on the balance of trade in goods and services.

7 Private sector financing

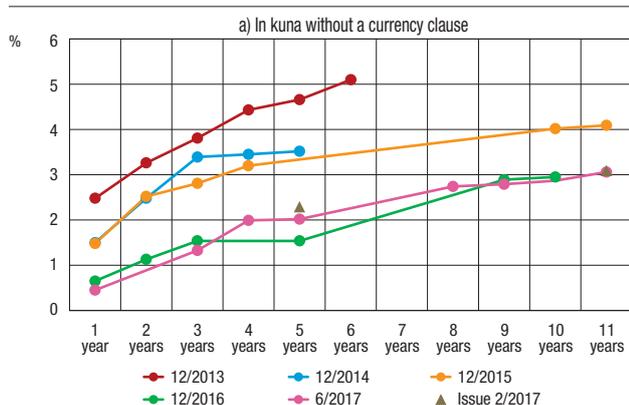
Financing conditions continued to improve in the first half of 2017. The interest rate on one-year kuna T-bills fell from 0.65% in December 2016 to a record low of 0.45% in March 2017, holding steady until mid-year. As regards long-term borrowing costs, yields on ten-year kuna bonds did not change significantly, while yields on five-year kuna bonds increased from their atypically low levels reached at the end of the previous year (Figure 7.1a). However, the yield on the February five-year kuna bond issue was the lowest since the government started to borrow in the domestic capital market (2.29%). Yields on euro-indexed bonds narrowed slightly at the end of June 2017 from the end of 2016 (Figure 7.1b).

The price of the government's external financing, estimated by the sum of the EMBI index for Croatia and the German

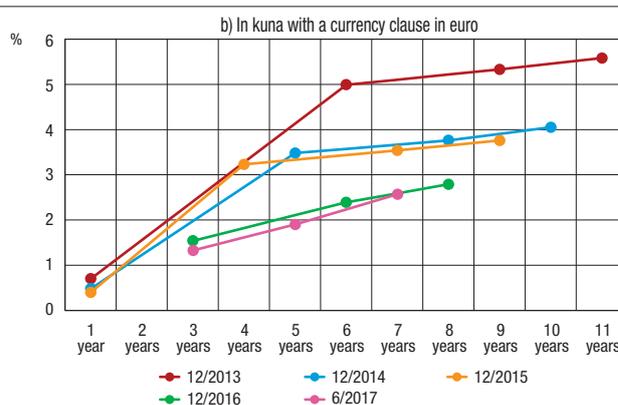
government bond yield, continued to decline, down to 2.6% in June 2017 (Figure 7.3).²¹ The government launched a EUR 1.25bn ten-year bond with a 3.2% yield in the international market in March 2017.

In the first half of 2017, corporate financing costs were on average close to the levels reached at the end of the previous year (Figures 7.2 and 7.3). The interest rate on short-term corporate borrowing stood at an average of 4.64% in the first half of the year and that on long-term borrowing with a currency clause amounted to 4.09%. Interest rates on loans exceeding HRK 7.5m, used mostly to finance large enterprises, continued to be volatile and stand below interest rates on smaller-value loans, which are primarily targeted at small and medium-sized enterprises (Figure 7.4). However, the spread between interest

Figure 7.1 Yield-to-maturity on RC bonds

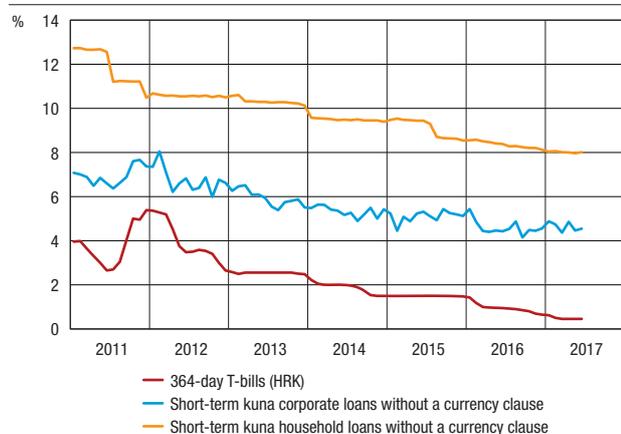


Notes: The dots show the achieved yields, while other values have been interpolated. Data for one-year yield refer to the achieved interest rate on one-year kuna T-bills without a currency clause.
Source: CNB.



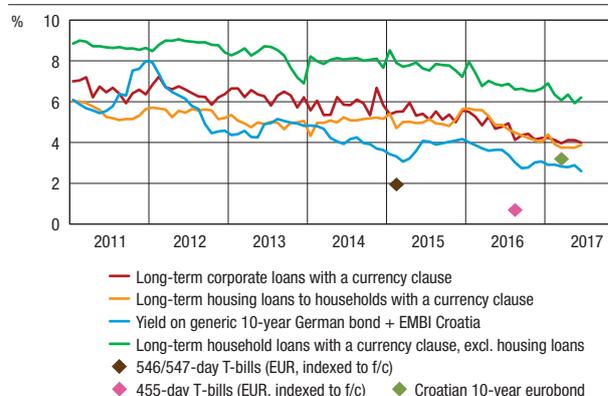
Notes: The dots show the achieved yields, while other values have been interpolated. Data for one-year yield refer to the achieved interest rate on one-year kuna T-bills with a currency clause in euro.
Source: CNB.

Figure 7.2 Short-term financing costs in kuna without a currency clause



Sources: MoF and CNB.

Figure 7.3 Long-term financing costs in kuna with a currency clause and in foreign currency



Note: EMBI, or the Emerging Market Bond Index, shows the spread between yields on government securities of emerging market economies, Croatia included, and risk-free securities issued by developed countries.
Sources: MoF, Bloomberg and CNB.

²¹ Croatia's credit default swaps decreased significantly (about 75 basis points) in the first half of 2017, standing at 145 basis points at the end of June.

rates on loans of up to HRK 7.5m and loans exceeding that amount narrowed on average in the first six months of 2017 relative to 2016.

Regarding the household sector, interest rates on short-term kuna loans and long-term kuna loans indexed to foreign currency continued to drop in the first half of 2017 at a pace similar to that in the same period in the previous year (Figures 7.2 and 7.3). The same trend was observed in interest rates on housing loans, consumer loans and other loans. The fall in domestic interest rates was driven not only by high liquidity in the monetary system but also by a continued decline in the costs of banks' sources of funds as reflected in a further downward trend in the NRR²² and continued record-low EURIBOR levels. A slowdown in the fall of the short-term costs of corporate

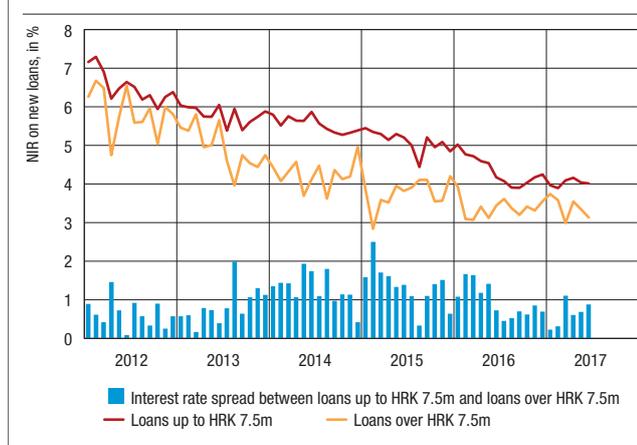
kuna borrowing and a continued decline in these costs for the household and government sectors was also observed in real interest rates (Figure 7.5).

After having eased for six successive quarters, corporate credit standards stagnated in the second quarter of 2017 (Figure 7.6). According to banks' responses to the bank lending survey, the tightening of credit standards in the second quarter was primarily due to risk perception, while strengthened interbank competition and favourable liquidity conditions had an opposite effect. Demand for all types of corporate loans continued to grow, with the trend being especially favourable in the second quarter of 2017. The demand growth was largely driven by corporate needs for financing inventories and working capital, as well as by gross fixed capital formation.

The household sector saw credit standards, both for housing loans and for consumer and other loans, ease considerably in the first half of 2017 (Figure 7.7). In the second quarter, credit standards for both types of loans eased the most since the introduction of the bank lending survey. The easing of credit standards, while primarily due to interbank competition and lower costs of the sources of funds, was also in the case of housing loans stimulated by positive expectations regarding real estate market conditions and in the case of consumer and other loans by general economic expectations. Demand for consumer and other loans continued rising markedly in the first half of the year, while demand for housing loans recovered strongly in the second quarter following a slight decrease in the first quarter. Consumer confidence had the strongest impact on the growth of demand for both types of loans. Demand for housing loans was additionally spurred by a favourable real estate market outlook and demand for consumer and other loans by the increased consumption of durable consumer goods.

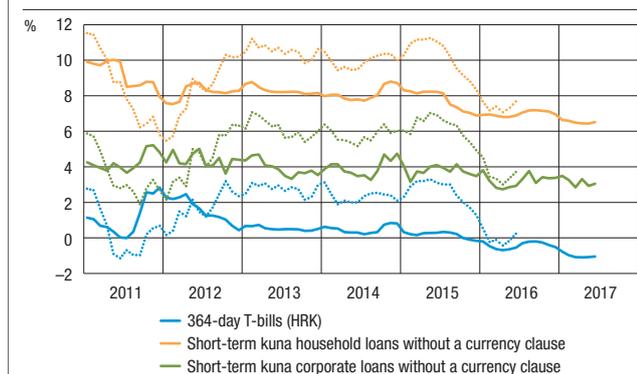
The total debt of non-financial corporations²⁵ edged up in the first half of 2017 and its annual growth rate at the end

Figure 7.4 Bank interest rates on loans to non-financial corporations by volume



Source: CNB.

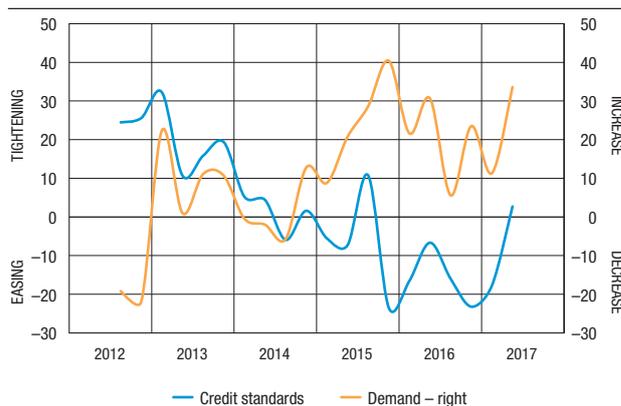
Figure 7.5 Achieved and expected real interest rates



Note: Full lines show the expected real interest rates, i.e. the nominal interest rates deflated by the expected values of the consumer price index under the CNB's official projection, and the accompanying dotted lines show the achieved real interest rates, i.e. the nominal interest rates deflated by the achieved values of the consumer price index.

Sources: CNB, CBS and CNB calculations.

Figure 7.6 Credit standards and corporate demand for loans



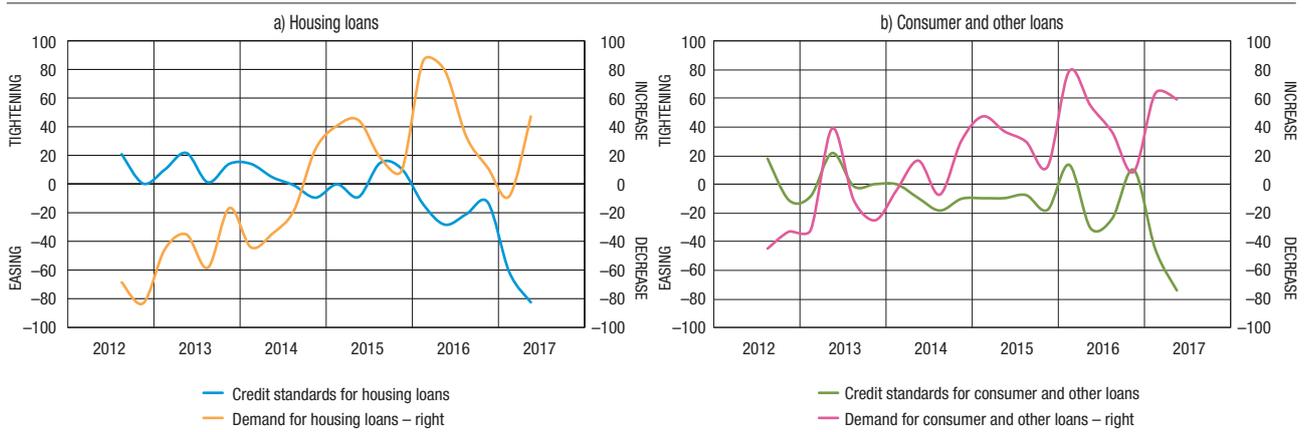
Note: Data show the net percentage of banks weighted by the share in total corporate loans.

Source: CNB.

22 The national reference rate (NRR) is the average interest rate paid on deposits by the banking sector. It is used as one of the benchmark interest rates for determining the level of the variable component of variable interest rate on loans, in accordance with Article 11a of the Credit Consumer Act (pursuant to the Act on Amendments to the Consumer Credit Act, OG 143/2013).

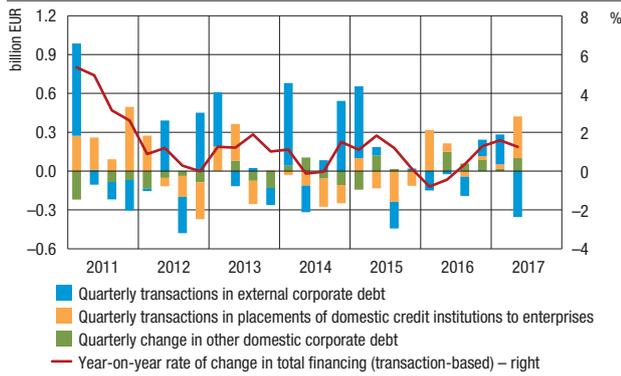
25 The total debt of non-financial corporations includes the debt of private and public enterprises (excluding public enterprises included in the general government sector).

Figure 7.7 Credit standards and household demand for loans



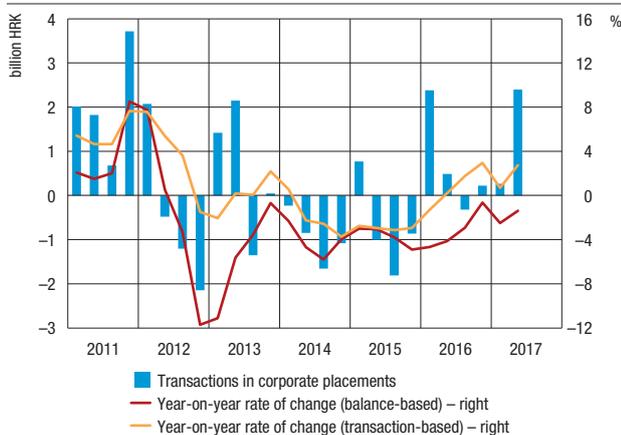
Note: Data show the net percentage of banks weighted by the share in total household loans. Source: CNB.

Figure 7.8 Corporate financing



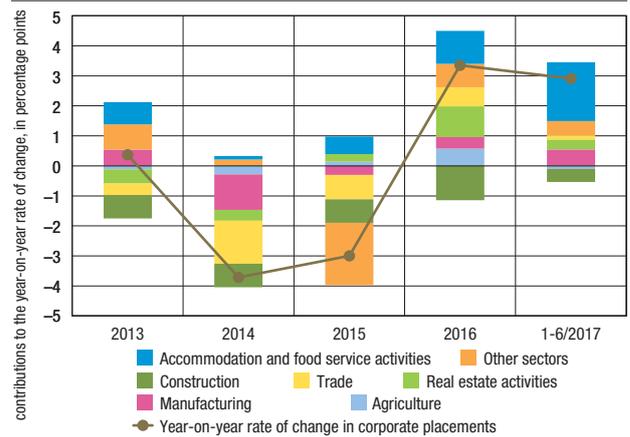
Notes: Other domestic financing includes borrowing from domestic leasing companies and the CBRD. Foreign financing includes borrowing from foreign banks and foreign affiliated enterprises and excludes the effect of debt-to-equity transactions. Rate of change was calculated based on transactions (except for other domestic debt). Sources: HANFA, CNB and CNB calculations.

Figure 7.9 Corporate domestic placements of credit institutions



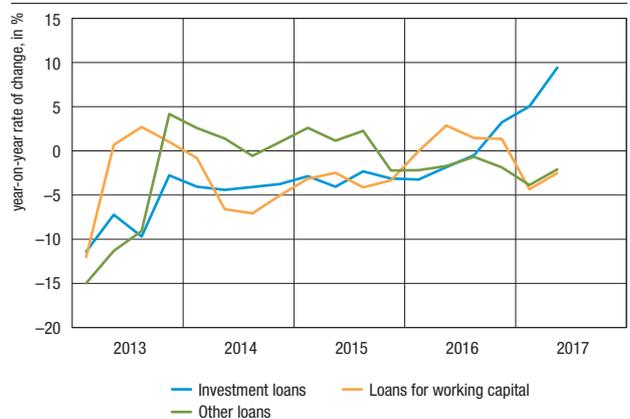
Source: CNB.

Figure 7.10 Growth of corporate placements by activity transaction-based



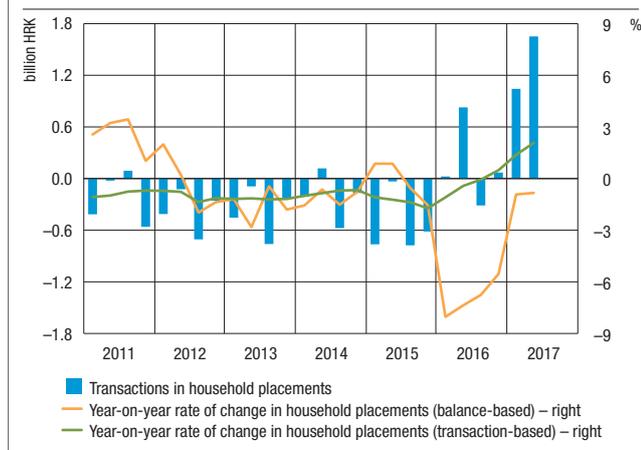
Source: CNB.

Figure 7.11 Growth in corporate loans by purpose transaction-based



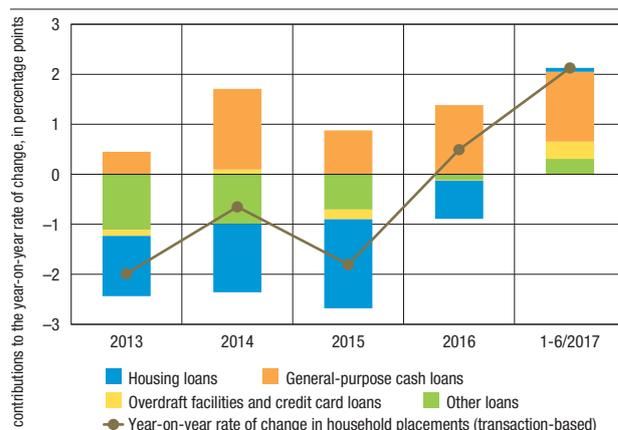
Source: CNB.

Figure 7.12 Household placements



Source: CNB.

Figure 7.13 Growth of household placements by loan type transaction-based



Source: CNB.

of June was 1.3% (transaction based, Figure 7.8). Domestic corporate borrowing grew on an annual level, while corporate external debt declined. The growth in total debt was mainly generated by private enterprises, which significantly increased their domestic and to a smaller extent their foreign borrowing. In contrast, public enterprises continued deleveraging against foreign creditors, and recorded only a slight increase in domestic financing.

Corporate domestic placements of credit institutions increased by HRK 2.7bn (2.9%) in the first half of 2017 (transaction based, Figure 7.9). Their annual growth rate, similar to that recorded at the end of the previous year, stood at 2.7% at the end of June (transaction based). In contrast, the nominal stock of corporate placements continued to trend downwards, decreasing at an annual rate of 1.4% at mid-2017, primarily due to the sale of non-performing placements and the appreciation of the kuna versus the euro.

The largest positive contribution to the growth of domestic corporate placements continued to be made by lending to the accommodation and food service activity (Figure 7.10). The growth of placements to this activity in the first six months of 2017 was almost twice as high as their total previous year's growth, due to stepped-up tourist sector investments. Lending

to manufacturing was also strong in the first half of 2017, while construction saw further deleveraging, albeit at a weaker pace than in 2016. As shown by an analysis of corporate lending by purpose, lending activity was boosted by the growth of investment loans (Figure 7.11).

Having accelerated since October 2016, the annual growth of household placements reached 2.1% at the end of June 2017 (transaction-based, Figure 7.12). The growth in disposable income and employment, favourable expectations, a continued fall in interest rates and the easing of credit standards were the determining factors for the strong recovery of household lending. All major types of loans increased during the first six months of the year (Figure 7.13), with general-purpose cash loans going up at the highest rate and housing loans halting their several-year decline. Kuna lending continued to grow and by late June 2017 kuna loans accounted for 45.5% of total household placements. In contrast, the nominal stock of household placements decreased annually by 0.8% in late June, primarily as a result of the sales of non-performing bank placements and the strengthening of the kuna, while the effect of the partial write-off of Swiss franc-indexed loans related to conversion diminished significantly.

Box 3 Change in the structure of bank funding sources and the preferences of deponents

The environment of low interest rates, which has been present in international financial markets for several years, triggered a change in the behaviour of depositors and in the structure of bank deposits in both Croatia and other EU member states. Low interest rates have also led to increased risks that, if financing conditions are tightened, could materialise for some bank clients and for the banks themselves in the form of interest rate-induced credit risk (see publication *Macprudential Diagnostics No. 1*).

In addition, banks in Croatia will also be exposed to potential currency risk if the change in the structure of deposits in favour of transaction accounts comes to an end, i.e. if the share of time deposits that are usually linked to the euro grows again. In particular, increased affinity of bank clients for kuna loans²⁴ is currently not accompanied by an increased affinity of bank depositors for long-term savings in kuna, but rather by an increase in transaction deposits in kuna.

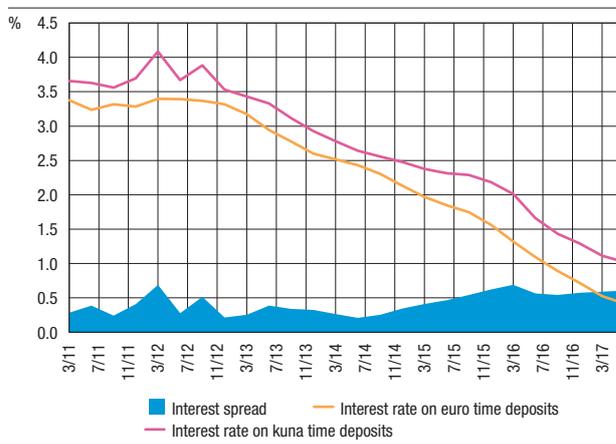
Seeking for higher yields depositors expectedly turn to riskier types of investments in the period of low deposit interest rates. However, the analysis carried out suggests that even in the case of more significant growth of investments in riskier types of assets, such as shares, and equity funds, in line with the model similar to that observed before 2009, the domestic banking system will not be exposed to the materialisation of risk arising from a possible spillover of assets from highly liquid and mostly transaction deposits into investments in investment funds or directly into shares.

The high liquidity of the Croatian banking system and relatively mild financing conditions in international financial markets resulted in the lowest-ever interest rates on bank deposits. Interest rates on newly received time deposits of banks dropped by around two percentage points from early 2011 to the end of June 2017, standing at 0.42% at the end of June 2017 (Figure 1). Approximately the same reduction in interest rates on newly received time deposits was also observed in banks in the euro area, which stood at 0.24% at the end of June 2017.

It is interesting that the traditionally higher interest rates on kuna savings in Croatia have failed to attract more depositors towards long-term kuna savings (Figure 2). Instead, the currency structure of time deposits has remained relatively stable in the last six years, the share of euro time deposits in total time deposits hovering around 70%. In addition, in the past two years, i.e. since the introduction of taxes on (kuna and foreign currency) savings, a sizeable portion of the fall in euro time deposits (which decreased by HRK 26.9bn from the end of 2014 to June 2017) led to an increase in funds in euro transaction accounts (which increased by HRK 22.5bn in the same period).

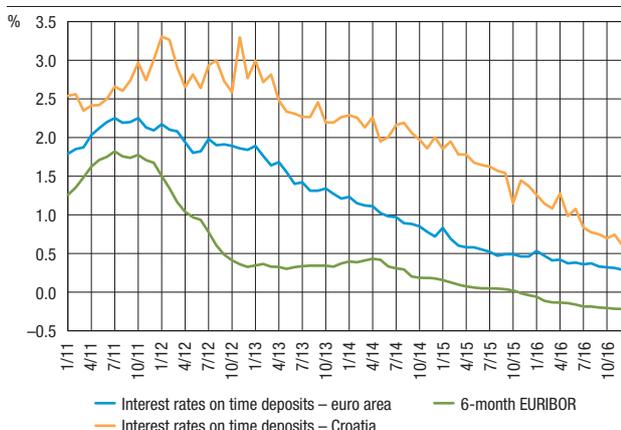
The upward trend in the share of overnight deposits of households and non-financial corporations in Croatia was also observed in other EU member states (Figure 3). The decrease

Figure 2 Interest rates on newly received euro and kuna time deposits



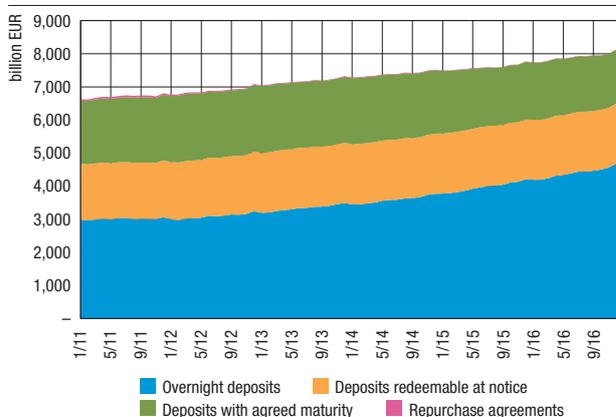
Source: CNB.

Figure 1 Interest rates on time deposits of household and non-financial corporate sectors



Sources: ECB and CNB.

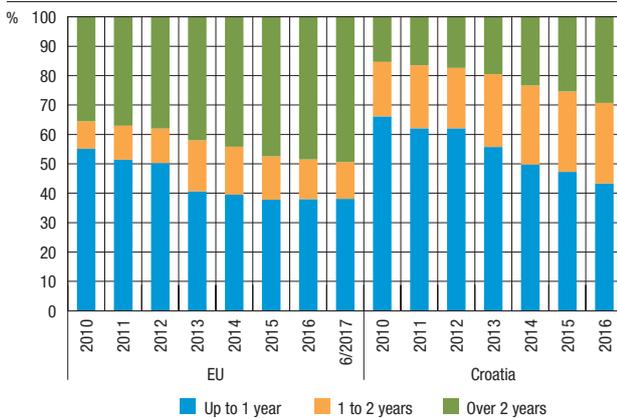
Figure 3 Structure of bank deposits received from household and non-financial corporate sectors, broken down by the type of instruments, in selected euro area member states



Note: Presented are the data for the following countries: AT, BE, CY, DE, EE, ES, FI, FR, GR, IE, IT, LT, LU, LV and MT.
Source: ECB.

24 For more details see A Note on Kuna Lending: <http://www.hnb.hr/documents/20182/1197894/s-21.pdf/d11069c9-d484-496c-91b2-59282b6e4eaa>.

Figure 4 Structure of bank time deposits from household and non-financial corporate sectors, broken down by maturity, in selected EU member states and Croatia



Note: Presented are the data for the following countries: AT, BE, CY, DE, EE, ES, FI, FR, GR, IE, IT, LT, LU, LV and MT.
Sources: ECB and CNB.

in interest rates also influenced the extension of maturity of time deposits (Figure 4).

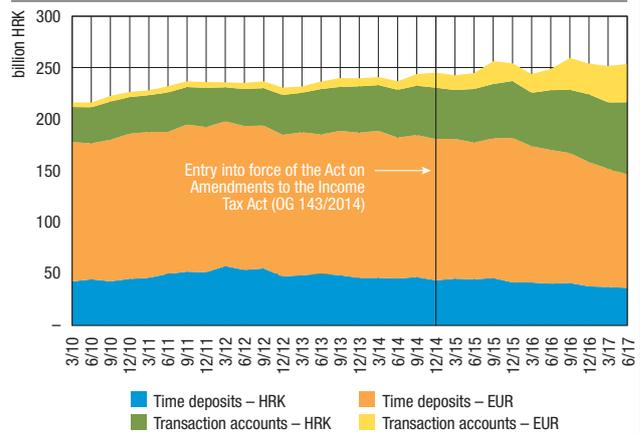
A further boost to the increase in funds in transaction accounts in Croatia was also made by the introduction of taxes on (kuna and foreign currency) savings, after which this trend picked up speed²⁵; also contributing were regulatory changes in the classification of deposits in late 2014²⁶ (for more details see Financial Stability No. 17).

At end-June 2017, funds in transaction accounts of banks accounted for 43% of total bank deposits received, i.e. 35% of total bank liabilities, which has exposed banks to interest rate risk in conditions of the expected growth in interest rates in the medium term. Direct interest rate risk is transferred to clients due to the high share of variable interest rates (see chapter 3, Household sector, and chapter 5, Non-financial corporate sector, Financial Stability No. 18). However, it is possible that interest rate risk may materialise for some clients (those with loans whose interest rates change in the longer run), which means that interest rate-induced credit risk may materialise for banks (for more details see Macprudential Diagnostics No. 1).

The maturity mismatch of bank assets and liabilities also increased, mostly due to the shortened remaining maturity of liabilities, while the remaining maturity of assets remained relatively stable in the observed period (Figure 5 in chapter 6 Banking sector, Financial Stability No. 18). Increased maturity transformation with lower interest rates for shorter periods has affected bank earnings and reduced the national reference rate (NRR), primarily for kuna. Should the structure of sources change in favour of longer-term deposits, the NRR is expected to increase even in the absence of strong growth in interest rates on particular types of deposits. While this would reduce interest rate risk effects for banks, it would also increase the burden of loan repayment for loan users whose loans are linked to the NRR.

Finally, the described change in the structure of deposits has also increased potential risks of currency mismatches. In particular, an increase in the share of transaction deposits also

Figure 5 Structure of time deposits and transaction accounts of banks, broken down by currency

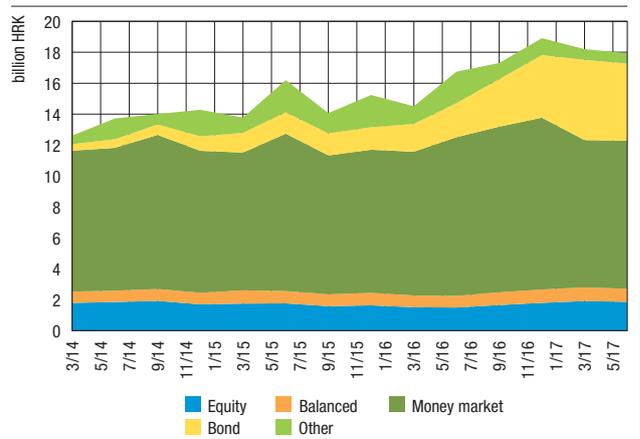


Source: CNB.

implies higher currency risk in view of the fact that most transaction deposits are in kuna (at end-June 2017, 61% of total funds in transaction accounts were in kuna), while most time deposits are in euro (70% of total time deposits were denominated in the euro at the end of June 2017) (Figure 5).

In addition to deposits, households mostly invest in real estate and assets with other financial intermediaries. Due to the absence of sufficiently qualitative data on investments of the household sector in real estate, this short review deals with the preferences of households for investments in assets of other financial intermediaries as they represent the closest substitute for investments in bank deposits. This, above all, involves investments in investment funds although households themselves directly allocate a certain portion of investments in equity and debt securities. The analysis showed that compared to investments

Figure 6 Developments in assets by fund type

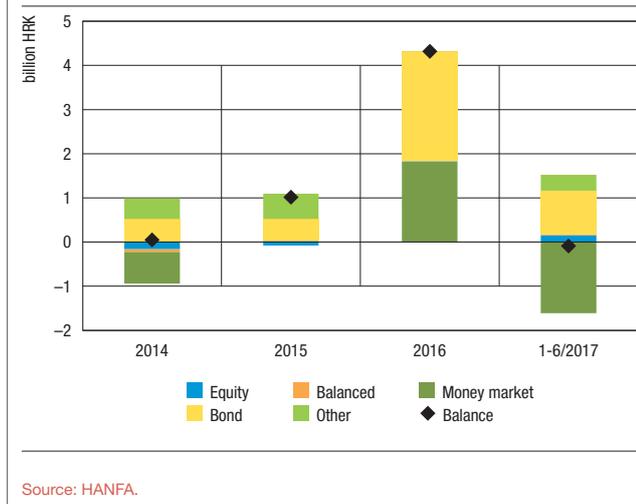


Source: HANFA (data processed by CNB).

25 Under the Act on Amendments to the Income Tax Act (OG 143/2014), a 12% tax on interest on kuna and foreign currency savings (sight, time and annuity) was introduced as of 1 January 2015. Interest receipts on funds in current and giro accounts are not taxed if the interest rate is below 0.5% per annum.

26 Decision on amendments to the Decision on statistical and prudential reporting (OG 127/2014).

Figure 7 Developments in the balance between payments into and disbursements from open-end funds



in bank deposits and, having in mind the relatively low yields earned by depositors on these deposits, households only to a lesser extent invest their funds with other financial intermediaries such as investment funds.

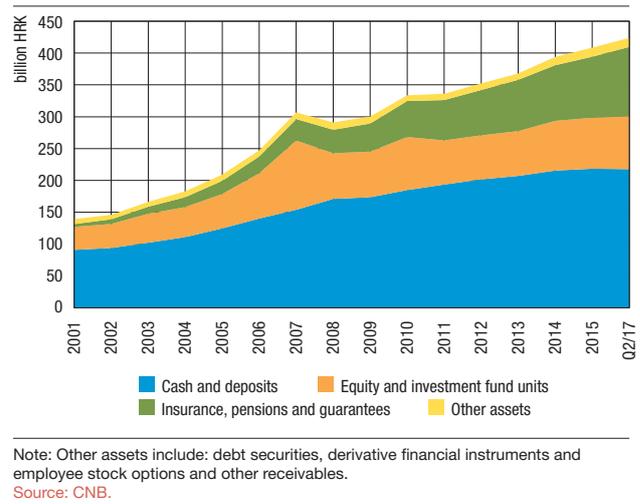
However, investments of the household sector in investment funds grew in recent years in parallel with the improvement of macroeconomic indicators (Figure 6).

If investments in funds are broken down by fund types, it is clear that investments in bond funds grew the most. In 2016, the net inflow measured by the difference between new payments into and disbursements from all types of funds exceeded HRK 4bn, with the fastest growth being recorded in the group of money market funds and bond funds while, on the other hand, the net outflow of HRK 87m was recorded in the first six months of 2017 (Figure 7). Although considered the least risky funds, money market funds recorded the largest outflow of assets in 2017. In line with expectations, the assets of balanced and equity funds did not rise during the same period due mostly to the crisis and special circumstances surrounding the Agrokor Group which affected their yield returns.

It appears that a contributing factor to mild increase of interest for investments in funds was the delayed introduction of taxation of capital gains from investments in investment funds in relation to the previous amendments to the Income Tax Act which related to taxation of savings income. Namely, the new provisions of the Income Tax Act and taxation of capital gains from investments in open-end investment funds only came into force in early 2016. As taxation of interest income was introduced a year before, room was created for regulatory arbitrage, so it is assumed that investors from the household sector invested some of the funds from bank transaction accounts into money market and bond funds, i.e. those types of funds which carry lower risks and yield returns relatively similar to or higher than traditional bank savings, i.e. investments in deposits.

It seems that the changes in tax regulations and the fall in deposit interest rates have affected the preferences and behaviour of households, which, in search of new types of low-risk investments, channelled a smaller portion of their financial assets to

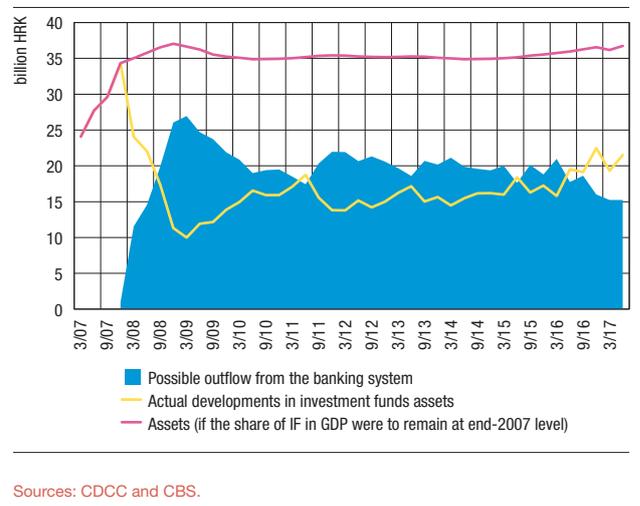
Figure 8 Developments in total financial assets of households



bond and money market funds and directly to shares. As a result, the net effect of such rechanneling was, if overall financial assets of households are taken into account, negligible (Figure 8).

However, even if the scenario²⁷ of a sudden outflow of household funds into investment funds materialises, in the amount observed in 2007, and under the assumption that inflow would be accompanied by an equal outflow of funds from deposit accounts with banks, the effect on bank deposits would be relatively modest and amount to about HRK 15bn or 5.11% of total deposits of all credit institutions at the end of June 2017. One should add to this the impact of direct investment of households in shares which, due to numerous changes in the status of listed shares (their delisting and dubious valuation since most shares are not listed on a regulated market), is much more difficult to assess. However, in a hypothetical scenario, if the maximum inflow of HRK 15bn into the funds were to be generated and financed exclusively from the transaction accounts of households

Figure 9 Departure of actual investment fund assets from their projection in relation to the 2007 GDP level



²⁷ The scenario is based on the assumption that the share of financial assets of households invested in investment funds in GDP would be equal that from 2007, i.e. 10.8%.

in banks, the liquidity of the banking system, measured by the LCR ratio would still remain largely above the regulatory minimum (currently set at 80%).

The impact on each individual bank would naturally depend on its individual liquidity position and the investment decisions of its clients. However, it is not realistic to expect clients to change

their preferences regarding investments and savings suddenly and over a short term, even more so if one takes into account the fact that only a longer-term recovery in the capital market would provide reassurance to clients about the sustainability of growth in the prices of riskier asset classes.

8 Foreign capital flows

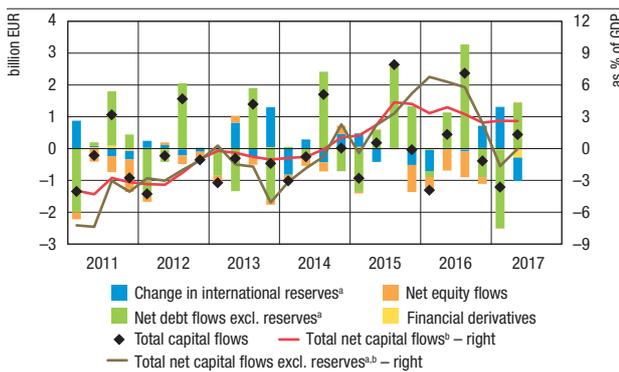
The first half of 2017 saw a net foreign capital inflow similar to that in the same period in 2016. Domestic sectors' net foreign liabilities, excluding the change in gross international reserves and CNB liabilities, increased considerably more in the first half of 2017 than in the first six months of 2016 (EUR 1.3bn vs. EUR 0.2bn). With the CNB's international reserves rising in the same period, the total net foreign capital inflow stood at EUR 0.8bn, decreasing from EUR 0.9bn in the same period in the previous year. The inflow was almost entirely accounted for by a growth in debt liabilities, while net equity investments displayed no significant change.

Net equity investments held steady in the first half of 2017 because domestic sectors' assets and liabilities increased by the same amount (EUR 0.3bn). The asset growth was driven by direct investments of residents abroad, primarily in the telecommunication sector, and by portfolio investments in foreign

shares and equity holdings. As regards liabilities, the takeover of a tourism company in resident foreign ownership reduced the already weak inflow of foreign equity investments, mostly made in the real estate and trade sectors. Reinvested earnings dropped significantly from the same period in the previous year and was even negative in financial intermediation due to increased dividend payments resulting from high profits recorded in the previous year and a decrease in the current period profit (resulting from provisions for loans granted to the Agrokor Group).

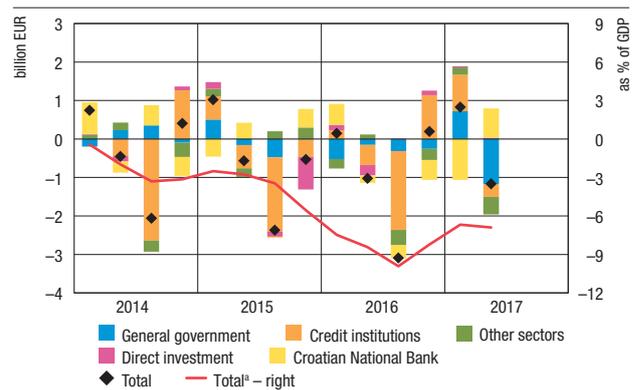
A large net inflow of debt capital (EUR 1.0bn, excluding the net change in CNB reserves) was mostly accounted for by credit institutions whose net foreign position deteriorated temporarily due to a sharp decrease in foreign assets.²⁸ The net foreign position of other domestic sectors also deteriorated, while government foreign liabilities declined. The pace

Figure 8.1 Flows in the financial account of the balance of payments



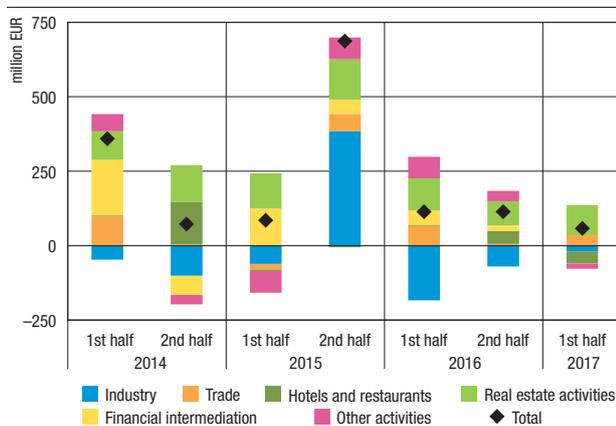
^a Changes in gross international reserves net of CNB foreign liabilities.
^b Sum of the previous four quarters.
 Notes: Net flows mean the difference between changes in assets and liabilities. Equity flows comprise changes in foreign direct equity investments, reinvested earnings and portfolio equity investment. Positive value means net capital outflow abroad.
 Source: CNB.

Figure 8.3 Net external debt transactions by sectors



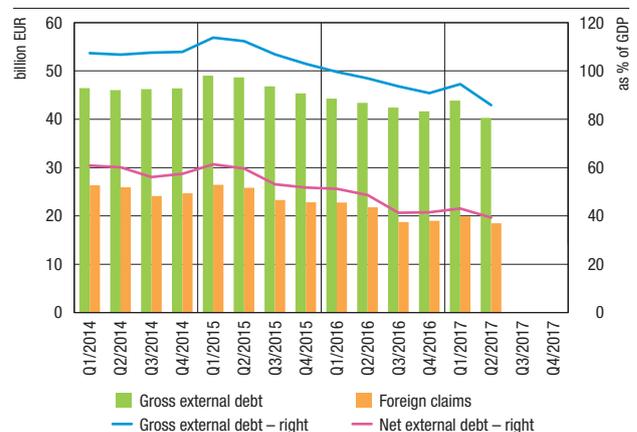
^a Sum of the previous four quarters.
 Notes: Transactions refer to the change in debt excl. cross-currency changes and other adjustments. Net external debt is calculated as the gross external debt stock net of foreign debt claims.
 Source: CNB.

Figure 8.2 Foreign direct equity investment in Croatia by activities



Note: Equity investment net of debt-to-equity transactions and round-tripping investments.
 Source: CNB.

Figure 8.4 Stock of gross and net external debt



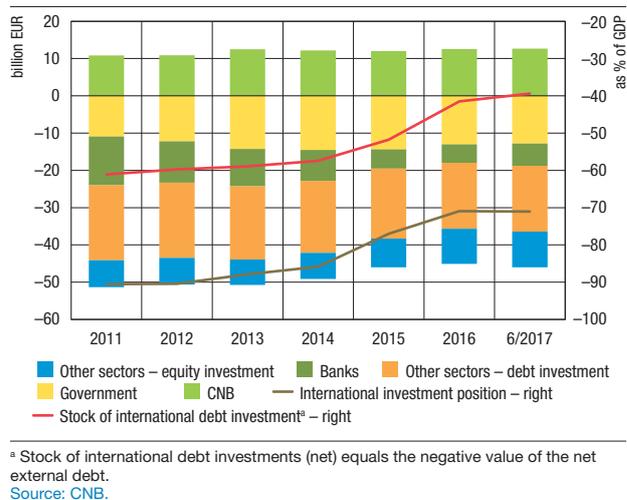
Note: Net external debt is calculated as the gross external debt stock net of foreign debt claims.
 Source: CNB.

of government deleveraging slowed down from the same period in the previous year because the government refinanced the repayment of five-year US dollar bonds falling due with a eurobond issue in May. The central bank's external position improved as a result of a growth in international reserves.

Relative indicators of external debt improved further in the first half of 2017 due to the nominal GDP growth and a favourable effect of cross-currency changes and other adjustments. Gross external debt was EUR 40.3bn (85.9% of GDP) at the end of June, which is a decrease of 5.0 percentage points from the end of the previous year. The relative indicator of net external debt decreased to a lesser extent. Net external debt dropped to EUR 18.5bn (39.4% of GDP) at the end of June 2017, down by 2.1 percentage points from the end of 2016.

While external debt continued to decrease, the relative indicator of the net international investment position held steady close to the level attained at the end of the previous year (-71.0% of GDP) due to the favourable effect of the nominal GDP growth. Specifically, the international investment position deteriorated in absolute terms as a result of the deepening of the negative balance of net equity investments caused by value adjustments, and, even more importantly, because of a marked decrease in financial derivative assets. This was predominantly due to the negative effect of cross-currency

Figure 8.5 International investment position (net) by sectors



changes on government's external debt liabilities arising from US dollar bonds hedged against currency risk.

28 The investments of domestic institutional investors in the May issue of euro-denominated government bonds also contributed to these trends.

9 Monetary policy

During the first half of 2017, the CNB continued to pursue an expansionary monetary policy. Kuna liquidity in the banking system was enhanced by foreign exchange interventions, which alleviated upward pressures on the domestic currency. Specifically, the CNB's substantial foreign exchange purchase at the end of 2016 was followed by the purchase of EUR 424.0m from banks in May. The central bank also purchased EUR 15.9m from the Ministry of Finance, while it did not carry out any transactions with the European Commission. The net purchase of foreign exchange through all foreign exchange transactions amounted to EUR 539.9m in the first six months of 2017, with HRK 4.0bn created as a result (Figure 9.1)²⁹.

The average amount of funds placed through regular

weekly reverse repo operations was HRK 0.1bn in the first two months of 2017, while the fixed repo rate held steady at 0.3%. However, the CNB mainly refrained from placing funds through weekly operations from early March until mid-year, as banks were not interested in these operations due to abundant kuna liquidity. As no additional funds were created through structural repo operations in the first half of 2017, their balance at the end of June equalled that at the end of the previous year (HRK 1.0bn).

The average surplus kuna liquidity doubled to HRK 15.7bn in the first six months of 2017 from HRK 7.6bn in 2016 (Figure 9.2), which was mainly a consequence of reserve money creation by the aforementioned foreign exchange interventions. Under such conditions, the average weighted overnight interbank interest rate dropped from 0.41% in 2016 to 0.06% in the first half of 2017. The interbank interest rate increased temporarily to 0.39% in June as a result of one transaction carried out in that month.

The nominal exchange rate of the kuna to the euro appreciated by 2.0% in the first six months of 2017, down from EUR/HRK 7.56 at the end of 2016 to EUR/HRK 7.41 at the end of June (Figure 9.3). The average exchange rate was 1.5% lower in that period than in the first half of 2016. The exchange rate appreciation was related to expectations of a very good tourist season, increased inflows from EU funds and, in general, by the recovery in economic activity and alleviation of fiscal risks. The kuna also strengthened annually versus the euro, with the result that the exchange rate was 1.4% lower at the end of June than at mid-2016. The kuna appreciated against the US dollar and the Swiss franc in the first six months too, as a result of the euro strengthening against these currencies in global financial markets.

Gross international reserves stood at EUR 14.0bn at the end of June 2017 (Figure 9.4), growing by EUR 0.5bn (3.8%)

Figure 9.1 Flows of reserve money (M0) creation

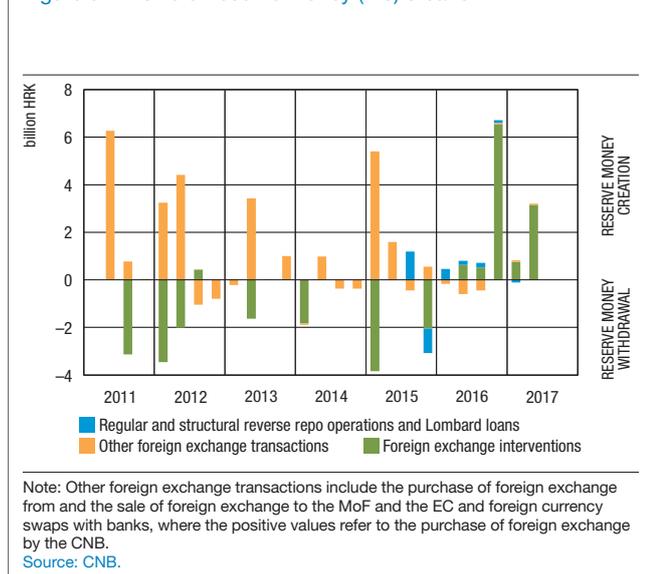


Figure 9.2 Bank liquidity and overnight interbank interest rate

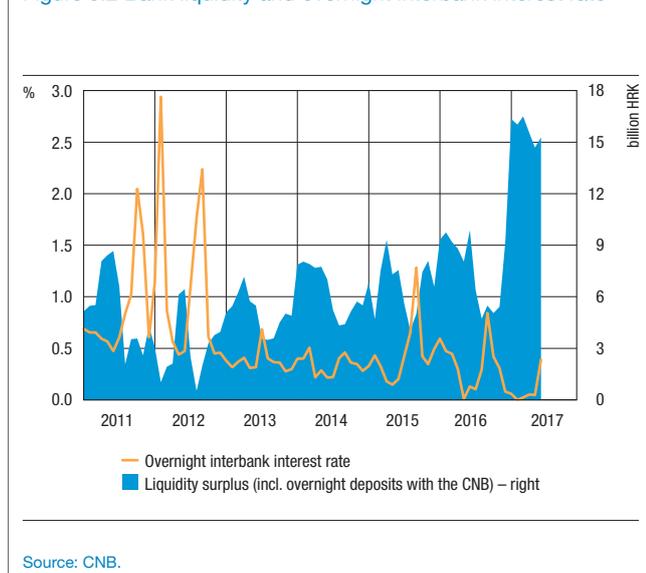
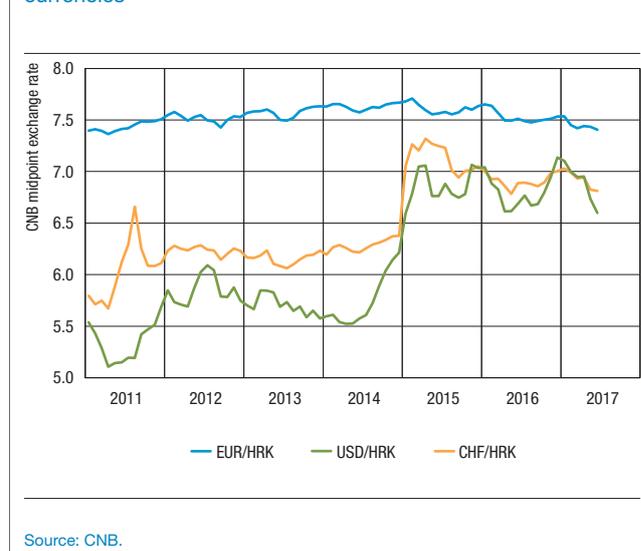
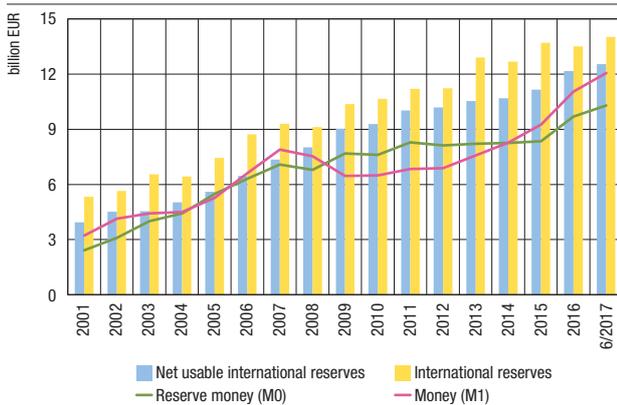


Figure 9.3 Nominal exchange rates of the kuna against selected currencies



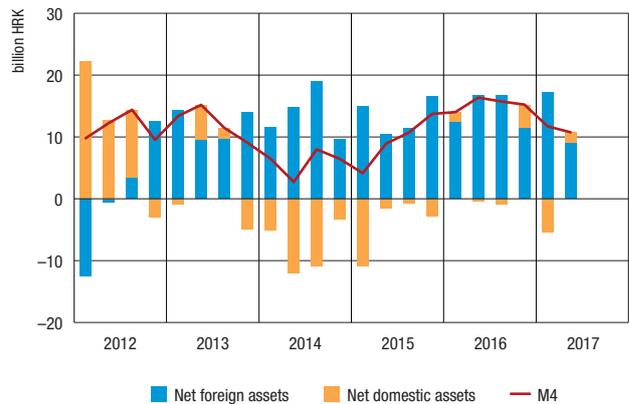
²⁹ Data for the first half of 2017 include the non-auction purchase of foreign exchange directly from banks in the amount of EUR 100.0m as at 29 December 2016 since the value date of this transaction was 2 January 2017.

Figure 9.4 International reserves of the CNB and monetary aggregates



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

Figure 9.5 Net foreign assets, net domestic assets and total liquid assets (M4) absolute change in the last 12 months



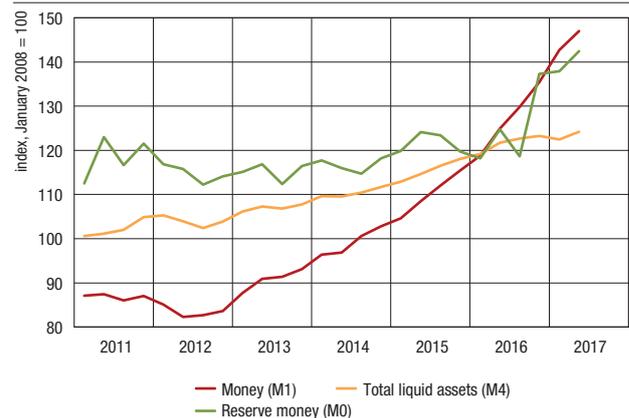
Note: Absolute changes excluding the exchange rate effect.
Source: CNB.

from the end of 2016. The contributions to the growth came from the net purchase of foreign exchange and an increased level of agreed repo transactions compared with that at the end of the year. Net usable reserves increased by EUR 0.4bn (3.2%) in the same period. Both gross and net international reserves remained at higher levels than money (M1) and reserve money (M0).

As regards monetary aggregates, the annual growth of total liquid assets (M4) continued to decelerate (Figure 9.5), which was primarily due to a slowdown in the growth of net foreign assets of monetary institutions.³⁰ Nevertheless, the foreign assets of credit institutions continued to exceed their foreign liabilities at the end of June.

Real money (M1) continued its several-year trend of robust growth in the first half of 2017 due to the propensity of domestic sectors to keep more liquid forms of assets amid a fall in bank deposit interest rates and economic recovery (Figure 9.6). Real total liquid assets (M4) also edged up thanks to the mentioned increase in money, and household foreign currency deposits continued the downward trend. Having increased significantly in late 2016 due to foreign exchange purchases from banks, the real value of reserve money (M0) rose by the end of June, also due to the purchase of foreign exchange from banks in that month.

Figure 9.6 Real monetary aggregates index of developments in seasonally adjusted values, deflated by the consumer price index



Source: CNB.

30 The multiplication of deposits was reduced thanks to a sharp increase in the free reserves of credit institutions.

10 Public finance

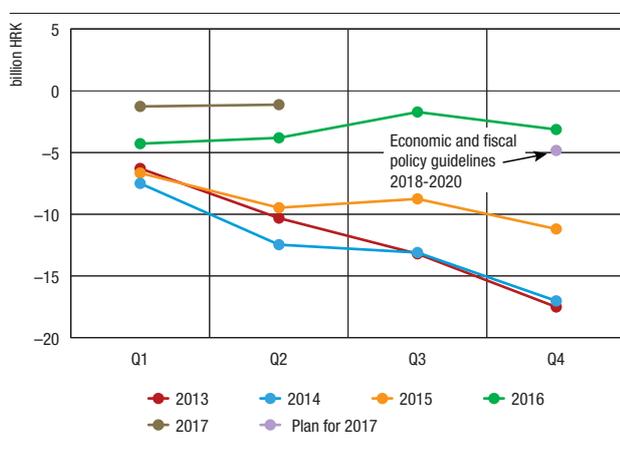
According to preliminary data on the execution of the consolidated general government budget (ESA, 2010) the budget deficit was HRK 1.1bn (0.3% of GDP³¹) in the first half of 2017, which is a sharp decrease from HRK 3.8bn (1.1% of GDP) in the same period in the previous year.³² The improvement of the balance in the first half of this year primarily reflected first-quarter developments, while the budgetary surplus was slightly lower in the second quarter compared with the previous year's performance.

A detailed analysis of the revenue side of the budget (ESA 2010) shows varied trends of some line items in the first half of 2017, with total revenues holding steady from the same

period in 2016 (–0.2%). Indirect taxes and social contributions made a noticeable positive contribution, supported by favourable general economic trends. Revenues from direct taxes also made a positive contribution, which was primarily due to positive trends in profit tax revenues, while income tax revenues decreased as a result of the tax reform. In contrast, other current revenues fell annually, probably to some extent due to a decrease in profit payments by government-owned entities.

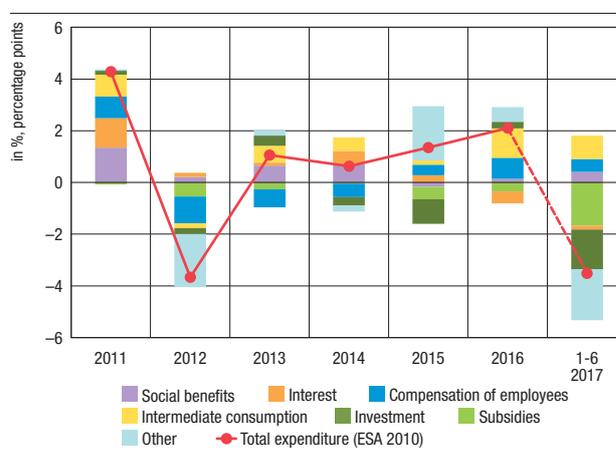
Consolidated general government expenditures (ESA 2010) decreased by 3.5% in the first half of 2017 from the same period in 2016. The bulk of the decrease was due to a sharp decline in other current expenditures. Expenditures on

Figure 10.1 General government cumulative balance by quarters (ESA 2010)



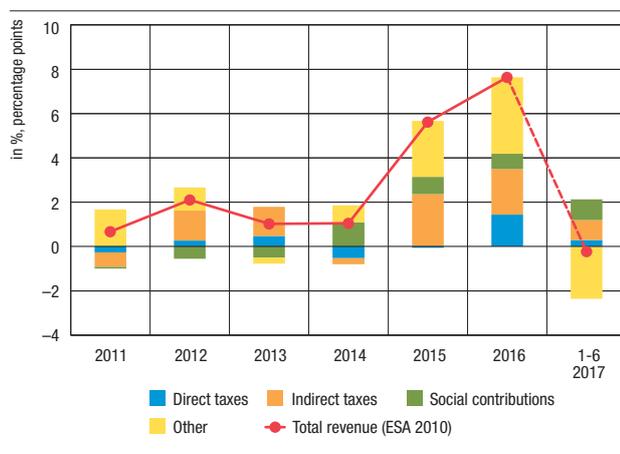
Sources: Eurostat and MoF (CNB calculations).

Figure 10.3 Consolidated general government expenditure (ESA 2010, year-on-year rate of change and contributions)



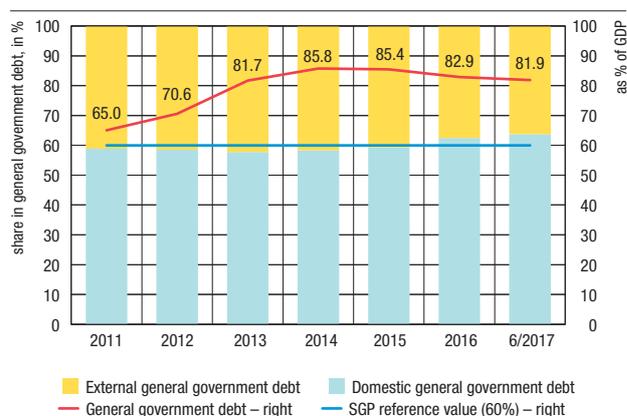
Source: Eurostat (CNB calculations).

Figure 10.2 Consolidated general government revenue (ESA 2010, year-on-year rate of change and contributions)



Source: Eurostat (CNB calculations).

Figure 10.4 General government debt end-period stock



Note: Nominal GDP for the last four available quarters was used for the calculation of the relative indicator at the end of June 2017.

Source: CNB.

31 As the sum of GDPs in the last four available quarters.

32 The series of non-financial fiscal accounts for the general government sector was revised backwards with the publication of fiscal notification in October 2017 so that some categories' total amounts or growth rates may differ from those presented in the previous publications.

subsidies and expenditures on investments also decreased, as well as interest expenditures, the latter to a lesser extent, however. In contrast, expenditures on government intermediate consumption and expenditures on social benefits increased, the latter probably due to pension adjustments. Employee compensations also grew, reflecting the gradual increase in the wage base for public sector employees, pursuant to the agreement with trade unions of government services and the decision to apply the increase to the wages of public service employees.

Consolidated general government debt was HRK 287.3bn at the end of June 2017, which is a decrease of HRK 1.8bn from the end of 2016, deriving primarily from the appreciation

of the kuna versus the euro in the observed period. As the GDP grew in the same period, the debt to GDP ratio dropped to 81.9%. In the first half of the year, the government took advantage of favourable conditions in financial markets to repay liabilities falling due and finance the deficit. In addition to regular T-bill issues, the government also issued a foreign bond worth EUR 1.25bn and domestic bonds worth HRK 8.5bn. The yield on new bond issues was considerably lower than that paid on previous bond issues. For example, a foreign bond issued in March this year had a yield to maturity of 3.2%, while the bond that fell due in April this year had been issued with a yield almost twice as high (6.375%).

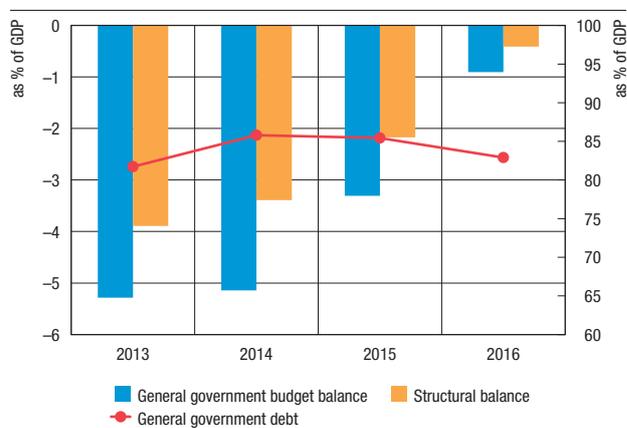
Box 4 Croatia's exit from the excessive deficit procedure³³

The general government deficit shrank to only 0.9% of GDP in 2016, much below the Stability and Growth Pact threshold of 3% of GDP. General government debt is expected to decrease at an adequate pace in the forthcoming medium-term period, so that the European Commission proposed in May 2017, and the EU Council confirmed in June, Croatia's exit from the excessive deficit procedure to which it had been subject since 2014. The most recent data suggest that the achieved adjustment of the general government deficit was mostly due to the structural deficit reduction, triggered by measures on both the revenue and expenditure side, and to a lesser extent, favourable cyclical movements.

With its full EU membership as of mid-2013, Croatia has been subject to the provisions of the Stability and Growth Pact (SGP). As it failed to meet the SGP criteria associated with budget deficit and general government debt, the excessive deficit procedure was launched against Croatia in early 2014³⁴. On the proposal of the European Commission, the EU Council adopted recommendations for the lowering of the excessive deficit, setting 2016 as the deadline for correction and outlining the adequate path for the nominal and structural deficit.

During the excessive deficit procedure, the Commission analysed and assessed fiscal developments in Croatia on a regular basis. While individual fiscal indicators were not always within the framework set by EU Council recommendations, the EC regularly adopted decisions to ensure the adequacy of the fiscal efforts taken by the Croatian authorities. For example, the nominal general government deficit stood at 5.1% of GDP in 2014, while it was to be reduced to 4.6% of GDP in that year under the EU Council's recommendation. Nevertheless, the EC assessed that the size of the adopted consolidation measures was in line with recommendations, while the departure of the nominal deficit from the projected path was in part attributable to much lower than expected inflation. In the following two years, the nominal deficit was noticeably reduced, standing at 0.9% of GDP in 2016, i.e. much below both the threshold of 3% of GDP and the 2.7% of GDP recommended by the Commission (Figure 1). Furthermore, although general government debt stood at 82.9% of GDP at the end of 2016, i.e. much above the 60% of GDP threshold, as the Commission expected its adequate reduction

Figure 1 Key fiscal indicators for Croatia



Source: AMECO.

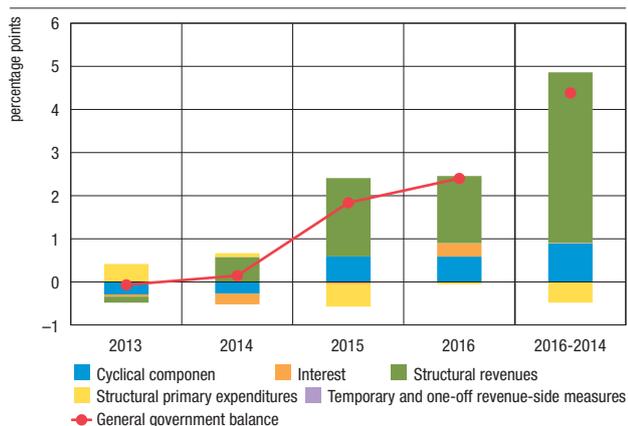
in the forthcoming medium term, it was assessed that the debt criterion was also fulfilled. Therefore, on 22 May 2017, following the publication of the official Excessive Deficit Procedure Report for Croatia in 2016, the EC published a recommendation as a result of which the EU Council decided that Croatia had achieved the agreed reduction of the excessive deficit and met the criteria to exit the EDP. Accordingly, on 16 June 2017 the EU Council adopted the decision abrogating the decision on the existence of an excessive deficit in Croatia.

As regards the consolidation process itself and fiscal efforts made by Croatia, an analysis of the data available for the period from 2014 to 2016 suggests that the 4.4 percentage points-of-GDP adjustment in the nominal general government deficit was mostly structural (Figure 2). Aggregate data show that the structural reduction in the budget deficit was achieved exclusively due to the increase on the revenue side of the budget, while primary structural expenditures slightly added to the deficit during the period under review. At the same time, the contribution of interest was neutral thanks to favourable trends in financing costs

³³ This Box uses revised fiscal data and revised data on nominal GDP for the 2010-2016 period published on 23 October 2017 and the estimates of the CNB. By contrast, Box 4 in the Macroeconomic Developments and Outlook No. 2 used the estimates of cyclically adjusted revenues, expenditures and deficit as well as one-off measures of the European Commission.

³⁴ For more details see Box 4 Excessive deficit procedure in the CNB Bulletin No. 198.

Figure 2 Factors behind changes in nominal general government deficit-to-GDP ratio



Note: A change in structural primary expenditures and interest with a negative sign indicates an increase.

Source: AMECO.

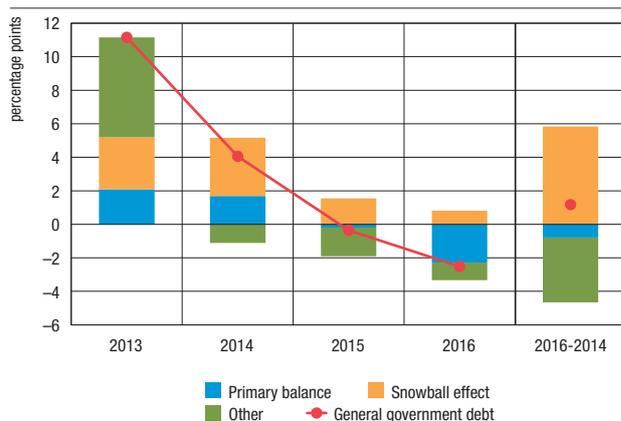
towards the end of the observed period. Data also indicate that the cyclical component itself started to exert a favourable effect on budget deficit reduction thanks to the exit from recession in 2015 and more dynamic economic growth in 2016.

A more precise analysis of structural revenues and expenditures is hindered by the relatively high degree of fiscal data aggregation. Nevertheless, available data suggest that the increase in structural revenues (as % of GDP) was largely spurred by the rise in non-tax revenues and, to a lesser degree, the increase in tax revenues, including revenues from social contributions. The relatively strong growth in non-tax revenues, i.e. other capital and current revenues and sales, may be partly associated with larger revenues based on withdrawals of profits from state-owned enterprises, income from legalisation of illegally built facilities and withdrawals from EU funds.

The upturn on the expenditure side of the budget (as % of GDP) is also mostly attributable to the increase in intermediate consumption and other current and capital expenditures. The growth in current and capital expenditures was probably due to annual payments to the EU budget as of 2014 and some one-off expenditures associated with the assumption of corporate debt and outlays for bank resolution. On the other hand, expenditures for subsidies and investments were cut perceptibly, while the majority of other main expenditure categories held steady at the level recorded in 2013.

It should be noted that the amount achieved by consolidation measures from 2014 to 2016 was much higher than the sum of changes in structural revenues and expenditures. Furthermore, while the cuts in the structural deficit were achieved mostly by revenue increases, MoF data show that expenditure-side structural measures taken to reduce the deficit outstripped those on the revenue side of the budget. In particular, an analysis of the size and structure of fiscal efforts is hindered by the fact that

Figure 3 Factors behind changes in general government debt-to-GDP ratio



Source: AMECO.

some expenditure categories, such as outlays for pensions and health care, grow automatically due to population ageing, and additional consolidation is required just to offset their growth. Furthermore, EU accession has created new types of revenues and expenditures, which also makes an estimate of fiscal efforts more difficult. For example, the increase in structural revenues was in part due to the larger use of EU funds, which have a neutral impact on budget deficit as they are simultaneously recorded on the expenditure side as well. Nevertheless, this underestimates the adjustment on the expenditure side and overestimates that on the revenue side.

As the excessive deficit procedure for Croatia was initiated because of the breach of the budget deficit criterion as well as the general government debt exceeding 60% of GDP, it was necessary to satisfy also the debt criterion to exit the EDP, or to bring the future public debt level close to the threshold³⁵. During the excessive deficit procedure, general government debt grew further compared with 2013 (Figure 3). In cumulative terms, general government debt increased by more than 1 percentage point from 2014 to 2016, solely due to the difference between the nominal GDP growth rate and the implicit interest rate on government debt (known in literature as the “snowball effect”), while the opposite effect was produced by the primary budget balance and other adjustments. It should be noted that the debt stopped growing in 2015 and, for the first time since 2007, recorded a mild drop. As current projections show relatively high primary surpluses in the forthcoming period, as well as relatively high real growth rates accompanied by slightly faster growth in the general price level, the projected public debt level suggests that Croatia has been approaching the public debt threshold of 60% of GDP at an adequate pace, which is why the Commission assessed that this criterion was met as well.

³⁵ It is necessary that the projected difference between public debt and the 60%-of-GDP limit decreases during three years at an average annual rate of 1/20th of the difference.

11 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.

11.1 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 investing, 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.

11.1.1 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. These determinants are also incorporated in the Decision on international reserves management adopted by the CNB Council. This Decision specifies the guidelines, criteria and limits on risk exposures (liquidity, credit, interest rate and currency risk).

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 unfavourable interest rate changes, can be controlled by means of benchmark portfolios and investment of 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 in 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.

11.1.2 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 obligations assumed, depending on the way in which international reserves are formed.

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

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

The component of international reserves managed by the CNB in line with its own guidelines can be kept in held-for-trading and investment 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. Investment portfolios may be formed as held-to-maturity portfolios or available-for-sale portfolios. Held-to-maturity portfolios comprise fixed income and fixed maturity securities held by the CNB until maturity and are carried at amortised cost. Available-for-sale portfolios are valued in the Income Statement through amortisation of yield to maturity, while changes in bond market prices are recorded under revaluation reserves on the CNB balance sheet.

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

11.2 International reserves in the first half of 2017

In the first six months of 2017, financial markets were marked by a further tightening of the Federal Reserve's monetary policy, signs that a very expansionary monetary policy in the euro area is coming to an end, the growth of global equity indices, the decrease in crude oil prices, diminished political uncertainty in the euro area and a rise in political uncertainty in the US. In the first six months, although the European

Central Bank kept its monetary policy unchanged and continued with the securities purchase programme, it was announced that in the conditions of weakened deflationary pressures and a faster recovery of economic activity a gradual abandonment of unconventional monetary policy measures could be expected in the future period. Parallel with declining political uncertainty, this has contributed to the increase in yields in the European market, although the German curve remained in negative territory for all maturities up to six years at the end of June and afterwards. The Fed increased the range of its key interest rate by 25 basis points each time on two occasions, in March and June, so that it came to 1.00% to 1.25%. The Fed also announced it would soon start reducing its balance sheet, and yet another increase in the key interest rate was announced by the end of the year. All of the above, and the expectation that the divergence between the US and euro area policies would be reduced in the future period, led to the strengthening of the exchange rate of the euro against the US dollar.

The total international reserves of the CNB as at 30 June 2017 stood at EUR 14,027.49m, up by EUR 513.73m or 3.8% from the end of 2016 when they stood at EUR 13,513.76m. The factors behind the increase in total international reserves included the purchase of foreign currency from banks, a higher level of agreed repo transactions and earnings from reserves management.

Net international reserves, excluding the foreign currency component of reserve requirements, special drawing rights with the IMF, the funds of the European Commission, the funds of the Ministry of Finance and investments in repo operations, increased by EUR 383.94m or 3.2%, from EUR 12,164.21m to EUR 12,548.15m in the first half of 2017.

Table 11.1 Monthly changes in total and net CNB international reserves

end of period, in million EUR

Month	Total reserves	Net reserves
December 2016	13,513.76	12,164.21
January 2017	14,595.39	12,181.52
February 2017	14,129.79	12,253.56
March 2017	16,071.49	12,208.38
April 2017	14,409.84	12,111.51
May 2017	14,119.02	12,195.77
June 2017	14,027.49	12,548.15
Change Jun. 2017 – Dec. 2016	513.73	383.94

Source: CNB.

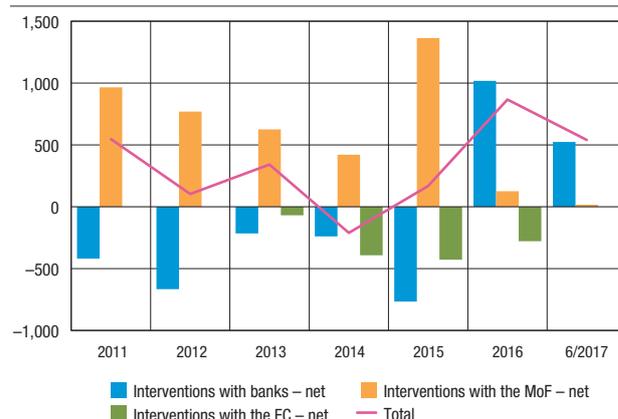
Table 11.2 Total CNB turnover in the foreign exchange market, 1 January – 30 June 2017

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	524.00	3,903.01	0.00	0.00	524.00	3,903.01
European Commission	0.00	0.00	0.00	0.00	0.00	0.00
Ministry of Finance	15.93	118.48	0.00	0.02	15.93	118.46
Total	539.93	4,021.49	0.00	0.02	539.93	4,021.47

Source: CNB.

Figure 11.1 Foreign exchange interventions of the CNB with the banks, the EC and the MoF
in net amounts, from 2011 to the first half of 2017, in million EUR



Source: CNB.

11.2.1 Total CNB turnover in the foreign exchange market in the first half of 2017

In the first six months of 2017, the Croatian National Bank purchased foreign currency in the domestic foreign exchange market from banks and the MoF. Net purchases amounted to EUR 539.93m, thus creating HRK 4,021.47m. A total of EUR 524m was purchased from banks in the Republic of Croatia, while there were no foreign currency sales to banks. The CNB purchased EUR 15.93m from the MoF, while the sales amount was very small.

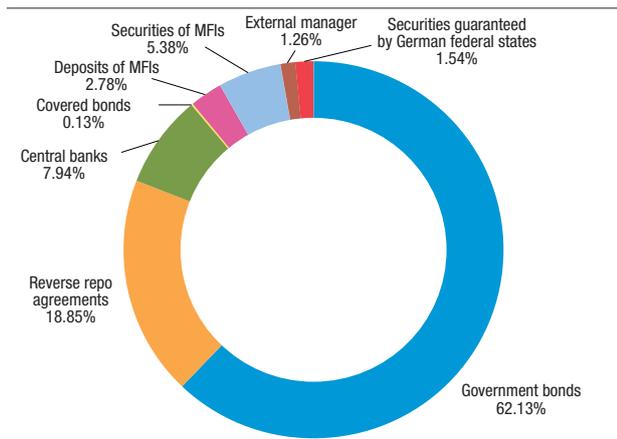
11.3 Structure of international reserves investment

The CNB invests funds with financial institutions and in countries with an investment grade rating; 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.

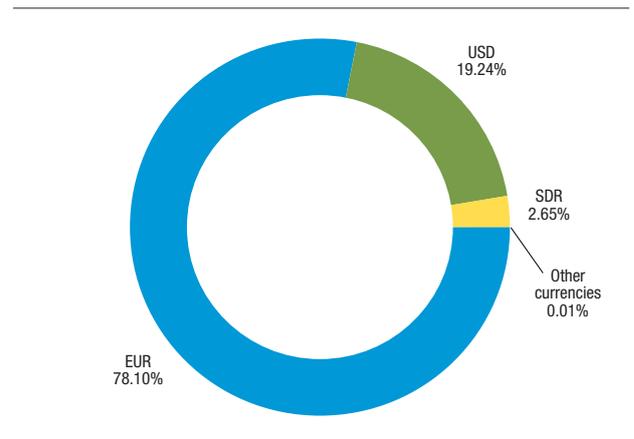
The lion's share of CNB foreign currency portfolios is invested in government securities of selected countries, reverse repo agreements collateralised by government securities, securities of international financial institutions and instruments issued by international financial institutions and central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

Figure 11.2 Structure of international reserves investment as at 30 June 2017



Source: CNB.

Figure 11.3 Currency structure of total international reserves as at 30 June 2017



Source: CNB.

Compared with end-December 2016, there was an increase in the share of investments in reverse repo agreements. At the same time, there was a decrease in the share of investments in deposits with central banks and government securities.

On 30 June 2017, approximately 54% 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.

11.4 Currency structure of international reserves

As at 30 June 2017, the euro accounted for 78.10% of the total international reserves, and, for comparison purposes, it was 78.00% at the end of 2016. The share of the US dollar in total international reserves stood at 19.10% at the end of 2016, while at the end of the first half of 2017 it was 19.24%. The share of SDRs decreased from 2.90% to 2.65% of the total international reserves, due to the weakening in the value of SDRs against the euro.

11.5 Results and analysis of CNB foreign currency portfolio management in the first half of 2017

In the first six months of 2017, yields on the European market increased because of the easing of political uncertainty, the strengthening of the economic recovery and the shift in market expectations in relation to the change in the ECB's monetary policy. The share of government securities of euro area member states with negative yields decreased towards the end of the first half of 2017 to around 37% from around 45% at the end of 2016. However, the framework of investments of the euro component of CNB international reserves and the possibility of achieving favourable rates of return were still limited by negative yields on a large share of euro government bonds covered by CNB investments.

In the first six months of 2017, the American yield curve took a flatter shape. Yields on its shorter end grew under the

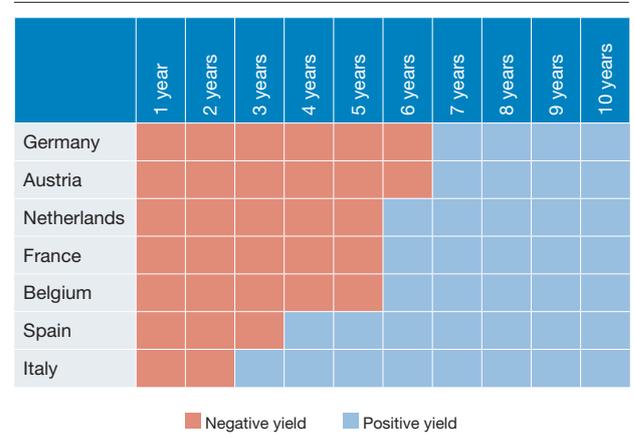
effect of the increase of the Fed's key interest rate, while they dropped on its longer end because of more moderate economic growth, the slowdown in the inflation rate, growing geopolitical risks (North Korea, Syria and Russia) and because of the continued reinvestment process within the Fed's quantitative easing programme.

Net international reserves of the CNB comprise the euro- and dollar-denominated held-for-trading portfolios, the euro- and dollar-denominated investment portfolios, the funds entrusted to an external manager and foreign cash in the vault.

Despite negative rates of the euro component of the curve of maturity up to six years, the entire euro component of net reserves generated a total rate of return of +0.20% annually in the first six months of 2017. The total rate of return on the entire dollar component stood at 1.39%, also at an annual level.

In the first half of 2017, the euro held-for-trading portfolio generated a rate of return of -0.58% at an annual level, while the dollar held-for-trading portfolio generated an annual rate of return of 0.98%. The held-for-trading portfolios, which account for approximately 43% of net reserves, are valued at fair

Figure 11.4 Yields on euro government bonds of selected countries by years to maturity as at 30 June 2017



Source: Bloomberg.

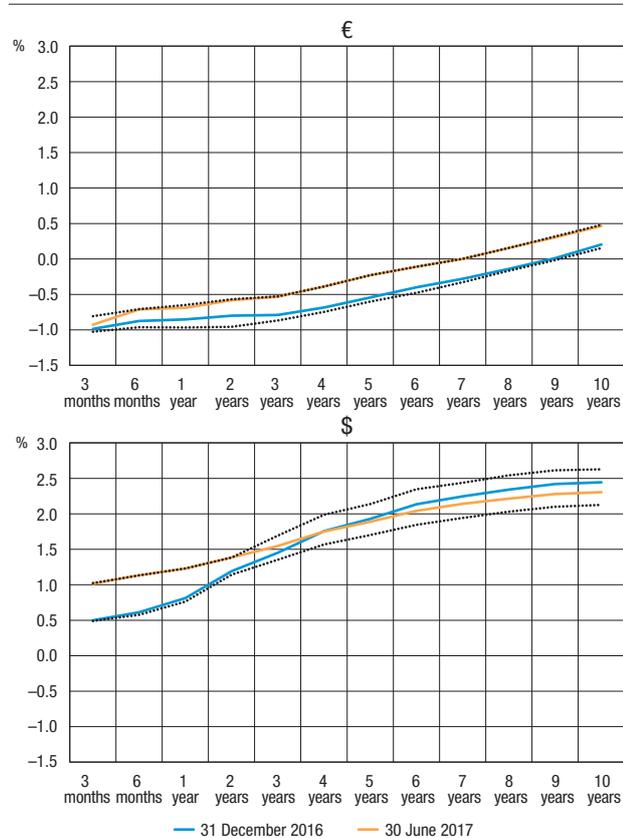
Table 11.3 Realised income and rates of return on the CNB foreign currency portfolios

in millions of original currency and %

Portfolio	Realised income		Annual rate of return					
	1st half 2017	1st half 2011	1st half 2012	1st half 2013	1st half 2014	1st half 2015	1st half 2016	1st half 2017
Held-for-trading euro portfolio	-12.41	0.35	0.34	-0.08	0.59	-0.01	0.04	-0.58
Held-for-trading dollar portfolio	4.39	0.62	0.38	0.08	0.27	0.31	1.27	0.98
Euro investment portfolio	22.27	2.31	2.31	2.29	2.22	1.59	1.04	0.83
Dollar investment portfolio	11.14						1.75	1.70
External manager	1.20					0.19	1.58	1.22

Source: CNB.

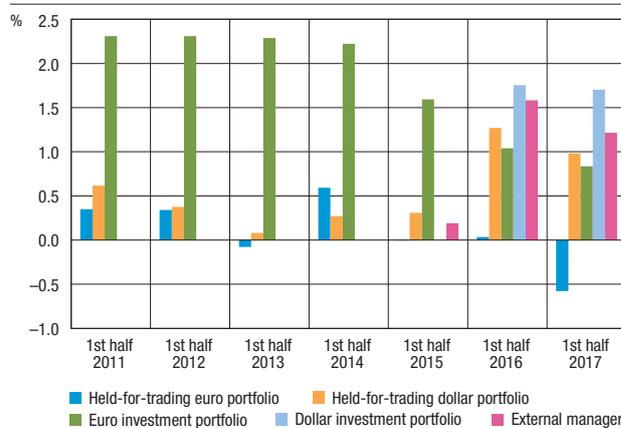
Figure 11.5 German and American yield curves as at 31 December 2016 and 30 June 2017 and their spread in first half of 2017



Source: Bloomberg.

market prices, have short average maturities and are used as a source of liquidity.

Figure 11.6 Annual rates of return on the CNB foreign currency portfolios from the first half of 2011 to the first half of 2017



Source: CNB.

In the first six months of 2017, the euro-denominated investment portfolio yielded a return of 0.83%, while the dollar-denominated investment portfolio yielded a return of 1.70%, both at an annual level. Investment portfolios, which account for approximately 53% of net reserves, have a longer average maturity and serve as a source of more stable long-term income.

In the first half of 2017, the annual rate of return on the US dollar funds entrusted for management to an international financial institution was 1.22%. The funds entrusted to an external manager enabled additional diversification and knowledge-exchange in the field of investment management.

In the first half of 2017, net international reserves investments generated an income of EUR 25.19m.

12 Business operations of credit institutions³⁶

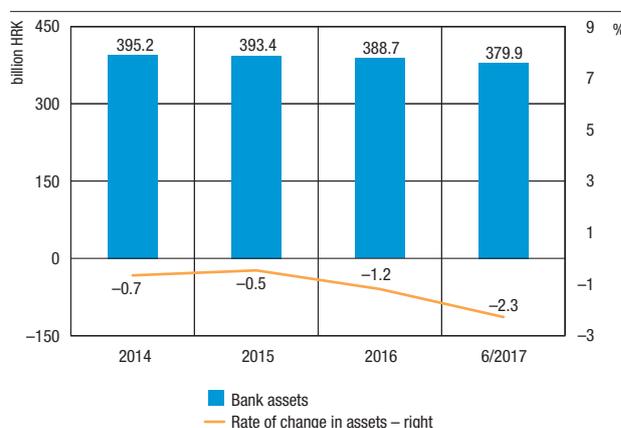
At the end of June 2017, there were 31 credit institutions, 26 banks (one savings bank included) and five housing savings banks operating in the Republic of Croatia, which was the same as at the end of 2016. In addition to one foreign branch, more than a hundred credit institutions from the EU (and the EEA) used the benefits of the single passport, notifying the CNB of the direct provision of mutually recognised services in the territory of the Republic of Croatia.³⁷

12.1 Banks

In the first half of 2017, bank assets decreased by 2.3%, trending slightly downward for the sixth year in a row. The fall in assets was strongly impacted by exchange rate developments; these developments excluded, bank assets decreased effectively by 0.9%.³⁸ Also visible was the impact of the credit risk materialisation and the sale of claims. Among major asset items, an increase (in nominal terms) was seen only in investments in branches, associates and joint ventures. After acquiring a 100% ownership share in Société Générale-Splitska banka in May 2017, OTP banka Hrvatska changed its name to Splitska banka.

Lending activity showed signs of mild recovery in the first half of 2017. According to transaction-based data³⁹, loans granted⁴⁰ grew by 1.1%, the most prominent being the growth in loans to non-financial corporations (4.9%, transaction-based). The most significant growth was observed in loans to accommodation and food service activities (tourism), up by one fifth. Loans to households trended up by 2.1% (transaction-based), the most prominent being the growth in cash non-purpose loans (4.0%, transaction-based). The new lending activity to this sector was mostly accounted for by kuna loans. Housing loans held steady notwithstanding the continuation of the upward trend in kuna financing of residential real estate. The growth of loans to domestic sectors was mitigated by a sizeable decrease in loans granted abroad, which was

Figure 12.1 Bank assets



Source: CNB.

brought about by the fall in reverse repo loans to foreign parent banks. The impact of exchange rate developments and write-offs (arising mainly from the sale of claims) was sizeable (and of almost the same intensity), with loans granted decreasing by 1.7%.

The sale of claims continued to trend upward in 2017. HRK 4.9bn worth of claims in risk categories B and C (HRK 758.0m in net amount) was sold in the first half of 2017, with almost 70% of claims being accounted for by one bank. Three fourths of sales were accounted for by non-financial corporations, a revenue of HRK 343.9m being generated. This revenue moderated previously generated losses – value adjustments of claims sold stood at HRK 4.1bn and the coverage of claims sold by value adjustments amounted to 84.5%.

The quality of total exposure to credit risk⁴¹ deteriorated, while the quality of loans granted improved due to the sale of

36 This chapter shows breakdowns and data that are based on the same methodology applied in the compilation of the Banks Bulletin. Therefore, Notes on methodology from the Banks Bulletin No. 30, (<http://www.hnb.hr/en/analyses-and-publications/regular-publications/banks-bulletin>) may be used to interpret data.

37 The single passport system enables credit and financial institutions from the EU and contracting parties to the Agreement on the European Economic Area to provide mutually recognised services in other member states without additional authorisation requirements. The competent authorities of the home member state are obliged to notify the competent authority of the host member state. A list of institutions exercising the right of establishment and freedom to provide services in the Republic of Croatia is available on the CNB's website: <http://www.hnb.hr/en/web/guest/core-functions/supervision/list-of-credit-institutions>.

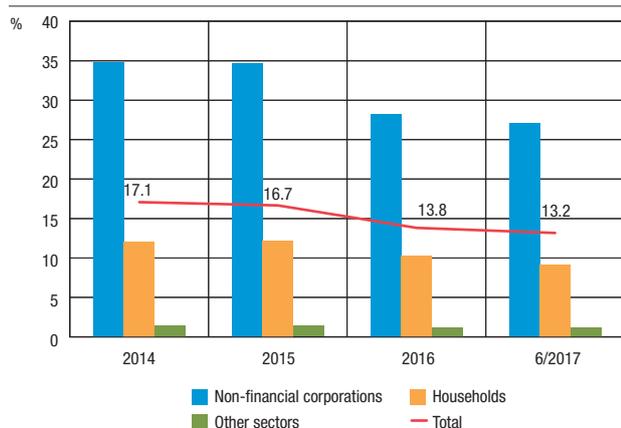
38 The effective change in the foreign currency assets excludes the effects of changes in the kuna/euro and kuna/US dollar exchange rates. With respect to these currencies, it is calculated in line with the following formula: amount of foreign currency assets_{*i,t*} – the amount of foreign currency assets_{*i,t-1*} – the amount of foreign currency assets_{*i,t-1*} × the rate of change in the exchange rate_{*p*}, *i* = the euro, the US dollar, *t* = the reporting date.

39 Rates of change calculated on the basis of transaction data exclude the impact of exchange rate adjustments and write-offs on loan movements, in which write-offs include partial write-off of the principal in the process of conversion from loans in Swiss francs to euro loans. The effect of the sale of claims is excluded in the amount of write-offs debited to value adjustments.

40 In gross amount, from the portfolio of loans and receivables.

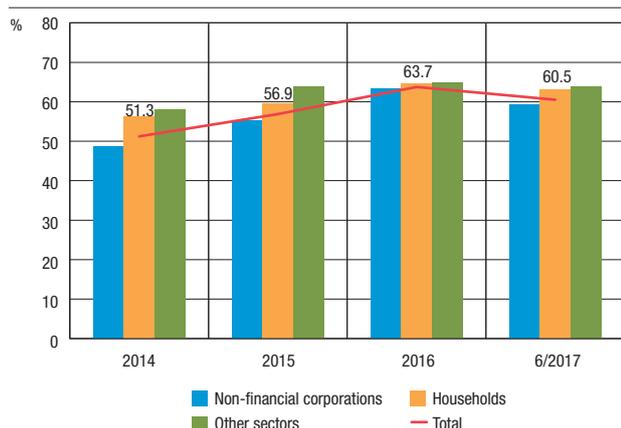
41 Total exposure to credit risk comprises placements (balance sheet items) and assumed off-balance sheet liabilities. The placements can be divided into a loan and receivables portfolio and a portfolio of held-to-maturity financial assets, with the receivables on interest and fees being covered by a separate item (receivables based on income). The portfolios of financial assets comprise various instruments such as loans, deposits, bills of exchange, bonds and etc., 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 assumed off-balance sheet liabilities), B (partly recoverable placements and assumed off-sheet liabilities) and C (fully irrecoverable placements and assumed off-balance sheet

Figure 12.2 Share of bank partly recoverable and fully irrecoverable loans



Source: CNB.

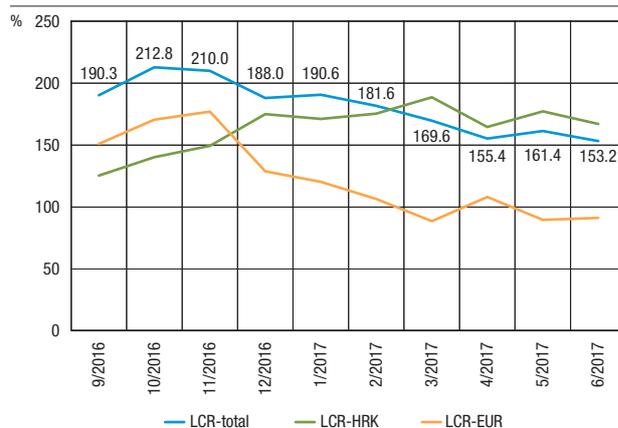
Figure 12.3 Coverage of partly recoverable and fully irrecoverable loans by value adjustments



Source: CNB.

claims. The share of partly recoverable and fully irrecoverable placements and off-balance sheet liabilities (i.e. exposures classified into risk categories B and C) increased from 9.7% at the end of 2016 to 10.4% at the end of the first half of 2017, which was mainly determined by the deterioration of the quality of bills of exchange and assumed off balance sheet liabilities, notably guarantees. As for loans granted, the share of B and C risk categories trended down in the reference period from 13.8% to 13.2%, with the quality improving in both largest sectors – non-financial corporations and households. Above all, this was the result of the sale of claims marked by difficulties in the collection. However, it should be noted that the improvement in the household sector would have been observed even

Figure 12.4 Liquidity coverage ratio (LCR)



Source: CNB.

if the effect of the sale of claims had been excluded. With reference to this, the impact of housing loans was noticeable; B and C risk categories went down by 5.3% (transaction-based), and their share in total housing loans fell from 8.2% to 7.2%. B and C risk category loans in the sector of non-financial corporations increased by 7.4% (transaction-based), the rise in the financial activity being the most dominant. The share of loans to non-financial corporations in B and C risk categories went down to 27.1%, remaining relatively high. Construction remained the most risky activity, with the share of B and C risk category loans amounting to 63.9%. In the real estate activity, this share stood at 35.0%.

The years-long upward trend of the coverage of B and C risk category loans by value adjustments was interrupted. Observed since 2011, the growth of coverage improved additionally on account of regulatory changes in 2013 (the introduction of the rule on the gradual increase in value adjustments for long-term delinquent placements, but failed to materialise in 2017 – the coverage of B and C category loans decreased from 63.7% to 60.5%. The main reason for this was the sale of well covered claims and the inflow of a significant amount of new non-performing loans with relatively low coverage.

The sources of financing decreased, with the most significant impact being made by the fall in household deposits – in effective terms, they edged down by 1.0%.⁴² Moreover, sight deposits⁴³ continued to trend upward, while time deposits continued to trend downward, which was most likely due to low interest rates on savings and the tax on savings interest causing households to turn to other forms of investments. The share of sources from foreign parent banks remained at the same level (3.9% of total sources of financing) while due to the fall in loans granted to foreign parent banks the net level of these sources⁴⁴ grew from 0.4% to 1.8% of assets. As in the case of assets, the sources of financing were marked by

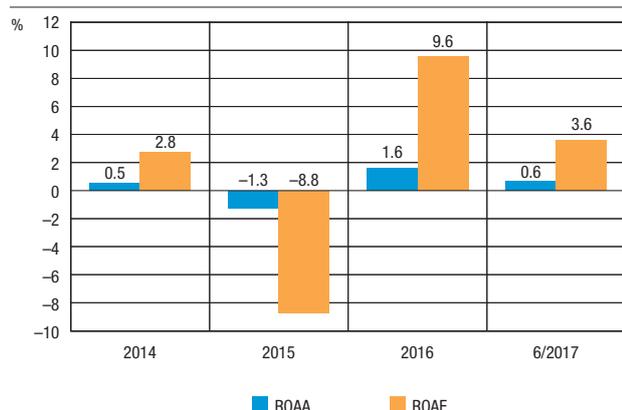
liabilities). Risk category B includes the following three subcategories, depending on the amount of the established loss: B-1 – losses of up to 30% of the amount of claims, B-2 – losses of between 30% and not exceeding 70% of the amount of claims and B-3 – losses exceeding 70% and less than 100%. Exposures bearing losses equivalent to 100% of the amount of claims are classified into category C.

⁴² The effective rate of change is calculated as set forth in footnote 38.

⁴³ Transaction account deposits and savings deposits.

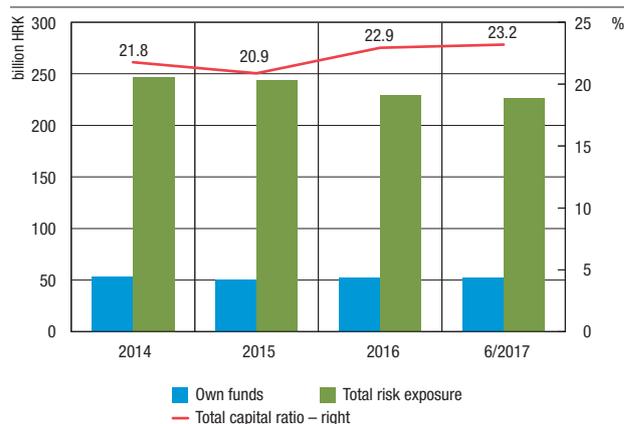
⁴⁴ The difference between liabilities to and claims on majority foreign owners.

Figure 12.5 Bank return on average assets (ROAA) and return on average equity (ROAE)



Source: CNB.

Figure 12.6 Bank total capital ratio



Source: CNB.

the strengthening of the kuna component. The liquidity coverage ratio (LCR) went down but remained noticeably above the prescribed minimum.⁴⁵ At the end of June 2017, it stood at 153.2% and all banks implemented it in its full scope, with the LCR exceeding 100%.

Bank profits and return indicators fell strongly from the first half of 2016, mostly as a result of credit risk materialisation and the rise in expenses on value adjustments and provisions. A base period effect was also observed, because in the first half of 2016 banks generated substantial revenue from the sale of shares of Visa Europe Ltd.⁴⁶, as well as income from cancelled expenses on value adjustments of household loans due to the conversion from loans in Swiss francs to euro loans⁴⁷. The profit from continuing operations (before tax) amounted to HRK 1.2bn, down by 65.0% from the first half of 2016. The return on average assets (ROAA) and the return on average equity (ROAE) fell to 0.6% and 3.6% respectively, while 14 or more than half of all banks operated with losses. A rise was observed in less significant types of revenues, such as income from commissions and fees (notably those related to card operations and the arrangement of government bonds), dividends and the sale of claims. Interest income decreased and owing to significant savings on interest expenses (-32.6%), net interest income increased slightly. The fall in the average interest expenses spurred further widening of the interest rate spread that stood at 3.0%. Low deposit interest rates narrow the room for further widening of the interest rate spread from this source. By contrast, interest rate movements and still modest lending activity continued to curb interest income, which was further boosted by the rise in non-performing exposures that are not included in the calculation of interest income.

The balance sheet capital of banks trended upwards,

accounting for 14.7% of bank liabilities and capital, due mostly to a sizeable recapitalisation of one bank. The effect of recapitalisation was mitigated by profit payments, i.e. the announcements of profit payments. In the first half of 2017, banks made dividend payments in the amount of HRK 1.3bn, reporting at the same time liabilities on the basis of the announced dividends of HRK 1.7bn. As this profit was not mainly included in the calculation of own funds, paid (i.e. announced) dividends had no negative effect on the profit amount. The recapitalisation itself had no impact on the amount of own funds as a significant investment in a financial sector entity is treated as a deduction from common equity tier 1 capital.

The total capital ratio of banks increased slightly, to 23.2%. The amount of own funds held steady, with a slight decrease in risk exposures (1.1%), notably to credit risk, resulting in the growth of the ratio. The decrease of exposure to credit risk was due to the fall in the weighted amount, i.e. the decrease in loans granted and deposits and investments in securities, particularly in the following categories: institutions and central governments or central banks. By contrast, the average credit risk weight trended up on account of the decrease in the level of these categories marked by low average risk weights and the growth in categories with higher risk weights such as households (risk weight of 75%). Notwithstanding new credit activity, the amount of exposures in the corporates category edged down due to the deterioration of the creditworthiness of individual clients and the shift into higher risk categories such as default. The growth of the default category was softened by the sale of claims. The resolution of non-performing loans (such as the sale of claims), their good coverage and high capitalisation resulted in the banking system being well hedged against potential risks – at the end of June 2017, the ratio of

45 The LCR is calculated as a ratio of the liquidity buffer and net liquidity outflow during a 30-day stress period. The implementation of the LCR in its full scope of 100% will start in 2018. A transitional period enabled the gradual introduction of the LCR, so credit institutions were required to maintain LCR of at least 60% in 2015, of at least 70% in 2016 and of at least 80% in 2017. The LCR requirement must be met on an aggregate basis (for all currencies combined). It must also be reported on an individual basis for major currencies (accounting for over 5% of liabilities).

46 See Semi-annual Information on the Financial Condition, the Degree of Price Stability Achieved and the Implementation of Monetary Policy for the second half of 2016, CNB, May 2017, footnote 21.

47 The income from cancelled expenses on value adjustments of housing loans were under the influence of the partial write-off of the principle of converted loans and, in some cases, of the improvement in the creditworthiness of clients, as well as early repayments and refinancing.

net amount of B and C risk category loans and capital of banks stood at 23.8%.

12.2 Housing savings banks

Housing savings banks assets trended down, by 1.8%, on account of exchange rate developments, while pre-tax profit grew by almost one fourth. Notwithstanding strong growth in kuna deposits of housing savings banks savers (by almost one third), housing savings edged down. Loans granted saw an increase in kuna component, with total loans granted increasing by 1.7% (effectively⁴⁸). The quality of housing loans

deteriorated – the share of B and C risk categories grew from 1.8% to 2.0%. The profit of housing savings banks (from continuing operations, before tax) grew by 23.5% from the same period in 2016, while ROAA and ROAE grew by 1.0% and 7.8% respectively. Improved performance of housing savings banks was due to lower interest expenses, notably on account of household time deposits, and the growth in gains from available for sale financial assets resulting from the sale of RC bonds. The total capital ratio of housing savings banks increased additionally, to 28.3%, as a result of the decrease in risk exposures, credit risk in particular, and the rise in own funds on account of the strengthening of retained earnings.

Table 12.1 Ownership structure of banks and their share in total bank assets

end of period

	Dec. 2015		Dec. 2016		Jun. 2017	
	Number of banks	Share	Number of banks	Share	Number of banks	Share
Domestic ownership	12	9.7	11	10.3	11	10.2
Domestic private ownership	10	4.4	8	4.0	8	3.9
Domestic state ownership	2	5.3	3	6.3	3	6.2
Foreign ownership	16	90.3	15	89.7	15	89.8
Total	28	100.0	26	100.0	26	100.0

Source: CNB.

Table 12.2 Structure of bank assets

end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	49,425.3	12.6	56,355.2	14.5	14.0	55,246.9	14.5	-2.0
Money assets	7,289.7	1.9	7,706.9	2.0	5.7	9,559.1	2.5	24.0
Deposits with the CNB	42,135.6	10.7	48,648.2	12.5	15.5	45,687.8	12.0	-6.1
Deposits with financial institutions	27,727.6	7.0	21,162.5	5.4	-23.7	16,827.1	4.4	-20.5
MoF treasury bills and CNB bills	12,258.7	3.1	8,783.9	2.3	-28.3	9,883.2	2.6	12.5
Securities	37,901.3	9.6	47,158.8	12.1	24.4	43,146.4	11.4	-8.5
Derivative financial assets	2,431.1	0.6	2,665.8	0.7	9.7	1,562.4	0.4	-41.4
Loans	246,949.2	62.8	235,954.5	60.7	-4.5	233,983.3	61.6	-0.8
Loans to financial institutions	5,002.3	1.3	5,076.1	1.3	1.5	4,151.0	1.1	-18.2
Loans to other clients	241,946.9	61.5	230,878.5	59.4	-4.6	229,832.3	60.5	-0.5
Investments in subsidiaries, associates and joint ventures	4,185.3	1.1	4,365.7	1.1	4.3	7,538.4	2.0	72.7
Foreclosed and repossessed assets	1,550.0	0.4	1,265.5	0.3	-18.4	1,222.8	0.3	-3.4
Tangible assets (net of depreciation)	4,456.1	1.1	4,256.2	1.1	-4.5	4,133.8	1.1	-2.9
Interest, fees and other assets	6,509.5	1.7	6,753.8	1.7	3.8	6,315.2	1.7	-6.5
Total assets	393,394.3	100.0	388,721.9	100.0	-1.2	379,859.7	100.0	-2.3

Source: CNB.

48 The effective rate of change is calculated as set forth in footnote 38.

Table 12.3 Structure of bank liabilities and capital
end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	622.4	0.2	1,506.9	0.4	142.1	1,476.5	0.4	-2.0
Short-term loans	611.2	0.2	503.5	0.1	-17.6	474.0	0.1	-5.9
Long-term loans	11.2	0.0	1,003.4	0.3	8,844.7	1,002.6	0.3	-0.1
Deposits	294,214.6	74.8	295,302.8	76.0	0.4	286,932.9	75.5	-2.8
Transaction account deposits	76,631.9	19.5	101,391.0	26.1	32.3	114,299.2	30.1	12.7
Savings deposits	21,052.5	5.4	19,954.7	5.1	-5.2	14,120.8	3.7	-29.2
Time deposits	196,530.2	50.0	173,957.2	44.8	-11.5	158,513.0	41.7	-8.9
Other loans	23,658.6	6.0	17,554.7	4.5	-25.8	15,746.9	4.1	-10.3
Short-term loans	2,109.5	0.5	1,674.3	0.4	-20.6	1,735.2	0.5	3.6
Long-term loans	21,549.2	5.5	15,880.4	4.1	-26.3	14,011.8	3.7	-11.8
Derivative financial liabilities and other financial liabilities held for trading	2,339.2	0.6	2,269.8	0.6	-3.0	1,410.4	0.4	-37.9
Debt securities issued	300.8	0.1	353.6	0.1	17.6	353.0	0.1	-0.2
Short-term debt securities issued	0.8	0.0	0.0	0.0	-100.0	0.0	0.0	0.0
Long-term debt securities issued	300.0	0.1	353.6	0.1	17.9	353.0	0.1	-0.2
Subordinated instruments issued	2,724.0	0.7	2,659.3	0.7	-2.4	2,633.9	0.7	-1.0
Hybrid instruments issued	2,198.4	0.6	2,190.9	0.6	-0.3	2,158.9	0.6	-1.5
Interest, fees and other liabilities	17,361.6	4.4	12,031.9	3.1	-30.7	13,195.8	3.5	9.7
Total liabilities	343,419.6	87.3	333,870.1	85.9	-2.8	323,908.4	85.3	-3.0
Share capital	34,275.4	8.7	33,858.8	8.7	-1.2	37,032.7	9.7	9.4
Current year profit (loss)	-4,615.8	-1.2	5,031.3	1.3	-	988.6	0.3	-80.4
Retained earnings (loss)	15,579.3	4.0	11,228.1	2.9	-27.9	12,937.0	3.4	15.2
Legal reserves	1,035.2	0.3	1,033.1	0.3	-0.2	1,057.2	0.3	2.3
Reserves provided for by the articles of association and other capital reserves	2,892.5	0.7	2,842.7	0.7	-1.7	3,106.2	0.8	9.3
Revaluation reserves	1,115.1	0.3	863.8	0.2	-22.5	840.6	0.2	-2.7
Previous year profit (loss)	-307.0	-0.1	-5.9	0.0	-98.1	-11.0	0.0	85.0
Total capital	49,974.7	12.7	54,851.8	14.1	9.8	55,951.3	14.7	2.0
Total liabilities and capital	393,394.3	100.0	388,721.9	100.0	-1.2	379,859.7	100.0	-2.3

Source: CNB.

Table 12.4 Bank income statement

in reference periods, in million HRK and %

	Amount		Change
	Jan. – Jun. 2016	Jan. – Jun. 2017	
Continuing operations			
Interest income	8,488.0	7,513.7	-11.5
Interest expenses	3,041.2	2,048.8	-32.6
Net interest income	5,446.8	5,464.9	0.3
Income from fees and commissions	2,097.4	2,233.4	6.5
Expenses on fees and commissions	554.7	591.6	6.6
Net income from fees and commissions	1,542.6	1,641.9	6.4
Income from equity investments	201.2	270.7	34.6
Gains (losses)	903.2	122.7	-86.4
Other operating income	250.2	321.3	28.4
Other operating expenses	685.5	605.7	-11.6
Net other non-interest income	669.1	109.0	-83.7
Total operating income	7,658.5	7,215.7	-5.8
General administrative expenses and depreciation	3,603.4	3,694.9	2.5
Net operating income before loss provisions	4,055.0	3,520.8	-13.2
Expenses on value adjustments and provisions	508.6	2,301.0	352.4
Other gains (losses)	0.0	22.0	-
Profit (loss) from continuing operations, before taxes	3,546.4	1,241.7	-65.0
Income tax on continuing operations	685.7	253.1	-63.1
Profit (loss) from continuing operations, after taxes	2,860.7	988.6	-65.4
Discontinued operations			
Profit (loss) from discontinued operations, after taxes	1.6	0.0	-99.9
Current year profit (loss)	2,862.4	988.6	-65.5

Source: CNB.

Table 12.5 Classification of bank placements and assumed off-balance sheet liabilities by risk categories

end of period, in million HRK and %

Risk (sub) category	Dec. 2015			Dec. 2016			Jun. 2017		
	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	362,550.9	3,348.0	0.9	365,032.2	3,344.5	0.9	349,071.1	3,113.8	0.9
B-1	12,528.5	1,836.8	14.7	8,411.0	1,185.9	14.1	9,250.5	1,279.4	13.8
B-2	18,363.9	9,484.3	51.6	12,168.7	6,488.8	53.3	15,582.8	8,035.1	51.6
B-3	8,008.0	6,578.8	82.2	8,029.2	6,599.4	82.2	6,916.3	5,738.1	83.0
C	10,453.1	10,453.9	100.0	10,691.5	10,693.2	100.0	8,772.9	8,774.4	100.0
Total	411,904.4	31,701.9	7.7	404,332.6	28,311.7	7.0	389,593.6	26,940.8	6.9

Source: CNB.

Table 12.6 Bank loans

end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans								
General government	57,544.8	20.9	50,997.2	19.5	-11.4	50,122.7	19.5	-1.7
Non-financial corporations	87,269.5	31.7	83,378.8	31.9	-4.5	84,139.8	32.8	0.9
Construction	12,157.8	4.4	9,945.0	3.8	-18.2	8,865.6	3.5	-10.9
Information and communication	2,256.2	0.8	1,769.0	0.7	-21.6	1,459.4	0.6	-17.5
Agriculture	4,620.0	1.7	4,972.0	1.9	7.6	4,906.0	1.9	-1.3
Real estate activities	6,599.3	2.4	6,009.9	2.3	-8.9	5,702.2	2.2	-5.1
Manufacturing	19,916.1	7.2	19,245.0	7.4	-3.4	19,310.5	7.5	0.3
Transportation and storage	2,931.2	1.1	3,057.1	1.2	4.3	3,270.9	1.3	7.0
Accommodation and food service activities	7,906.5	2.9	8,530.8	3.3	7.9	10,131.1	3.9	18.8
Professional, scientific and technical activities	4,110.8	1.5	4,865.8	1.9	18.4	5,024.2	2.0	3.3
Trade	17,361.4	6.3	16,364.2	6.3	-5.7	16,341.4	6.4	-0.1
Other activities	9,410.2	3.4	8,619.9	3.3	-8.4	9,128.6	3.6	5.9
Households	120,426.7	43.7	113,246.0	43.4	-6.0	112,834.7	43.9	-0.4
General-purpose cash loans	39,808.8	14.5	40,734.7	15.6	2.3	41,644.4	16.2	2.2
Mortgage loans	2,599.4	0.9	2,207.0	0.8	-15.1	2,040.3	0.8	-7.6
Credit card loans	3,716.2	1.3	3,607.9	1.4	-2.9	3,576.5	1.4	-0.9
Investment loans	2,503.3	0.9	2,326.3	0.9	-7.1	2,301.1	0.9	-1.1
Overdrafts	7,856.8	2.9	7,422.1	2.8	-5.5	7,199.2	2.8	-3.0
Housing loans	54,998.8	20.0	48,236.0	18.5	-12.3	47,129.8	18.4	-2.3
Other household loans	8,943.4	3.2	8,712.0	3.3	-2.6	8,943.5	3.5	2.7
Other sectors	10,180.4	3.7	13,577.6	5.2	33.4	9,676.8	3.8	-28.7
Total	275,421.4	100.0	261,199.5	100.0	-5.2	256,773.9	100.0	-1.7
Partly recoverable and fully irrecoverable loans								
General government	14.7	0.0	8.6	0.0	-41.2	4.6	0.0	-46.2
Non-financial corporations	30,256.6	66.0	23,586.3	65.4	-22.0	22,787.0	67.4	-3.4
Construction	8,169.3	17.8	6,534.3	18.1	-20.0	5,666.8	16.8	-13.3
Information and communication	1,048.9	2.3	925.6	2.6	-11.8	436.5	1.3	-52.8
Agriculture	782.6	1.7	640.9	1.8	-18.1	634.0	1.9	-1.1
Real estate activities	2,479.2	5.4	2,154.0	6.0	-13.1	1,993.1	5.9	-7.5
Manufacturing	6,876.0	15.0	4,814.3	13.4	-30.0	4,274.2	12.7	-11.2
Transportation and storage	402.7	0.9	338.1	0.9	-16.0	499.2	1.5	47.7
Accommodation and food service activities	1,575.9	3.4	1,333.1	3.7	-15.4	1,304.8	3.9	-2.1
Professional, scientific and technical activities	1,572.5	3.4	1,318.7	3.7	-16.1	1,310.5	3.9	-0.6
Trade	6,069.2	13.2	4,646.5	12.9	-23.4	4,153.9	12.3	-10.6
Other activities	1,280.3	2.8	880.8	2.4	-31.2	2,514.0	7.4	185.4
Households	14,673.8	32.0	11,699.9	32.5	-20.3	10,292.3	30.5	-12.0
General-purpose cash loans	3,674.7	8.0	3,062.8	8.5	-16.7	2,659.5	7.9	-13.2
Mortgage loans	871.6	1.9	664.4	1.8	-23.8	590.9	1.7	-11.1
Credit card loans	140.1	0.3	116.4	0.3	-16.9	91.3	0.3	-21.6
Investment loans	618.7	1.3	510.9	1.4	-17.4	437.8	1.3	-14.3
Overdrafts	960.7	2.1	741.5	2.1	-22.8	473.9	1.4	-36.1
Housing loans	5,374.5	11.7	3,941.7	10.9	-26.7	3,374.9	10.0	-14.4
Other household loans	3,033.4	6.6	2,662.3	7.4	-12.2	2,664.0	7.9	0.1
Other sectors	917.4	2.0	750.7	2.1	-18.2	699.9	2.1	-6.8
Total	45,862.5	100.0	36,045.4	100.0	-21.4	33,783.8	100.0	-6.3

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Value adjustments of partly recoverable and fully irrecoverable loans								
General government	4.2	0.0	3.7	0.0	-13.5	2.2	0.0	-39.5
Non-financial corporations	16,739.5	64.2	14,912.5	64.9	-10.9	13,521.1	66.1	-9.3
Construction	4,843.2	18.6	4,405.2	19.2	-9.0	3,766.5	18.4	-14.5
Information and communication	531.7	2.0	527.6	2.3	-0.8	224.5	1.1	-57.4
Agriculture	382.7	1.5	390.8	1.7	2.1	397.0	1.9	1.6
Real estate activities	1,324.0	5.1	1,364.8	5.9	3.1	1,018.0	5.0	-25.4
Manufacturing	3,662.6	14.0	2,903.7	12.6	-20.7	2,639.5	12.9	-9.1
Transportation and storage	250.7	1.0	186.7	0.8	-25.5	209.7	1.0	12.3
Accommodation and food service activities	620.1	2.4	615.7	2.7	-0.7	580.4	2.8	-5.7
Professional, scientific and technical activities	804.2	3.1	813.6	3.5	1.2	812.7	4.0	-0.1
Trade	3,587.6	13.8	3,152.4	13.7	-12.1	2,722.0	13.3	-13.7
Other activities	732.7	2.8	551.9	2.4	-24.7	1,150.6	5.6	108.5
Households	8,745.2	33.5	7,566.7	32.9	-13.5	6,480.3	31.7	-14.4
General-purpose cash loans	2,586.7	9.9	2,138.3	9.3	-17.3	1,813.0	8.9	-15.2
Mortgage loans	459.7	1.8	396.7	1.7	-13.7	354.1	1.7	-10.8
Credit card loans	130.0	0.5	107.9	0.5	-17.0	83.1	0.4	-23.0
Investment loans	336.3	1.3	346.5	1.5	3.0	309.9	1.5	-10.6
Overdrafts	915.4	3.5	697.9	3.0	-23.8	431.8	2.1	-38.1
Housing loans	2,812.8	10.8	2,506.4	10.9	-10.9	2,126.3	10.4	-15.2
Other household loans	1,504.3	5.8	1,373.0	6.0	-8.7	1,362.1	6.7	-0.8
Other sectors	589.9	2.3	487.8	2.1	-17.3	447.5	2.2	-8.3
Total	26,078.8	100.0	22,970.6	100.0	-11.9	20,451.1	100.0	-11.0

Notes: The distribution by institutional sectors is conducted in accordance with the European System of Accounts 2010 (ESA 2010). Households include households and non-profit institutions serving households. Data on financial institutions and non-residents are included in the item Other sectors.

Source: CNB.

Table 12.7 Own funds, risk exposure and capital ratios of banks

end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Own funds	50,917.1	100.0	52,568.9	100.0	3.2	52,570.1	100.0	0.0
Tier 1 capital	46,586.3	91.5	48,859.2	92.9	4.9	49,272.6	93.7	0.8
Common equity tier 1 capital	46,586.3	91.5	48,859.2	92.9	4.9	49,272.6	93.7	0.8
Capital instruments eligible as common equity tier 1 capital	33,717.6	66.2	33,904.3	64.5	0.6	37,081.5	70.5	9.4
Retained earnings	11,820.6	23.2	14,278.2	27.2	20.8	14,520.3	27.6	1.7
Other items	1,048.1	2.1	676.6	1.3	-35.4	-2,329.2	-4.4	-
Additional tier 1 capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tier 2 capital	4,330.9	8.5	3,709.7	7.1	-14.3	3,297.5	6.3	-11.1
Total risk exposure amount	243,830.0	100.0	229,271.8	100.0	-6.0	226,736.0	100.0	-1.1
Risk weighted exposure amounts for credit, counterparty credit and dilution risks and free deliveries	211,793.3	86.9	202,283.2	88.2	-4.5	200,544.4	88.4	-0.9
Standardised approach	182,231.5	74.7	174,732.6	76.2	-4.1	172,565.6	76.1	-1.2
Central governments or central banks	3,736.4	1.5	4,237.5	1.8	13.4	3,391.2	1.5	-20.0
Corporates	62,041.5	25.4	64,689.0	28.2	4.3	62,058.7	27.4	-4.1
Retail	60,349.7	24.8	57,137.3	24.9	-5.3	57,933.2	25.6	1.4
Exposures in default	21,427.2	8.8	15,084.5	6.6	-29.6	17,085.6	7.5	13.3
Other items	34,676.6	14.2	33,584.4	14.6	-3.1	32,096.8	14.2	-4.4
Internal ratings based approach (IRB)	29,561.8	12.1	27,550.6	12.0	-6.8	27,978.7	12.3	1.6
Settlement/delivery risks	8,550.8	3.5	4,569.6	2.0	-46.6	4,377.2	1.9	-4.2
Position, foreign exchange and commodities risks	22,871.3	9.4	22,099.5	9.6	-3.4	21,647.0	9.5	-2.0
Operational risk	614.7	0.3	319.5	0.1	-48.0	167.5	0.1	-47.6
Credit valuation adjustment	19.1	-	21.3	-	11.5	21.7	-	2.0
Common equity tier 1 capital ratio	19.1	-	21.3	-	11.5	21.7	-	2.0
Tier 1 capital ratio	20.9	-	22.9	-	9.8	23.2	-	1.1
Total capital ratio	21.8	-	20.9	-	-4.1	22.5	-	7.7

Source: CNB.

Table 12.8 Structure of housing savings bank assets

end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Money assets and deposits with the CNB	0.0	0.0	0.0	0.0	20.0	0.0	0.0	-12.5
Money assets	0.0	0.0	0.0	0.0	20.0	0.0	0.0	-12.5
Deposits with the CNB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits with financial institutions	563.9	7.3	518.4	6.6	-8.1	489.8	6.4	-5.5
MoF treasury bills and CNB bills	162.4	2.1	84.7	1.1	-47.8	75.0	1.0	-11.5
Securities	2,706.7	34.8	2,876.0	36.8	6.3	2,756.7	36.0	-4.1
Derivative financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans	4,226.0	54.4	4,223.1	54.1	-0.1	4,228.2	55.1	0.1
Loans to financial institutions	52.0	0.7	37.2	0.5	-28.6	29.7	0.4	-20.0
Loans to other clients	4,174.0	53.7	4,186.0	53.6	0.3	4,198.5	54.8	0.3
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	1.4	0.0	1.9	0.0	39.8	1.5	0.0	-21.2
Tangible assets (net of depreciation)	2.2	0.0	1.9	0.0	-11.2	2.3	0.0	22.0
Interest, fees and other assets	109.6	1.4	105.0	1.3	-4.2	114.0	1.5	8.6
Total assets	7,772.2	100.0	7,811.1	100.0	0.5	7,667.5	100.0	-1.8

Source: CNB.

Table 12.9 Structure of housing savings bank liabilities and capital
end of period, in million HRK and %

	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
Loans from financial institutions	42.0	0.5	37.0	0.5	-11.9	59.0	0.8	59.5
Short-term loans	42.0	0.5	37.0	0.5	-11.9	59.0	0.8	59.5
Long-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits	6,645.0	85.5	6,621.9	84.8	-0.3	6,424.8	83.8	-3.0
Transaction account deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Savings deposits	0.0	0.0	0.0	0.0	-37.0	1.6	0.0	9,464.7
Time deposits	6,645.0	85.5	6,621.8	84.8	-0.3	6,423.2	83.8	-3.0
Other loans	95.4	1.2	94.5	1.2	-1.0	92.6	1.2	-2.0
Short-term loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term loans	95.4	1.2	94.5	1.2	-1.0	92.6	1.2	-2.0
Derivative financial liabilities and other financial liabilities held for trading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short-term debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term debt securities issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subordinated instruments issued	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hybrid instruments issued	83.2	1.1	82.7	1.1	-0.6	67.0	0.9	-19.0
Interest, fees and other liabilities	129.7	1.7	137.6	1.8	6.1	192.1	2.5	39.6
Total liabilities	6,995.4	90.0	6,973.7	89.3	-0.3	6,835.5	89.1	-2.0
Share capital	487.9	6.3	487.9	6.2	0.0	487.9	6.4	0.0
Current year profit (loss)	47.5	0.6	46.4	0.6	-2.3	32.6	0.4	-29.8
Retained earnings (loss)	177.6	2.3	200.5	2.6	12.9	221.5	2.9	10.4
Legal reserves	10.5	0.1	11.6	0.1	10.1	11.9	0.2	2.9
Reserves provided for by the articles of association and other capital reserves	-10.7	-0.1	-17.9	-0.2	67.7	-16.7	-0.2	-6.7
Revaluation reserves	64.0	0.8	108.9	1.4	70.2	94.9	1.2	-12.8
Previous year profit (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital	776.8	10.0	837.4	10.7	7.8	832.0	10.9	-0.6
Total liabilities and capital	7,772.2	100.0	7,811.1	100.0	0.5	7,667.5	100.0	-1.8

Source: CNB.

Table 12.10 Housing savings bank income statement

in reference periods, in million HRK and %

	Amount		Change
	Jan. – Jun. 2016	Jan. – Jun. 2017	
Continuing operations			
Interest income	165.7	159.3	-3.9
Interest expenses	101.2	90.7	-10.3
Net interest income	64.5	68.6	6.3
Income from fees and commissions	26.3	22.6	-14.2
Expenses on fees and commissions	2.8	2.4	-16.0
Net income from fees and commissions	23.5	20.2	-14.0
Income from equity investments	0.0	0.0	0.0
Gains (losses)	4.9	6.4	29.6
Other operating income	1.8	2.3	29.1
Other operating expenses	11.7	11.3	-3.8
Net other non-interest income	-5.1	-2.7	-47.4
Total operating income	82.9	86.1	3.8
General administrative expenses and depreciation	51.8	50.3	-2.8
Net operating income before loss provisions	31.1	35.8	15.0
Expenses on value adjustments and provisions	1.3	-1.1	-
Other gains (losses)	0.0	0.0	0.0
Profit (loss) from continuing operations, before taxes	29.8	36.8	23.5
Income tax on continuing operations	4.1	4.3	4.3
Profit (loss) from continuing operations, after taxes	25.7	32.6	26.6
Discontinued operations			
Profit (loss) from discontinued operations, after taxes	0.0	0.0	0.0
Current year profit (loss)	25.7	32.6	26.6

Source: CNB.

Table 12.11 Classification of housing savings bank placements and assumed off-balance sheet liabilities by risk categories

end of period, in million HRK and %

Risk category	Dec. 2015		Dec. 2016			Jun. 2017		
	Amount	Share	Amount	Share	Change	Amount	Share	Change
A	5,539.7	98.8	5,544.2	98.7	0.1	5,467.6	98.5	-1.4
B	58.2	1.0	65.1	1.2	11.8	72.4	1.3	11.2
C	9.9	0.2	10.7	0.2	8.5	9.9	0.2	-7.2
Total	5,607.8	100.0	5,619.9	100.0	0.2	5,549.9	100.0	-1.2

Source: CNB.

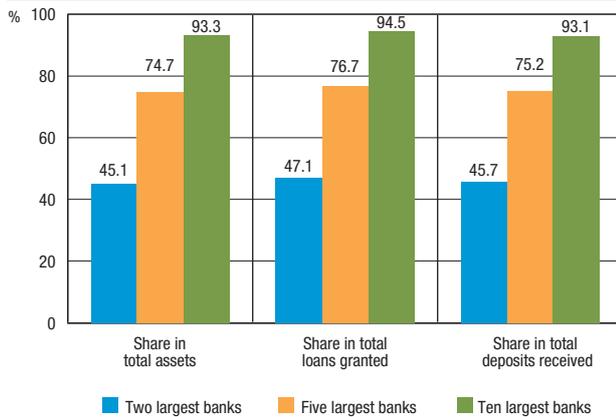
Table 12.12 Coverage of housing savings bank total placements and assumed off-balance sheet liabilities by total value adjustments and provisions

end of period, in million HRK and %

	Dec. 2015	Dec. 2016	Jun. 2017
Total value adjustments against placements and provisions for assumed off-balance sheet liabilities	68.3	76.0	74.7
Value adjustments and provisions	20.0	27.9	27.3
Collectively assessed value adjustments and provisions	48.4	48.1	47.3
Total placements and assumed off-balance sheet liabilities	5,607.8	5,619.9	5,549.9
Coverage	1.2	1.4	1.3

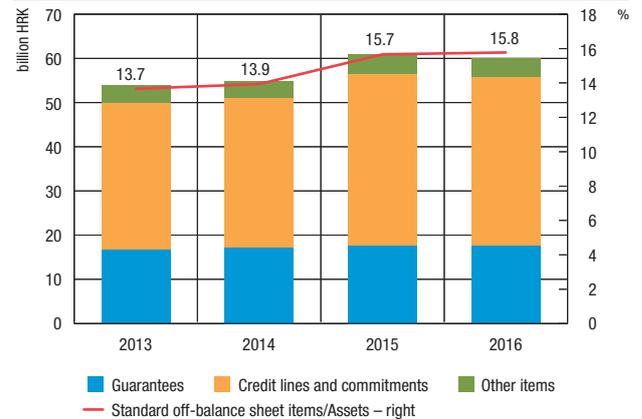
Source: CNB.

Figure 12.7 Shares of assets, loans and deposits of the largest banks in total assets, loans and deposits as at 30 June 2017



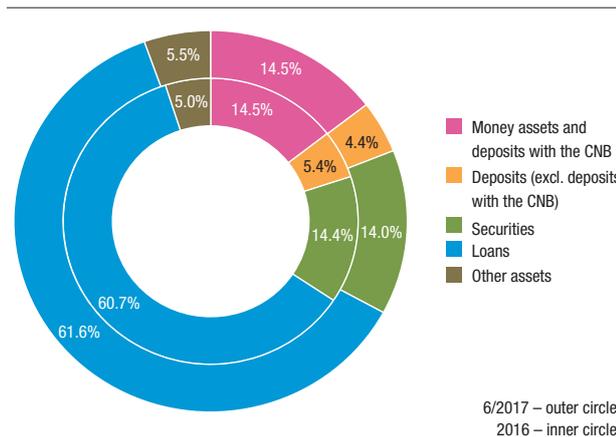
Source: CNB.

Figure 12.10 Bank standard off-balance sheet items



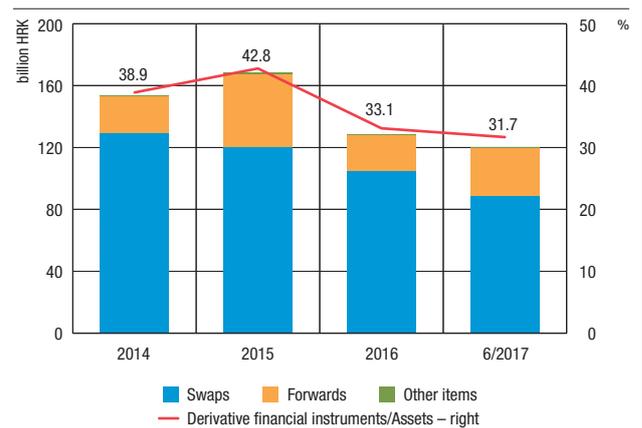
Source: CNB.

Figure 12.8 Structure of bank assets



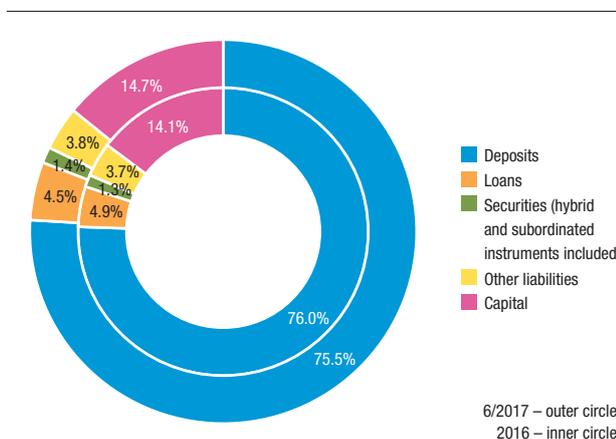
Source: CNB.

Figure 12.11 Bank derivative financial instruments (notional amount)



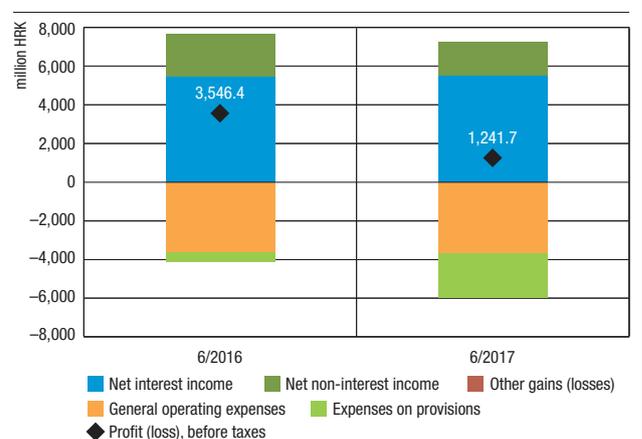
Source: CNB.

Figure 12.9 Structure of bank liabilities and capital



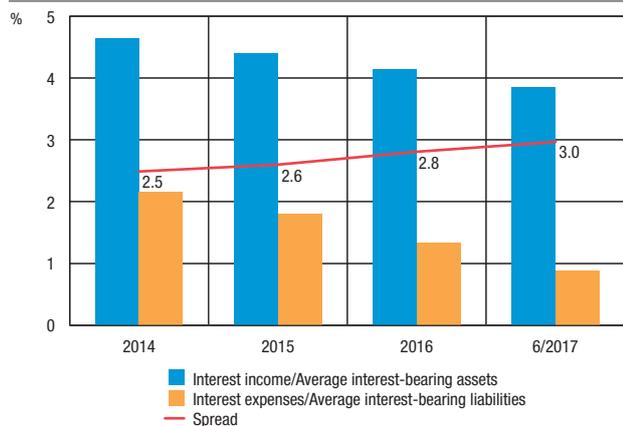
Source: CNB.

Figure 12.12 Bank profit from continuing operations before taxes



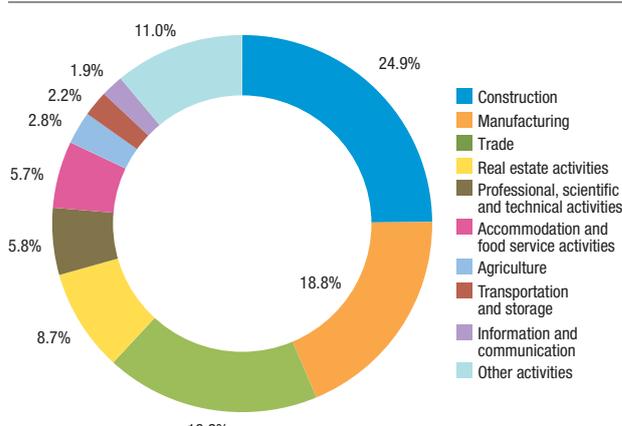
Source: CNB.

Figure 12.13 Spread



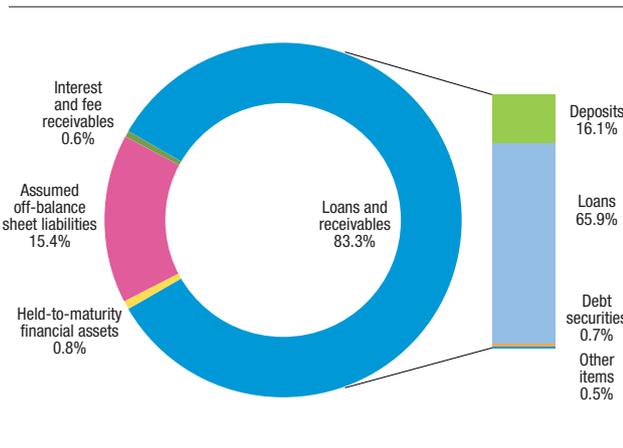
Source: CNB.

Figure 12.16 Structure of bank partly recoverable and fully irrecoverable loans to non-financial corporations by activities as at 30 June 2017



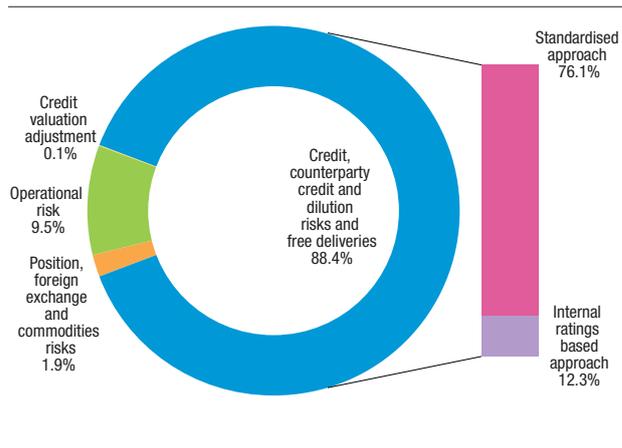
Source: CNB.

Figure 12.14 Structure of bank placements and assumed off-balance sheet liabilities as at 30 June 2017



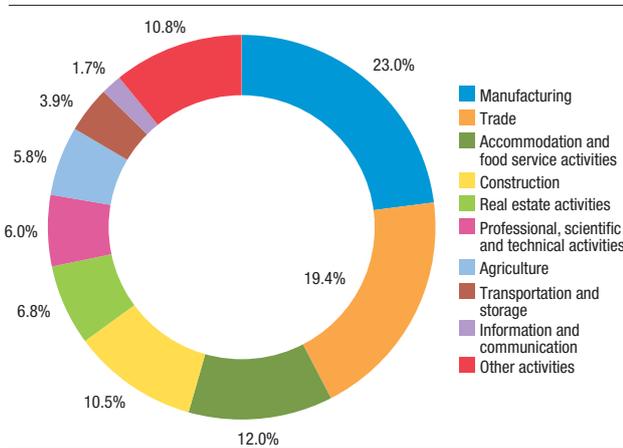
Source: CNB.

Figure 12.17 Structure of bank total risk exposure as at 30 June 2017



Source: CNB.

Figure 12.15 Structure of bank loans to non-financial corporations by activities as at 30 June 2017



Source: CNB.

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
CHIF	– Croatian Health Insurance Fund
CHY	– Yuan Renminbi
CICR	– currency-induced credit risk
CPF	– Croatian Privatisation Fund
CPI	– consumer price index
CPII	– Croatian Pension Insurance Institute
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
NBS	– National Bureau of Statistics of China
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



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