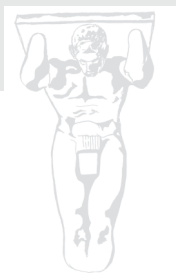
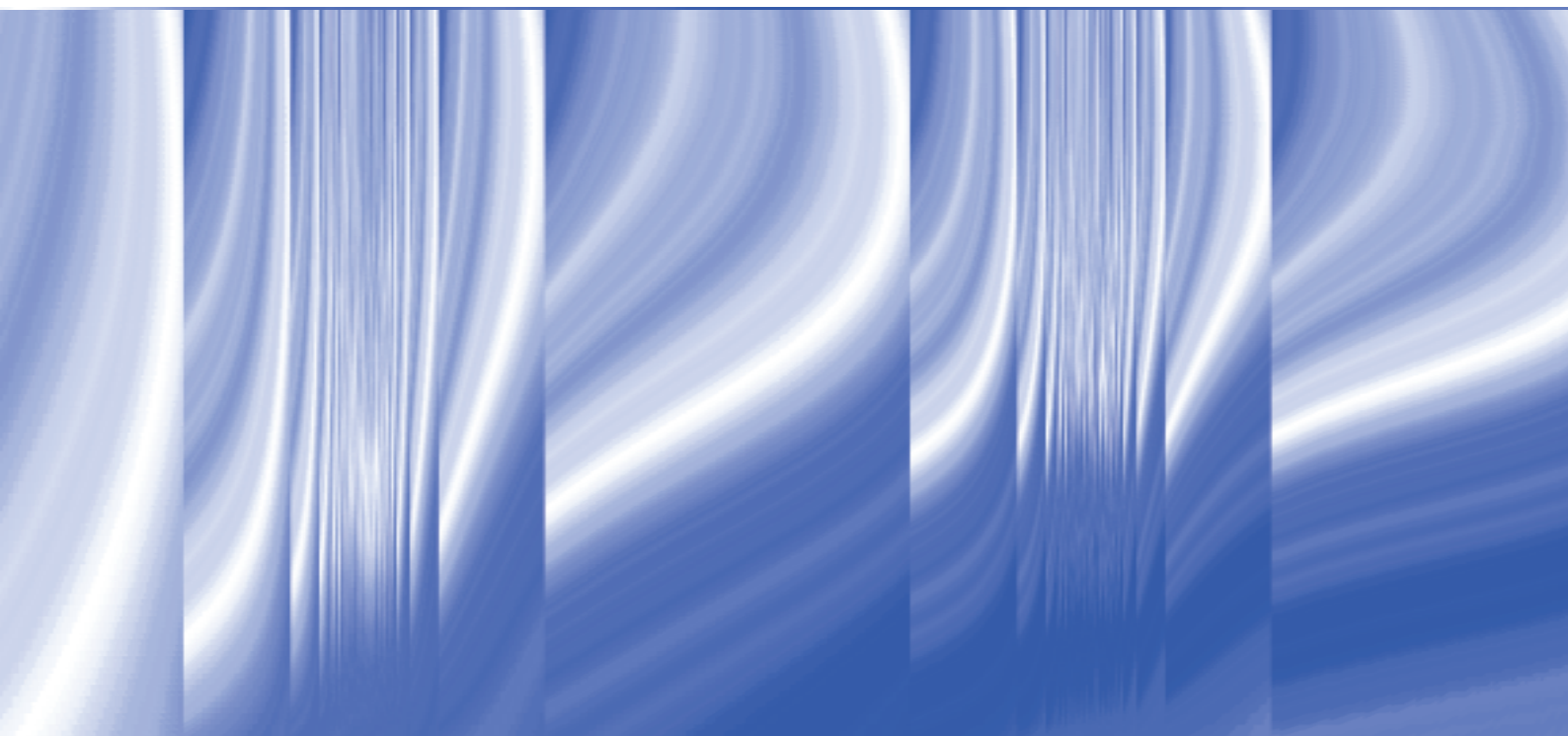


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FINANCIAL STABILITY REVIEW



JANUARY 2018

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Abbreviations:

AJPES	Agency of the Republic of Slovenia for Public Legal Records and Related Services
SMA	Securities Market Agency
ISA	Insurance Supervision Agency
GDP	Gross domestic product
BLS	Bank Lending Survey
BoS	Bank of Slovenia
OFIs	Other financial institutions
DSTI	Debt service-to-income ratio
TARS	Tax Administration of the Republic of Slovenia
BAMC	Bank Asset Management Company
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EMU	Economic and Monetary Union
EU	European Union
EURIBOR	Interbank interest rate at which representative banks in the euro area offer deposits to one another
Eurostat	Statistical Office of the European Communities
Fed	Board of Governors of the Federal Reserve System
SMARS	Surveying and Mapping Authority of the Republic of Slovenia
HICP	Harmonised Index of Consumer Prices
IFs	Investment funds
KDD	Central Securities Clearing Corporation
TR	Turnover ratio
Leaseurope	European Federation of Leasing Company Associations
LJSE	Ljubljana Stock Exchange
LTRO	Long-Term Refinancing Operation
LTV	Loan-to-value ratio
MCR	Minimum capital requirement
IMF	International Monetary Fund
SMEs	Small and medium-size enterprises
MTS Slovenia	Part of the Euro MTS electronic trading platform for euro-denominated government and para-government benchmark bonds
NFCs	Non-financial corporations
ROE	Return on equity
SBI TOP	Blue-chip index at Ljubljana Stock Exchange
SCR	Solvency capital requirement
SDW	Statistical Data Warehouse
SURS	Statistical Office of the Republic of Slovenia
S&P	Standard and Poor's
TLTRO	Targeted Longer-Term Refinancing Operation

AUP	Average unit price of a mutual fund
VLTRO	Very Long-Term Refinancing Operation
MF	Mutual fund

1 EXECUTIVE SUMMARY

Since the previous Financial Stability Review of June 2017, there has been no change in risks in the financial sector to a degree that would significantly endanger financial stability. Income risk remains among the most significant risks, and is being maintained by the low interest rate environment and the adaptation of the banks' business models to this environment. The growing maturity mismatch between the banks' assets and liabilities represents a risk to the stability of their funding, which could increase sharply in the event of shocks in the financial sector and the real sector. The rapid growth in prices on the real estate market demands careful monitoring of the potential increase in excessive risks that could endanger the stability of the banking system and the financial system. The sustained low interest rate environment and rising business optimism are increasing investors' willingness to take up higher risks. Investors' quest for higher returns is being reflected in growth in real estate prices, growth in prices of certain financial assets, and the appearance of new financial forms such as virtual currencies, which are attracting new speculative investments. A warning about the latter was issued in the autumn of 2017 by the Financial Stability Board, which emphasised that virtual currencies and cryptocurrencies are not backed by any government institution or central bank, and that stakeholders in virtual currency and token schemes that facilitate purchase, storage or trading in Slovenia are not subject to systemic regulation and supervision. On 18 January 2018 the Bank of Slovenia also published a document entitled *Frequently asked questions and answers about virtual currencies* on its website, which is helping to raise awareness among potential investors in virtual currencies.

Table 1.1: Overview of risks in the Slovenian banking system

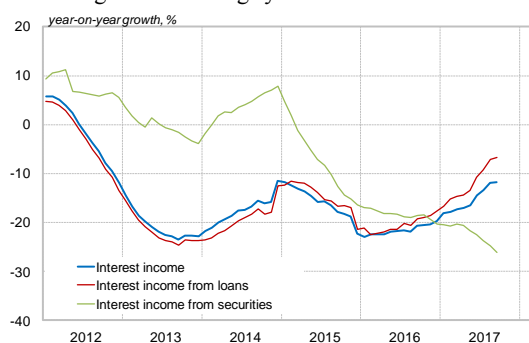
Systemic risk	Risk assessment			Trend in risk
	in Q2 2017	in Q3 2017	in Q4 2017	
Macroeconomic risk				→
Credit risk				↓
Real estate market				↑
Refinancing risk				→
Interest rate risk				↑
Contagion risk and large exposures				→
Solvency risk				↑
Income risk				→
Leasing companies				→

Colour code:

Generating income in the low interest rate environment will remain a challenge for the banks in the future. Profitability has been positive since 2015, and is rising, although the growth is based on short-term factors. Non-interest income has increased in recent years, generally as a result of one-off developments, and has not succeeded in fully compensating for the decline in net interest income. The decline in operating costs has come to an end after several years. The release of impairments and provisions over the first ten months of last year had a positive impact on net profit, although the release as a result of the intensive resolution of non-performing claims at banks and the improved economic situation will gradually disappear. Higher credit growth will require the creation of additional impairments and provisions. The most important source of bank income (net interest income) continued to decline in 2017. The net interest margin stood at 1.82% in September 2017, its lowest level to date.

Year-on-year growth in net interest income was still negative in October, but the continuing increase in credit activity will contribute to a gradual increase in interest income. At the same time pressure on income is being maintained by the simultaneous maturing of higher-yielding securities issued in the past, which in the current situation banks can only replace with lower-yielding securities. Slovenian government bonds still account for fully 47% of investments in securities, although the figure is down significantly on previous years. The smaller stock of securities in the banks' portfolio and the decline in average yield are significantly reducing interest income from this segment of assets.

Figure 1: Banking system's interest income

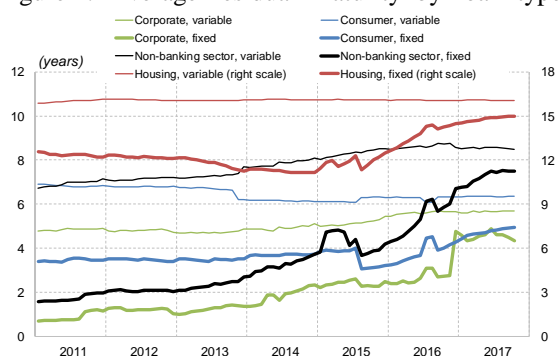


The period of several years of contraction in bank credit activity came to an end at the end of 2016. Growth in corporate loans saw the total aggregate of loans to the non-banking sector begin to increase. Lending strengthened more in the household segment than in the corporate segment in 2017 in terms of both volume and pace. Growth in household loans was highest in the consumer loans segment. The previous decline over several years meant that they nevertheless remained down a fifth on 2008 to 2010. Housing loans increased for the majority of the year at a stable rate of growth of just over 5%. Despite the relatively rapid growth in borrowing at banks, household indebtedness indicators remain favourable, and are still lower than in previous years. According to available data, the banks have remained within the boundaries of the Bank of Slovenia recommendations in the approval of housing loans. The banks maintained their credit standards at the high levels previously attained. From the perspective of the banks, growth in prices on the real estate market is not giving rise to any excessive risk for the moment.

The risk to the banking system could increase in the event of a sharp price reversal in the real estate market, which could bring a deterioration in the coverage of claims by real estate collateral. Credit risk at banks could also increase as a result of the increased supply of long-term loans with exceptionally low interest rates, if the risk premiums fail to reflect the long-term credit risks. Credit protection for consumer loans in its current form of insurance with insurers is being abandoned at certain banks, primarily on account of shorter approval procedures. Instead banks are raising the premiums on interest rates. Whether the higher interest rates adequately reflect the increased credit risk taken up depends on the adequacy of credit risk assessment at the banks.

Generating income from corporate lending is a process with more uncertainties than household lending. The factors that could support this process include increased corporate demand for loans for investment purposes and for current operations, and reduced indebtedness in the rest of the world. The smaller stock of debt and low interest rates mean that corporates are significantly less burdened by servicing debt from past loans primarily raised with variable interest rates. The ratio of interest paid to corporate operating surplus declined from 20% in 2009 to 3%, thereby releasing a proportion of corporate income for financing investment. Corporate expectations of more favourable financing conditions at banks with regard to the level of interest rates and collateral requirements also increased. The banks' efforts to increase return on investments and grow market share in corporate lending cannot be allowed to bring a reduction in credit standards, irrespective of the favourable forecasts of a continuation of the good climate in the coming years.

Figure 2: Average residual maturity by loan type



As a result of the lengthening maturity of fixed-rate loans, most notably on housing loans, the difference between the average repricing periods for banks' asset and liability interest rates is widening on all types of loan. According to the most recent stress tests, the banks are managing interest rate risk soundly through appropriate measures, although the lengthening of the average maturity of assets in the context of short funding maturities, particularly on deposits by the non-banking sector, means that the risk to financial stability remains among the most significant risks in the banking system.

Maturity transformation is part of the banks' regular management of assets and liabilities, but in the current conditions of a rising proportion of long-term investments and extremely short deposit maturity, it is uncertain what the actual stability of sight deposits is. In conditions of normalising interest rates, i.e. a rise, there is an increased likelihood of deposit switching between banks, and thus a need for greater liquidity. The proportion of sight deposits, which is high and still rising, is reducing the stability of bank funding in the event of a rise in interest rates and extraordinary developments that are less likely.

Households increased their holdings of investment funds in 2017, particularly equity funds and mixed funds, and thus indicated greater willingness to take up risk than in previous years. That their net inflows into mutual funds reached only 10% of the net flow of investments into sight deposits at banks is testimony to the still high level of conservativeness.

Despite the growth in borrowing at banks, households maintained a low level of indebtedness, which actually declined in the wake of simultaneous growth in GDP and disposable income. The credit risk of this part of the portfolio at banks remains low. The faster growth in the banks' exposure to households than in other client segments is further improving the average quality of the portfolio. Credit risk at banks declined in 2017, partly as a result of the active approach to the resolution of non-performing claims and the improved economic situation. Upgradings are increasing in the corporate segment, but there nevertheless remain corporate segments that are still a heavy burden on bank balance sheets. This is particularly the case of claims against firms in bankruptcy, which have declined sharply in absolute terms, but in relative terms represent an increasing proportion of the banks' residual non-performing claims. Individual sectors are still notable for being more heavily burdened by non-performing claims, but the balanced development of the economy, both the part based on domestic demand and the part based on export demand, is a sound basis for their further autonomous improvement in all sectors.

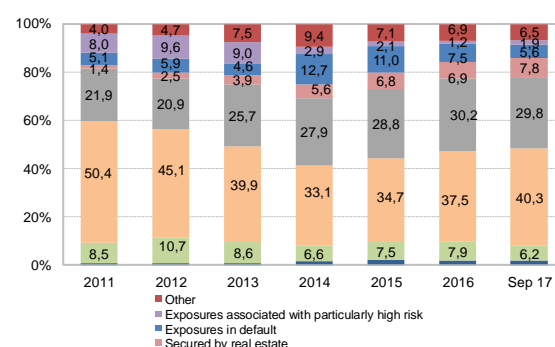
Bank liquidity was favourable in 2017. Secondary liquidity strengthened. The change in asset structure, where the proportion accounted for by investments in Slovenian government securities is declining, is reducing the average return on investments in securities.

The banks remain strong in capital terms, with a slight decline in the total capital ratio in 2017. Increased lending is increasing the amount of capital requirements. The net profit also brought an increase in regulatory capital in 2017, albeit less than the increase in capital requirements. Ongoing credit growth will also raise risk-weighted assets, and thus the pressure on capital adequacy.

Positive trends are continuing in other segments of the financial system. The volume of business is increasing at leasing companies, particularly in equipment leasing; performance and investment quality are also improving. Under the influence of economic growth, confidence is also increasing in the insurance market, which is being reflected in a gradual increase in gross premium written in all classes of insurance. The capital adequacy of insurance corporations remains at a high level.

Prices on stock exchanges are continuing to rise without major corrections. The majority of global stock indices have already sharply exceeded their highs from the pre-crisis period. The optimism is also being reflected in the domestic capital market, with increased investments in domestic mutual funds by households in particular, and increased investment in foreign bonds by banks, insurance corporations and pension funds.

Figure 3: Breakdown of capital requirements for credit risk



2 MACROECONOMIC ENVIRONMENT

Summary

The situation in the international environment remains favourable, and economic growth is strengthening in Slovenia's most important trading partners. The euro area economy remains robust to numerous risks from the international environment. To the fore are geopolitical risks, the strengthening of trade protectionism, and the uncertainties surrounding US trade policy and Brexit.

Economic growth in Slovenia remains among the highest in the euro area in 2017. Private consumption remains a significant factor in growth, as do net exports of merchandise and services in the wake of the strengthening of foreign demand. The ratio of investment to GDP remains below the average across the euro area, although significant growth in investment can be expected in the future in the context of increasing demand for investment and the further improvement of the situation. The economic climate is continuing to improve, and value-added is increasing. The high economic growth and the fiscal consolidation measures helped Slovenia to earn a sovereign upgrading from two rating agencies in 2017.

The situation on the labour market continued to improve sharply in 2017, as unemployment fell at a faster pace while growth in gross wages gradually strengthened. Household disposable income and final consumption expenditure increased as a consequence. There is not yet any discernible increase in growth in household investment activity, although it can be expected to grow in the future as prices on the real estate market rise. Although households significantly increased their borrowing from domestic banks in 2017, the ratio of households' financial liabilities to GDP declined slightly in the first half of the year, Slovenian households thereby remaining among the least indebted in the euro area. During this period there was no change in the breakdown of Slovenian households' financial assets: despite low interest rates, they continue to hold half of their assets in the form of currency and deposits.

The macroeconomic environment in Slovenia remains stable, and does not entail any danger to financial stability for now. From the perspective of financial stability there is no sign of any increased risks from the household sector.

2.1 International environment

Economic growth in the euro area strengthened over the first three quarters of 2017, while the economic situation in the wider international environment is also improving. According to the forecasts of international institutions, GDP is expected to continue growing in the future. Economic growth in the euro area reached 2.4% in the second quarter and 2.6% in the third quarter of 2017. The largest factor in the year-on-year growth was private consumption, as a result of the improvement in the situation on the labour market. The next largest factor was gross fixed capital formation. The sectors that contributed most to GDP growth were private-sector services and industry, followed by public services and construction.

Table 2.1: European Commission forecasts of selected macroeconomic indicators for Slovenia's main trading partners

(%)	Real GDP				Unemployment rate				Inflation				Deficit as % GDP			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
EU	1,9	2,3	2,1	1,9	8,6	7,8	7,3	7,0	0,3	1,7	1,7	1,8	-1,7	-1,2	-1,1	-0,9
Euro area	1,8	2,2	2,1	1,9	10,0	9,1	8,5	7,9	0,2	1,5	1,4	1,6	-1,5	-1,1	-0,9	-0,8
Germany	1,9	2,2	2,1	2,0	4,1	3,7	3,5	3,2	0,4	1,7	1,5	1,6	0,8	0,9	1,0	1,1
Italy	0,9	1,5	1,3	1,0	11,7	11,3	10,9	10,5	-0,1	1,4	1,2	1,5	-2,5	-2,1	-1,8	-2,0
Austria	1,5	2,6	2,4	2,3	6,0	5,6	5,5	5,4	1,0	2,0	1,6	1,7	-1,6	-1,0	-0,9	-0,6
France	1,2	1,6	1,7	1,6	10,1	9,5	9,3	8,9	0,3	1,1	1,2	1,5	-3,4	-2,9	-2,9	-3,0
Croatia	3,0	3,2	2,8	2,7	13,4	11,1	9,2	7,5	-0,6	1,3	1,5	1,6	-0,9	-0,9	-0,9	-0,7
Slovenia	3,1	4,7	4,0	3,3	8,0	6,8	5,9	5,2	-0,2	1,6	1,5	1,8	-1,9	-0,8	0,0	0,4

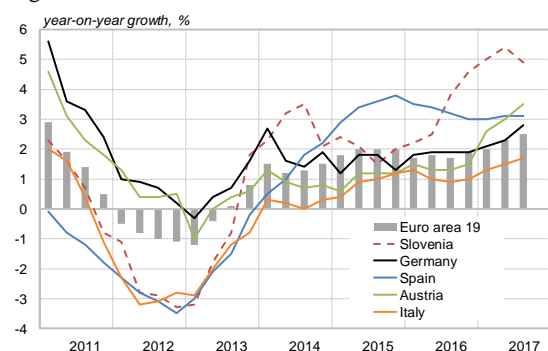
Note: Shaded area signifies European Commission forecasts.

Source: European Commission, autumn forecasts

According to the European Commission estimates, economic growth in the majority of Slovenia's main trading partners strengthened in 2017. GDP growth is also expected in the next two years, when the rate is forecast to average around 2% across the euro area according to forecasts by international institutions. There are also favourable forecasts for Slovenia's main economic partners outside the euro area, most notably Croatia and Russia. Given the high economic growth and the positive outlook, the economic sentiment in the

euro area is strengthening, and has already surpassed its pre-crisis level. The confidence indicators in all sectors are improving significantly.

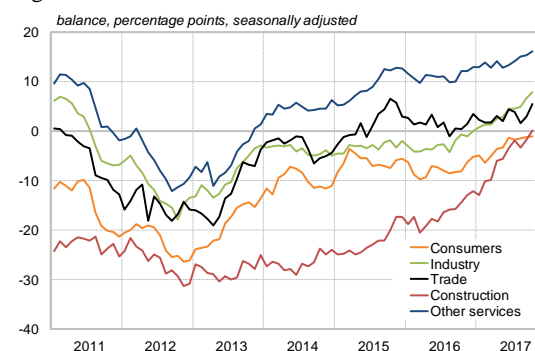
Figure 2.1: GDP in selected countries



Note: GDP figures are seasonally adjusted.

Sources: Eurostat, European Commission

Figure 2.2: Confidence indicators in the euro area



The favourable economic situation is increasingly being reflected in growth in lending activity to households, although not to corporates. Despite the improvement in the economic situation, there is not yet any sign of increased corporate lending activity, which is stagnating overall in the euro area. By contrast, growth in household lending is strengthening, as a result of the improvement in the situation on the labour market, low interest rates, and growth in real estate prices in numerous euro area countries.

Figure 2.3: Growth in corporate loans, international comparison

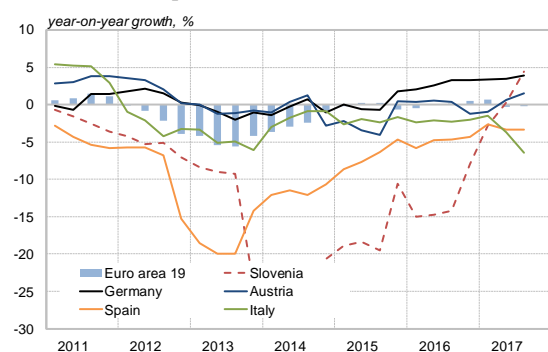
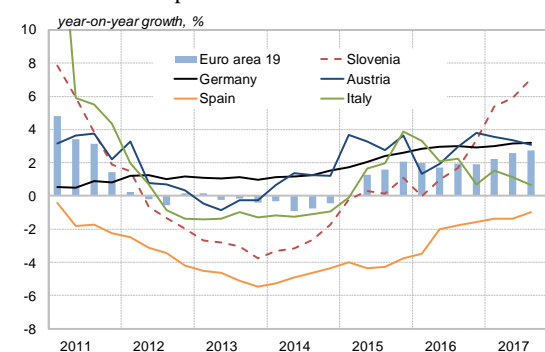


Figure 2.4: Growth in household loans, international comparison



Source: ECB (SDW)

Economic growth in the euro area remains robust, although numerous risks are still present. To the fore are risks related to geopolitical tensions, the strengthening of trade protectionism, and the uncertainties surrounding US trade policy and Brexit. Geopolitical tension is particularly high in the Korean peninsula and in the Middle East. Increased risks are also present on account of tightening global financial conditions, and the continued presence of problem banks in certain countries.

After rising sharply in early 2017, inflation in Slovenia stabilised at 1.4% in the second half of the year, before rising to 1.9% in December. Inflation developments are greatly dependent on price shocks in international markets and one-off developments on the domestic market. Inflation in Slovenia was close to the euro area average last year. Lower commodity prices were the main factor in the fall in inflation in the second half of the year. Inflation remains below the monetary policy target of the ECB, which is continuing to execute non-standard measures and is maintaining interest rates at historically low levels. The ECB is thereby maintaining favourable funding for lending, and is continuing to provide economic stimulus, which with the ongoing improvement in the situation on the labour market will have a positive impact on growth in investment and final consumption. Inflation in Slovenia is forecast to fluctuate around 2% over the next two years.

2.2 Economic developments in Slovenia

Economic growth in Slovenia strengthened further in 2017, and remains among the highest in the euro area. In the second quarter, the economy moved from the recovery phase into the growth phase, as GDP surpassed its pre-crisis level after ten years. Growth in private consumption has slowed slightly in the wake of merely moderate growth in the wage bill, although the further improvements in the situation on the labour market can still be expected to have a favourable impact on disposable income and consequently on growth in private consumption. The contribution made by net exports of merchandise and services is increasing significantly, as a result of the strengthening foreign demand and an improvement in export efficiency, while the contribution made by investment declined again in the third quarter. Growth in investment in 2017 nevertheless outpaced the average across the euro area, although the ratios of gross fixed capital formation and investment in research and development to GDP remain below average. Given the high utilisation of production capacity, the need for investment of this type remains great. Relatively high economic growth can also be expected in the future: it is forecast to range between 3% and 4% over the next two years.

Figure 2.5: GDP and contributions to GDP growth

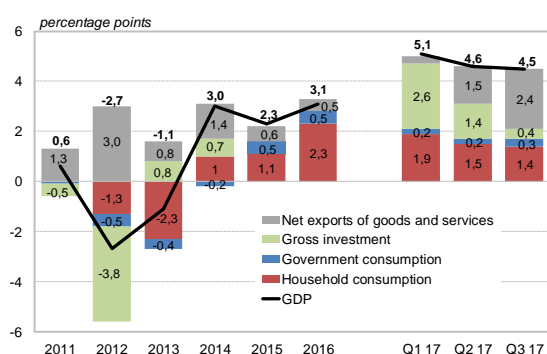
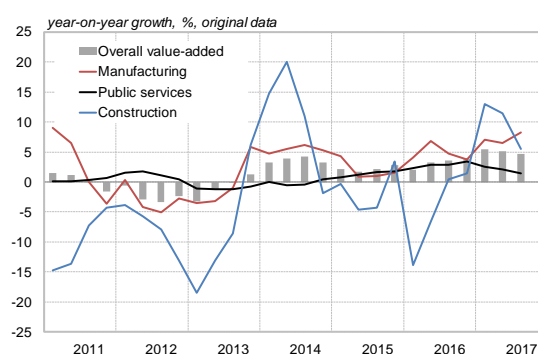


Figure 2.6: Growth in value-added by sector



Source: SURS

The economic climate is continuing to improve, and value-added is increasing. The confidence indicators in manufacturing improved further in 2017 in the context of expected growth in demand and consequently in output. There was particular optimism with regard to the order books and rising selling prices of construction firms, while consumer confidence is also improving in the wake of the improvement of the situation on the labour market and the positive economic outlook. Value-added is increasing in manufacturing, primarily as a result of growth in foreign demand, while the increase in value-added in services is attributable to the ongoing growth in the domestic market.

The high economic growth also had a favourable impact on the public finances, and consequently was a factor in Slovenia's sovereign upgrading. Rating agencies S&P and Moody's both upgraded Slovenia in 2017, on account of the reduction in the budget deficit and the ratio of public debt to GDP. The reduction in the deficit as a proportion of GDP was attributable to government austerity measures, and even more to high and robust economic growth. The major factors in the upgrade highlighted by the rating agencies also include the progress made on structural reforms and the recovery of the financial sector. Despite the success of the fiscal consolidation process, the agencies emphasise the importance of continuing structural reforms and privatisation.

Table 2.2: Slovenia's sovereign credit ratings at the major rating agencies

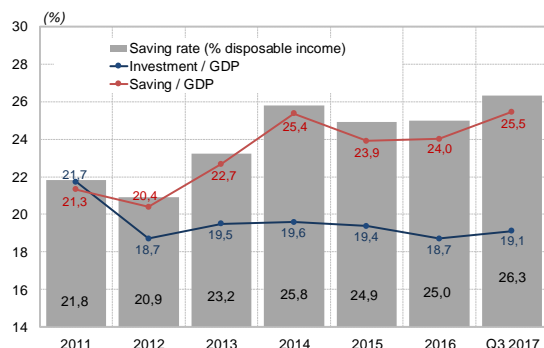
Agency	Rating	Outlook	Last change
Standard and Poor's	A+	stable	16 Jun 2017
Moody's	Baa1	stable	8 Sep 2017
Fitch Ratings	A-	stable	23 Sep 2016

Source: Ministry of Finance of the Republic of Slovenia

Investments increased somewhat as a share of GDP, along a continued rise in savings. The saving rate is still increasing, despite the low interest rates, as bank deposits continue to grow. After declining for two years, the ratio of investment to GDP also increased slightly, which is to be expected in the favourable economic situation and in the wake of price rises on the real estate market. In the wake of growth in private-sector investment in machinery and equipment and investment in housing, government investment can also be expected to grow in the future as the disbursement of EU funds increases. There has been a notable improvement in the situation on the labour market, with employment rising, and a consequent sharp fall in

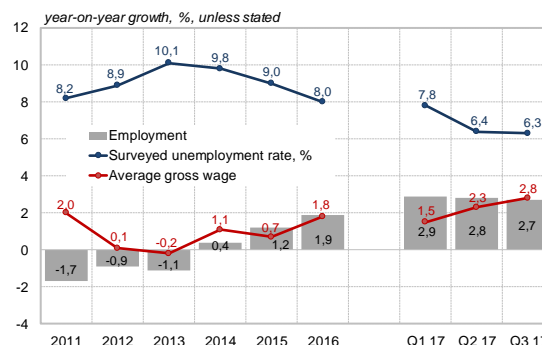
the surveyed unemployment rate. On the labour market there are also promising forecasts of staffing needs at firms (survey data). The relatively low unemployment rate is partly being reflected in growth in the average gross wage.

Figure 2.7: Saving and investment



Source: SURS

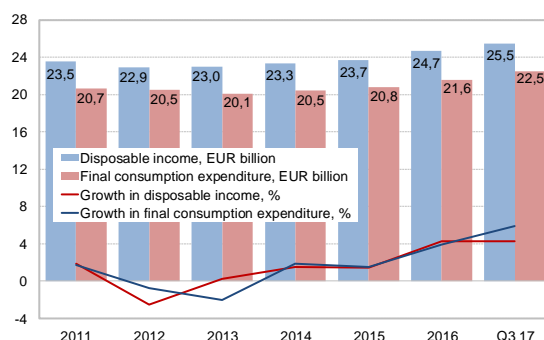
Figure 2.8: Employment, unemployment rate and gross wages



Households

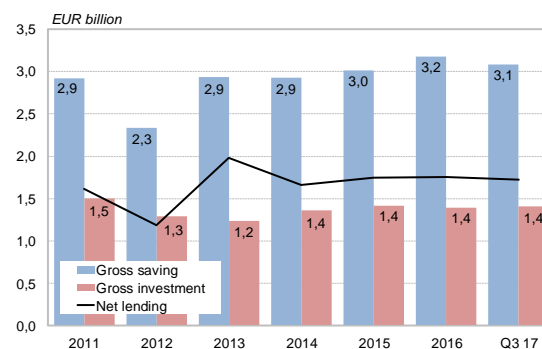
The improvement in the situation on the labour market is being reflected in growth in household disposable income and final consumption expenditure. The rise in employment and, gradually, the rise in wages have been reflected in an increase in disposable income to a record level of EUR 25.5 billion. Household disposable income will increase further in the future, in the wake of a further fall in the unemployment rate and the anticipated growth in wages. Final consumption expenditure is also increasing for the fourth consecutive year, in wake of the rise in consumer confidence. For the moment there has been no significant increase in households' gross investment, despite the favourable economic situation, although growth in investment can be expected to strengthen in the wake of further price rises on the real estate market.

Figure 2.9: Disposable income and final consumption expenditure



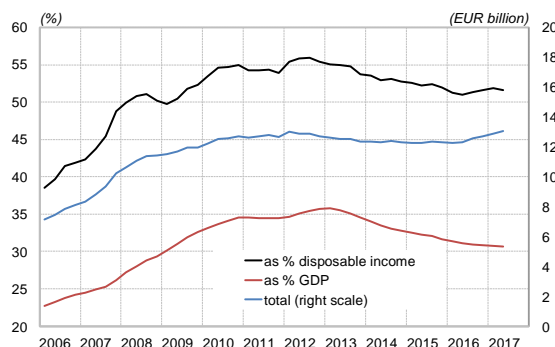
Source: SURS

Figure 2.10: Household saving and investment



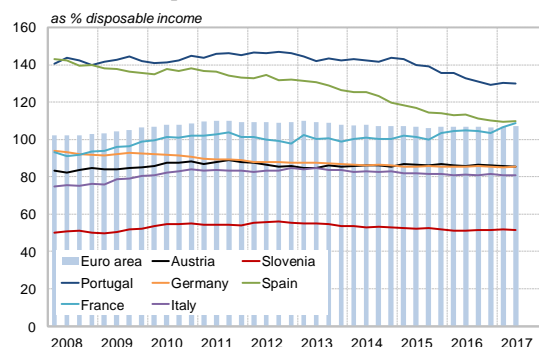
Despite strong growth in lending by banks, there was no increase in the indebtedness of Slovenian households as a percentage of disposable income, which remains among the lowest in the euro area. Given the low level of household indebtedness and low corporate lending, banks are increasingly focusing on the household segment, not just on housing loans, but even more intensely on consumer loans. The indebtedness of Slovenian households nevertheless remains low, and does not entail increased risk for the Slovenian banking system. Households' total financial liabilities increased over the last year, but remained unchanged as a percentage of disposable income, as the latter also increased. High economic growth meant that Slovenian households' financial liabilities actually declined as a percentage of GDP. In the international framework Slovenian households' indebtedness remains low: at 52% of disposable income it is significantly less than the corresponding euro area figure of 107%.

Figure 2.11: Household financial liabilities



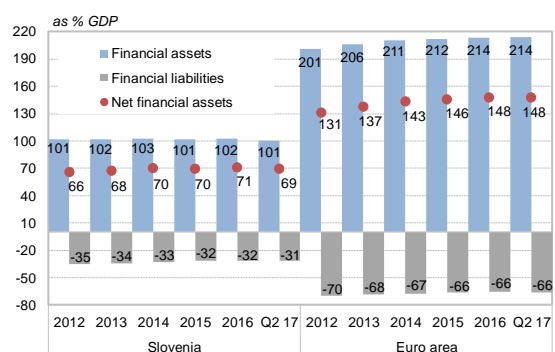
Source: ECB (SDW)

Figure 2.12: Household financial liabilities, international comparison



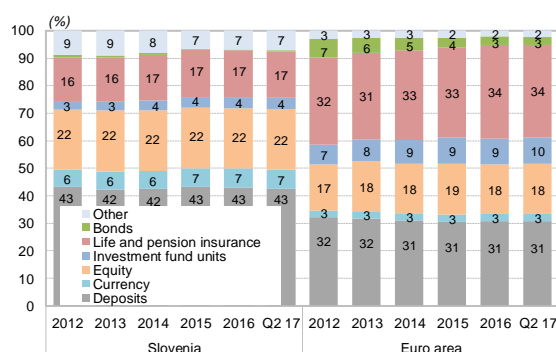
Households' net financial assets increased also in the first half of 2017. Financial assets and financial liabilities both increased, but the increase in financial assets was EUR 320 million larger. The structure of household financial assets was unchanged during the first half of 2017; Slovenian households continue to hold half of their assets in the form of currency and deposits, significantly more than the average across the euro area. The less favourable environment for saving is also not encouraging Slovenian households to opt for higher-risk, higher-yielding investments such as shares, bonds, life insurance and pension insurance. Investments of this type continue to account for a relatively low proportion of Slovenian households' assets, and the figure is not approaching the average across the euro area.

Figure 2.13: Household financial assets and liabilities



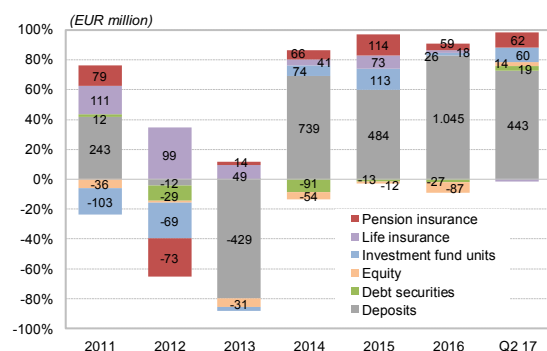
Source: ECB (SDW)

Figure 2.14: Breakdown of household financial assets



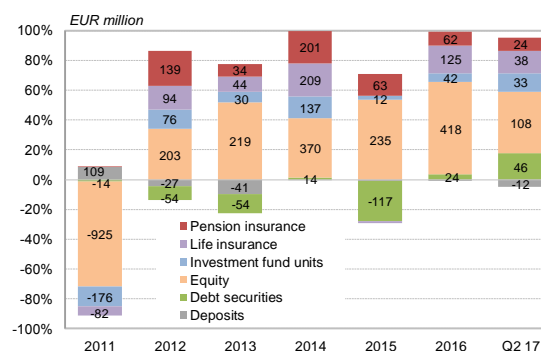
Household financial assets saw further growth in household deposits in 2017, while transactions in other forms of financial assets remain relatively low. Interest rates on deposits have persisted at record low levels, but household deposits are still increasing significantly. With the gradual rise in inflation, returns on assets of this type are becoming increasingly negative, which could encourage investment in other assets, although this is yet to happen, despite expectations. Compared with 2016, the first half of 2017 saw increased investment in pension insurance and in shares and investment fund units, but investments of this type still remain low. The reasons can be found in the modest returns on pension insurance and life insurance owing to low interest rates, and Slovenian households' lower risk appetite for investing in shares. Despite the low returns, the revaluations of financial assets in the first half of the year were positive on all forms of asset other than deposits, as investments in equity recorded the best returns.

Figure 2.15: Breakdown of transactions in household financial assets



Source: Bank of Slovenia

Figure 2.16: Breakdown of revaluations of household financial assets



2.3 Real estate market

Summary

Residential real estate prices continued to record rapid growth in 2017, as the number of transactions reached a record level. Despite the faster growth in residential real estate prices in last year, they are still down 13.5% on their peak in 2008, although they are up 11% on their low in 2014. For now there have not been any price rises on the commercial real estate market, even as the number of transactions has risen. Given the low interest rates and the positive expectations on the real estate market, further price growth is expected in the future in the favourable economic situation, particularly in light of the large gap between supply and demand, as there have not yet been any signs of major housing construction projects outside of Ljubljana. The number of issued building permits and the amount of residential construction put in place are gradually increasing, although there is not expected to be any major increase in the supply of housing for two or three years yet. During this time residential real estate prices could continue rising, not only as a result of rising demand for the purpose of occupation, but increasingly as a result of investment-based demand. The slow adjustment of supply to demand could in the future lead to a bubble in residential real estate prices, and is increasing the risks to the banking system.

For now the banks remain cautious with regard to collateral requirements: the average LTV¹ on new loans remains stable at 60%. Growth in housing loans also remained stable in 2017 at 5%, and the banks made no significant changes to credit standards for housing loans, which remain at significantly higher levels than in 2008. There was also no significant increase in household indebtedness, despite the increase in bank lending, and as a proportion of disposable income it remains among the lowest in the euro area. The stable DSTP² is further evidence of the low risk in household lending; its average on new loans remained below the Bank of Slovenia recommended level in 2016. Despite the for-now limited impact on the banking system, the favourable economic situation and the increased optimism could rapidly lead to excessive risks, for which reason the banks must monitor developments on the real estate market and adequately manage the increasing risks.

Prices and transactions on the real estate market

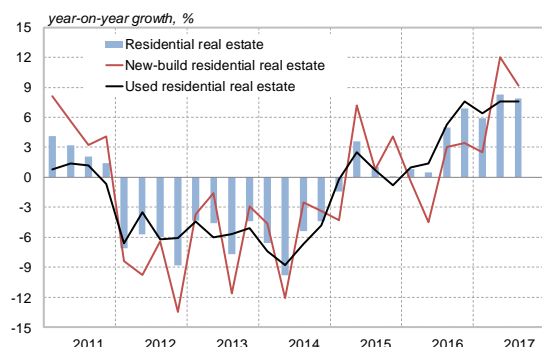
Residential real estate prices continued to rise in 2017. Residential real estate prices began rising significantly in the second half of 2016, and recorded growth of 5.9% in the first quarter, 8.3% in the second quarter and 7.9% in the third quarter of 2017. Prices of both used and new-build residential real estate rose, flats and houses alike. Slightly larger price volatility was seen in the market for new-build residential real estate, as a result of a shortage and the resulting low number of transactions, but a growth trend was also evident. Residential real estate prices fell 24% from their peak of 2008, then rose by 11% on their low of 2014. Prices thus remain 13.5% down on their record levels of 2008. The continual high growth over the last year means that Slovenia's real estate market is undoubtedly in a growth phase, which can be expected to

¹ The LTV is the ratio of the value of a housing loan to the value of the collateral.

² The debt service-to-income ratio is the ratio of the annual costs of debt servicing to a borrower's annual income when a loan agreement is concluded.

continue in the future, given the favourable financing conditions, the continuing gap between supply and demand on the real estate market, and the positive outlook.

Figure 2.17: Growth in residential real estate prices in Slovenia



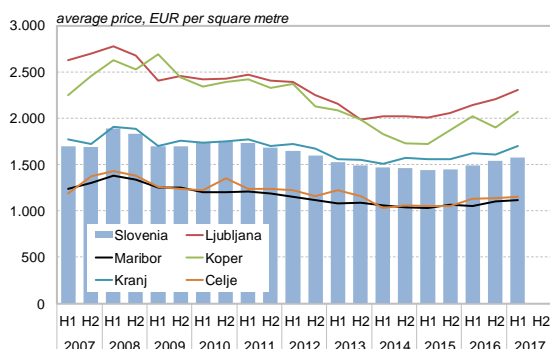
Source: SURS

Figure 2.18: Change in residential real estate prices since 2008



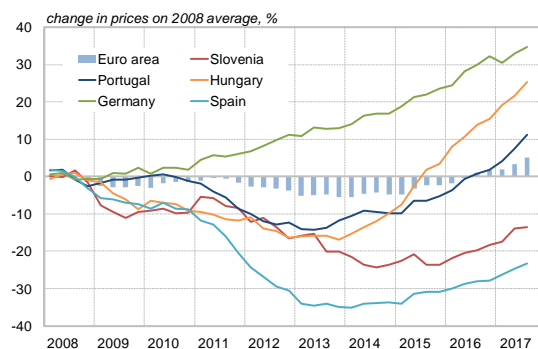
The trend of growth in prices of used housing is evident throughout Slovenia, although there are considerable variations from town to town. Price growth is most pronounced in Ljubljana, the Ljubljana region and Koper, but is slower in other large towns. During the crisis, prices of used housing fell the most in the coastal region, but also have the highest price growth from their low, particularly in Koper. Despite significantly lower average prices per square metre, prices in Maribor and Celje are rising more slowly, while the trend of growth in prices remains weak in Kranj, where price volatility was lowest during the crisis. The level of prices and price growth in Slovenia's major towns and cities primarily depend on the supply of housing and the attractiveness of the town or city for investment purposes, particularly from the perspective of the situation on the labour market, the level of tourism and urban development. Demand for housing not solely for the purpose of occupation but also for investment purposes will depend on the aforementioned factors; it will also be a crucial factor in the launch of housing construction projects together with growth in demand.

Figure 2.19: Average prices of used housing across Slovenia and in major towns



Sources: SMARS, Eurostat

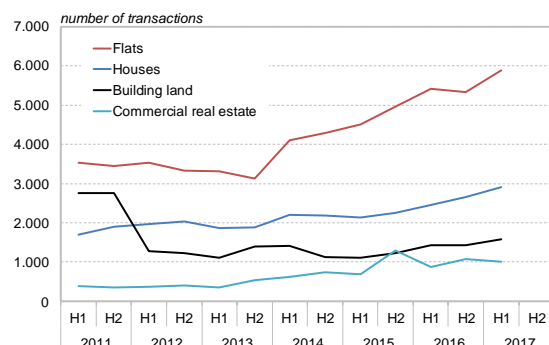
Figure 2.20: Change in residential real estate prices since 2008, international comparison



Despite greater intensity in the last year, growth in real estate prices in Slovenia since 2008 is still relatively low compared with the euro area average. Real estate price developments since the crisis in individual countries have been significantly dependent on growth in prices before the crisis, although the favourable economic situation and low interest rates have also contributed to growth in recent years in the majority of euro area countries. The variation from country to country is considerable: for example, prices in Germany are up 35% on 2008, while prices in Spain are down almost 24%. The ESRB identified³ eight countries in the euro area as having increased risk in the real estate market owing to high growth in real estate prices, but Slovenia was not among them. Real estate prices in Slovenia fell relatively sharply during the crisis, and also began rising later, and consequently remain significantly below their pre-crisis peak.

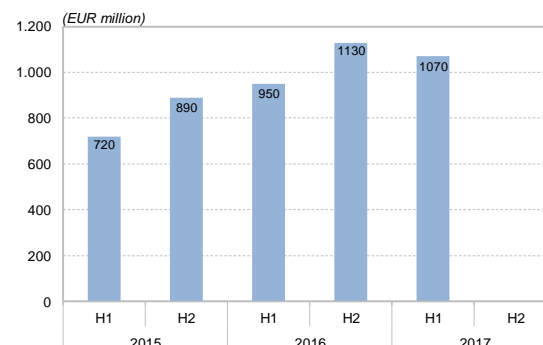
³ For more, see https://www.esrb.europa.eu/pub/pdf/reports/20170413_esrb_review_of_macroprudential_policy.en.pdf?3445b9ed6d9b5d63beac5da66334e20d.

Figure 2.21: Number of sale and purchase agreements concluded for real estate



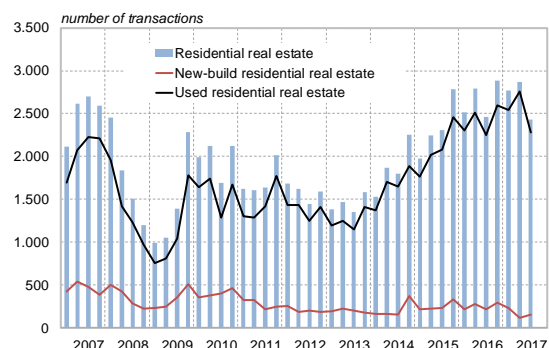
Sources: SMARS, Bank of Slovenia calculations

Figure 2.22: Volume of trading in real estate



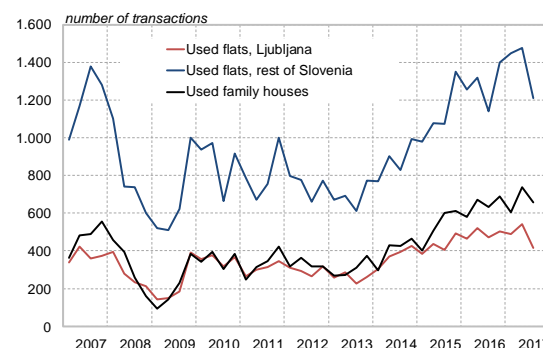
The number of concluded transactions in real estate in the first half of the year was a record high since the SMARS began systematically monitoring the figures in 2007. The largest increase was in the number of transactions in residential real estate, while the number of transactions in land zoned for construction also increased. By the first half of 2017 there had been no significant increase in the number of transactions in commercial real estate, as a result of the competitive rental market. The volume of trading in real estate exceeded EUR 1 billion in the second half of 2016, and reached a similar level in the first half of 2017. The increase in volume was also the result of a rise in the number of transactions by business entities and real estate investors. According to SMARS data, more and more transactions have been concluded for the sale of shopping centres, commercial and industrial buildings, hotels and car parks, building land and incomplete structures from failed projects during the time of the crisis. It can be noted that, given the lack of suitable alternative investments, or their low returns, real estate is becoming a more common choice for both households and corporates.

Figure 2.23: Number of transactions in residential real estate



Source: SURS

Figure 2.24: Number of transactions in used real estate



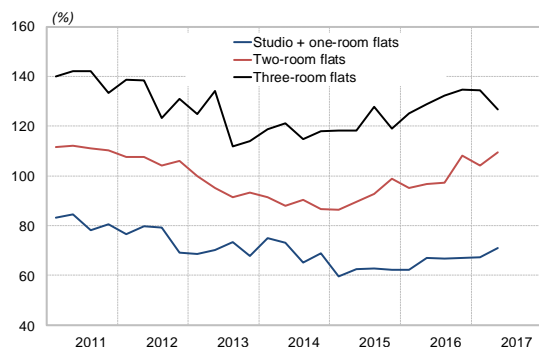
The number of transactions in residential real estate reached a record level in 2017. More than 8,000 transactions in residential real estate were concluded during the first three quarters of the year, up 3.9% in year-on-year terms. The number of transactions in used real estate rose, while the number of transactions in new-build residential real estate fell owing to the diminishing supply of real estate of this type on the market. There was a rise in the number of transactions in real estate throughout Slovenia as a result of the sale of real estate from bankruptcy proceedings, both flats and houses, and the number reached record levels in Ljubljana despite the relatively high prices. The number of transactions slowed slightly in the third quarter, but still remained at a high level. The market for used residential real estate is expected to remain lively in the future, while the volume of trading in new-build residential real estate is expected to remain small, at least until the supply of new-build housing on the market increases.

Supply of and demand for residential real estate

The key factor in future real estate prices will be the (im)balance between the supply of and demand for new-build real estate on the market. An increase in the supply of residential real estate can be expected should there be continued interest in housing, which has recently been significant for the purposes of occupation and for investment purposes. During the crisis many households deferred real estate purchases

owing to price uncertainty on the real estate market and uncertainties on the labour market, but are now more willing and able to make purchases, due to the improvement in the economic situation and the increased confidence. More and more households are opting to purchase real estate because of favourable loan terms, most notably low interest rates and bank loans of longer maturity.

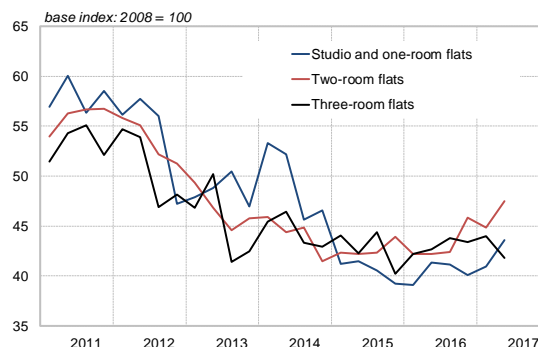
Figure 2.25: Ratio of housing prices to net wages in Ljubljana



Note: The left figure illustrates the ratio of prices of used flats to the annual moving average of net monthly wages in Ljubljana. Owing to a break in the data series, average prices are lower in the period since 2015 than in the prior period. The housing affordability index (right figure) is calculated on the basis of prices of used flats, the annual moving averages of monthly wages, and loan terms (interest rates and maturities).

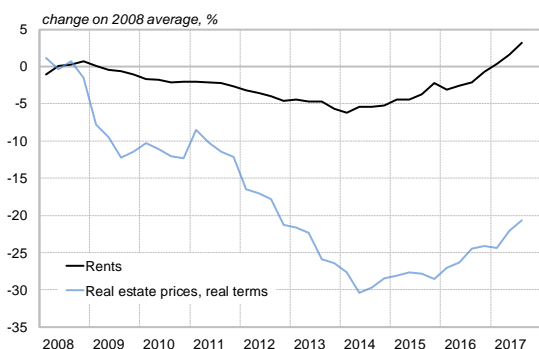
Sources: Bank of Slovenia, SURS

Figure 2.26: Housing affordability index



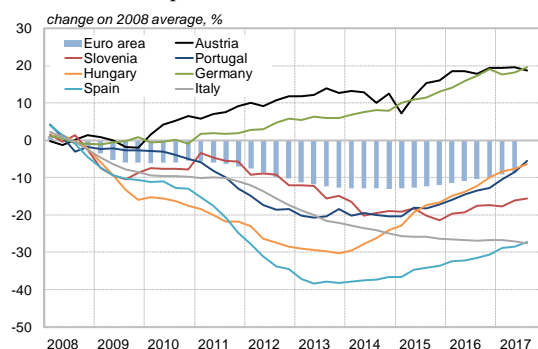
Because wage growth has been outpaced by growth in residential real estate prices, housing affordability has continued to decline. The largest rises were in prices of one-room flats (including studio flats) and two-room flats, which also saw the largest increase in the ratio of housing prices to net wages. Prices of three-room flats in Ljubljana actually fell slightly in the second quarter of 2017, which contributed to an improvement in the affordability of housing of this type after a deterioration of more than a year. The fall in prices of larger flats could also be attributable to the relatively high price of housing of this type in Ljubljana, which could entail a financial burden for many households, while larger flats are also less attractive from an investment perspective. With high growth in real estate prices, housing affordability has begun to deteriorate, despite the ongoing favourable loan terms.⁴ Year-on-year growth in net wages in Ljubljana averaged 2.6% in the first half of 2017, while prices of used real estate rose by 8.6% during the same period. There was no significant change in loan terms during this period, and they remain favourable.

Figure 2.27: Growth in rents and real estate prices in Slovenia



Note: The figures in the OECD database are seasonally adjusted.
Source: OECD

Figure 2.28: Ratio of price to rents, international comparison

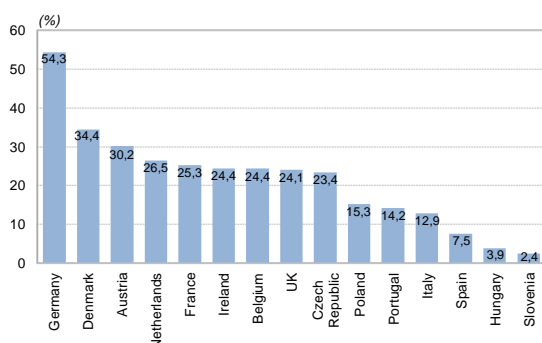


The growth in demand for real estate is not attributable solely to purchase for the purpose of occupation, but also for investment purposes. Favourable rental yields could increase investors' interest in purchasing real estate. According to OECD figures, prices of residential real estate in Slovenia fell significantly more than rental prices, which after falling slightly during the crisis have already surpassed their pre-crisis levels. The smaller fall in rents than in real estate prices has had a favourable impact on the return on investment in real estate: the ratio of price to rents is still down 16% on 2008. Returns on Slovenian real estate have also improved relative to the euro area average since the outbreak of the crisis: the ratio of price

⁴ The assumption is that the purchase of the housing is financed entirely by a loan, subject to terms of approval calculated as an average for the banking system.

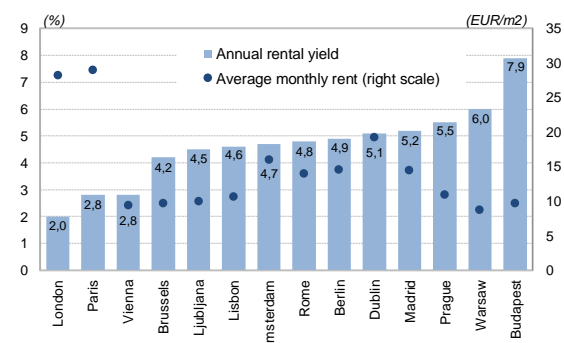
to rents in Slovenia fell more sharply, thereby encouraging domestic and foreign investors to invest in real estate.

Figure 2.29: Proportion of households living in rented accommodation, 2016



Source: Deloitte (National Statistical Authorities)

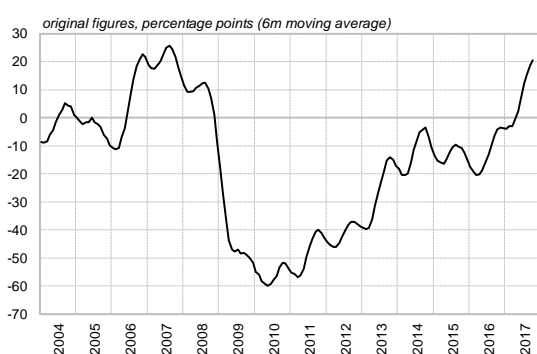
Figure 2.30: Average monthly rent and annual rental yield



The proportion of Slovenian households living in rented accommodation is among the lowest in the euro area, and it is primarily growth in tourism that is offering investors new opportunities to make money. Letting flats or rooms via online portals is becoming more and more popular, and in a number of large towns this constitutes a significant part of the supply and provides for large returns. Alongside the rising number of tourists, students also account for a significant part of rental demand, particularly in cities and university towns. According to analysis conducted by Deloitte,⁵ the annual rental yield in Ljubljana stood at 4.5% in 2016, slightly below the average for large European cities, while the average yield in Maribor was larger, at 5.4%, owing to the lower prices of real estate. These are relatively large annual yields, which are attracting more and more investors given the likelihood of further rises in real estate prices.

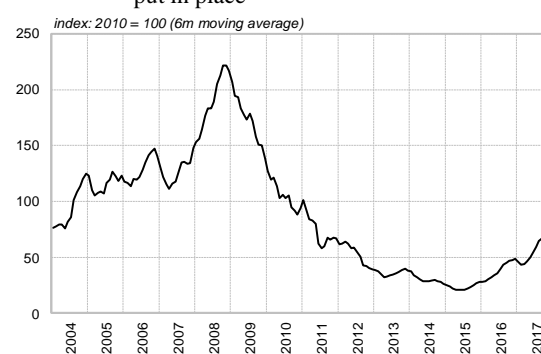
For now the supply of housing is not keeping pace with high demand, which could lead to further price rises and a bubble in residential real estate. The uncertain situation during the crisis and the failure of projects built before the crisis have reduced investors' interest in construction. With the rise in demand and the resulting rapid sale of housing from the completion of projects begun before the crisis, the need for new-build housing is increasing again. It is being reflected in increased confidence in construction and, gradually, in growth in the amount of residential construction put in place. The amount of construction put in place nevertheless remains at a relatively low level, and is only increasing gradually, which reflects the slow pace of the adjustment of supply to demand.

Figure 2.31: Construction confidence indicators



Source: SURS

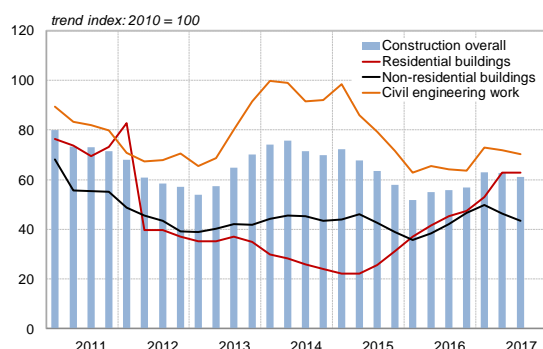
Figure 2.32: Index of amount of residential construction put in place



Although the number of issued building permits is rising, there is no sign yet of a significant increase in the amount of construction put in place. From a very low base there is most notably growth in residential construction work, which slowed slightly in the third quarter of 2017. By contrast, the amount of construction put in place in civil engineering work and non-residential buildings shows no trend of growth, but rather stagnation or even decline. On the basis of the illustrated indicators the gap between supply and demand could be expected to widen, as the inventory of housing is diminishing and the construction cycle has not yet started in Slovenia. This could lead to price rises on the real estate market.

⁵ For more, see <https://www2.deloitte.com/at/de/seiten/real-estate/artikel/property-index.html>.

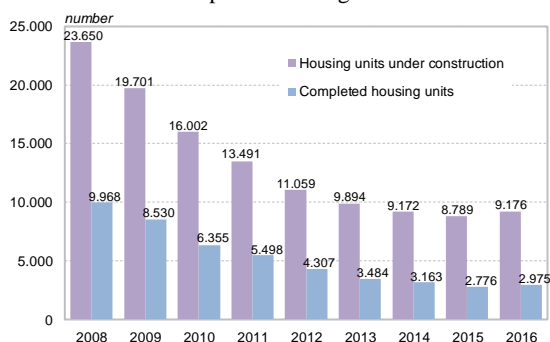
Figure 2.33: Amount of construction put in place



Source: SURS

The number of housing units under construction and completed housing units increased in 2016 for the first time since the crisis, but nevertheless remains at a very low level. For now only Ljubljana has seen the onset of a new construction cycle, while there are no signs of major housing construction projects in other towns. The shortage of supply and the anticipated growth in real estate prices could be expected to bring increased interest on the part of investors in the future, and the launch of new housing construction projects, but it will be two or three years before there is an increase in the supply of new-build housing. During this time, given the favourable financing conditions, real estate prices can be expected to continue rising, although the intensity of the price developments will depend on the future economic situation and developments on the labour market. Growth in prices could be slowed by the advent of large numbers of housing units on the market, if they are offered at affordable prices.

Figure 2.35: Number of housing units under construction and completed housing units



Source: SURS

Construction lending by the banks is no longer declining, although there is not yet any significant trend of growth. The very gradual revival of construction activity is also being reflected in renewed growth in loans to the construction sector, although the stock of loans stood at EUR 1.1 billion in September, down significantly on the first years of the crisis. This is a result of the large number of bankruptcies and the deleveraging in the sector, with well-known consequences for the banking sector. Bank loans to firms in the real estate activities sector are continuing to decline, and have not yet reached their anticipated upward reversal. In recent years there has again been a discernible increase in the activity on the part of smaller construction firms, from whom the relaunch of the construction cycle is expected to come. When it comes to the desired launch of new housing construction projects, it is important that the banks retain proper assessment of credit risk in the sector, particularly with regard to higher-risk investments.

Consequences for the banking sector of developments on the real estate market

For now the banks remain cautious in terms of collateral requirements during the approval of new loans. The average LTV was unchanged from 2016 at close to 60%, despite the increased optimism and the price rises on the real estate market. The proportion of real estate purchases funded by the purchaser's own capital remains high, and the average LTV therefore remains within the framework of the Bank of Slovenia recommendations. In the event of further rises in real estate prices, there could be an increase in borrowers' expectations that a larger proportion of a real estate purchase be financed by bank loans, thereby raising the

Figure 2.34: Number of issued building permits

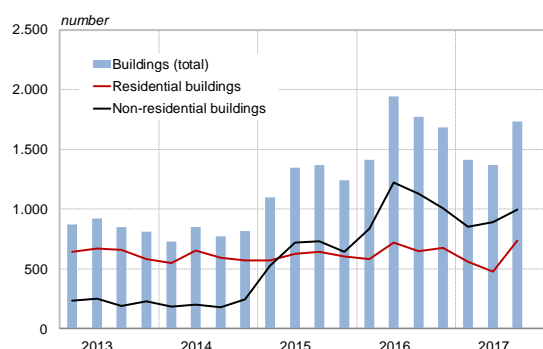
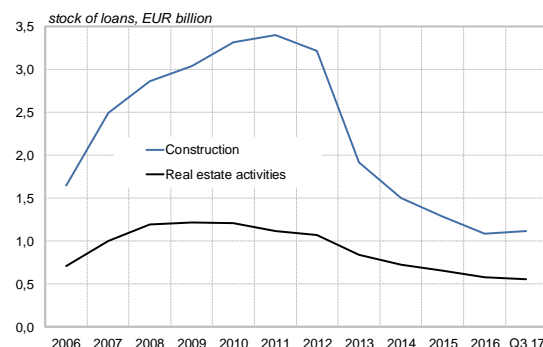


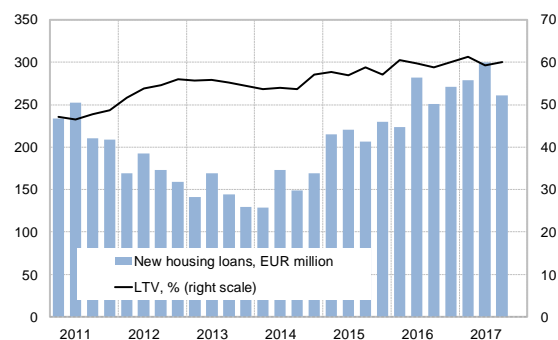
Figure 2.36: Stock of loans to the construction and real estate activities sectors



LTV for new transactions. Maintaining bank stability will therefore require the banks to maintain their credit standards, and to conduct adequate risk assessments of debtors and projects.

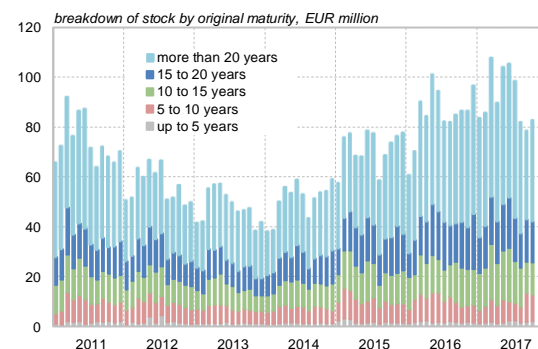
The risk to the banking system could increase in particular in the event of a sharp price reversal on the real estate market. This would bring a sharp deterioration in the coverage of bank claims by collateral, where real estate collateral is prevalent. The increased credit risk could trigger requirements for additional collateral on the part of debtors, which would transmit the risks to the corporate sector and to households.

Figure 2.37: New housing loans and average LTV



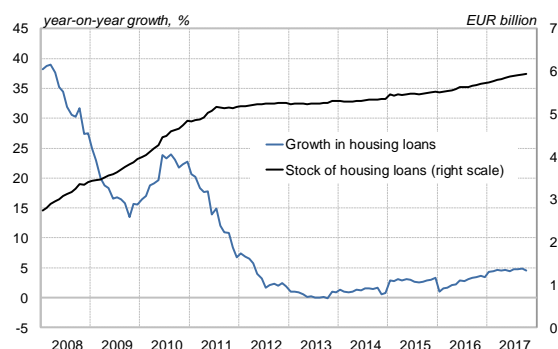
Source: Bank of Slovenia

Figure 2.38: Stock of new housing loans by maturity



Growth in housing loans remained stable in 2017. The banks' stock of housing loans to households has recorded a net increase of EUR 400 million since 2016. Growth in housing loans to households remained close to 5% in 2017, a rate that is not increasing risks in the banking system given the economic cycle in Slovenia. Borrowers are continuing to largely opt for housing loans with longer maturities and fixed interest rates. According to the BLS, Slovenian banks have not seen any major changes in credit standards for housing loans since 2015, and they remain significantly tighter than in 2008. Credit standards for housing loans in Slovenia have been tightened relatively sharply since the outbreak of the crisis compared with other euro area countries. Given the increasing risks inherent in price rises and the increased optimism on the real estate market, it is recommended that the banks continue to apply adequate credit standards and loan terms.

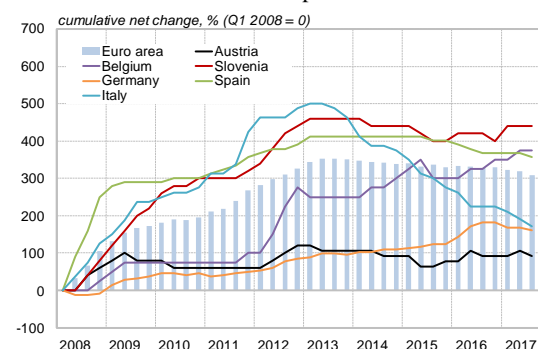
Figure 2.39: Stock of housing loans in Slovenia



Note: The data in the right figure illustrates the cumulative net percentage change on the previous quarter. A positive net change indicates a tightening of credit standards, while a negative net change indicates a relaxation of credit standards.

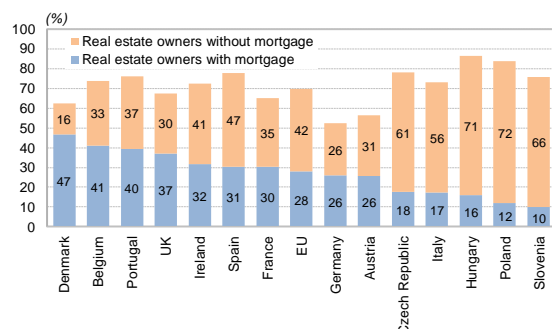
Sources: Bank of Slovenia, ECB (SDW)

Figure 2.40: Credit standards for housing loans, international comparison



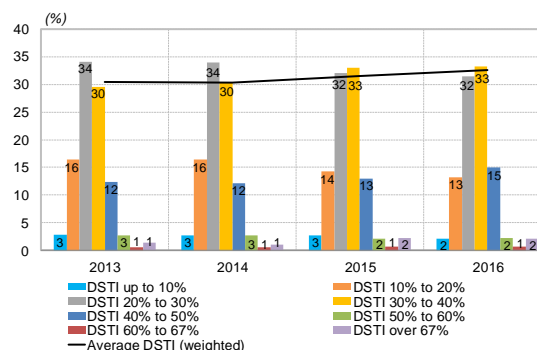
The small proportion of real estate owners with a mortgage and the stable DSTI are indicative of the relatively low risk presented by Slovenian households. According to Eurostat figures, 10% of owners in Slovenia had a mortgage at the end of 2016, among the lowest rates in the euro area, which is in keeping with Slovenian households' reluctance to borrow. According to the available figures for 2016, there has been no increase in the DSTI: the majority of new loans were approved with a DSTI of between 20% and 40%. This is below the Bank of Slovenia recommendation, which was exceeded by 5% of loans, although this figure remained relatively stable and did not increase compared with previous years.

Figure 2.41: Real estate owners with and without a mortgage compared with total population, 2016



Sources: Eurostat, Bank of Slovenia

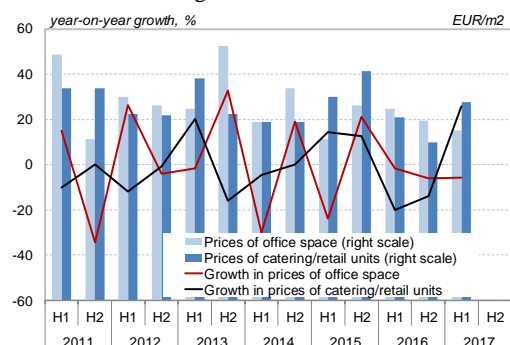
Figure 2.42: Distribution of DSTI on new housing loans



Commercial real estate market

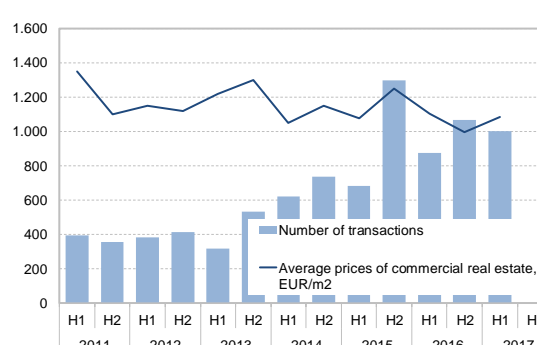
Growth in volume is also increasingly evident in the commercial real estate market, although it is not yet being reflected in price rises. While the residential real estate market is now in a phase of strong growth, the commercial real estate market is gradually reviving: there has been a significant rise in the number of transactions over the last year. Despite the rise in the number of transactions there has not yet been a turnaround in prices: the average price of office space over the first half of the year was down 5.7% in year-on-year terms. Average prices of catering/retail units rose by 25.8%, although there is great price volatility in this segment of commercial real estate due to the relatively small statistical sample size. The main factor in the fall in prices of office space is competition from the rental market, where supply is relatively sizeable. In the event of the slow revival of the commercial real estate market, in the favourable economic situation prices could be expected to begin tracking the rise in the number of transactions and the high growth in prices on the residential real estate market.

Figure 2.43: Average prices of office space and catering/retail units



Source: SMARS

Figure 2.44: Number of transactions and average price of commercial real estate



2.4 Non-financial corporations

Summary

Non-financial corporations are forecast to continue with their solid investment activity over the medium term, thereby increasing their need for financing. Without loans, investments are limited to accumulated reserves and current income. The available figures indicate that Slovenian non-financial corporations have recently had sufficient savings and resources from current income, for which reason they have not opted to obtain additional financial resources to any great extent. The increase in corporate loans in 2017 is already pointing to a reversal in the structure of financing. Non-financial corporations have begun reducing their indebtedness in the rest of the world, and increasing their indebtedness at domestic banks. Due to a smaller stock of debt and low interest rates, non-financial corporations are significantly less burdened by servicing debt from past loans, mostly concluded with variable interest rates, which is releasing part of their income to

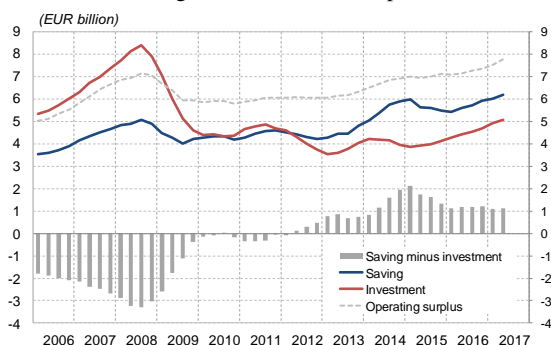
finance investment. In the current low interest rate environment, the decline in interest income could see the banks increase their risk appetite in corporate lending.

Corporate investment

The conditions for medium-term growth in investment by Slovenian non-financial corporations are currently favourable. Retained earnings will continue to play a significant role in their financing, but domestic loans are also expected to strengthen. To maintain leverage at an appropriate level, corporate equity will have to be increased along with debt. Non-financial corporations' nominal investments are low, at their level of 2005, and further growth will be required for the strengthening of Slovenia's economic potential.⁶

Growth in corporate investment is being facilitated by high profitability and the reduction in indebtedness. Non-financial corporations' operating surplus surpassed its previous high in nominal terms, reaching EUR 7.8 billion at the end of June 2017. The economic sentiment indicator also surpassed its level from 2006. A record high has also been reached by the consumer confidence indicator of expectations with regard to sales. The utilisation of production capacity has reached record highs of around 85%. Non-financial corporations have reduced leverage to the level of 2006, primarily by paying down debt. Alongside low interest rates, this has brought a profound improvement in non-financial corporations' debt-servicing capacity. The ratio of interest payments to operating surplus is merely just over 3%, compared with fully 20% at the beginning of 2009.

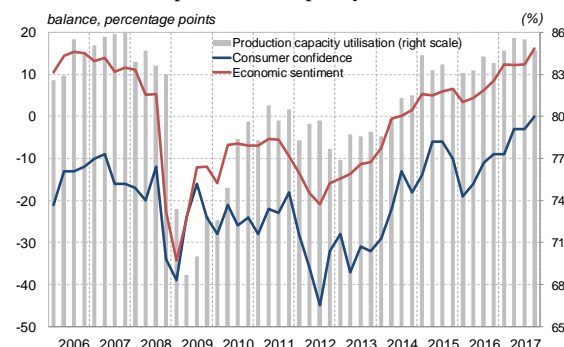
Figure 2.45: Non-financial corporations' operating surplus, saving, investment and net position



Note: The data in the right figure is seasonally adjusted. The latest data for the economic sentiment and consumer confidence indicators is for November 2017.

Source: SURS

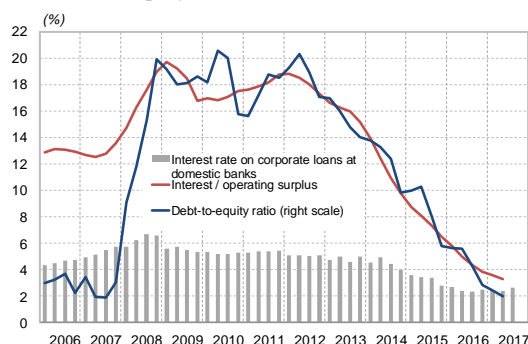
Figure 2.46: Economic sentiment, consumer confidence and production capacity utilisation



Growth in loans to the corporate sector is forecast to continue, although the structure of future corporate financing is uncertain at this moment. Non-financial corporations remain net creditors of other institutional sectors, although the sectoral breakdown of the credit position has changed. Current funding of the domestic banking sector has come to an end, as growth in deposits is slowing and growth in corporate lending at Slovenian banks is increasing. Non-financial corporations have also become net financiers of the rest of the world, primarily as a result of a reduction in foreign financing. Non-financial corporations notably increased their net liabilities to the rest of the world in the form of equity in the first half of 2017, and at the same time increased their net claims in the form of trade credits. Non-financial corporations are expected to increase their financing via domestic banks over the next three years. However, the forecast of growth in future demand for loans is uncertain, as non-financial corporations still have around EUR 1 billion of surplus funds at their disposal. Non-financial corporations' annual operating surplus has increased by 10% since 2008, and saving is up a quarter, while investment has declined by just over a third. This saving-investment policy has allowed non-financial corporations to use the current surplus to pay down debt and also to increase savings in the form of bank deposits, despite the extremely low or even negative interest rates. The proportion of Slovenian non-financial corporations' financial assets accounted for by deposits is high at 15%, 4 percentage points more than the average across the euro area.

⁶ Macroeconomic Forecast for Slovenia, December 2017.

Figure 2.47: Ratio of interest payments to operating surplus, interest rate on corporate loans at domestic banks, and corporate liabilities-to-equity ratio

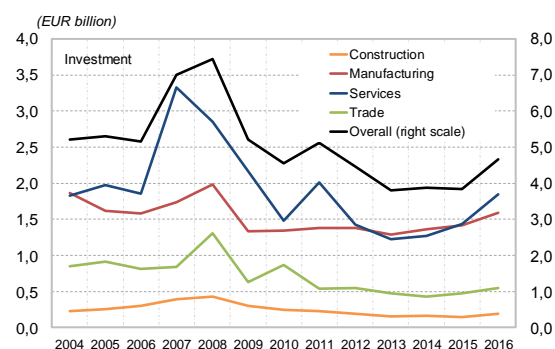


Source: Bank of Slovenia

After the crisis non-financial corporations saw a profound improvement in the ratio of profit to investment, with a low level of investment and a rise in EBIT. The aggregate ratio recorded its pre-crisis peak of 47% in 2007, before declining to 40% in 2009 and then rising to 80% in 2016. Evidence that non-financial corporations began using investment more efficiently during the crisis comes from the fact that Slovenian non-financial corporations' nominal value-added has already surpassed its level of 2008, while this is not the case of investment.

Construction's relatively low proportion of value-added can cloud its importance to economic activity in the country. Construction is closely linked to other sectors and is extremely cyclical. It is therefore important for government construction investment to function counter-cyclically. Year-on-year growth in value-added in construction reached 10% in the third quarter of 2017, and is expected to increase further in light of the growth in real estate prices and the surplus demand on the real estate market. Construction accounts for around 5.4% of value-added. The figure was 3 percentage points higher in 2008, and construction was a major factor in economic growth.

Figure 2.49: Non-financial corporations' investment



Note: In the left figure investment is calculated from corporate closing accounts (source: AJPES) as the change in property, plant and equipment between two successive years plus depreciation.

Sources: SURS, AJPES

Figure 2.48: Annual sum of non-financial corporations' net transactions with individual institutional sectors

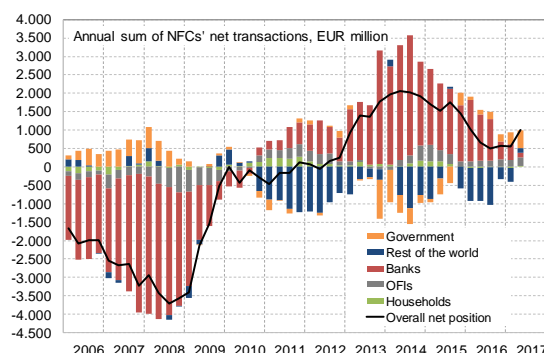
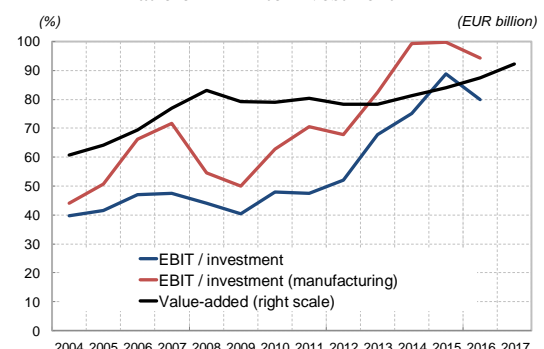


Figure 2.50: Non-financial corporations' value-added and ratio of EBIT to investment



Structure of corporate financing

At the end of June 2017, non-financial corporations had the same level of equity as debt, which meant that leverage reached its level of 2005, i.e. in the period before the expansive growth in indebtedness. Non-financial corporations' equity increased by almost 5% in the first half of 2017, while financial debt continued to decline, albeit to a lesser extent. The ratio of non-financial corporations' financial debt to GDP declined to 95%. Taking account solely of loans and debt securities, non-financial corporations' financial debt is equal to 60% of GDP, compared with the euro area average of 104%. Slovenian non-financial corporations are less indebted relative to GDP than non-financial corporations in other euro area countries, but in terms of leverage or debt-to-equity they are in the middle of the euro area countries. Financial reporting data also suggests that non-financial corporations' excessive debt has declined to its pre-crisis level from the period before 2007.⁷

Figure 2.51: Non-financial corporations' debt-to-equity ratio

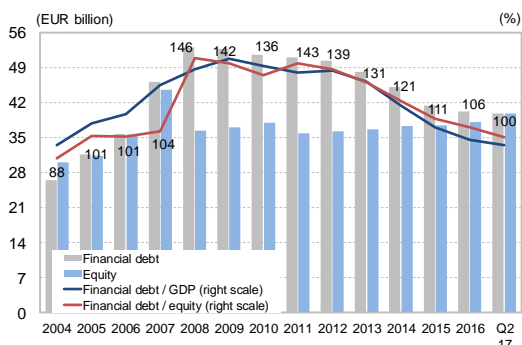
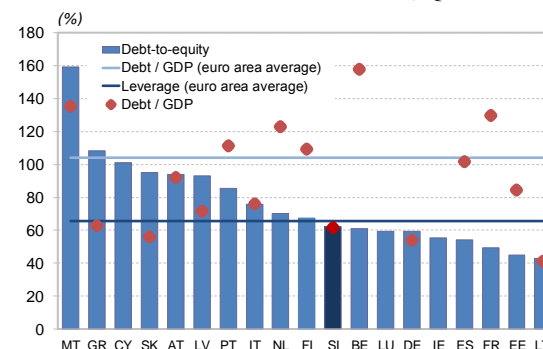


Figure 2.52: International comparison of corporate indebtedness in the euro area, Q1 2017



Note: In the left figure debt means a firm's total financial liabilities excluding equity. In the right figure, where a comparison is made with the euro area, financial debt solely includes loans and debt securities. The figures for the ratio of financial debt to GDP for Cyprus, Luxembourg and Ireland lie outside the scale of the graph.

Source: Bank of Slovenia

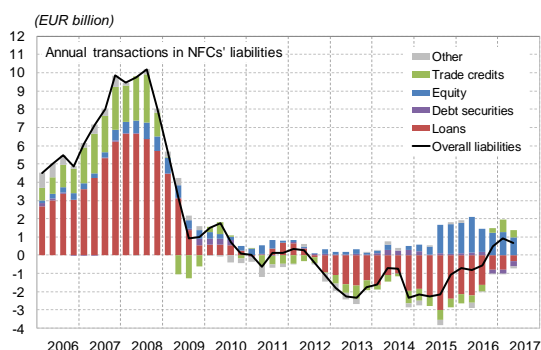
To maintain the existing level of leverage, non-financial corporations will have to provide for an adequate increase in equity while increasing their indebtedness. Another contribution will come from the asset price growth encouraged by economic growth, which is subject to cyclical developments. It is important that the increase in equity results from transactions and not only from revaluations.⁸ Slovenian non-financial corporations have trailed non-financial corporations across the euro area in increasing their equity, and have only recorded significant increases in the last two years. In the 12 months to June 2017 Slovenian non-financial corporations increased their equity by almost EUR 1 billion from transactions, while reducing loans by EUR 0.3 billion. By reducing loans and increasing equity, which now account for 30% and 50% respectively of non-financial corporations' financial liabilities, Slovenian non-financial corporations have converged more on the financing structure of non-financial corporations across the euro area and also on the structure that they had before the crisis. Slovenian non-financial corporations hold less financing via bond issues and more via trade credits⁹ than non-financial corporations across the euro area. The proportion of non-financial corporations' financial liabilities accounted for by non-residents has increased since 2009, most notably in the form of loans and business-to-business lending, but also in the form of corporate equity. Investments at non-financial corporations under majority foreign ownership increased by 15% between 2013 and 2015, while investments at other non-financial corporations declined by 4%, as a result of firms switching from domestic to foreign ownership.

⁷ Excessive debt is calculated as the sum of net financial debt (financial liabilities minus cash and cash equivalents) at firms where the net financial debt is more than five times EBITDA (taking account solely of the excess over five times EBITDA) and the debt of firms that are loss-making or are not disclosing a profit.

⁸ That is not only through the revaluation of equity, which is subject to cyclical developments, but also through an increase in capital inflows to non-financial corporations.

⁹ Trade credits and advances relating to financial claims linked to the provision of goods or services that have not yet been paid; trade credits acquired by factoring companies unless treated as a loan; rents for buildings charged in a specific period and past-due payments for goods and services that are not in the form of a loan.

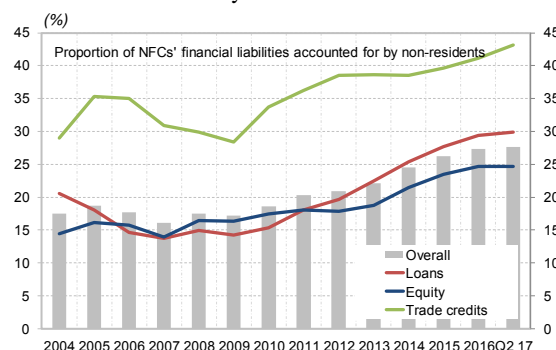
Figure 2.53: Non-financial corporations' moving annual flows of financial liabilities by instrument



Note: Total corporate loans include, in addition to loans from the rest of the world and loans from domestic banks, loans from the general government sector, loans from other financial institutions (leasing companies), business-to-business loans and loans from households. DS: debt securities.

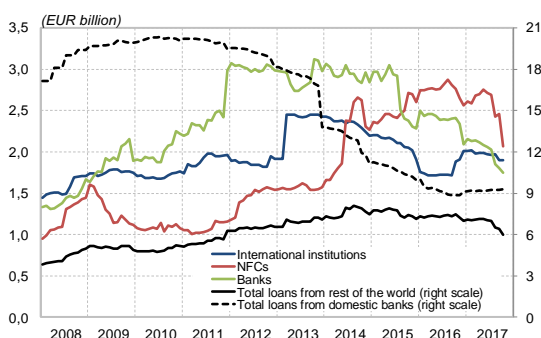
Source: Bank of Slovenia

Figure 2.54: Proportion of non-financial corporations' financial liabilities accounted for by non-residents by instrument



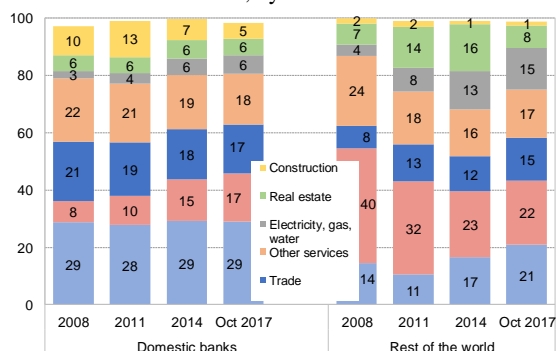
Non-financial corporations are reducing their indebtedness in the rest of the world, and increasing their indebtedness at domestic banks. There was a decline in business-to-business financing from the rest of the world in the second half of 2017, while the decline in loans by foreign banks that began in 2015 is continuing. The proportion of corporate loans from the rest of the world accounted for by large enterprises has increased since 2008, by 12 percentage points to 80%. At the time of the credit crunch they were more effective than SMEs in at least partly compensating for the loss of domestic financing with loans from the rest of the world. Firms with foreign ownership links and export-oriented firms in the sectors of manufacturing, trade, and electricity, gas and water are particularly prominent here. The proportion of loans from the rest of the world accounted for by the transportation and storage sector is declining, while the proportion of loans from domestic banks that it accounts for has increased at the same time. Since 2008 domestic banks have also reduced the proportion of loans accounted for by their exposure to the construction sector. The largest increases at domestic banks over the first three quarters of 2017 were recorded by loans to the sectors of construction (8%) and accommodation and food service activities (20%). Loans to the manufacturing sector increased by 4%. During the period in question banks focused primarily on SMEs, loans to which increased by 5%, while there was no significant change in the stock of loans to large enterprises.

Figure 2.55: Loans to non-financial corporations from the rest of the world by sector and loans raised with domestic banks



Source: Bank of Slovenia

Figure 2.56: Breakdown of corporate loans at domestic banks and corporate loans raised in the rest of the world, by sector



3 RISKS IN THE BANKING SECTOR

There was no significant change in the risks in the banking system in the second half of 2017 compared with the first half of the year. For banks, maintaining adequate profitability remains a challenge in the low interest rate environment. Growth in lending is already pointing to a favourable impact on profitability, while the decline in average yields on securities in the banks' portfolios is significantly reducing interest income from this segment of assets. Further growth in lending will entail increased pressure on capital adequacy via an increase in capital requirements. The banks will only maintain capital adequacy by generating regulatory capital from earnings, which are under pressure from the still-declining net interest margin. The maturity mismatch is increasing as a result of the further shortening of funding maturities and the lengthening of investment maturities, and is requiring the banks to undertake adequate liquidity management. Interest rate risk is further increasing (autonomously) at the banks, owing to the increase in new long-term loans with a fixed interest rate.

Systemic risk	Risk assessment			Trend in risk	Comment
	in Q2 2017	in Q3 2017	in Q4 2017		
Macroeconomic risk				→	Macroeconomic risks are assessed as low and balanced. The economic situation is favourable, while the situation on the labour market and the public finance situation are improving. The largest risk to continued growth comes from the external environment.
Credit risk				↓	Credit risk declined further in the final quarter. NPEs and the NPE ratio are declining, while coverage by impairments increased. Additional sales of non-performing portfolio have been announced, and economic growth is expected to have a favourable impact on the autonomous improvement of the credit portfolio.
Real estate market				↑	With the number of transactions on the real estate market at record high levels, growth in residential real estate prices remains high. Given the positive expectations and the increasing gap between supply and demand, price growth can also be expected in the future. There are no signs of any increased risks in the banking sector for now, although further growth in prices could lead to a price bubble and increased risks.
Refinancing risk				→	The additional shortening of the average maturity of deposits by the non-banking sector is reducing the stability of bank funding. At the same time the maintenance of high primary and secondary liquidity and the open possibility of additional funding with the Eurosystem are reducing the risks inherent in maturity mismatch between funding and investments.
Interest rate risk				↑	After increasing in the first half of the year, the repricing gap between interest-sensitive asset and liability items under the IRRBB approach stabilised in the third quarter. Given the continuing growth in long-term fixed-rate lending, there is a probability of a further increase in interest rate risk.
Contagion risk and large exposures				→	Contagion risk remains at a relatively low level. The ratio of large exposures to capital is slightly elevated, as is the concentration of investments in government securities, which nevertheless did not exceed the (average or final) level seen in 2016.
Solvency risk				↑	Capital adequacy is declining slightly as a result of faster growth in capital requirements than in regulatory capital. It remains at a relatively high level, despite the decline. In the wake of the further strengthening of lending and thus growth in capital requirements, downward pressure on capital adequacy can be expected in the future if the banks fail to appropriately adjust the amount of capital.
Income risk				→	The low interest rate environment is continuing to put pressure on the banks' profitability, and is maintaining income risk at a relatively high level. The maturing of high-yielding securities is additionally reducing interest income, while the growth in lending to the non-banking sector heralds a change in interest income from loans. The release of impairments and provisions is still having a favourable impact on profit, but this effect is temporary.
Leasing companies				→	The positive trend in new business is continuing, particularly in equipment leasing, which is bringing an increase in stock and profitability. A decline in finance expenses from impairments and write-offs is also having a favourable impact on profitability.

Source: Bank of Slovenia

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3.1 Banking system's balance sheet and investments

There was no significant change in Slovenian banks' investment structure in 2017, despite the revival in lending. The proportion of total assets accounted for by loans, which is at its long-term average,¹⁰ increased slightly in 2017. The banks nevertheless retain a large proportion of their investments in the most liquid and secure forms of asset. The funding structure has also stabilised at the banks in recent years. The banks are primarily funded by domestic non-banking resources in the form of deposits.

Lending to the non-banking sector gradually increased throughout 2017, which in terms of stock and pace was largely attributable to household loans. Corporate lending has been increasing since the end of 2016. The reversal in corporate lending was primarily evident in loans to SMEs, which has coincided with economic growth and strong export activity. The expectations of further credit growth need to take into account that firms are increasingly financing themselves from earnings, and also hold relatively large assets

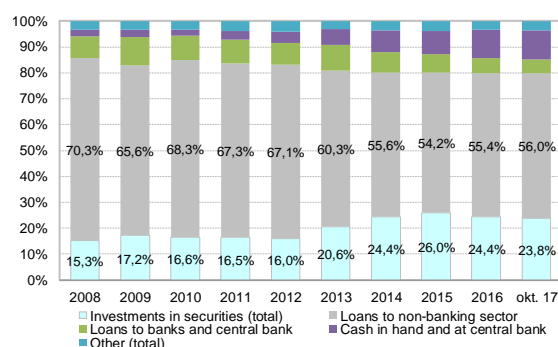
¹⁰ The long-term average (loans on bank balance sheets in this case) is taken over the period of 1996 to October 2017, unless stated otherwise.

in the form of bank deposits. Demand for loans, particularly for investment and for current operations, is increasing, while firms' expectations of more favourable financing conditions and laxer collateral terms are also increasing.

Changes in the stock and structure of balance sheet items

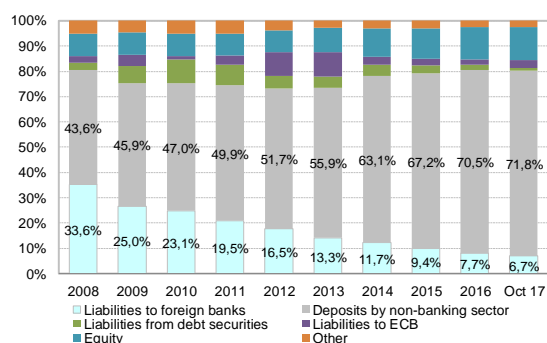
The banking system's funding structure has stabilised in recent years. The proportion of funding accounted for by deposits by the non-banking sector is above its long-term average.¹¹ The vast majority of banks are primarily funding themselves via deposits by the non-banking sector. The banks directed the increase in deposits by the non-banking sector into an increase in loans of roughly the same size in 2017. They were able to fund the net increase in loans by increasing deposits. The banks are also maintaining a solid level of equity on the funding side; following the recapitalisations several years ago, the banks also maintain high level of capital by increasing profits. The proportion of total liabilities accounted for by wholesale funding declined sharply in previous years.¹²

Figure 3.1: Breakdown of bank investments



Source: Bank of Slovenia

Figure 3.2: Breakdown of bank funding



Bank investments

Despite their relatively high growth, the proportion of total assets accounted for by loans to the non-banking sector increased only slightly in 2017, reaching 56% in October, comparable to its long-term average. The difference between household loans and loans to non-financial corporations widened further during the year. The stock of household loans has exceeded the stock of loans to non-financial corporations since the final quarter of 2015.¹³

The banking system's investments in securities declined in 2017. The breakdown of the securities is gradually changing. The banks are changing the structure of their investments. The proportion of the banks' investments accounted for by securities stood at 24% at the end of October 2017, comparable to its long-term average. That the current figure is relatively high compared with the years before the bank recovery primarily remains a consequence of the recovery and the recapitalisation of the banks via securities.¹⁴ Debt securities account for the majority of the banks' investments in securities, among which the proportion accounted for by Slovenian government securities is declining, reaching 47% at the end of October 2017, compared with two-thirds at the end of December 2015. The proportions of debt securities accounted for by bank bonds and corporate bonds are increasing. The banks are partly replacing low-yielding government securities with higher-yielding bank securities and corporate securities. The proportion of debt securities accounted for by bank bonds has increased to close to 17%, while the proportion accounted for by bonds of non-financial corporations and other financial institutions stands at 8%.

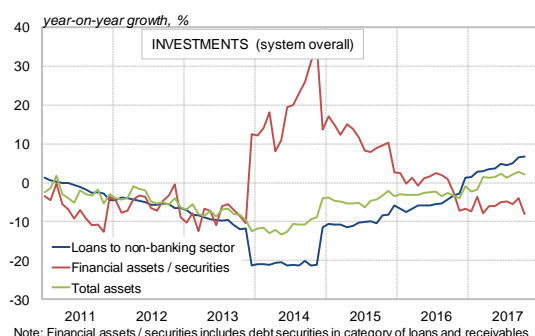
¹¹ The proportion accounted for by deposits by the non-banking sector is comparable to the figure from the early years of the millennium and before Slovenia joined the EU, and is 11 percentage points above its long-term average.

¹² Liabilities to foreign banks and funding via issued debt securities.

¹³ This ratio was significantly different in the past. For example, in the year that Slovenia joined the EU, i.e. before the period of several years of increased bank borrowing in the rest of the world, the ratio of loans to non-financial corporations to household loans was 2.5, and its long-term average is around 2, but it has been less than 1 for the last two years.

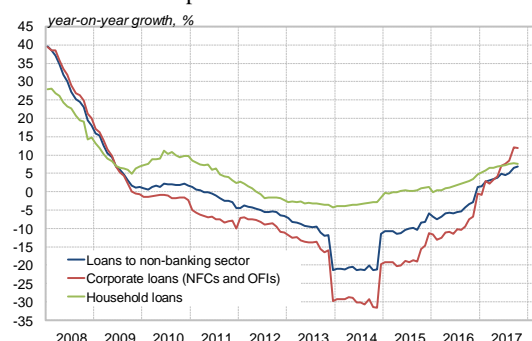
¹⁴ There have been other factors in this change: the rise in prices of Slovenian government securities and European sovereigns in recent years, the contraction in the banking system's total assets, etc.

Figure 3.3: Growth in main forms of bank investment



Source: Bank of Slovenia

Figure 3.4: Growth in loans to the non-banking sector, to corporates and to households

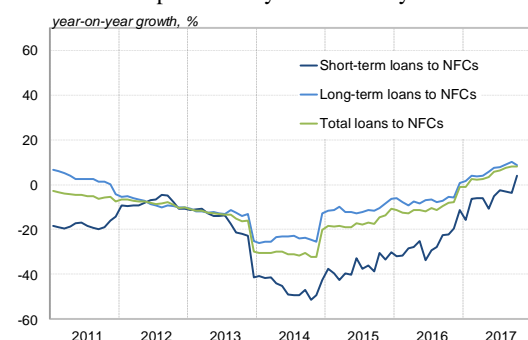


Growth in lending to the non-banking sector, which began in late 2016, strengthened further in 2017. The overall growth in loans to the non-banking sector is the result of increased growth in loans to all sectors other than the general government sector and the rest of the world. The increase in lending activity is mainly attributable to faster growth in lending to households and corporates.

Growth in lending to non-financial corporations has been positive since the beginning of 2017, and is increasing. The year-on-year rate gradually strengthened in 2017, which over the course of the year was partly attributable to a base effect.¹⁵ The increase in corporate lending is nevertheless the result of increased corporate demand, particularly from SMEs. Corporate lending can be expected to strengthen further over the upcoming period in the wake of further economic growth and high export activity.

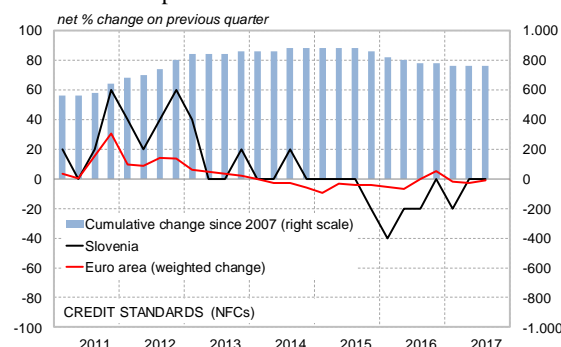
Having declined in 2016, Slovenian banks' credit standards for corporate loans remained relatively unchanged in 2017. According to the BLS, growth in corporate demand for loans has continued. The factors raising demand were the need to finance inventories and working capital, fixed capital formation, the general level of interest rates, and other financing needs (refinancing or debt restructuring). Demand for corporate loans continued growing in the third quarter of 2017. A significant factor that could limit the size of corporate demand for bank loans is the high stock of liquid assets that firms hold at banks, and the established model of corporate financing, which more than in the past is based on internal resources and on financing at parent companies in the rest of the world.

Figure 3.5: Growth in loans to non-financial corporations by loan maturity



Source: Bank of Slovenia

Figure 3.6: Credit standards for loans to non-financial corporations



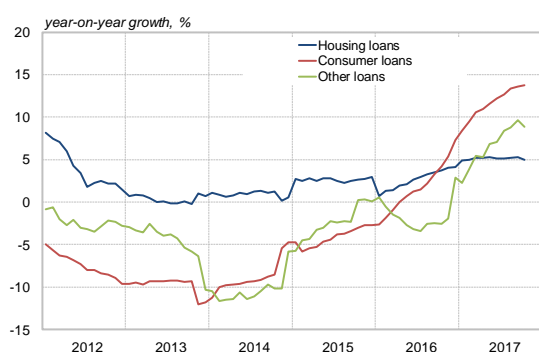
Household lending strengthened further in 2017, the year-on-year rate of growth reaching 7.5% by the end of October. The rising pace of lending is particularly evident in consumer loans, while growth in housing loans remains stable. There are relatively large variations in growth in consumer loans from bank to bank. Some banks are focusing more on lending of this type in their business policies. They are highly active in advertising consumer loans, and are using fast, simple approval procedures to encourage households to take them out. The increase in consumer lending is also the result of increased demand from households as a result of the good economic situation, the improvement in the situation on the labour market, and increased consumer confidence.

¹⁵ Corporate loans increased significantly in late 2016, as a result of several large individual loans. Another factor in the increase in year-on-year growth was the declining pace of corporate lending that lasted until November 2016 inclusive.

Despite the rapid growth in consumer loans, their stock in October 2017 was comparable to that seen ten years earlier, and was down around 20% on its average between 2008 and 2010. Consumer loans contracted for several consecutive years after the crisis. Positive growth resumed in April 2016, and the rapidly increasing rate has now surpassed other forms of household lending. The banks recorded approximately the same increase in the stock of consumer loans and housing loans over the first ten months of 2017. The stock of housing loans nevertheless far exceeds the stock of consumer loans, thanks to its positive growth over the entire period since the outbreak of the crisis. The ratio of housing loans to consumer loans stood at 2.6 in October, having been unity in 2007. Growth in housing loans remained stable in 2017, the year-on-year rate averaging just over 5.0% over the first ten months of the year. The solid growth in housing loans was the result of certain favourable factors, such as low interest rates, low household indebtedness and the revival of the real estate market.

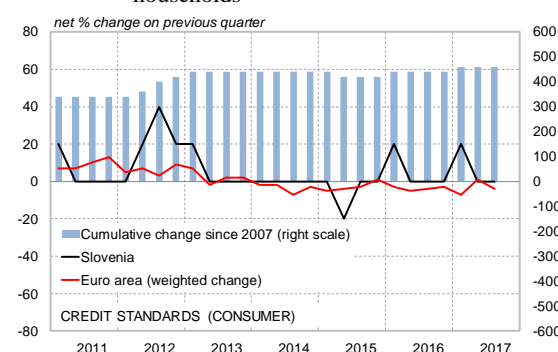
After being tightened in the first quarter, credit standards remained unchanged in the second and third quarters of 2017, for housing loans and consumer loans alike. Demand for housing loans in Slovenia increased again in the third quarter of 2017. The main factors in the increased demand were the positive outlook for the housing market, the increased consumer confidence and the low interest rates, while the main limiting factor was the use of other resources for housing financing, in particular households' own financing in the wake of the improvement in the situation on the labour market and rising disposable income.

Figure 3.7: Growth in household loans by loan type



Source: Bank of Slovenia

Figure 3.8: Credit standards for consumer loans to households



Long-term loans constitute the vast majority of bank loans. The proportion of bank loans accounted for by long-term loans is more than 90%. The largest figures are recorded by household loans (93%) and corporate loans (87%). By lengthening maturities the banks are trying to increase their interest income and to reduce the pressure placed on income generation by the low interest rate environment. The banks are primarily approving long-term consumer loans and housing loans for households. After a long period of negative rates, year-on-year growth in short-term corporate loans re-entered positive territory in October 2017, at 4%. By contrast, there is a large stock of corporate deposits at banks, sight deposits in particular, which is reducing the need for short-term lending.

Box 1: Demand for loans from non-financial corporations

Since 2015 there have been major changes in the structure of corporate demand for loans as reported by the banks in the Bank of Slovenia's annual survey. Overall corporate demand for loans declined slightly in 2016, and in the first half of 2017, similarly to all previous years.¹⁶ However, this finding only applies to overall aggregate demand. The breakdown by loan purpose reveals changes in the quality of the demand, as a result of the stable economic growth and the improvement in firms' financial positions.

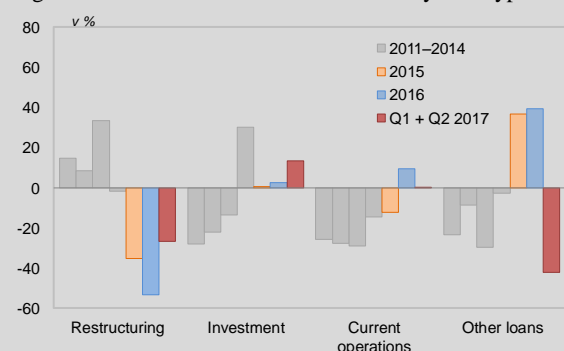
There was a decline in the absolute and relative levels of demand for loans for restructuring. In the period to 2013, the sharp deterioration in portfolio quality and firms' reduced access to bank financing meant that the only increase was in demand for loans for restructuring. Demand for loans of this type began declining sharply in 2015. The past restructuring of firms' non-performing debts at banks brought a significant reduction (together with other measures to address the non-performing portfolio) in the stock of

¹⁶ The survey results differ from the results of the ECB's quarterly survey of lending and credit standards (the Bank Lending Survey), which suggests that corporate demand at Slovenian banks has been increasing since 2014. More on the likely reasons for the differences between the surveys can be found in the Financial Stability Review of December 2016, under the box with the same title.

non-performing loans eligible¹⁷ for restructuring. At the same time the need for restructuring of loans was also reduced by the decline in corporate indebtedness and an improvement in firms' financial strength. The proportion of demand at banks accounted for by restructuring had declined from a peak of 23.8% in 2013 to 6.3% by the first half of 2017.

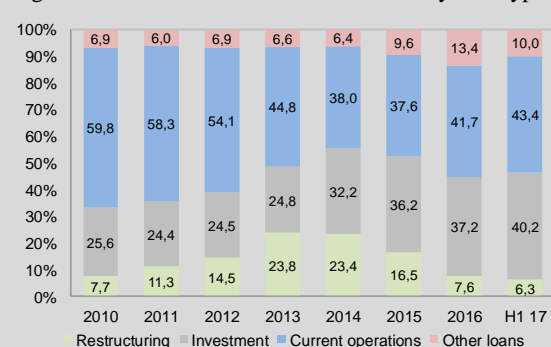
Compared with previous years there was an increase in demand for loans for investment purposes, and also in loans for current operations in 2017. Loans for investment purposes accounted for an average of 25% of total demand between 2010 and 2013, but the figure had increased to 40% by the first half of 2017. The banks are also seeing increasing demand for the refinancing of existing loans, with the replacement of contractual terms with more favourable terms, particularly lower interest rates and longer repayment periods. The funds released in this way are to be redirected by firms into investment, at least partly. Demand for refinancing is also increasing because of firms' efforts to consolidate financial debt through exposure to a smaller number of banks.

Figure 3.9: Growth in demand for loans by loan type



Source: Bank of Slovenia

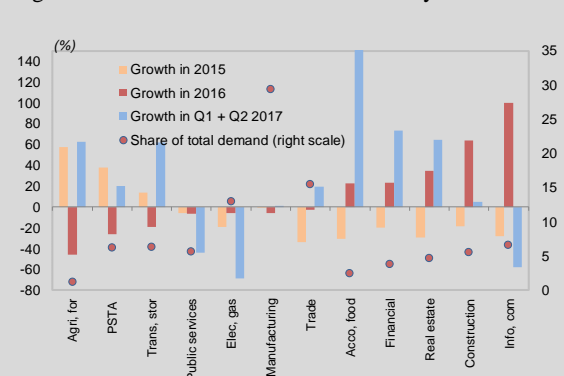
Figure 3.10: Structure of demand for loans by loan type



Growth in demand for loans strengthened in 2017 in the majority of sectors. Demand increased in six (of the twelve) sectors in 2016, which together accounted for 23% of total demand from non-financial corporations; in the first half of 2017 the number of sectors with increasing demand rose to nine, and they accounted for 75% of total demand. The largest factor in the increase was manufacturing, which saw an overall decline in demand in 2016, which came to an end in 2017.

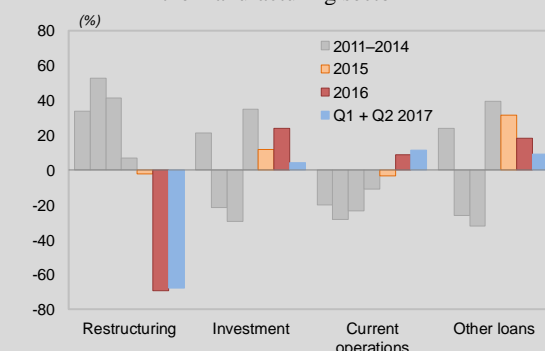
The change in the structure of demand was more pronounced in the manufacturing sector than in the corporate sector overall. Demand for loans for restructuring declined at year-on-year rates of around 70% in 2016 and 2017; loans for restructuring accounted for 26.5% of total demand from the manufacturing sector in 2013 and 2014, but just 3.5% in the first half of 2017. Demand for other types of loan began strengthening in the manufacturing sector earlier and more sharply than in other sectors.

Figure 3.11: Growth in demand for loans by sector



Source: Bank of Slovenia

Figure 3.12: Growth in demand for loans by loan type in the manufacturing sector

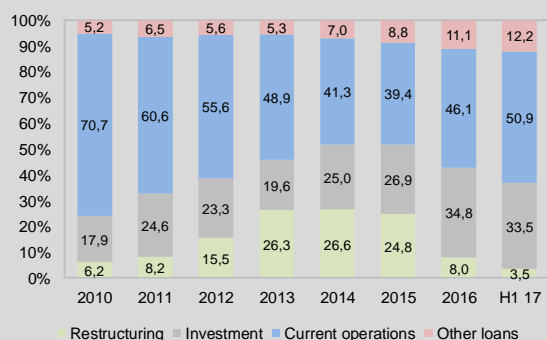


Alongside manufacturing, the largest increases in demand for loans for investment purposes were recorded by construction and real estate activities. The proportion of demand accounted for the two

¹⁷ Claims more than 90 days in arrears accounted for 57% of claims against firms in bankruptcy in September, compared with 35% at the end of 2013. The figure has been increasing as a result of the slower resolution of this segment of the non-performing portfolio.

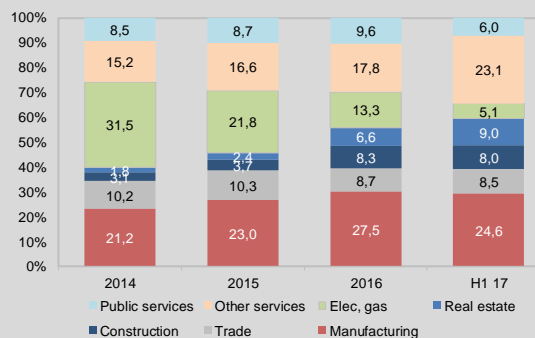
aforementioned sectors increased from 5% in 2014 to 17% in the first half of 2017. There was a sharp increase in demand for loans for investment purposes in services in the first half of 2017. The electricity, gas and water sector, which in the past accounted for just under a third of the demand for loans for investment purposes, saw its proportion decline to just 5.1%, although the sector's large fluctuations at individual banks were partly conditioned by the submission of loan requests at multiple banks. Accommodation and food service activities is notable for its high growth in demand for loans of all types, but it accounts for a relatively low proportion of total corporate demand.

Figure 3.13: Breakdown of demand for loans by loan type in the manufacturing sector



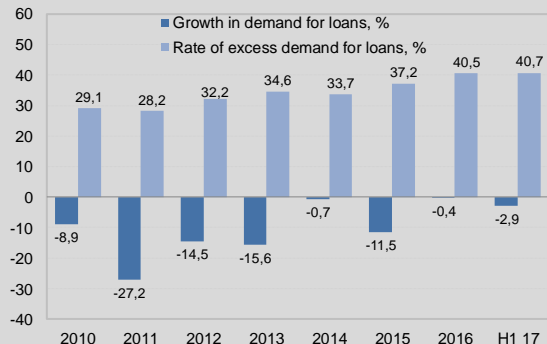
Source: Bank of Slovenia

Figure 3.14: Breakdown of demand for loans for investment purposes by sector



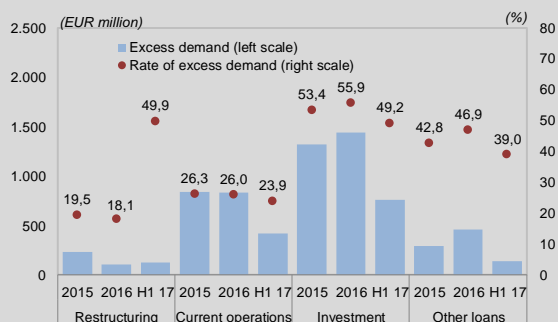
The rate of excess demand exceeded 40% in 2016 and the first half of 2017. Even as the aggregate rate increased in the first half of the year, there was a significant decline in the rate of excess demand for loans of all types other than loans for restructuring. The result is in line with the increased amount of corporate lending in 2017.¹⁸

Figure 3.15: Growth in demand and excess demand



Source: Bank of Slovenia

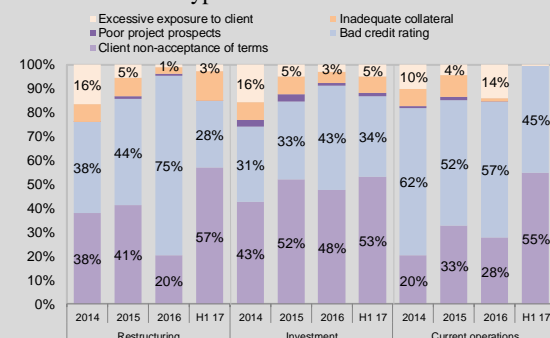
Figure 3.16: Excess demand by loan type



Excess demand remains largest for loans for investment purposes. In 2016 more than half of the demand (56%) did not end with the conclusion of a loan agreement; the figure declined to 49% in the first half of 2017. The banks mostly cite the client's non-acceptance of terms as the reason for the failure to conclude a loan agreement for loans for investment purposes. This is the most prevalent reason in manufacturing, transportation and storage, and public services, while the main reason in the sectors with the largest growth in demand for investment in 2016, namely construction and real estate activities, is poor client credit assessment. The banks also state that firms' expectations of lower interest rates and less lax collateral standards are increasing sharply.

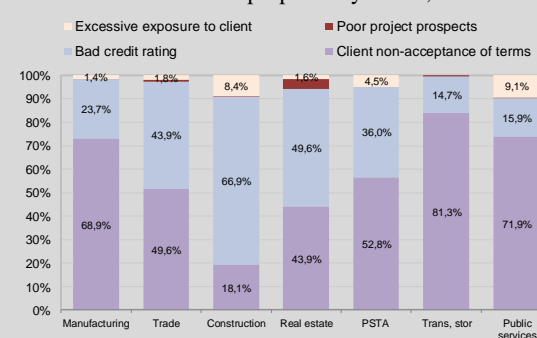
¹⁸ Surveys in previous years regularly revealed an increase in the rate of excess demand in the first half of the year, which always declined slightly by the end of the year. The increase in the half-yearly figure was therefore attributed to a seasonal effect.

Figure 3.17: Breakdown of reasons for loan refusal by loan type



Source: Bank of Slovenia

Figure 3.18: Breakdown of reasons for refusal of loans for investment purposes by sector, 2016



3.2 Credit risk

Summary

The banks continued to take an active approach to the resolution of non-performing claims in 2017. This was reflected in a decline in the proportion of claims more than 90 days in arrears from 5.4% to 4.6%, and a decline in the NPE ratio from 8.5% to 6.9%. The banks took a more focused approach to resolving non-financial corporations' non-performing claims, for example via MRAs, the sale of portfolio, transfer to the BAMC and write-offs. Recently the economic recovery has been reflected in increased loan repayments. Further evidence of the improvement in the corporate credit portfolio comes from the transition matrices on the basis of the number of firms transitioning between rating grades. There is an increase in upgradings. The improvement in the credit portfolio is also evidenced in the default rate, which has declined sharply since the beginning of the recovery of the banking system, and is indicative of the reduced inflow in new non-performing claims. In the corporate sector the most notable sectors in terms of the stock of NPEs are manufacturing, wholesale and retail trade, real estate activities and construction. There is also a higher presence of firms in bankruptcy in these sectors. The banks have increased coverage of claims more than 90 days in arrears by impairments and provisions since the outbreak of the financial crisis, and are also increasing coverage of unimpaired claims more than 90 days in arrears by capital.

Quality of the credit portfolio

The review of the quality of the banking system's credit portfolio encompasses claims more than 90 days in arrears and also non-performing exposures (NPEs) according to the EBA definition.¹⁹ The trend of improvement in the credit portfolio according to both approaches continued throughout 2017. There was an evident increase in classified claims and exposure over the first ten months of the year according to both definitions, and a decline in the stock of claims more than 90 days in arrears or NPEs. This was reflected in a decline in the proportion of claims more than 90 days in arrears from 5.4% to 4.6%, and a decline in the NPE ratio from 8.5% to 6.9%, both between December 2016 and October 2017. A narrower indicator of portfolio quality, the stock of non-performing loans stood at EUR 2.7 billion in October, or 9.8% of total loan stock.

¹⁹ Alongside financial assets measured at amortised cost and risk-bearing off-balance-sheet commitments, they also include available-for-sale financial assets, financial assets designated at fair value, and approved undrawn loans. At the same time, in addition to claims more than 90 days in arrears, NPEs also include exposures meeting the unlikely to pay criterion, which include forbore exposures. The difference between the two aforementioned approaches is in the volume of exposures whose portfolio quality is being analysed. Unless explicitly stated otherwise, in the FSR the EBA definition is illustrated on an individual basis, and not on a consolidated basis.

Figure 3.19: Stock and ratios of claims more than 90 days in arrears, NPEs and NPLs according to EBA definition

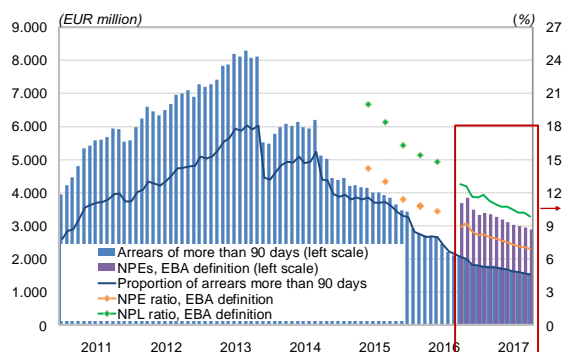
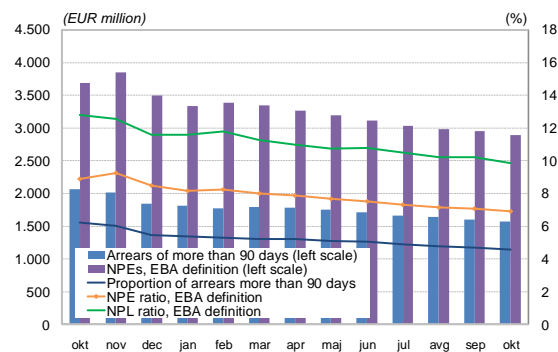


Figure 3.20: Stock and ratios of claims more than 90 days in arrears, NPEs and NPLs according to EBA definition



Source: Bank of Slovenia

The banks continued to take an active approach to the resolution of non-performing claims in 2017. Claims more than 90 days in arrears declined by an additional EUR 274 million over the first ten months of the year to EUR 1.6 billion, thereby taking the stock close to its level from before the outbreak of the crisis. The same trend of decline is evident in NPEs, in the context of the larger capture of exposed claims and the application of a soft factor in the form of unlikelihood to pay. The stock of NPEs declined by EUR 605 million over the first ten months of the year to reach EUR 2.9 billion. There are also positive trends in the successful resolution of clients with forbore exposures: in 2017 only a third of claims again fell more than 90 days in arrears, compared with a half as recently as 2015.

Figure 3.21: NPL ratio according to IMF definition by country

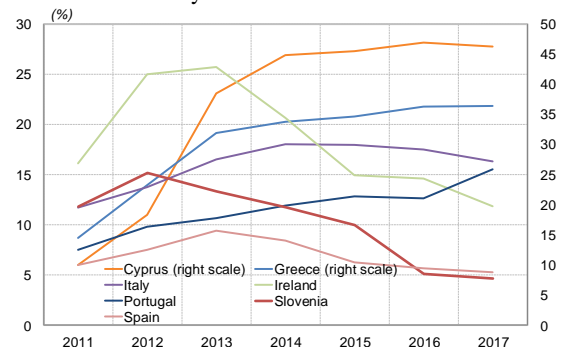
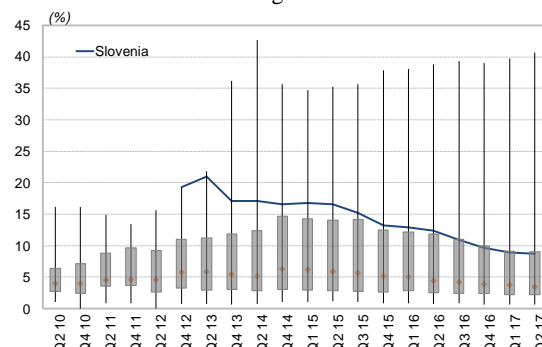


Figure 3.22: Distribution of NPE ratios in euro area, consolidated figures



Note: In the consolidated figures (right figure), only debt instruments are captured under NPEs.

Sources: IMF,²⁰ ECB (CBD),²¹ Bank of Slovenia

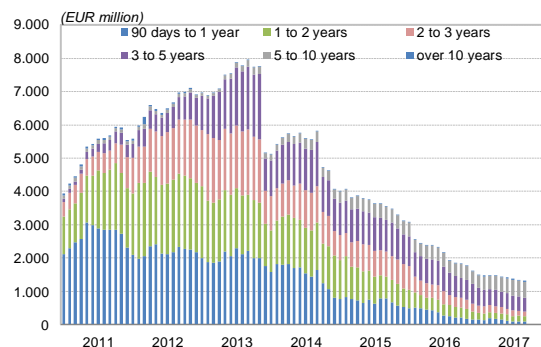
Of the euro area countries where the financial crisis was reflected in an increased proportion of non-performing claims, Slovenia has been one of the more successful countries in reducing the proportion of non-performing claims. The ECB data, which takes account of consolidated data for the Slovenian banking system, presents a worse picture for Slovenia compared with other euro area countries.²² The consolidated figures for Slovenia include subsidiaries in south-eastern Europe, where the economic recovery has been slower than in Slovenia. The distribution of the NPE ratio by country has narrowed since 2015, and is significantly more concentrated around an average of 8%, while the gap between the less- and more-problematic countries also narrowed. Greece and Cyprus are prominent in keeping the highest figure at 41%; without them the highest figure would be 13%. Greece is also the only euro area country that reported an increase in the NPE ratio.

²⁰ Data submitted by national supervisors. Loans or broadly defined claims more than 90 days in arrears are reported as NPLs. In addition, these include claims where the payment of interest over a 90-day timetable is added to the principal, claims being refinanced, and claims where the repayment deadline is extended. Claims that are not more than 90 days in arrears, but show soft signs of being non-performing according to the definition of the national supervisor, e.g. the initiation of bankruptcy, are also reported as NPLs. The euro area members as at 2015 (19 countries) are included in all periods of the illustration. The latest available figures for December 2017 are captured.

²¹ The latest available figures for the euro area are for the second quarter of 2017.

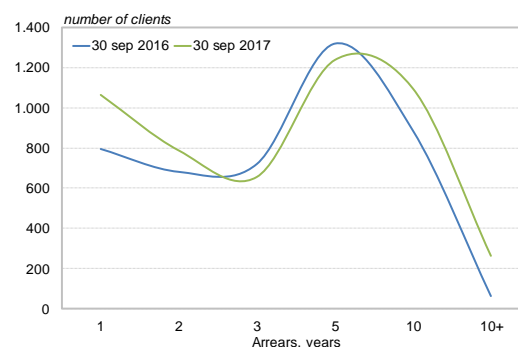
²² In international comparisons the EBA and other ECB bodies frequently illustrate Slovenia solely through its SSM banks (the three largest banks alone), which ranks it significantly higher on the list of euro area countries.

Figure 3.23: Stock of claims more than 90 days in arrears by length of arrears



Source: Bank of Slovenia

Figure 3.24: Breakdown of claims more than 90 days in arrears by length of arrears and number of clients



The banks' active approach to resolving the non-performing portfolio also changed the breakdown by length of remaining claims more than 90 days in arrears. The banks saw a fall in the number of clients whose claims are 3 to 10 years in arrears, while the number of clients whose claims are less than 1 year in arrears or more than 10 years in arrears rose.²³ Claims more than 10 years in arrears account for a negligible proportion of claims, but the stock of claims 5 to 10 years in arrears remains considerable. They accounted for 37% of claims in September 2017. The stock increased further in 2017. According to the Guidance to banks on non-performing loans of March 2017, banks are required to put in place an internal policy regarding the timely write-off of exposures and the provision of total coverage of exposures by allowances and provisions for credit risk losses. Even before the guidance was issued, the Bank of Slovenia put in place a framework for the faster derecognition of non-performing financial assets from the statement of financial position in the Regulation on the assessment of credit risk losses of banks and savings banks as part of its activities to reduce the banking system's non-performing. Pursuant to the aforementioned regulation, which on 1 January 2018 was replaced in a slightly modified form by the Regulation on credit risk management at banks and savings banks, non-performing financial assets, that the bank assessed as no longer to be repaid or that met the conditions for derecognition according to the IFRS, were derecognised from the statement of financial position even before the legal basis for the conclusion of recovery was obtained. Such exposure were included in the off-balance-sheet records in the amount owed until the legal basis for the conclusion of recovery was obtained. This already gave the banks the opportunity to more efficiently manage exposures to debtors with delay of several years.²³

As the segment with the heaviest burden of non-performing loans, the banks took a more organised approach to addressing non-financial corporations, for example via MRAs, the sale of portfolio, transfer to the BAMC and write-offs. Recently the economic recovery has been reflected in increased loan repayments. The corporate segment still accounted for the largest proportion of total claims more than 90 days in arrears and total NPEs. At the same time active firms have reduced their indebtedness over recent years to the pre-crisis level, and are recording lower default rates. The default rate declined from 20.9% in 2013 to 2.5% in the third quarter of 2017 for SMEs, and from 24.1% to 0.7% for large enterprises. In October 2017 some 6.2% of claims against non-financial corporations were more than 90 days in arrears, while the corresponding NPE ratio was 14.1%.

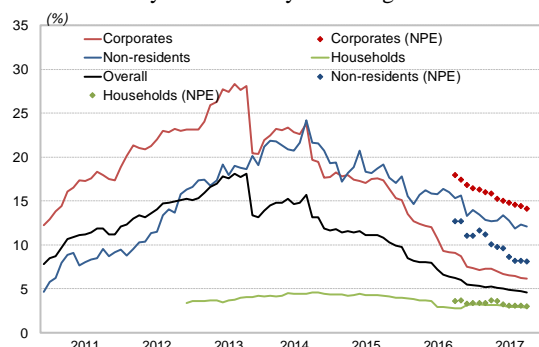
In the household segment, which was not significantly burdened by non-performing loans, the sale of part of the portfolio saw the proportion of claims more than 90 days in arrears and the NPE ratio decline to 2.8% and 3% respectively by October 2017. Another factor in the improvement in quality of this portfolio segment was the growth in household lending in 2017, which is increasing the denominator in the calculation of non-performing claims ratios, while the nominator is continuing to decline. Claims in arrears against non-residents have declined since the beginning of the recovery of the banking system, while

²³ Under Article 20 of the Regulation on the assessment of credit risk losses of banks and savings banks, a bank may assess the derecognition of financial assets when the following conditions are met:

- for an unsecured financial asset deriving from a loan agreement or an exercised contingency (guarantee, uncovered letter of credit, bill of exchange aval or other contingent off-balance-sheet liability), **if the debtor is more than one year in arrears with repayment;**
- for a financial asset deriving from a loan agreement or an exercised off-balance-sheet contingency secured by real estate collateral, **if the debtor is more than four years in arrears with repayment** and the bank has not received any repayment from the realisation of the real estate collateral during this period;
- for an unsecured financial asset deriving from a loan agreement or an exercised off-balance-sheet contingency, **if the debtor is already undergoing bankruptcy proceedings.**

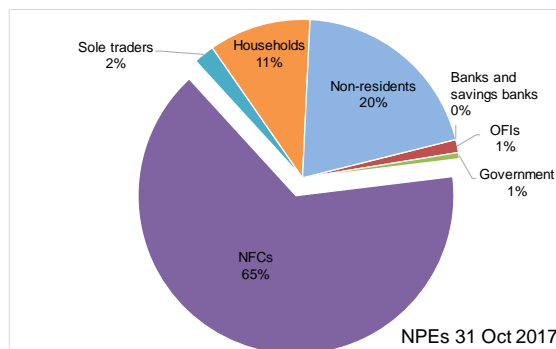
the proportion of total arrears that they account for has increased as larger reductions have occurred in other portfolio segments that were subject to organised resolution. The proportion of claims against non-residents in arrears more than 90 days stood at 12.1% in October, at its level of 2010, while the NPE ratio was slightly lower, at 8.1%.

Figure 3.25: Proportion of classified claims more than 90 days in arrears by client segment



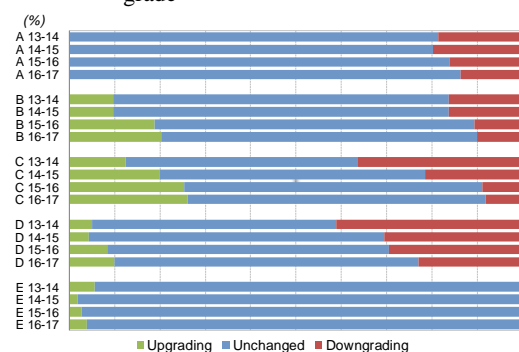
Source: Bank of Slovenia

Figure 3.26: Breakdown of NPEs by client segment



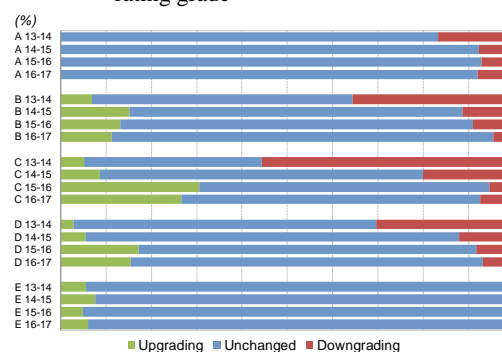
The improvement in the quality of the banking portfolio is evidenced in the transition matrices for non-financial corporations, which are the segment most heavily burdened with NPEs. The transition matrices are calculated separately for SMEs and large enterprises, on the basis of the number of transitions of firms between rating grades, whereby the dynamic over a 12-month period (September to September) is compared. Upgradings are seen in all four annual matrices for SMEs, most notably for clients rated B or C. The improvement in the credit portfolio is also evidenced in the default rate for SMEs, which has declined sharply since the beginning of the recovery of the banking system, and is indicative of the reduced inflow of new non-performing claims. An improvement in the matrices is also evident for large enterprises, although it has slowed slightly in the last year. The banks' focus on the recovery and resolution of the large enterprises portfolio has been reflected in a sharper-than-average decline in the default rate for large enterprises.

Figure 3.27: Breakdown of SMEs' transitions by rating grade



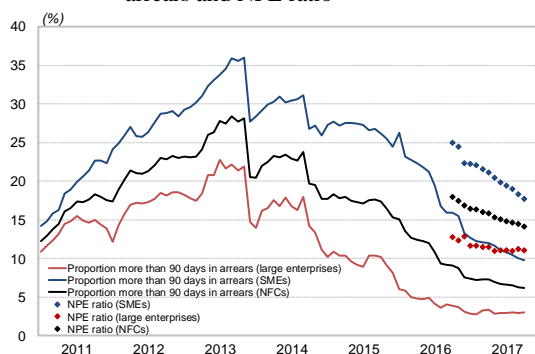
Source: Bank of Slovenia

Figure 3.28: Breakdown of large enterprises' transitions by rating grade



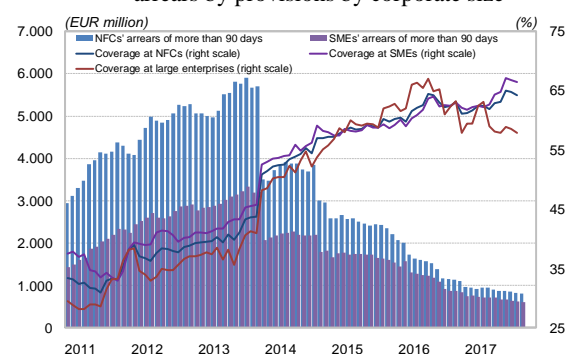
Despite the positive dynamic in upgradings, SMEs still recorded the highest proportion of claims more than 90 days in arrears and the highest NPE ratio in October 2017. The proportion of claims more than 90 days in arrears and the NPE ratio nevertheless declined throughout 2017. The proportion of claims more than 90 days in arrears had declined to 9.8% of classified claims by October 2017, and to 17.7% of exposure. Another source of improvement in the SMEs credit portfolio was the decline in the stock of classified claims against SMEs in bankruptcy, although the proportion of claims more than 90 days in arrears that they account for is increasing. In September 2017 half of the claims more than 90 days in arrears were against SMEs in bankruptcy. The decline in claims more than 90 days in arrears is being tracked by the decline in impairments and provisions, albeit not at the same pace, as coverage by impairments and provisions is increasing. Coverage by impairments and provisions is also increasing for SMEs.

Figure 3.29: Proportion of claims more than 90 days in arrears and NPE ratio



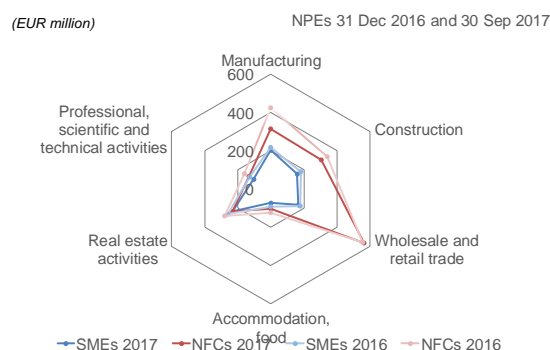
Source: Bank of Slovenia

Figure 3.30: Coverage of claims more than 90 days in arrears by provisions by corporate size



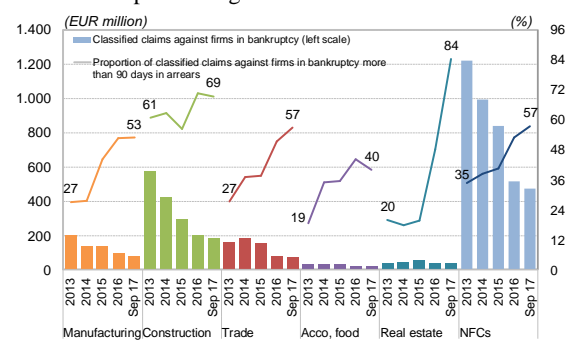
In the corporate segment the most notable sectors in terms of the absolute stock of NPEs are manufacturing, wholesale and retail trade, real estate activities and construction. There is also a higher presence of firms in bankruptcy in these sectors. The proportion accounted for by claims against firms in bankruptcy has been increasing in recent years, with the exception of accommodation and food service activities, although the stock of claims more than 90 days in arrears against such firms is declining. These claims are a burden on bank balance sheets, although their coverage by impairments and provisions is high (averaging 69%). This is a less-than-optimal business process from the perspective of costs to banks, but at the same time it raises the question of where the banks are still expecting repayments of claims to come from. Financial and insurance activities, real estate activities, construction, accommodation and food service activities, and wholesale and retail trade are notable for above-average²⁴ NPE ratios. Real estate activities is particularly notable for the high concentration of non-performing claims in NPEs, and SMEs account for all of the total stock of NPEs in the sector.

Figure 3.31: Stock of NPEs to SMEs and non-financial corporations by economic sector



Source: Bank of Slovenia

Figure 3.32: Stock and proportion of classified claims more than 90 days in arrears against non-financial corporations in bankruptcy proceedings



Coverage of non-performing claims by impairments and provisions, by capital and by collateral

The banks have increased coverage by impairments and provisions²⁵ since the outbreak of the financial crisis, and are also increasing coverage of unimpaired claims more than 90 days in arrears by capital. Despite a significant release of impairments and provisions, this has not been reflected in the coverage of claims more than 90 days in arrears. The decline of 23% in impairments since the end of 2016 was smaller than the decline in classified claims more than 90 days in arrears, which was reflected in an increase in coverage compared with previous years. Coverage of claims more than 90 days in arrears by impairments stood at 69% in September 2017. The decline in impairments is the result of the elimination of non-performing portfolio from bank balance sheets, the sale of non-performing portfolio to investors, write-offs, the repayment of non-performing claims and a positive trend in upgradings. Coverage of non-performing

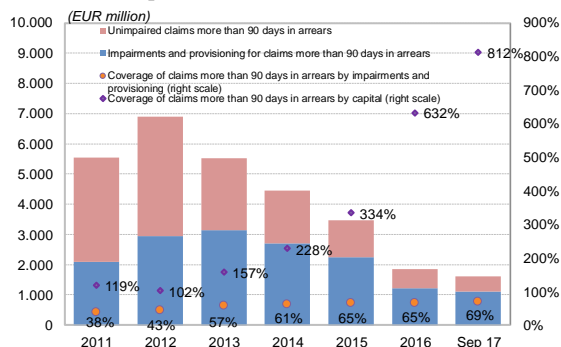
²⁴ Compared with the NPE ratio for non-financial corporations overall.

²⁵ The term "impairments" is used in this section to mean "impairments and provisions".

exposures by impairments according to the EBA definition also increased, reaching 58% in September. There is above-average coverage in the segments of non-residents and other financial institutions.

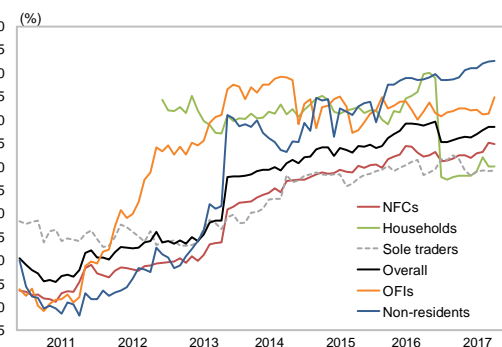
The corporate sector accounts for half of the impairments for claims more than 90 days in arrears. Impairments for claims against firms in bankruptcy account for 59% of total impairments for claims against the corporate sector. Coverage of claims in arrears against households, which was the highest among all client segments, reached its lowest level in September 2017, although this was a consequence of a change in reporting methodology since September 2016.

Figure 3.33: Coverage of claims more than 90 days in arrears by impairments and provisions and by capital



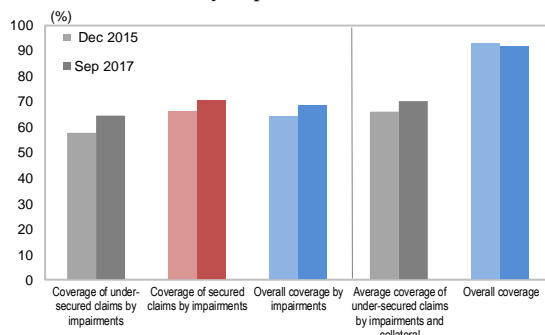
Source: Bank of Slovenia

Figure 3.34: Coverage by impairments and provisions by client segment



There was a significant increase in 2017 in the coverage of the unimpaired portion of claims more than 90 days in arrears by capital. This was partly attributable to an improvement in portfolio quality and an increase in coverage by impairments, and partly attributable, albeit to a lesser extent, to an increase in capital.

Figure 3.35: Coverage of claims more than 90 days in arrears by impairments and collateral



Source: Bank of Slovenia

The banks slightly reduced coverage of claims more than 90 days in arrears by impairments and collateral in 2017. Coverage by impairments and provisions increased for both categories of claims more than 90 days in arrears, secured and under-secured, in 2017.²⁶ It is slightly higher for secured claims, whereby the banks are creating a safety reserve in the event of revaluation or collateral liquidation that would not cover the entire claim. Coverage by impairments stood at 71% in this category in September 2017, while coverage by impairments and collateral is 100% by definition.²⁷ In the other category of claims more than 90 days in arrears, namely those that do not achieve full coverage by impairments and collateral, coverage by impairments stood at 65% in September 2017, while coverage by impairments and collateral together stood at 70%. Real estate, commercial real estate in particular, remains the most important form of asset pledged as collateral in terms of value, although the value of collateral of this type has also been declining since the first transfer of non-performing claims to the BAMC. Real estate collateral has recently been favoured by developments on the labour market, which are raising the value of real estate collateral but are

²⁶ The definition of secured claims covers claims where the total value of the collateral is equal to or higher than the amount of the secured claim after impairments (the net claim), while under-secured claims are those claims where the total amount of collateral fails to reach the exposure level of the net claim. The value of the collateral takes account of the reported fair value, excluding negative revaluations. Claims against households and certain other claims are not captured in full in the credit portfolio.

²⁷ See previous note.

simultaneously exposing the banks to increased credit risk in the case of understatement of the exposure to the client if real estate rapidly loses value.

Box 2: Review of developments in the area of non-performing exposures

In 2012 and 2013 non-performing exposures (NPEs) became the greatest challenge in credit risk management for the vast majority of Slovenian banks, as a result of both their nominal increase and the increase in the NPE ratio. Given the systemic risk to financial stability and its complexity, the area of NPEs demanded a response and action by the supervisor, namely the Bank of Slovenia. The Bank of Slovenia acted to address the issue comprehensively: in addition to banks, it invited the other relevant stakeholders, such as the Bank Association of Slovenia (BAS), government institutions and borrowers, to work together back in 2012. It also took action at the level of supervisory requirements for credit institutions.

The key systemic step in addressing the issue of NPEs at banks was made as part of the bank recovery in 2013/14. Legislation in the area of NPEs was also updated in 2013 (regulation of write-off of claims) in the wake of the recapitalisation of major banks and the transfer of claims to the BAMC. The Bank of Slovenia deepened communications with individual banks, and introduced supervisory measures and requirements targeting banks and their reporting in connection with NPEs. The supervisory requirements and Bank of Slovenia documents aimed at banks include the following (listed chronologically, by date of introduction):

- Bank of Slovenia requirements for regular reporting by banks on the implementation of master restructuring agreements (MRAs) (31 March 2014);
- Guidelines for creating impairments and provisions for exposures to restructured clients (23 December 2014);
- Bank of Slovenia requirements for preparing individual strategies and operating plans on the part of banks to reduce the stock of NPEs and the NPE ratio in individual loan portfolios (16 March 2015);
- Guidelines for the management of problem claims (22 May 2015);
- Guidelines for monitoring customers and early warning systems for increased credit risk (22 May 2015);
- Guidelines for the restructuring of micro, small and medium-size enterprises (issued by the BAS in conjunction with the Bank of Slovenia on 9 December 2015); and
- Handbook for Effective Management and Workout of MSME NPLs (31 March 2017).

NPEs have declined since the beginning of the recovery of the banking system as a result of transfers of non-performing claims to the BAMC, write-offs, sale of claims and actual repayment of claims. The **sale of non-performing claims** played a major role in the **SMEs segment**, alongside transfers of non-performing claims, **write-offs** and **actual repayments**.

The first major objective when a start was made on reducing the stock of NPEs was addressing the largest viable customers, which accounted for the banks' largest exposures in value terms. Stakeholders (primarily the banks coordinated by the BAS, borrowers and the Bank of Slovenia) identified master restructuring agreements (MRAs) based on the Slovenian principles of financial restructuring of debt in the corporate sector as the most suitable approach for resolving these "large" exposures.

NPEs in the MRA segment declined from EUR 1.2 billion²⁸ as at 31 December 2013 to EUR 1.0 billion as at 30 June 2017. The stock declined slightly more slowly than total NPEs, as they generally involve complex loan transactions with numerous stakeholders, both banks and corporate groups. MRAs consequently require more complicated treatment and lengthier procedures. The majority of MRAs were concluded in the period to 2015, when the stock of NPEs in the MRA segment peaked. Given that the majority of MRAs were concluded for a term of seven years, the processes have not yet been completed. Compared with the total stock of NPEs, the **stock of NPEs in the MRA segment declined primarily on account of actual repayments, and also as a result of the reclassification of clients to higher rating grades**, which assumes the successful completion of the financial or operational restructuring of the client. The latter is one of the main objectives of restructuring, as the banks want to retain the clients and improve their performance. In 2016 and the first half of 2017 the inflow of new NPEs into the MRA segment declined, while the total stock has also been gradually declining in this segment since the end of 2015. The success of MRAs is also evidenced in an improvement in the performance indicators of the firms involved.

²⁸ Here the aggregate of claims more than 90 days in arrears or rated D or E is used as an approximation of non-performing exposures according to the EBA definition.

In the current situation of renewed economic growth, the banks must also devote particular attention to new loans, as prudent and decisive action by banks in the loan approval process is a key prerequisite for preventing the uncontrolled creation of new NPEs, and thus a repetition of the mistakes from the past. The banks must ensure that adequate internal controls of loan approval procedures are put in place, and must ensure the consistent use of early warning systems (EWSs).

The Bank of Slovenia will continue its activities in the area of NPEs in the future. Within the framework of its regular supervisory activities, the Bank of Slovenia will continue monitoring and assessing the banks' strategies for managing NPEs, and the operational plans to reduce NPEs, and will conduct regular supervisory dialogue with the banks. The activities carried out by the ECB in the area of NPE management, which are largely related to the activities being carried out by the Bank of Slovenia, will also be of relevance to systemically important banks.

The area of NPEs was also highlighted in conclusions by the Council of the European Union published in July 2017. The Council welcomes the work undertaken to date by all stakeholders to successfully resolve the issue of NPEs, and simultaneously calls on them to carry out further activities at EU level and at national level to contribute to upgrading the infrastructure for managing NPEs. Within the framework of completing the banking union, the European Commission is to draw up the legislative basis for: (i) the functioning of bank asset management companies, (ii) the development of a secondary market for NPEs, (iii) enhanced protection of secured creditors, (iv) an upgrade of the insolvency regime, and (v) greater transparency in connection with NPEs. In November the European Commission published a targeted consultation on statutory prudential backstops for NPEs that aim to address insufficient provisioning for newly originated loans that turn non-performing for all EU banks in a more direct and standardised way. Numerous activities in connection with NPEs are also promised at the level of the EBA, the ECB and the ESRB, which are expected to draw up operational guidelines and guidance with regard to individual elements of NPE management, and to develop macroprudential tools to address systemic risks deriving from NPEs. All of this work, supported by activities in individual Member States, should help to reduce risk at banks, thereby increasing financial stability in the EU banking sector.

3.3 Income risk and interest sensitivity

Summary

Bank profitability continued to improve in 2017, for the third consecutive year. The banks recorded a pre-tax profit of EUR 418 million over the first ten months of the year, more than the profit recorded over the whole of the previous year. The solid profits were attributable to a decline in credit risk, and to the banks recording a net release of impairments and provisions at the level of the entire banking system. The banks' gross income declined over the aforementioned period, as a result of declines in net interest and in net non-interest income.

The decline in net interest income is continuing, but is slowing. The banks are increasing income through higher lending activity, but have not yet succeeded in compensating for the decline in interest income on securities that were higher-yielding in the past. The banks' net interest expenses have continued to decline, although the sharply reduced level of interest rates and the very high proportion of sight deposits mean that the banks can have diminishing expectations of any further favourable income effects.

The trend of decline in the net interest margin virtually came to an end in the autumn of 2017. As a result of the decline in net interest income and given the limited possibilities of improving cost-effectiveness, the banks are still exposed to relatively high income risk over the short term. However, certain factors could have a favourable impact in reducing income risk in the future: a) the improvement of the credit portfolio and the resulting very low impairment and provisioning costs, or even releases of impairments and provisions at certain banks, b) the increase in lending activity, and c) bank funding that is highly favourable in cost terms.

A renewed rise in interest rates will initially bring a deterioration in net interest income, primarily as a result of the increase in the proportion of longer-term loans with a fixed interest rate, which is lengthening the average repricing period on the asset side, and also in maturity mismatch between assets and liabilities. The final impact on the banks' net interest income will depend heavily on the pace of the pass-through of market rates into the banks' liability interest rates relative to asset interest rates. It will also be important how rapidly sight deposits are converted into fixed-term deposits. Rising interest rates and a wider maturity gap

will reduce the economic value of capital. The extent to which this happens depends primarily on the proportion of accounted loans that have a fixed interest rate and their average maturities.

Operating result and income risk

The banks recorded a pre-tax profit of EUR 418 million over the first ten months of 2017. Net interest income continued to decline, although the contraction slowed, reaching 4.1% by the end of October 2017. There was a decline in both interest income and interest expenses, the year-on-year contraction in both slowing. The proportion of the banks' gross income accounted for by net interest over the first ten months of the year stood at 59%, below the figure in previous years. The improvement in the quality of the credit portfolio, the resolution of non-performing loans and the improved economic environment are having a favourable impact on impairment and provisioning costs in the banking system. Certain large banks actually released impairments and provisions over the first ten months of the year. Operating costs were unchanged last year.

Table 3.1: Banking sector income statement, 2014, 2015, 2016, and January to October 2017

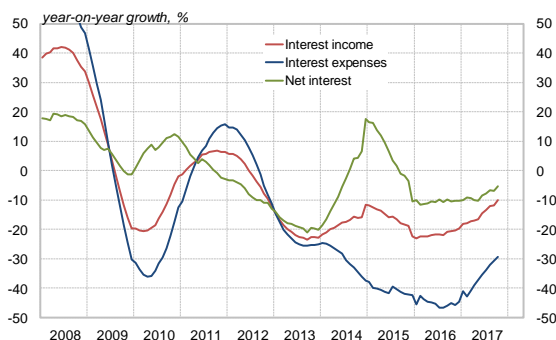
	Amount, EUR million				Growth, %				Ratio to gross income, %			
	2014	2015	2016	2017 (to Oct)	2014	2015	2016	2017 (to Oct)	2014	2015	2016	2017 (to Oct)
Net interest	832	746	670	538	17,5	-10,4	-10,1	-4,1	67,6	64,4	59,4	59,3
Non-interest income	399	412	457	369	4,1	3,3	11,0	-5,0	32,4	35,6	40,6	40,7
of which fees and commission	346	336	307	261	2,0	-3,0	-8,4	-0,1	28,1	29,0	27,3	28,8
of which trading gains/losses	7	-12	11	25	0,6	-1,0	1,0	2,8
Gross income	1231	1158	1127	907	12,8	-6,0	-2,6	-4,4	100	100	100	100
Operating costs	-687	-686	-667	-546	-4,7	-0,1	-2,7	0,2	-55,8	-59,3	-59,2	-60,3
labour costs	-367	-368	-371	-310	-4,6	0,5	0,7	2,4	-29,8	-31,8	-32,9	-34,2
Net income	544	472	460	360	47,0	-13,3	-2,5	-10,7	44,2	40,7	40,8	39,7
net impairments and provisioning	-650	-313	-96	57	-82,9	-51,8	-69,2	-238,5	-52,8	-27,1	-8,5	6,3
of which at amortised cost	-524	-222	-8	62	-81,9	-57,7	-96,5	-1000,3	-42,6	-19,2	-0,7	6,8
Pre-tax profit	-106	158	364	418	-96,9	249,2	129,7	15,4	-8,6	13,7	32,3	46,1
corporate income tax	-8	-43	-31	-29	-94,6	439,8	-27,4	-26,9	-0,6	-3,7	-2,8	-3,2
Net profit	-114	115	332	389	-96,8	201,1	188,3	20,6	-9,3	10,0	29,5	42,9

Note: The nominal amounts of cost categories in individual periods are disclosed with negative signs in the table. The positive sign in net impairments and provisions for the period of January to October 2017 represents a release of impairments and provisions.

Source: Bank of Slovenia

The gradual approach of positive territory by growth in net interest income is reducing income risk, although it remains high on account of other factors in income and expense components of the income statement. The banks' gradual increase in lending activity is again strengthening the income side of the income statement. The contraction in net interest income showed a gradual trend of improvement in 2017, but growth has not yet turned positive. The anticipated continuing increase in credit activity is contributing to a gradual decline in income risk, which remains high. However, income risk remains high in the wake of the simultaneous maturing of higher-yielding securities issued in the past, which in the current situation banks can only replace with lower-yielding securities. Given the already-diminished level of interest rates on deposits, and the large proportion of sight deposits, any further increase in sight deposits will only minimally reduce the banks' interest expenses.

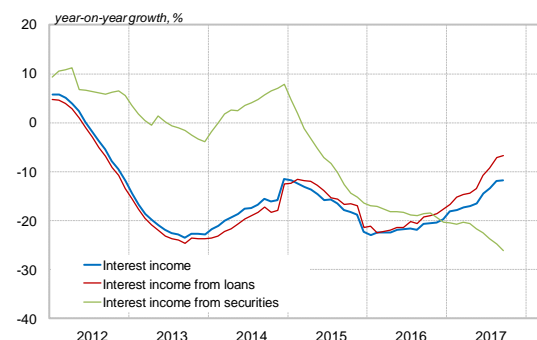
Figure 3.36: Interest income, interest expenses and net interest



Note: Year-on-year growth is calculated from the 12-month moving sums at each point.

Source: Bank of Slovenia

Figure 3.37: Types of interest income



Net interest margin and non-interest margin in the banking system

The decline in the net interest margin slowed in 2017 and came to an end in the autumn. The net interest margin on interest-bearing assets has shown a trend of decline over the last three years, which is now ending. It had declined to 1.91% by the end of 2016, 1.85% by June 2017 and 1.83% by October. The net interest margin is very similar across the individual bank groups. The net non-interest margin,²⁹ which reached very high values in 2016 as a result of one-off factors such as the realisation of capital gains and increased income from trading, declined to 1.18% for the first ten months of 2017, as the banks once again generated the majority of their non-interest income from net fees and commission, which is only gradually approaching positive growth.

Figure 3.38: Net interest margin and commission margin

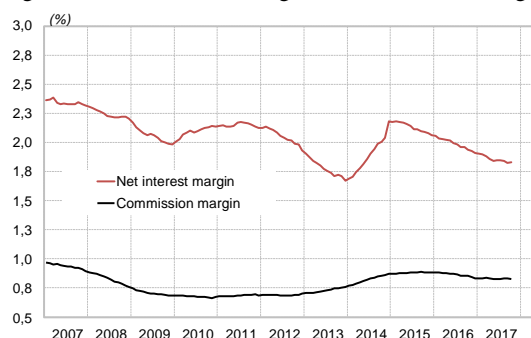
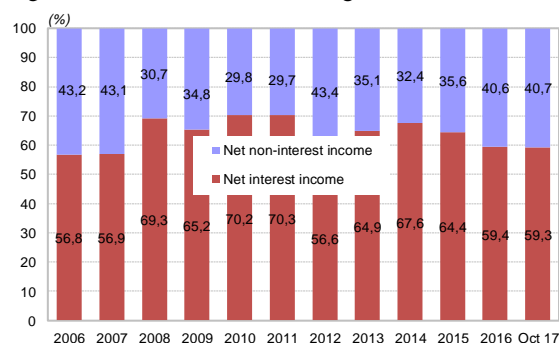


Figure 3.39: Breakdown of banks' gross income



Note: The net interest margin is calculated on average interest-bearing assets. In light of the relatively large fluctuation in non-interest income attributable to certain one-off developments in previous years, only the commission margin is illustrated, rather than the banks' overall financial intermediation margin. Fees and commissions are the most important component of the banks' non-interest income: for example, they accounted for more than 80% of all non-interest income in 2014 and 2015, 65% in 2016, and 70% over the first ten months of 2017.

Source: Bank of Slovenia

The contraction in net fees and commission, which is the most important component of net non-interest income, came to an end last year. Net fees and commission over the first ten months of 2017 was comparable to the same period of the previous year. Given the gradual increase in total assets and lending activity, and the recent introduction of numerous bank charges, non-interest income can be expected to gradually increase.

Quantity effects and price effect in the change in net interest income and the change in the net interest margin

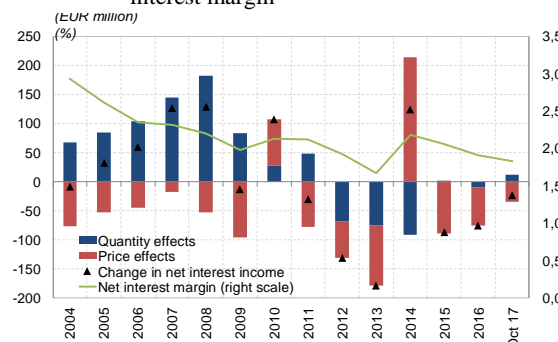
The banks' net interest income³⁰ has been declining for several consecutive years. The influence of price effects on the change in net interest income again prevailed over that of quantity effects, but the former is diminishing. The decline in interest income again exceeded the decline in interest expenses in absolute terms last year.³¹ While quantity effects prevailed over price effects in the past, particularly in the years of increased bank borrowing on wholesale markets in the rest of the world before the outbreak of the crisis, the reverse has been the case in recent years. Price effects prevailed over quantity effects between the outbreak of the financial crisis and the end of October 2017. At the same time the decline in net interest income has slowed. Recently price effects have still had a profound influence on the decline, but quantity effects are now acting to increase net interest income. This is primarily attributable to the effects of the increase in loans, which remain small for the moment. Currently only a further increase in lending activity can bring an end to the decline still seen in net interest income. Only via quantity effects can the banks re-establish and stabilise positive growth in net interest income.

²⁹ The overall financial intermediation margin is disclosed under the banks' net income.

³⁰ The decomposition of net interest income and the net interest margin is illustrated below. The decomposition of net interest income allows for the measurement of the relative importance of changes in individual components of interest income and expenses to the overall change in net interest, i.e. via quantity effects and price effects. Changes in net interest income are illustrated below in terms of their nominal amount in millions of euros, and in relative terms, i.e. with regard to interest-bearing assets (the net interest margin). For more, see the December 2016 and June 2017 issues of the Financial Stability Review.

³¹ There has been a sharp decline in interest income and interest expenses in recent years. The decline in interest income has exceeded the decline in interest expenses throughout the last three years. The ratio of interest income to interest expenses also increased sharply, reaching 6.5 by October 2017, having been less than 2 in the past, particularly before 2014. The ratio began rising rapidly when there was a simultaneous fall in liability interest rates and increase in sight deposits.

Figure 3.40: Contribution to change in net interest income made by quantity and price effects, and net interest margin

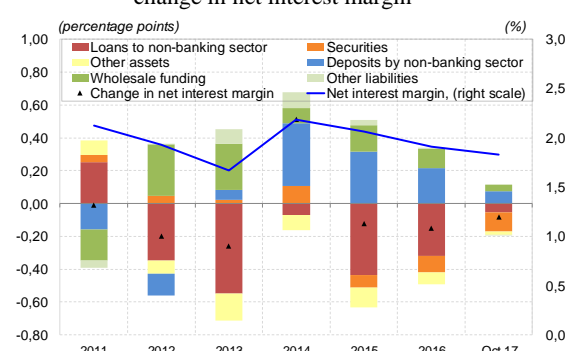


Note 1: Each calculation in the left figure takes account of 12-monthly moving sums of interest income/expenses.

Note 2: In the right figure the change in asset items is the sum of the contributions made by loans, securities and other interest-bearing assets, while the change in liability items is the sum of changes in deposits by the non-banking sector, wholesale funding and other interest-bearing liabilities. The change in the effect of liability items is multiplied by -1, as for example a rise in liability interest rates acts to reduce the net interest margin, while a fall acts to raise the net interest margin.

Source: Bank of Slovenia

Figure 3.41: Contributions made by individual instruments via interest-bearing assets and liabilities to change in net interest margin



The effects on the change in the net interest margin from effective interest rates on the asset side have prevailed over the effects on the liability side between 2015 and 2017.³² The decline in the net interest margin continued last year, but had slowed sharply by the end of October and came to an end in the autumn. The contributions made by the fall in effective asset interest rates outweighed the fall in effective liability interest rates throughout the last three years. The change via interest-bearing assets over this period acted to reduce the net interest margin, while the change on the liability side acted to raise it. The effect of the fall on the asset side on the net interest margin is diminishing. Having acted to reduce the net interest margin by 0.63 percentage points in 2015, the fall acted to reduce the net interest margin in October 2017 by just 0.19 percentage points. The favourable effect of the fall in effective liability interest rates also diminished sharply. After several years of continual falls in liability interest rates and a simultaneous increase in the proportion of sight deposits, the favourable effect from interest-bearing liabilities is diminishing. Effective liability interest rates, or more precisely the fall therein, acted to raise the net interest margin in October 2017 by just 0.11 percentage points.

Decomposing the change in the net interest margin across the individual principal instruments reveals a sharp decline in the negative contribution made to the change in the net interest margin by loans, and a simultaneous increase in the negative contribution made by securities.³³ On the liability side the largest factor acting to raise the net interest margin in 2017 was deposits. In the wake of the increase in lending activity, loans can gradually be expected to make a positive contribution to the net interest margin, while on the funding side any additional favourable effects from deposits will be very limited.

The banks succeeded in slowing the decline in the net interest margin by lengthening maturities and increasing the supply of fixed-rate loans on the asset side, and by shortening maturities and increasing the proportion of sight deposits on the liability side. Effective liability interest rates at the banks fell in line with effective asset interest rates, which maintained the aggregate interest rate spread at a level of around 2 percentage points for several years. In addition to the interest rate spread, the developments in the interest margin also depend on the stock of interest-bearing assets and liabilities. The proportion of total liabilities accounted for by interest-bearing liabilities (interest expenses) has recently been just under 7 percentage points less than the proportion of total assets accounted for by interest-bearing assets (interest income). Deposits are the cheapest source of interest expenses on the liability side. Their price has approached the bottom, while the price of wholesale funding is rising. Among the interest income items on the asset side, the rise in fixed interest rates brought an end to the fall in interest rates on loans in 2017.

Operating costs, net income, and impairment and provisioning costs

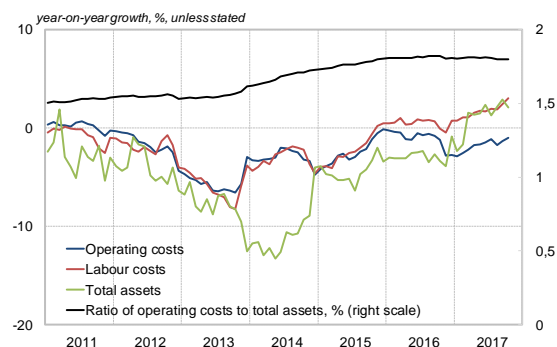
The decline in operating costs came to an end last year. Having declined consistently since 2009, operating costs during the first ten months of 2017 were entirely comparable to those in same period of the

³² All comparisons in October 2017 are calculated for the preceding 12-month period, which is compared with the previous annual figure.

³³ A comparison of interest income from loans and from securities reveals that the former was still contracting by 4.7% in October, while the latter was down 27.7%.

previous year.³⁴ While operating costs have declined in recent years, the majority of the years since the outbreak of the crisis have seen a contraction in total assets, which has actually outpaced the decline in operating costs. The ratio of operating costs to total assets has stabilised at just over 1.8%. The cost-to-income ratio (CIR) increased slightly last year as a result of a decline in the banks' gross income. The CIR over the first ten months of the year at the level of the banking system was up 1 percentage point in year-on-year terms at 60%. The ratio of operating costs to total assets has been relatively stable in 2016 and 2017.

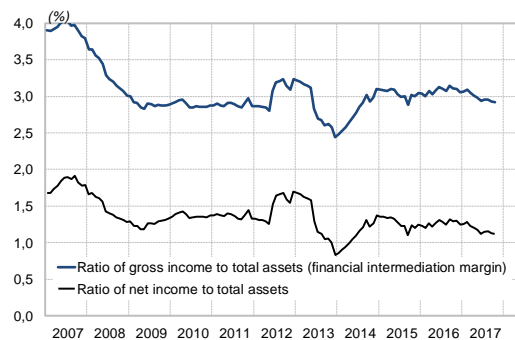
Figure 3.42: Growth in the Slovenian banking system's operating costs, labour costs and total assets



Note: The categories are calculated for the preceding 12 months.
Source: Bank of Slovenia

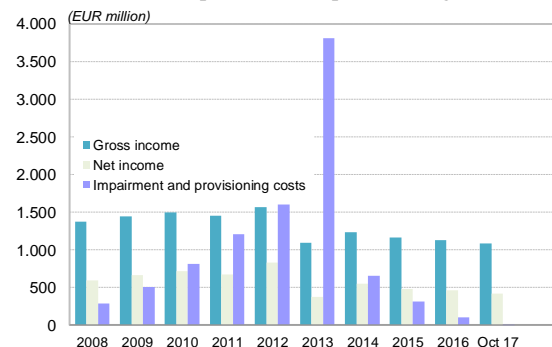
The banks' net income has declined further in recent years. The banks' net income, defined as income generated by the banks before impairment and provisioning costs,³⁵ i.e. before allowing for the costs arising from credit risk, declined by 2.5% in 2016, and over the first ten months of 2017 was down 11% on the same period of the previous year. The decline in net income is partly attributable to the banks' inability to reduce operating costs in 2017. The decline in the banks' net income in previous years was primarily the result of a decline in gross income. The ratio of net income to total assets across the banking system has also declined. Its long-term average before the outbreak of the crisis was 1.8%, but it stood at 1.1% at the end of October 2017.

Figure 3.43: Banking system's ratios of gross income and net income to total assets



Note: The data in the two figures is calculated for the preceding 12 months, including the data for October 2017.
Source: Bank of Slovenia

Figure 3.44: Banking system's gross income, net income and impairment and provisioning costs



The banking system recorded a release of impairments and provisions in the total amount of EUR 57 million over the first ten months of 2017. The improvement in the quality of the credit portfolio, the favourable economic environment, the banks' active policy in resolving non-performing loans, and the large stock of impairments and provisions created at a time when the economic situation was significantly worse were all factors in the net release of impairments and provisions by certain banks, most notably the large domestic banks. This had a significant impact on the banking system's profitability: over the last two decades impairment and provisioning costs accounted for between 10% and 20% of the disposal of gross income

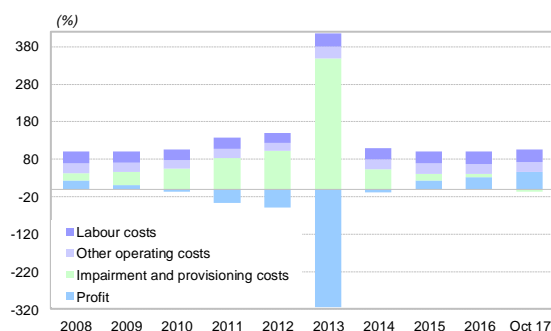
³⁴ Year-on-year growth in operating costs calculated for the preceding 12 months was nevertheless still negative (in the amount of 1%) in October 2017.

³⁵ Net income is gross income minus operating costs.

under normal circumstances, while over the first ten months of 2017 impairments and provisions actually generated income.³⁶

Profitability of the Slovenian banking system

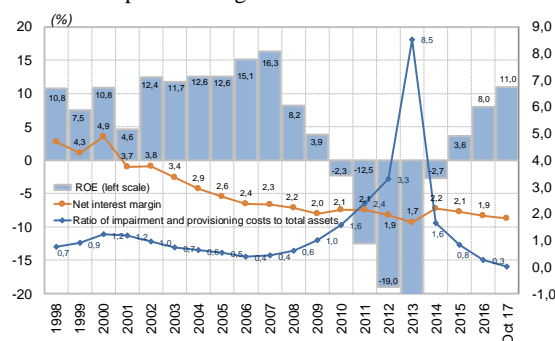
Figure 3.45: Use of banks' gross income



Note: The October 2017 figures for net interest margin on interest-bearing assets and the ratio of impairment and provisioning costs to total assets are calculated over the preceding 12 months. The October 2017 figure for ROE is calculated for the first ten months of the year.

Source: Bank of Slovenia

Figure 3.46: ROE, net interest margin on interest-bearing assets, and ratio of impairment and provisioning costs to total assets

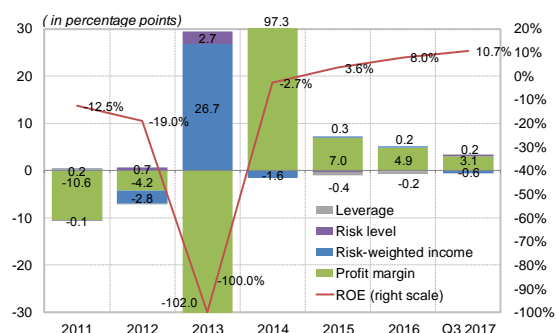


The banks can primarily maintain or increase profitability by increasing net interest income. Alongside the factors cited above, last year's release of impairments and provisions helped the banks to generate significantly larger profits than usual. This is a reflection of the good economic situation, but these effects can only be maintained for a limited time. By contrast, in their current circumstances Slovenian banks are rather limited in their ability to further reduce operating costs, like banks across Europe. They can gradually be further reduced through consolidation and streamlining, but at the same time factors such as investment in digitalisation, numerous regulatory requirements, and positive growth in labour costs are increasing operating costs.

Decomposition of profitability

Decomposing the changes in the banks' ROE into the four components of profit margin, risk-weighted income, risk level and leverage reveals that profit margin was the main factor in the increase in profitability in 2017,³⁷ as it had been in the previous year. Risk level and leverage also contributed to the increase in profitability last year, but risk-weighted income did not.

Figure 3.47: Impact of four factors on changes in ROE; decomposition of ROE



Note: At the time of writing, the figures for the decomposition of ROE in 2017 related to the period to the end of September.

Source: Bank of Slovenia

Profit margin was the largest factor in the increase in profitability for the fourth consecutive year. Profit margin, the ratio of profit to gross income, was positive for the third consecutive year, and has made a

³⁶ The Slovenian banking system's long-term average between 1996 and 2008, i.e. before the outbreak of the financial crisis, stood at 16%, but the ratio of impairment and provisioning costs to gross income then increased rapidly to 349% in 2013. It declined rapidly after the bank recovery, reaching 8.5% in 2016.

³⁷ The figures for 2017 relate to the first nine months of the year.

significant contribution to the improvement in profitability in the banking system since 2014. After increasing for several years, risk-weighted income, the ratio of the banks' gross income to risk-weighted assets, was virtually unchanged last year. Last year risk-weighted assets increased overall as a result of credit growth, while the banks' gross income declined. Risk level, the ratio of risk-weighted assets to total assets, recorded a minimal increase last year; credit growth saw a positive increase overall in risk-weighted assets, while total assets increased slightly overall. Leverage also increased minimally last year. In the wake of the banks' performance with very solid profits, profit margin can be expected to continue driving the level of profitability, while the other components can also be expected to have a positive impact as they reflect positive growth in gross income and risk-weighted assets as a result of credit growth.

Table 3.2: Individual components in the calculation of ROE by year

	Profit margin pre-tax profit gross income	Risk-weighted income * gross income risk-weighted assets	Risk level * risk-weighted assets total assets	Leverage * total assets equity	ROE = pre-tax profit equity
2008	0,22	0,039	0,76	12,08	8,1%
2009	0,11	0,037	0,78	11,93	3,9%
2010	-0,07	0,037	0,78	12,05	-2,3%
2011	-0,37	0,036	0,79	11,79	-12,5%
2012	-0,50	0,043	0,76	11,89	-19,0%
2013	-3,15	0,033	0,74	12,98	-100,0%
2014	-0,09	0,053	0,58	10,06	-2,7%
2015	0,14	0,057	0,53	8,63	3,6%
2016	0,32	0,058	0,52	8,06	8,0%
2017 (Q1-Q3)	0,45	0,056	0,53	8,10	10,7%

Note: The top row of the table gives the formula for the calculation of ROE.

Source: Bank of Slovenia

The banks' profitability indicators improved last year, while the cost indicators remained comparable to the previous year, and the net interest margin declined again slightly. The increase in profit brought an improvement in the two profitability indicators. The ratio of operating costs to gross income remained comparable to the previous year. The financial intermediation margin declined slightly, as a result of decline in both margins that compose it.

Table 3.3: Selected bank performance indicators

(%)	2011	2012	2013	2014	2015	2016	Jan-Oct 2016	Jan-Oct 2017
ROA	-1,06	-1,60	-7,70	-0,27	0,42	0,99	1,18	1,35
ROE	-12,54	-19,04	-97,30	-2,69	3,63	7,96	9,58	10,99
CIR	53,68	47,43	66,04	55,80	59,26	59,19	57,48	60,26
Interest margin on interest-bearing assets	2,13	1,93	1,68	2,18	2,06	1,91	1,92	1,82
Interest margin on total assets	2,02	1,83	1,59	2,09	1,96	1,82	1,83	1,74
Non-interest margin	0,85	1,40	0,85	1,01	1,09	1,23	1,26	1,19
Gross income / average assets (FIM)	2,87	3,23	2,44	3,10	3,05	3,05	3,09	2,93

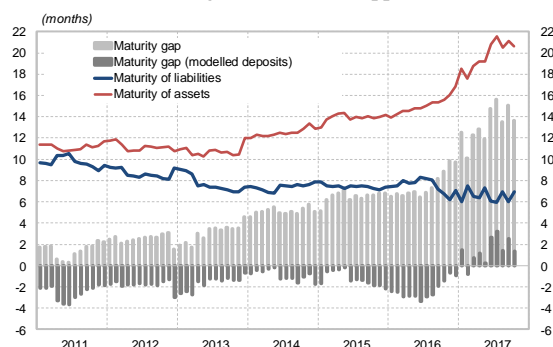
Note: The figures for October in both years are calculated cumulatively, i.e. for a period of ten months. FIM: financial intermediation margin

Source: Bank of Slovenia

Interest sensitivity

The maturity gap between interest-sensitive asset and liability items according to the IRRBB approach widened further in 2017, as the low interest rate persisted. The widening gap is indicative of the possibility of slower repricing on the investment side than on the funding side, which at the beginning of a period of rising interest rates would have an adverse impact on the banks' interest margin. A rise in interest rates is expected to have a positive impact on interest income over the longer term. The switching of sight deposits to deposits of longer maturities encouraged by a rise in interest rates needs to be taken into account, where the expectation is that the banks will offer higher interest rates in competition for funding.

Figure 3.48: Comparison of maturity gaps between interest-sensitive asset and liability positions according to the IRRBB approach

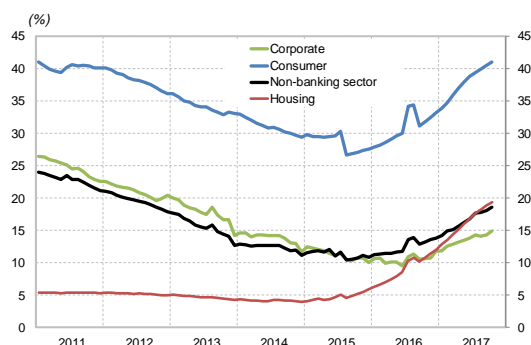


Note: The calculated average repricing period according to the IRRBB approach includes off-balance-sheet items (it takes account of hedging with derivatives) and amortisation. The gaps in the modelled deposits take account of a stability of 50% for sight deposits, which are allocated by means of a decay function that applies a maximum weight of 51 months, or close to the limit set by the Basel methodology.

Source: Bank of Slovenia

According to the IRRBB methodology, which takes account of amortisation schedules and collateral, the maturity gap between assets and liabilities increased by around 4 months over the first three quarters of the year to stand at 15 months. The increase has slowed in recent months, primarily as a result of a slowdown in the lengthening of maturities of interest-bearing assets. There is great volatility in the maturity of interest-bearing liabilities, which is largely attributable to liabilities to (foreign) banks, which now only account for around 7% of total liabilities. The maturity of interest-bearing liabilities is determined by deposits by the non-banking sector, which account for more than 70% of total liabilities. Sight deposits account for almost 70% of deposits, which has reduced their average maturity to 2 months.

Figure 3.50: Proportion of loan stock accounted for by fixed-rate loans



Source: Bank of Slovenia

The increase in the average maturity of interest-bearing assets was primarily attributable to the increase in longer-term loans with a fixed interest rate, where housing loans are notable for their long maturities. The proportion of housing loans with a fixed interest rate increased to almost a fifth. At 15 years, their average maturity (residual maturity) has almost approached that of housing loans with a variable interest rate. Under certain conditions, mortgage bonds could be an effective means for supporting the banks' long-term funding. The need for long-term funding at the banks is increasing, and with it the cost of such funding, which is being passed through to clients via a rise in interest rates on fixed-rate housing loans. These rates increased by 0.3 percentage points over the first three quarters of 2017 to approach 3%. Average interest rates on housing loans across the euro area, where traditionally there is a larger proportion of fixed-rate loans, are almost 1 percentage point lower than rates in Slovenia, but the trend of growth in fixed interest rates is also present across the euro area.

Figure 3.49: Average repricing period of stock by principal bank instrument (IRRBB approach not applied)

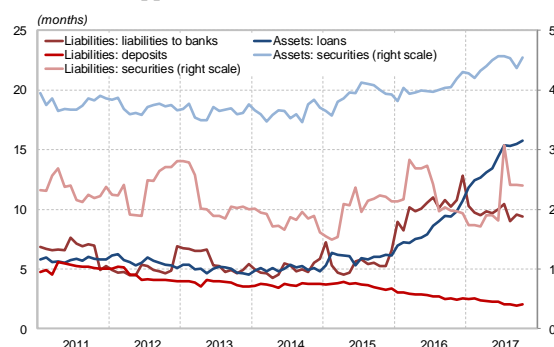


Figure 3.51: Average residual maturity for individual types of loan

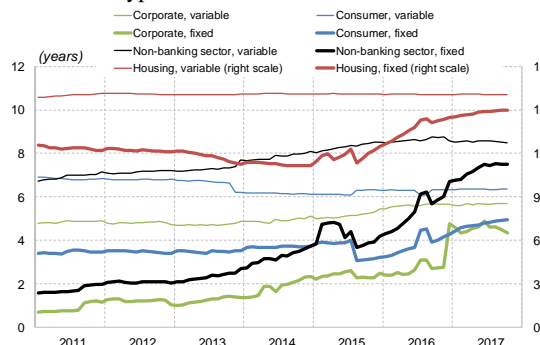
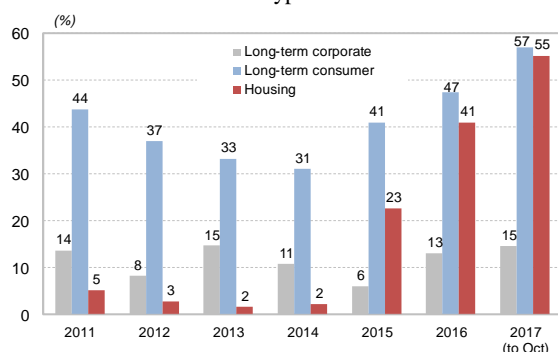
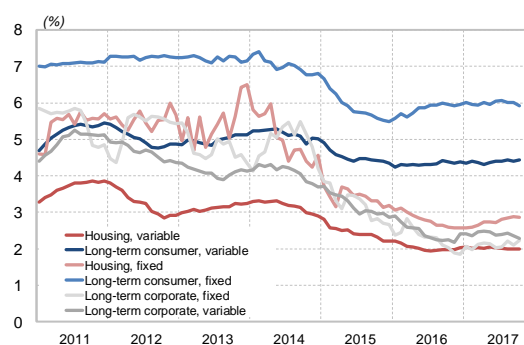


Figure 3.52: Proportion of loans with a fixed interest rate for individual types of new loan



Source: Bank of Slovenia

Figure 3.53: Average interest rates for individual types of new loan



3.4 Refinancing risk and bank liquidity

Summary

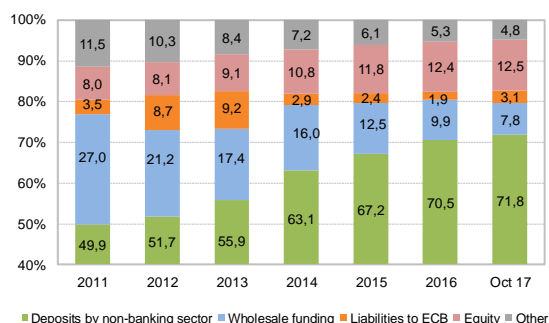
Refinancing risk remains moderate, but average funding maturity is shortening further as sight deposits continue to increase. The banks are financing their expanding lending activity by means of rising deposits by the non-banking sector, and the gradual stabilisation of funding is being reflected in the stabilisation of the LTD ratio for the non-banking sector. However, the maturity mismatch between investments and funding is continuing to increase as a result of the lengthening maturities of loans and the simultaneous growth in sight deposits by the non-banking sector, which is introducing a certain level of potential instability into the banking system's funding structure.

Liquidity risk is relatively low, which is evidenced by the increasing stock of secondary liquidity, and the high first-bucket liquidity ratio. The solid level of the pool of eligible collateral at the Eurosystem that is free allows the banks to access additional funding in the event of increased liquidity needs, which could arise in the event of emergencies or rising interest rates. The banks' adjustments of their interest rate policies to the competitive situation could lead to the switching of sight deposits between banks, and could be a source of instability at individual banks. This is particularly the case of corporate sight deposits, which account for almost 12% of total liabilities. Because the increase in sight deposits is reducing their coverage by assets of appropriate maturity, this is reducing the banks' ability to cover the potential outflow of sight deposits. This could be reduced further in the event of the gradual restructuring of assets envisaged by the banks' funding plans.

Bank funding

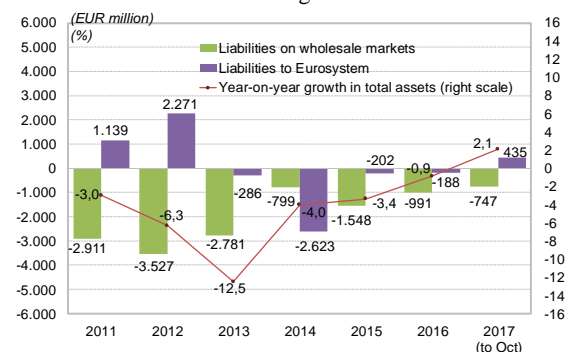
Slovenian banks' funding structure has continued to shift in the direction of an increase in deposits by the non-banking sector. They accounted for 71.8% of the banking system's total funding at the end of October 2017. Given the excess liquidity and the increase in deposits by the non-banking sector, the banks have no need for additional borrowing from the Eurosystem or on wholesale markets, for which reason the importance of these two sources of funding on bank balance sheets is diminishing. Wholesale funding, which is continuing to decline slowly, accounted for 7.7% of all funding as at October 2017, just a fifth of its pre-crisis figure.

Figure 3.54: Structure of bank funding



Note: Wholesale funding comprises liabilities to banks in the rest of the world and issued debt securities.
Source: Bank of Slovenia

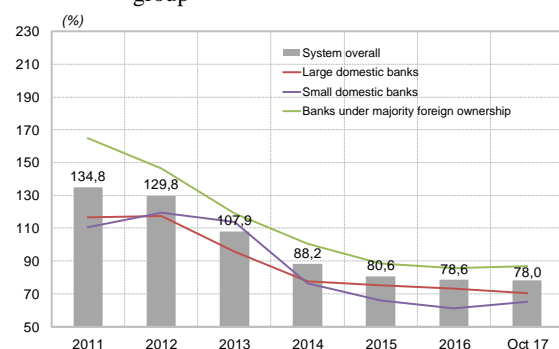
Figure 3.55: Changes in liabilities to the Eurosystem and wholesale funding



The main source of funding for the increasing lending activity remains deposits by the non-banking sector, which are mostly strengthening as a result of growth in household deposits. Year-on-year growth in deposits by the non-banking sector strengthened to more than 5% in the first quarter of 2017, and remained relatively stable until October, when it stood at 5.8%. The increase in deposits by the non-banking sector exceeded the increase in loans to the non-banking sector, in terms of moving 12-month increases. The banks can only fund a further increase in credit activity by increasing deposits by the non-banking sector, which are the primary source of funding. It is evident from the banks' funding plans that they will make use of the excess liquid assets in balances at the central bank and other forms of liquid assets to fund lending activity alongside deposits by the non-banking sector. This will gradually modify the banks' asset structure, which in the wake of restructuring into higher-yielding investments will have a positive impact on income, but at the same time will reduce the coverage of sight deposits by liquid assets.

Evidence of the gradual stabilisation of funding in the Slovenian banking system comes from the slowdown in the decline in the LTD ratio for the non-banking sector, which stabilised around 78% in the third quarter.

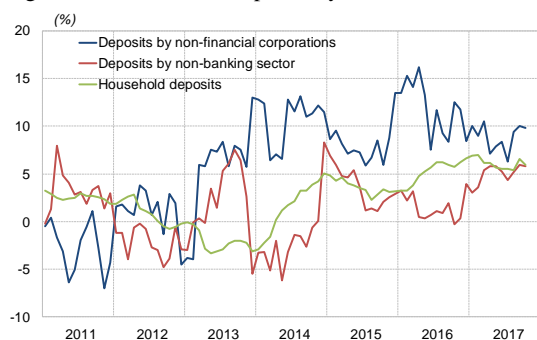
Figure 3.56: LTD ratio for the non-banking sector by bank group



Source: Bank of Slovenia

Household deposits are continuing to strengthen, despite the persistence of low interest rates. Growth in household deposits slowed slightly in 2017, but remained solid, and stood at 5.9% in year-on-year terms in October. In the wake of solid monthly increases, the stock of household deposits increased by EUR 681 million over the first ten months of the year to EUR 17.3 billion, as a result of which the proportion of total liabilities that they account for increased to 46.1%. The favourable situation on the labour market, moderate growth in wages and disposable income, the low appetite for alternative investments and the predominantly conservative behaviour of Slovenian savers will remain future factors in growth in household deposits in the Slovenian banking system.

Figure 3.57: Growth in deposits by sector



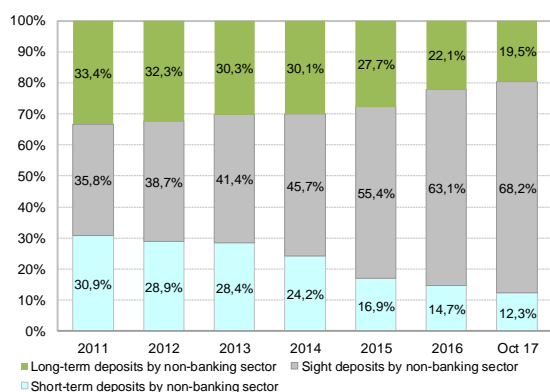
Source: Bank of Slovenia

Growth in deposits by non-financial corporations remains relatively high, despite a gradual slowdown, the year-on-year rate reaching 9.8% in October. Growth in deposits by non-financial corporations was unstable throughout the year, as they mostly comprise sight deposits in accounts that are more highly concentrated and used by firms in their everyday operations. Corporate deposits increased by EUR 350 million over the first ten months of the year to EUR 6.1 billion, to account for 16.3% of Slovenian banks' total funding. The relatively high annual increases in corporate deposits seen in the last few years are expected to gradually diminish in the context of the favourable economic situation and growth in investment and turnover. At the same time these are the deposits that are most interest-sensitive, and can therefore potentially introduce instability into the banks' funding structure.

Maturity of deposits by the non-banking sector

The proportion of deposits by the non-banking sector accounted for by sight deposits is increasing. The structure of funding on bank balance sheets is similar to the structure before 2002, albeit with a significantly larger proportion of sight deposits by the non-banking sector, which is still increasing. The proportion of total deposits by the non-banking sector accounted for by sight deposits reached 68.2% in October 2017, up 6 percentage points in year-on-year terms and up 29 points on its long-term average. The persistence of extremely low interest rates and the insufficient spread between yields on fixed-term deposits and sight deposits are continuing to discourage savers from deciding to tie up savings.

Figure 3.59: Breakdown of deposits by the non-banking sector by maturity



Source: Bank of Slovenia

The net increase in household deposits remained in the form of sight deposits over the first ten months of 2017. In addition to the actual increase in sight deposits by households, which were up EUR 1.4 billion over the aforementioned period, this was attributable to a simultaneous reduction in fixed-term deposits, which usually remain in bank accounts even after the end of the fixed term. The proportion of total household deposits accounted for by sight deposits reached 70.2% in October. Year-on-year growth in sight deposits by households slowed in 2017, but remained high, and stood at 17.5% in October. The average interest rate on new household deposits of up to 1 year fell last year, reaching a minimal 0.1% in October. The fall in the average interest rate on new household deposits of more than 1 year came to an end in the third quarter of 2017, and a slight rise in interest rates was discernible. The average interest rate on deposits of more than 1 year reached 0.5% in October, thereby equalling the average rate across the euro area.

Figure 3.58: Increase in deposits by sector

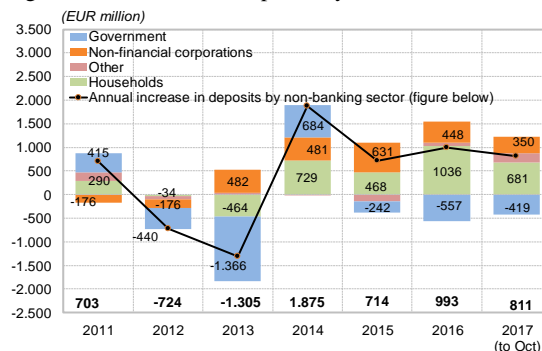


Figure 3.60: Ratio of sight deposits to total liabilities by sector

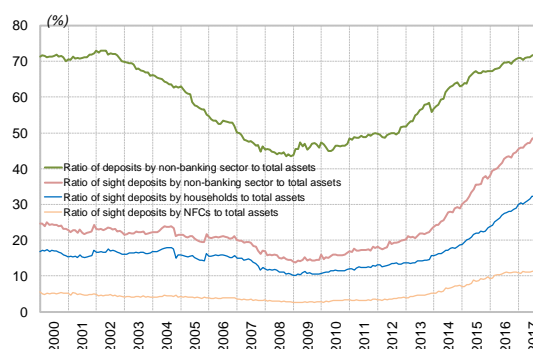


Figure 3.61: Change in stock of household deposits by maturity

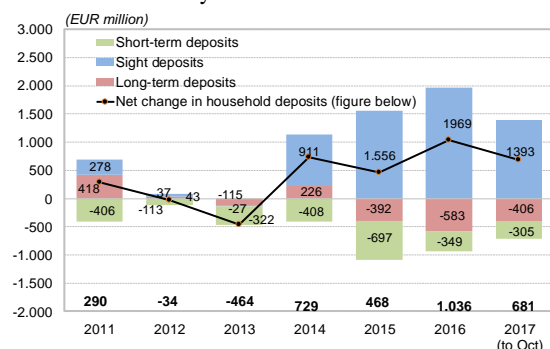
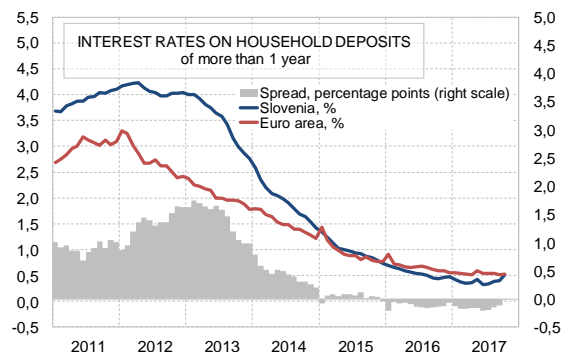


Figure 3.62: Interest rates on new household deposits



Sources: Bank of Slovenia, ECB

The proportion of total deposits by non-financial corporations accounted for by sight deposits stabilised at a very high level last year. It increased sharply from 2014, before stabilising at the beginning of 2017 and holding around 72%, equivalent to deposits of EUR 4.4 billion in October. In contrast to households, non-financial corporations have slightly favoured short-term saving, which in recent years has been evident in net increases in short-term deposits by non-financial corporations. The average interest rates on new deposits of up to 1 year and more than 1 year were lower than those on household deposits: in October the first stood at 0.02% and the second at 0.2%.

Figure 3.63: Change in stock of deposits by non-financial corporations by maturity

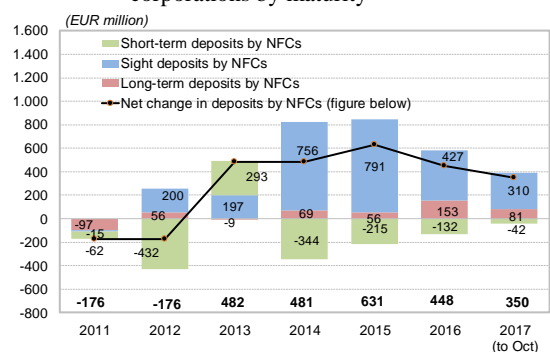
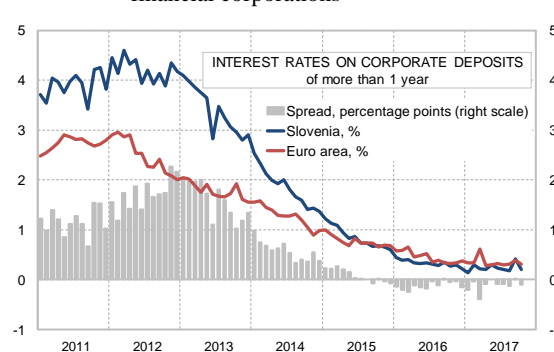


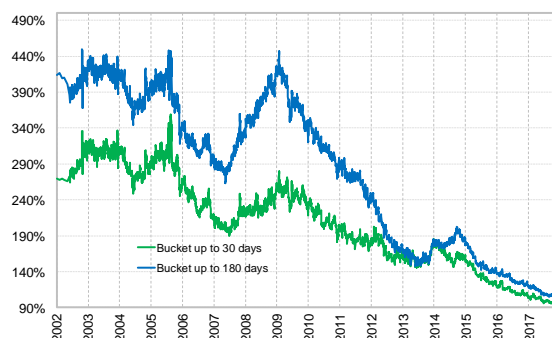
Figure 3.64: Interest rates on new deposits by non-financial corporations



Sources: Bank of Slovenia, ECB

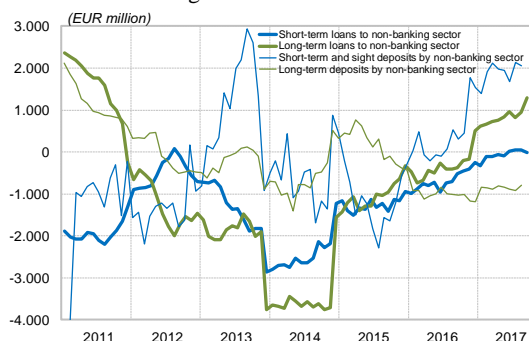
The proportion of sight deposits, which is high and still rising, is potentially reducing the stability of bank funding in the event of a rise in interest rates and one-off developments that are less likely. The increase in sight deposits is further reducing their coverage by liquid assets, thereby reducing the banks' ability to cover the potential outflow of sight deposits. The partial restructuring of assets from liquid to less liquid forms, i.e. increasing lending, which is evident in the banks' funding plans, will further reduce this coverage. The banks are assuming that sight deposits are largely stable, and that they will be transferred back to fixed-term deposits when interest rates rise. However, the banks should effectively adjust their interest rate policies to the competitive environment, as any rise in interest rates on fixed-term deposits could give rise to switching of deposits between banks, thereby reducing the stability of the funding structure of individual banks. The banks have less influence over the outflow of deposits by the non-banking sector caused by savers' increased appetite for consumption and investment.

Figure 3.65: Coverage of sight deposits by liquid assets



Source: Bank of Slovenia

Figure 3.66: Net increases in deposits by and loans to the non-banking sector by maturity, 12-month moving totals



The maturity gap between loans and deposits by the non-banking sector is widening. The banks are primarily funding their increased credit activity via deposits by the non-banking sector, i.e. via their primary source of funding, which confirms the functioning of the universal bank business model typical of the Slovenian banking system. The maturity mismatch between investments and funding is continuing to increase in the wake of growth in sight deposits by the non-banking sector and the simultaneous lengthening of the average maturity of loans to the non-banking sector, which is introducing a certain level of instability into the banks' balance sheet structure.

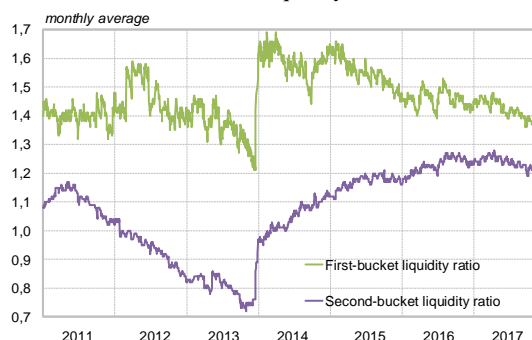
Liquidity risk

The banking system's liquidity risk remained low. The Slovenian banking system's current good liquidity position is evidenced in various liquidity indicators: a solid ratio of liquid assets to average assets, a high first-bucket liquidity ratio and a large surplus over the LCR requirements, a high proportion of secondary liquidity, and a high proportion of the pool of eligible collateral at the Eurosystem that is free.

The first-bucket liquidity ratio remains high, despite a gradual decline. It averaged 1.42 over the first ten months of the year, down slightly on the previous year. The gradual decline was the result of growth in first-bucket liabilities outpacing growth in first-bucket assets on account of the increase in deposits. A gentle trend of decline is also evident in the second-bucket liquidity ratio, which averaged 1.24 over the first ten months of the year. The Slovenian banking system's LCR, which will enter into full force on 1 January 2018, stood at a high 362% in September 2017.

The increase in investments in foreign securities means that marketable secondary liquidity is continuing to strengthen, while the concentration of exposure to Slovenian government securities is diminishing. The stock of marketable secondary liquidity increased by EUR 462 million over the first ten months of the year to EUR 7.3 billion, equivalent to 19.5% of total assets in October. The increase in secondary liquidity was exclusively attributable to an increase in investments in foreign securities rated BBB or higher, which increased by just under EUR 1 billion over the period in question, while investments in Slovenian government securities declined. The proportion of total secondary liquidity accounted for by the latter thus declined to 48.7%.

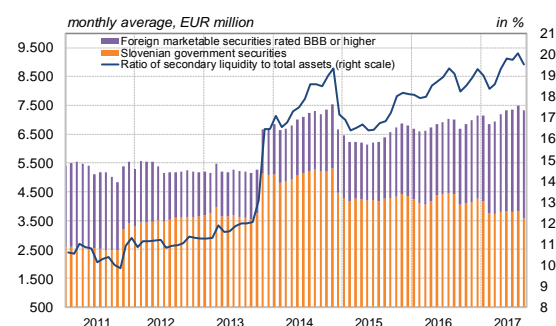
Figure 3.67: Daily liquidity ratios for the first and second buckets of the liquidity ladder



Note: Marketable secondary liquidity is calculated from liquidity ladder data as the sum of the monthly average of Slovenian government securities and foreign marketable securities rated BBB or higher.

Source: Bank of Slovenia

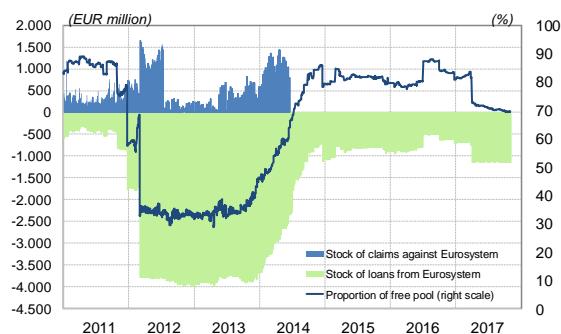
Figure 3.68: Stock of marketable secondary liquidity



The proportion of the pool of eligible collateral at the Eurosystem that is free remains high, despite declining in 2017. This means that the banks retain the possibility of obtaining additional liquid assets at the Eurosystem in the event of increased liquidity needs. The figure reached 69% at the end of October 2017, down just under 12 percentage points on December 2016. The decline was largely attributable to the one-off funding obtained in the most recent targeted longer-term refinancing operation (TLTRO II) at the end of the first quarter of last year. Given the high excess liquidity, there was no significant change in the stock of liabilities to the Eurosystem until October 2017, which stabilised at a level of 3.1% of the banking system's total liabilities.

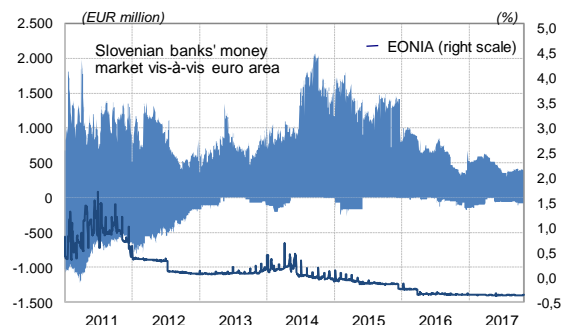
Volume on the unsecured money market was modest, and Slovenian banks remain net creditors. Net claims declined by EUR 219 million over the first ten months of the year to EUR 308 million. Given the persistence of negative interest rates and high excess liquidity in the European banking system, there is no expectation that the capacity to manage excess liquidity on the euro area's unsecured money market will improve.

Figure 3.69: Banks' claims and liabilities vis-à-vis the Eurosystem, and proportion of the pool of eligible collateral that is free



Source: Bank of Slovenia

Figure 3.70: Stock of unsecured loans of Slovenian banks placed and received on the euro area money market



3.5 Bank solvency

Summary

Despite a gradual decline, capital adequacy remains at a solid level, although there remain considerable differences between banks. The small domestic banks and savings banks remain the most vulnerable in capital terms. Despite the optimisation of capital use, strengthened credit activity means that capital requirements in the banking system are increasing faster than regulatory capital, which is reducing the banks' capital adequacy. The quality of capital structure remains high.

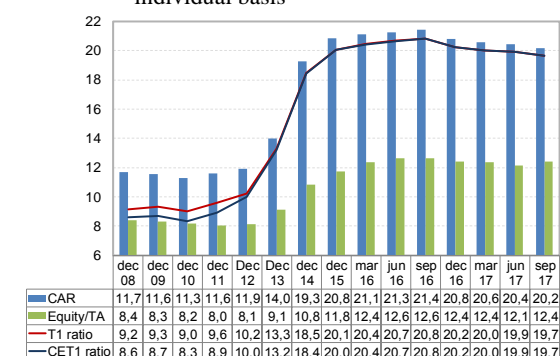
In the wake of continued growth in lending, pressure on the banks' capital adequacy will intensify, if the banks fail to adjust the amount of capital to match the corresponding increase in capital requirements. The

generation of internal capital will depend on the banks' success in adjusting their investments to the given economic situation, thereby seeking better returns for the risk taken up. At the same time the ongoing improvement in the quality of the credit portfolio will further contribute to the more-optimal use of existing capital.

Capital adequacy

The banking system's capital adequacy has declined in the last year, but remains at a solid level. The total capital ratio on an individual basis declined by 0.6 percentage points over the first nine months of the year to 20.2%. The two other capital ratios also declined, and have been equal since March 2016, as of which the banks have had no additional Tier 1 capital. The Tier 1 capital ratio and the common equity Tier 1 capital ratio each stood at 19.7% in September, down 0.5 percentage points on the end of 2016.

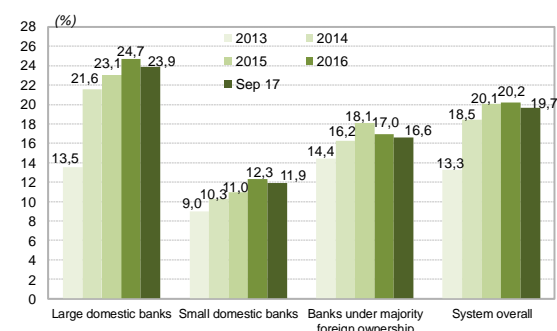
Figure 3.71: Banking system's basic capital ratios on an individual basis



Source: Bank of Slovenia

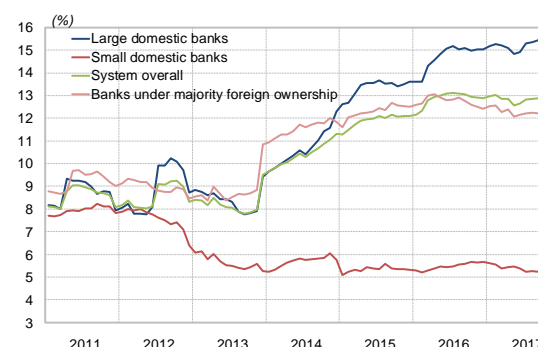
There is considerable variation in capital adequacy between banks. The small domestic banks remain the weakest in capital terms, particularly the savings banks. The total capital ratio of the small domestic banks and savings banks declined by 0.3 percentage points over the first three quarters of the year to 13.8%. The capital adequacy of those banks in the group that are strengthening their lending to the non-banking sector but are failing to adjust their regulatory capital to a sufficient extent, which is already significantly below the average across the Slovenian banking system, is declining further. Two savings banks increased their regulatory capital during this period via recapitalisations, while other banks saw an increase in capital via retained earnings and other reserves. The leverage ratio of the small domestic banks and savings banks calculated on the basis of the full definition of capital under the CRR, which stood at 4.5% in September 2017, also remains significantly below the average across the banking system of 10.6%.

Figure 3.72: Tier 1 capital ratio on an individual basis by bank group



Source: Bank of Slovenia

Figure 3.73: Ratio of book capital to total assets on an individual basis by bank group

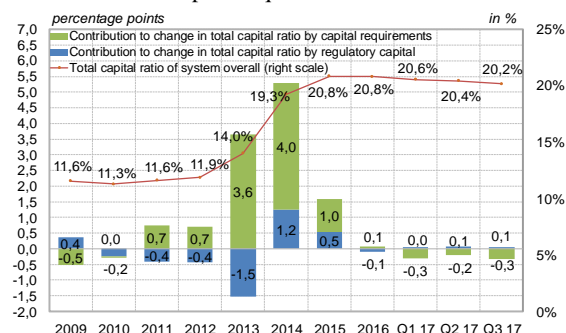


Capital and capital requirements

Capital adequacy is declining as a result of a rise in capital requirements, which are increasing as a result of strengthened credit activity. Capital requirements have been the prevailing influence on developments in the Slovenian banking system's capital adequacy since 2011. In the past they had a positive impact on capital adequacy, owing to the recovery measures and contraction in lending, and the consequent

decline in capital requirements, but the onset of credit growth at the end of 2016 brought a reversal in their role. Growth in capital requirements over the first nine months of the year was higher than growth in capital, which reduced capital adequacy.

Figure 3.74: Contribution to change in total capital ratio on an individual basis made by changes in capital and capital requirements



Note: A negative sign for capital requirements denotes that they increased, thereby having a negative impact on the total capital ratio.

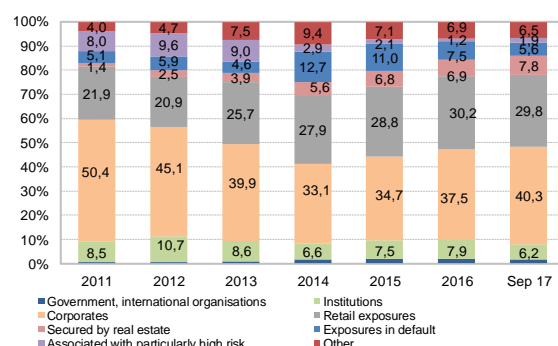
Source: Bank of Slovenia

Capital requirements increased by 4.1% or EUR 64 million over the first three quarters of the year to EUR 1,624 million. Growth in loans to non-financial corporations and households meant that largest increases in capital requirements were recorded by exposures to corporates and retail exposures. This further increased the proportion of capital requirements for credit risk that they account for to 70%. This simultaneously entails growth in exposures that have relatively high risk weights, and place a heavier burden on bank capital.

The banks are looking for ways to optimise the burden on capital (allocation). This is discernible in the increase in capital requirements for exposures secured by real estate collateral, where the application of lower risk weights is allowed. Although they increased by 18% over the first three quarters of the year, the proportion of total capital requirements that they account for remains relatively small. The pressure on capital is also being reduced by the ongoing improvement in the quality of the credit portfolio, further evidence for which comes from the further decline in capital requirements for exposures in default and exposures associated with particularly high risk. These declined by 10% over the aforementioned period to EUR 110 million.

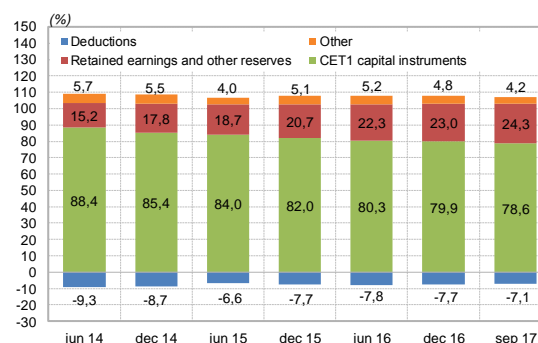
The banks' profitability contributed to growth in capital. Capital increased by 0.8% or EUR 33 million over the first three quarters of the year to EUR 4,094 million. During this period the banks did not increase regulatory capital via recapitalisations, with the exception of two savings banks, but via retained earnings and other reserves generated by good performance. There was an additional improvement in the high quality of the capital structure, as the reduction of additional capital was further increased at certain banks. The proportion of total regulatory capital accounted for by additional capital is just 2.5%. The future potential for increasing capital of this type remains minimal.

Figure 3.75: Breakdown of capital requirements for credit risk



Source: Bank of Slovenia

Figure 3.76: Breakdown of common equity Tier 1 capital



The pressure on capital adequacy will intensify as credit activity continues to grow. The banking system's capital adequacy remains at a solid level, despite a gradual decline over the last year. The maintenance of stability in capital adequacy as an increase in capital requirements is driven by growth in lending will be possible in the event of simultaneous adjustments in the stock of capital. A major factor in the generation of solid profits and thus of internal capital in the last year was the release of impairments and provisions, which will not be a long-term effect. The banks' capacity to adapt to the given circumstances and to generate greater returns on a given risk take-up will therefore be a significant factor in the generation of internal capital.

Comparison of capital adequacy with the euro area (consolidated figures)

The Slovenian banking system's capital adequacy also declined on a consolidated basis, as it did on an individual basis. The total capital ratio was down 0.7 percentage points over the first three quarters of the year and reached 18.4%. The Tier 1 capital ratio and the common equity Tier 1 capital ratio simultaneously declined over the same period, and remained equal at 18.0%, down 0.5 percentage points. Like the ratios on an individual basis, the decline was attributable to the increase in credit activity, which brought faster growth in capital requirements than regulatory capital.

Figure 3.77: Total capital ratio compared with euro area, consolidated figures

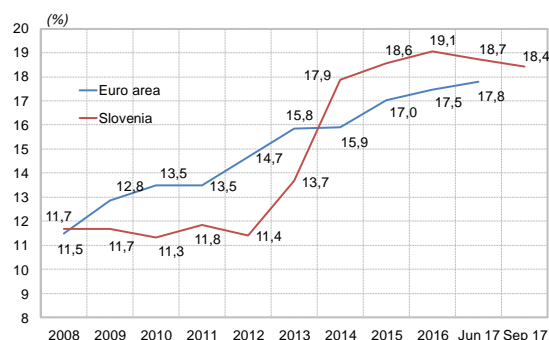
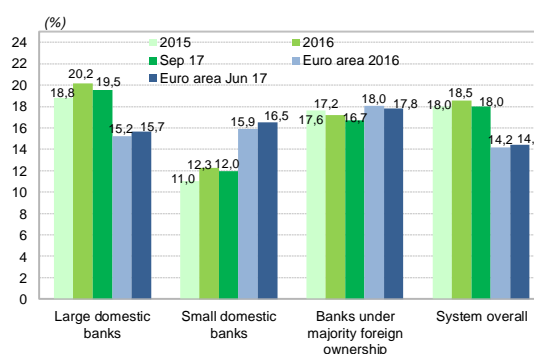


Figure 3.78: Common equity Tier 1 capital ratio (CET1) by bank group, comparison with euro area, consolidated figures



Note: For the sake of comparability, medium-size euro area banks are included under large domestic banks.

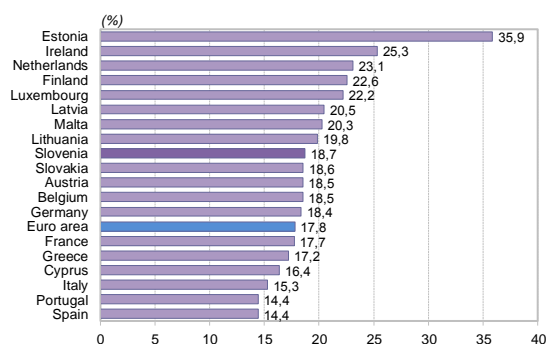
Sources: Bank of Slovenia, ECB (SDW)

The capital adequacy of the Slovenian banking system on a consolidated basis remains above the average across the euro area. The small domestic banks and savings banks, the weakest in capital terms, are significantly below the average of comparable banks across the euro area.

The quality of the capital structure remains better at Slovenian banks: the proportion of total capital accounted for by additional capital is less than 3%, compared with 14.2% across the euro area. The potential for Slovenian banks to increase their capital via additional capital nevertheless remains small, as stated above. The solid capital position of the Slovenian banking system is also evidenced in a ratio of capital to total assets of 12.5%, double the figure for the euro area overall. The use of higher risk weights³⁸ nevertheless means that the burden on capital in the Slovenian banking system is higher than the average across the euro area, which is evidenced in the ratio of capital requirements to total assets. This stood at 4.5% in June, compared with a figure of 3.1% across the euro area. Strengthening credit activity will see growth in capital requirements and the corresponding burden on capital in the Slovenian banking system gradually intensify in the future, and the banks will also have to adjust the level of capital to maintain stable capital adequacy.

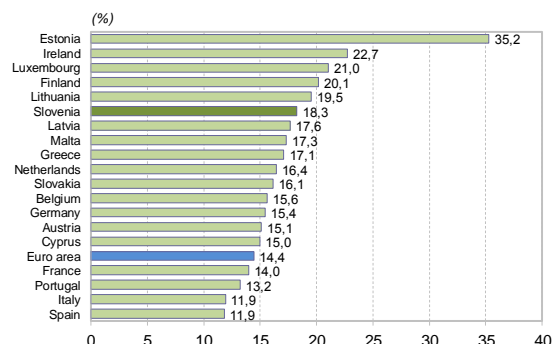
³⁸ The reasons for the higher capital requirements and risk weights compared with the euro area were examined in the previous issue of the Financial Stability Review (June 2017).

Figure 3.79: Total capital ratios by euro area country, June 2017, consolidated basis



Source: ECB (SDW)

Figure 3.80: Common equity Tier 1 capital ratios by euro area country, June 2017, consolidated basis



4 NON-BANKING FINANCIAL INSTITUTIONS

Summary

The favourable economic situation is being reflected in all areas of the financial sector. At leasing companies the volume of new business is increasing, in line with the increasing interest in the leasing of cars, commercial vehicles and goods vehicles. There was an increase in new real estate leasing business during the first nine months of 2017, which because of low nominal values and greater volatility in leasing transactions has not yet been reflected on the real estate market. The increase in new business in 2017 is bringing an increase in the total stock of leasing business, which had contracted continually in previous years. The positive trend is having a favourable impact on the performance of leasing companies and is reducing the stock of business more than 90 days in arrears.

The capital adequacy of insurance corporations remains at a high level. As a result of economic growth, confidence is also increasing in the insurance market, which is being reflected in a gradual increase in gross written premium in all classes of insurance. The increased dynamic on the real estate market is also evident in growth in written premium for credit insurance for housing loans, which account for just a minor proportion of credit premiums. An extraordinary development brought a sharp increase in claims from credit insurance in the area of international and domestic trade. The impact was limited to a small number of insurance corporations. Investment policy remains conservative, as investments in debt securities prevail.

Stock markets are continuing to rise without major corrections, which is confirmed by record-low volatility on the exchanges. The majority of stock indices have already sharply exceeded their highs from the pre-crisis period. Optimism is also evident in the domestic capital market, with increased investments in domestic mutual funds by households in particular, and increased investment in foreign bonds by banks, insurance corporations and pension funds. The large revaluations on stock exchanges are increasing the risk of a correction on individual exchanges.

4.1 Structure of the Slovenian financial system

The Slovenian financial system's total financial assets stood at 136.9% of GDP at the end of June 2017, up 1.8% in year-on-year terms. The contraction in monetary financial institutions' financial assets came to an end: they were up 0.9% in year-on-year terms. The proportion of the financial system that they account for nevertheless declined, as a result of the increase in the financial sector's financial assets.

Table 4.1: Financial assets of the Slovenian financial sector

	Financial assets, EUR million			Breakdown, %			Ratio to GDP, %			Growth, %		
	2008	2016	Q2 2017	2008	2016	Q2 2017	2008	2016	Q2 2017	2008	2016	Q2 2017
Monetary financial institutions	48.776	39.069	39.213	75,8	69,0	68,7	128,5	96,7	94,0	12,3	-3,3	0,9
Non-monetary financial institutions	15.611	17.554	17.872	24,2	31,0	31,3	41,1	43,4	42,9	-12,7	2,5	3,7
insurance corporations	4.550	7.416	7.507	7,1	13,1	13,2	12,0	18,3	18,0	-3,3	6,0	3,6
pension funds	1.358	2.564	2.605	2,1	4,5	4,6	3,6	6,3	6,2	4,8	3,1	2,3
investment funds other than MMF	2.044	2.480	2.595	3,2	4,4	4,5	5,4	6,1	6,2	-52,5	3,6	10,9
other financial institutions	7.659	5.094	5.165	11,9	9,0	9,0	20,2	12,6	12,4	1,1	-3,1	1,1
Total	64.387	56.624	57.085	100	100	100	169,7	140,1	136,9	-7,7	-1,6	1,8

Source: Bank of Slovenia

The increase of 3.7% in financial assets at non-monetary institutions was primarily attributable to an increase of 10.9% in assets at investment funds as a result of the increased optimism on stock markets, and an increase of 3.6% in financial assets in the insurance sector as a result of the renewed gradual increase in premium from insurance contracts. Other financial institutions also emerged in 2017 from several years of contraction in financial assets: their assets were up 1.1% in year-on-year terms.

4.2 Leasing companies

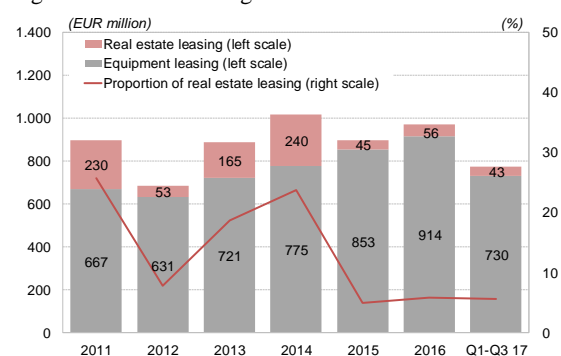
Leasing companies' turnover

The continuation of the favourable macroeconomic situation was reflected in leasing companies' performance. It was evidenced in further growth in new business, and in a positive reversal in the trend in the stock of leasing business. Leasing companies' performance is improving as a consequence. Stronger growth in new business and the stock of business over the first nine months of the year was recorded by commercial banks offering leasing finance. New business during the aforementioned period doubled in year-on-year terms to EUR 145.8 million, while the stock of leasing business was up 89% at EUR 300 million. The growth in business was the result of consolidation in the leasing sector and the transfer of leasing business to banks.

The growth in leasing companies' new business continues to be driven by equipment leasing, which accounted for 94.4% of all new business over the first nine months of 2017.³⁹ Equipment leasing business remains a lower-risk form of leasing finance, thanks to lower values and shorter contractual maturities. Total new business during the first nine months of the year was up 8.6% in year-on-year terms at EUR 773.7 million. The increase in new equipment leasing business was attributable to the increased interest in leasing for cars, commercial vehicles and goods vehicles, as it was in the previous year. Total vehicle leasing business was up 8.5% in year-on-year terms at EUR 655.7 million. Other equipment leasing business increased by 7.9% to EUR 74.7 million, where the largest contribution in the amount of EUR 42.9 million of new business came from machinery and production equipment. Real estate leasing business remains more subdued, despite year-on-year growth of 12.6%. The growth in leasing on the real estate market was the result of the purchase of claims from finance leasing of real estate (more precisely, commercial buildings) from the rest of the world in the first quarter of 2017, while new business declined in year-on-year terms in the second and third quarters.

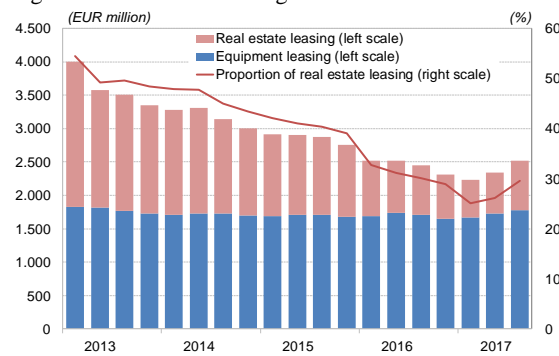
The LTV for equipment leasing remained stable at 80%, while the LTV for real estate leasing stood at 98.5% for real estate leasing at the end of September, up from 93.1% a year earlier. There was no significant change in the maturity breakdown of new business in 2017. The largest proportion of business, namely 40.5%, was concluded with a maturity of 5 to 10 years, while 34.1% of business was concluded with a maturity of 1 to 5 years, a consequence of the breakdown of new business in the area of cars, commercial vehicles and goods vehicles.

Figure 4.1: New leasing business⁴⁰



Source: Bank of Slovenia

Figure 4.2: Stock of leasing business



The total stock of leasing business amounted to EUR 2.5 billion in September 2017, up 2.9% in year-on-year terms. Growth was driven by equipment leasing business, the stock of which was up 3.6% in year-on-year terms at EUR 1.8 billion. Cars, commercial vehicles and goods vehicles accounted for 87% of the stock of equipment leasing business. Other equipment leasing business was down in year-on-year terms. The stock of real estate leasing business was up 1.2% in year-on-year terms at EUR 747 million. Growth in real estate leasing business was more pronounced in the quarterly comparisons: it increased to 22% in the third quarter. The increase in the stock of real estate leasing business in the third quarter was the result of the transfer of existing business from off-balance-sheet to on-balance-sheet records. Consequently it is not yet

³⁹ The analysis below of leasing performance takes account of data from institutions reporting on the basis of the regulation on reporting by institutions providing leasing services.

⁴⁰ Owing to data availability, in this entire section leasing business since 2011 has been disclosed at financed value, excluding the financing of inventories. All business with residents of Slovenia is included in the analysis.

possible to speak of genuine growth in real estate leasing business that would be based on an increase in new business.

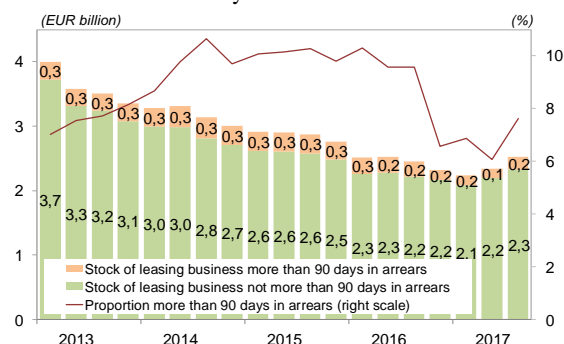
The quality of leasing business improved further in 2017. The proportion of claims more than 90 days in arrears stood at 7.6% of total claims, down 1.9 percentage points in year-on-year terms. In equipment leasing the proportion of claims more than 90 days in arrears declined by 1.2 percentage points to 5.1%, while in real estate leasing the proportion of claims more than 90 days in arrears declined by 3.5 percentage points to 13.6%. Arrears of more than 90 days increased at the quarterly level owing to the aforementioned transfer of existing business onto the balance sheet, including claims more than 90 days in arrears.

Financing of selected institutional sectors

Non-financial corporations and households remain the main source of business for leasing companies. The non-financial corporations sector and household sector together accounted for 97.5% of the stock of leasing business at the end of the third quarter of 2017, or EUR 2.5 billion in total.

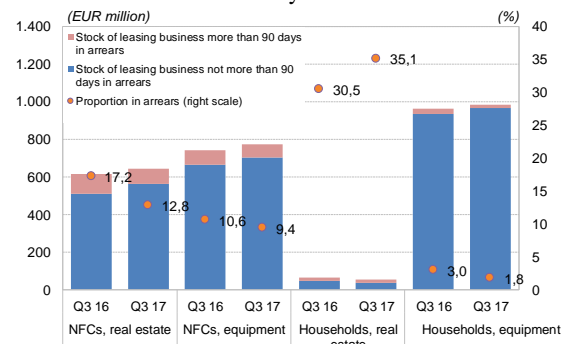
Leasing companies' exposure to the non-financial corporations sector began to strengthen in the second and third quarters, having previously contracted slowly in favour of the household sector. The proportion of exposure accounted for by non-financial corporations stood at 56.3% in the third quarter, up 0.9 percentage points in year-on-year terms. The increase in exposure was attributable to increases in equipment leasing business and in real estate leasing business. The latter was the result of the transfer of existing business. The proportion of claims against non-financial corporations more than 90 days in arrears at the end of the third quarter stood at 10.9%, down 2.7 percentage points in year-on-year terms because of a simultaneous decline in claims in arrears and increase in the stock of leasing business. The proportion of claims more than 90 days in arrears increased by 2.6 percentage points in quarterly terms because of the transfer of existing leasing business.

Figure 4.3: Stock of leasing business and claims more than 90 days in arrears



Source: Bank of Slovenia

Figure 4.4: Stock and proportion of leasing business more than 90 days in arrears

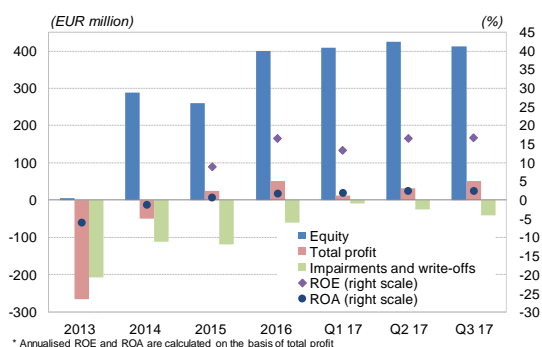


The proportion of total leasing business accounted for by households in the third quarter was down in year-on-year terms, despite an increase in the stock of leasing business. The total stock of leasing business was up 1% in year-on-year terms at EUR 1.04 billion, while the proportion declined by 0.75 percentage points to 41.2%. The quality of this segment of leasing companies' investments is improving. The proportion of claims against households more than 90 days in arrears was down 1.2 percentage points in year-on-year terms at 3.5%, as a result of a contraction in claims more than 90 days in arrears.

Leasing companies' performance

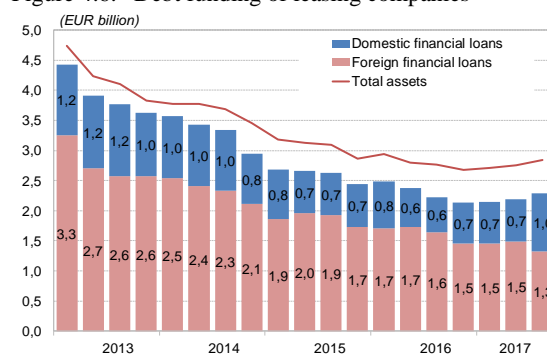
Performance improved further over the first nine months of 2017. Leasing companies' total profit was up 54% in year-on-year terms at EUR 50 million. This was achieved through a reduction of 15% in finance expenses from impairments and write-offs to EUR 40 million, and an increase of 3% in income from the sale of services to EUR 57 million. Other income remained at the level of the previous year.

Figure 4.5: Selected performance indicators



Source: Bank of Slovenia

Figure 4.6: Debt funding of leasing companies



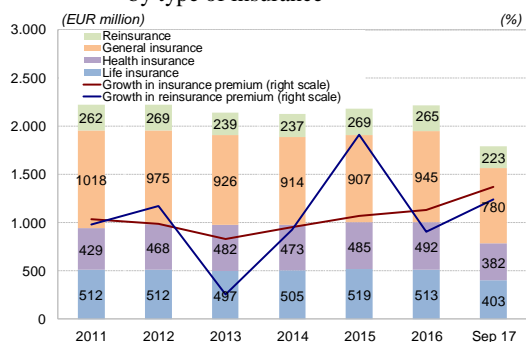
The debt funding of leasing companies is increasing in line with the growth in turnover. It was up 3% in year-on-year terms. There was a decline of 19.7% in funding from the rest of the world, while domestic funding was up 67% in year-on-year terms. The structure of the funding and its increase were attributable to a transfer of ownership to a domestic bank.

4.3 Insurers

Features of insurers' performance

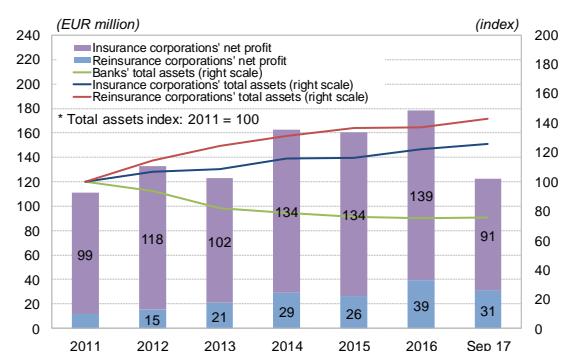
Insurance corporations and reinsurance corporations are continuing to record stronger growth in gross insurance premium, thereby maintaining the trend from the beginning of 2017. Insurance corporations' gross written premium over the first nine months of the year was up 5.6% in year-on-year terms at EUR 1.57 billion. The largest increase of 7.2% was recorded by gross written life insurance premium, which saw increases in traditional life insurance and in unit-linked life insurance. There were increases of 5.4% in general insurance premium and 4.2% in health insurance premium.

Figure 4.7: Gross written premium and annual growth by type of insurance



Note: The September 2017 figure for growth in insurance premium is based on a year-on-year comparison.
Sources: ISA, Bank of Slovenia

Figure 4.8: Net profit and total assets



Rising stock markets and the gradual growth in gross written insurance premium are increasing the insurance corporations' total assets,⁴¹ which in the third quarter of 2017 were up 3% in year-on-year terms at EUR 7.2 billion, while the reinsurance corporations' total assets remained at EUR 870 million. The insurance corporations' net profit declined by 1.7% to EUR 91.3 million, as a result of a decline of 11.7% in net profit from general insurance to EUR 66.5 million, while net profit from life insurance increased by 29% to EUR 45 million. The persistence of the low interest rate environment is evidenced in a decline in interest income, which was down 9% at EUR 23.6 million.

⁴¹ The number of insurance corporations falling under the supervision of the ISA fell to 14 at the end of 2016 after the merger of two insurance corporations, and then to 13 at the end of the third quarter of 2017 as a result of the conversion of one insurance corporation into a branch. There remain two reinsurance corporations.

From the perspective of the penetration rate and insurance density, the insurance sector in Slovenia is well-developed.⁴² According to the penetration rate, which indicates the importance of the insurance sector in an individual country, Slovenia is one of the top four countries. In terms of insurance density, which illustrates the insurance consciousness of the general population, and the future market potential, Slovenia is slightly above the European median.

Figure 4.9: Insurance penetration (non-life insurance)

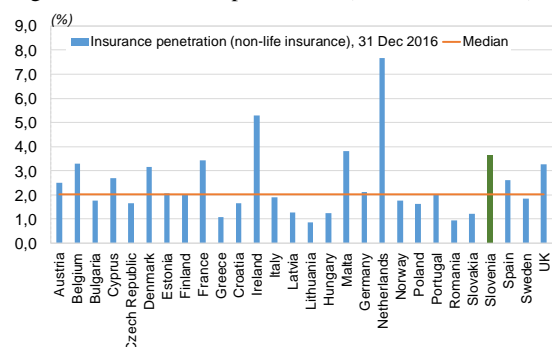
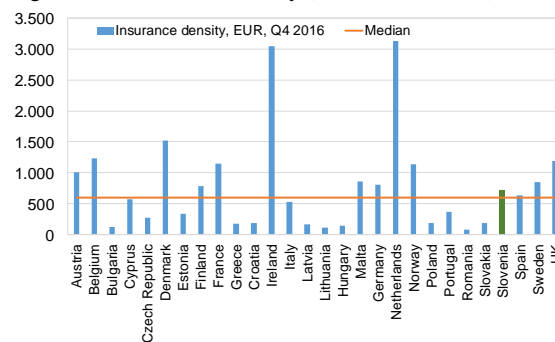


Figure 4.10: Insurance density (non-life insurance)



Sources: EIOPA, ISA, Bank of Slovenia

Capital adequacy

The capital adequacy of insurance corporations and reinsurance corporations in Slovenia remains at a high level.⁴³ The solvency capital requirement (SCR) expresses the level of capital that allows an institution to cover losses and provides a reasonable assurance to policyholders, insurers and beneficiaries. The insurance corporations' aggregate SCR amounted to EUR 808 million at the end of June 2017, up 2.3% on the end of 2016. Six insurance corporations had an SCR coverage ratio of less than 200%. The reinsurance corporations' aggregate SCR was up 1% over the first six months of the year, while the SCR coverage ratio exceeded 300%. The SCR has declined over the last six months at the majority of the insurance corporations, while the reinsurance corporations saw an increase.

Figure 4.11: Aggregate SCR coverage ratio (quartiles and median)

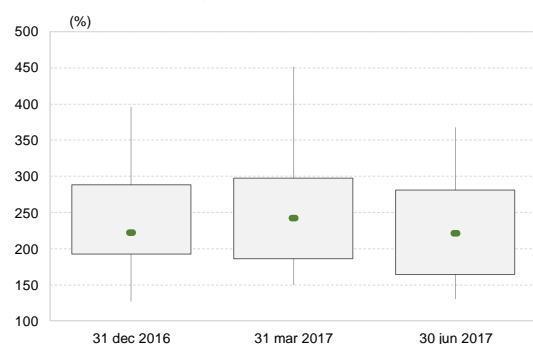
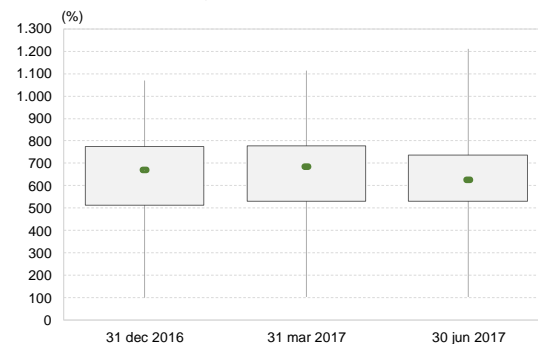


Figure 4.12: Aggregate MCR coverage ratio (quartiles and median)



Sources: ISA, Bank of Slovenia

The minimum capital requirement (MCR) of insurance corporations and reinsurance corporations, which sets an insurer's minimum capital requirement within the framework of Solvency II, remains high. The MCR at insurance corporations increased by 0.7% to EUR 279 million, while the MCR at reinsurance corporations increased by 3%.

Underwriting risk

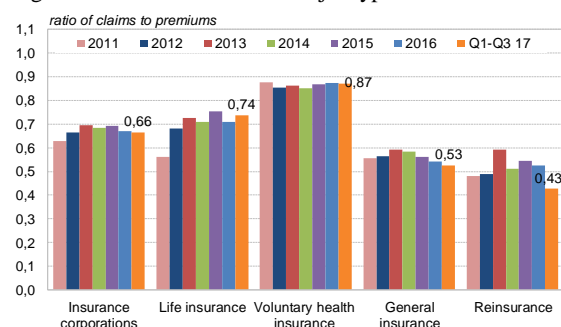
The claims ratio as measured by the ratio of gross claims paid to gross written premium over the first nine months of 2017 declined slightly in year-on-year terms. The increase in the claims ratio at insurance corporations from 0.64 to 0.67 was attributable to an increase of 9% in claims paid to EUR 1.04 billion,

⁴² The insurance penetration rate and insurance density have been calculated for non-life insurance, owing to a lack of data availability. The penetration rate is calculated as the ratio of gross written premium to GDP. Insurance density is calculated as the ratio of gross written premium to population.

⁴³ The data on capital adequacy is obtained on the basis of insurers' reporting in accordance with Solvency II. Data up to and including 30 June 2017 was available when the material was prepared.

while there was an increase of 5.6% in gross written premium to EUR 1.6 billion. The claims ratio increased in year-on-year terms for life insurance and general insurance, while the claims ratio for voluntary health insurance remained unchanged.

Figure 4.13: Claims ratio for major types of insurance

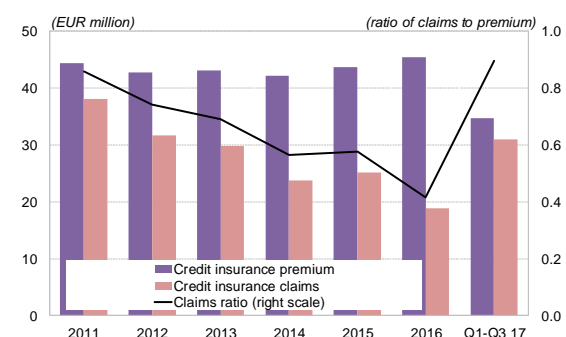


Source: ISA

Risk from credit insurance

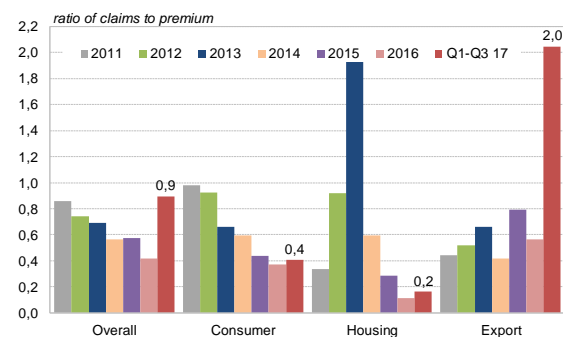
Gross premium for credit insurance is continuing to grow, although there was a sharp increase in the claims ratio as a result of above-average gross claims paid. While credit insurance premium increased by 4.8% in year-on-year terms, claims paid increased by 101% as a result of a one-off development. The increase in gross claims paid in credit insurance was strongly concentrated in terms of the type of claim, and also in terms of the number of insurance corporations. The increase in claims paid was attributable to an increase in loss events in international and domestic trade. In both cases, the year-on-year increase in gross credit insurance claims paid was more than 200%. The impact on the actual performance of insurance corporations was small: gross credit insurance premium accounted for just 2.2% of total gross premium.

Figure 4.14: Written premium and claims paid in credit insurance



Source: ISA

Figure 4.15: Claims ratio for credit insurance



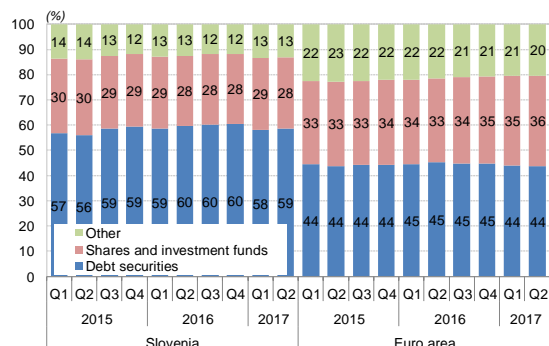
The favourable economic environment and the increased volume of trading in real estate are being reflected in growth in gross written premium in credit insurance, which over the first nine months of 2017 was up 4.8% in year-on-year terms at EUR 35 million. This was primarily attributable to increased demand for credit insurance in international and domestic trade (up 5.4% on average), and for credit insurance for housing loans (up 19% at EUR 3 million). The largest source of gross credit insurance premium is consumer credit insurance. This was down 5% in year-on-year terms at EUR 11.8 million. In consumer credit insurance the banks offer loans, including loans of longer maturities, without insurance fees, but the default risk is then covered by a contractual premium on the interest rate.

Investment risk

Debt securities remain the main form of investment by insurers. Debt securities accounted for 58.7% of their total financial assets at the end of June 2017. This was down 1 percentage point in year-on-year terms, which insurers compensated for by increasing their investments in shares and investment funds. The Slovenian insurance sector's investments in debt securities amounted to EUR 4.4 billion at the end of June 2017, while investments in shares and investment funds amounted to EUR 2.1 billion, or 28.3% of total financial assets. Insurers' exposure to foreign securities in the second quarter of 2017 stood at 65.3% of total

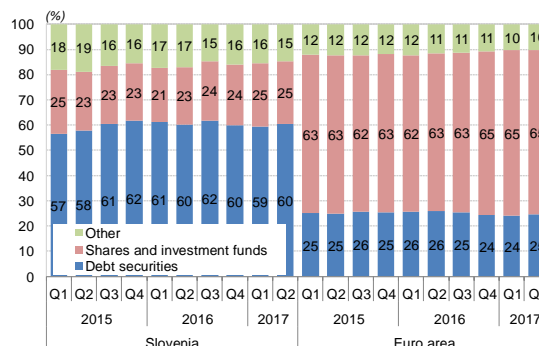
financial assets, up 1.3 percentage points in year-on-year terms, primarily as a result of the replacement of domestic government bonds with foreign bonds.

Figure 4.16: Comparison between Slovenia and euro area of the investment structure of the insurance sector (S.128)



Source: ECB

Figure 4.17: Comparison between Slovenia and euro area of the investment structure of the pension funds sector (S.129)



Exposure to debt securities also remains high at pension funds. Debt securities accounted for 60.4% of total financial assets in the second quarter of 2017, unchanged in year-on-year terms, while exposure to shares and investment funds increased to 25%, up almost 2 percentage points as a result of a decline in other available financial assets. Similarly to insurance corporations, pension funds are continuing to move investments into foreign securities. Their exposure to domestic government bonds and investments in bank securities declined in year-on-year terms. Total exposure to the rest of the world thus increased by 4.1 percentage points to stand at 59.8% of total financial assets.

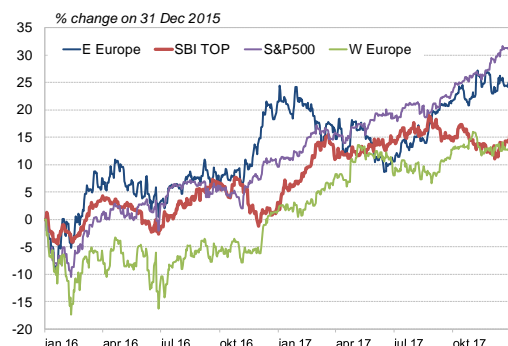
The low interest rate environment and the high valuations of equities and debt securities leave little room for increasing gains from these assets. At the same time the high valuations on stock exchanges is giving rise to the risk of a reversal of the trend, which would have an adverse impact on profitability. In the low interest rate environment, reinvestment risk remains one of the most significant risks for the insurance sector. Interest rates on government securities and other debt securities on the financial markets remain low, which for insurance corporations and pension funds entails a risk of failing to achieve the returns guaranteed by insurance contracts.

4.4 Capital market

Developments on the capital market

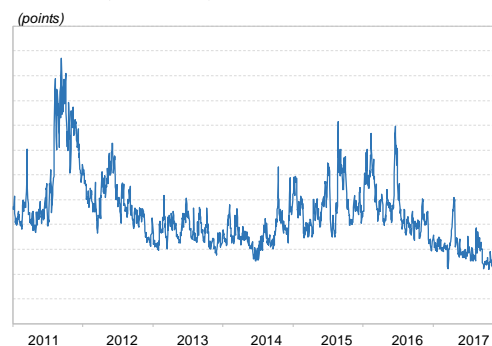
The increased investor confidence and the improved expectations with regard to further economic growth in the euro area and beyond are being reflected in growth in share indices, which have reached record highs in the wake of reduced volatility on the stock markets. Additional support for the current trend is coming from the continuation of the loose monetary policy and from the political environment, political risk having declined slightly after the completion of elections in certain countries. The majority of stock market indices have already sharply exceeded their highs from the pre-crisis period, which could indicate overheating of the stock markets, although investors remain confident of the continuation of the climate on the stock market. The volatility index reached a record low in 2017, which is indicative of a mix of factors raising investor confidence in continuing growth.

Figure 4.18: Year-on-year changes in selected stock market indices



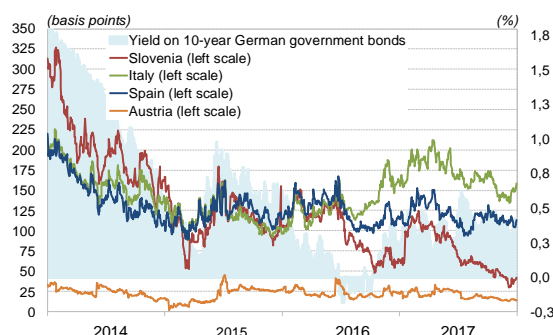
Sources: Bloomberg, Stox.com

Figure 4.19: Volatility on the European share market (VSTOXX)



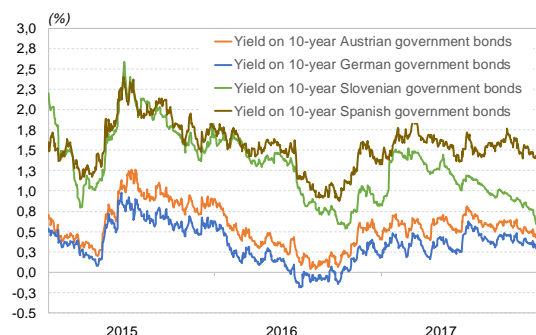
Expectations of a gradual normalisation on the euro area money market are being reflected in the bond market, where the required yields on 10-year government bonds are slowly moving away from negative territory or zero rates. The pathway to normalisation on the money market must be gradual, as sudden changes could have an adverse impact on numerous sectors and would increase contagion risk. The spreads on euro area government bonds over the German benchmark of the same maturity remain low, for which reason risks in euro area countries remain relatively similar. The low interest rate environment is helping to maintain favourable sovereign funding by means of debt security issuance, and is simultaneously encouraging investors (banks, insurance corporations, etc.) to seek higher returns by investing in bonds with lower credit assessments and higher risks.

Figure 4.20: Spreads of selected 10-year government bonds over German benchmark bond



Source: Bloomberg

Figure 4.21: Required yields on government bonds



The recent pronounced growth in stock markets is a result of extremely low volatility on the exchanges. Low market volatility increases the risk that the response during a negative reversal in the trend will be more pronounced, particularly on account of positions based on low volatility and the positive trend in stock markets. Low market volatility ostensibly increases investors' confidence in the continuation of the trend. They therefore additionally increase their exposure to higher-risk forms of investment such as shares, corporate bonds, and government bonds with lower ratings. Contagion risk also increases as a consequence.⁴⁴

Geopolitical risk remains the key risk to stability on the capital markets. It declined slightly as a result of the completion of elections in certain major EU Member States. Brexit remains a potential source of uncertainty in the EU. Tensions between North Korea and the US, and increased unrest in the Middle East remain notable geopolitical risks.

Box 3: Investments in cryptocurrencies and development of FinTech industry

The increase in business optimism and the desire for quick profits brought an exceptional increase in interest in virtual currencies, most frequently bitcoin as a cryptocurrency.⁴⁵ Virtual currencies are a form of unregulated digital representation of value that is neither issued nor backed by a central bank or a public

⁴⁴ Taken from: ECB, Financial Stability Review, November 2017.

⁴⁵ The term cryptocurrency applies to a virtual currency designed on the basis of asymmetric cryptography (a sub-category of virtual currencies).

authority, nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment, and can be transferred, stored or traded electronically.

Technological innovations in the area of financial services, which include virtual currencies, are classed as part of the FinTech industry, which has undergone a boom in recent years. The international Financial Stability Board has defined FinTech as technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services. The FinTech industry could have a significant impact on the continuing development not just of banking services, but also other financial services. Given the Slovenian public's sharp increase in interest in virtual currencies in particular, the Bank of Slovenia informed the public back in 2013 of the relevant warning by the EBA.⁴⁶ Slovenia's own Financial Stability Board issued a warning⁴⁷ with regard to purchasing, storing and investing in virtual currencies in 2017. The FSB is primarily highlighting that virtual currencies and increasingly-common initial coin offerings are systemically unregulated and unsupervised, and consequently are also high-risk forms of investment.⁴⁸

A more detailed assessment of the impact of the FinTech industry on financial stability would currently be premature, given the lack of official data and systemic supervision. The rise of new FinTech solutions and their interaction in various areas of financial services is increasing the need for monitoring of the FinTech area from the perspective of financial stability. The potential risks in the area of FinTech that entail a risk to financial stability can be divided (in accordance with the international FSB's definition) into (1) micro and (2) macro financial risks. (1) Micro financial risks are risks to which individual firms, sectors or financial market infrastructure are exposed. Centralised risks⁴⁹ can be rapidly transmitted to other systemically important areas because of the interaction and co-dependence of different sectors. (2) Macro financial risks represent systemic vulnerabilities that can lead to financial instability. Overall macro risks, to which FinTech activities can also be ascribed, include pro-cyclicality, excessive volatility, contagion risk and the creation of systemically important entities.

From the point of view of economic development, technological innovations are welcome. Because innovations evolve faster than any adequate regulation and supervision that is introduced, it is so much more important to raise public awareness of the risks that the innovations bring. The technology that currently supports cryptocurrencies and other technological innovations in the area of financial services has not yet been tested in extreme situations, which additionally increases the risks taken up by investors when they purchase. For this reason bitcoin and other cryptocurrencies cannot be considered a store of value, as has been highlighted many times in the media. Investors in virtual currencies and other forms of coin should nevertheless be aware of the specifics of this type of investment, and should weigh up whether the risks taken up align with their personal preferences and investment objectives. Even if a well-informed investor decides in favour of such a transaction, it is recommended that the amount of funds invested should not constitute an excessive exposure.

The optimism on foreign stock markets has also been reflected on the domestic stock exchange. The SBI TOP gained 11% over the first ten months of 2017, while the benchmark stock market index for western Europe (SXXE) gained 13.6%. The market capitalisation of shares on the Ljubljana Stock Exchange increased by 4% over this period to EUR 5.2 billion, a reflection of the positive mood on stock markets. As in recent years, there were no new issues of shares on the Ljubljana Stock Exchange during the first ten months of the year, while shares continued to be delisted. The average monthly volume of trading in shares over the first ten months of the year was up 18.1% in year-on-year terms at EUR 32 million. The significant increase in volume and restrained growth in market capitalisation had an impact on the turnover ratio in 2017. Concentration remained unchanged, as shares in five issuers accounted for 80.4% of total volume, although there was a sharp increase in the proportion of total volume accounted for by the most heavily traded share on the stock exchange, which stood at 42%. The concentration of trading in shares in a small number of issuers, the low volume on the Ljubljana Stock Exchange and the fall in the number of securities listed for trading are increasing liquidity risk on the capital market.

⁴⁶ The warning to consumers on virtual currencies was published on the Bank of Slovenia website on 12 December 2013 (<https://www.eba.europa.eu/documents/10180/598344/EBA+Warning+on+Virtual+Currencies.pdf>).

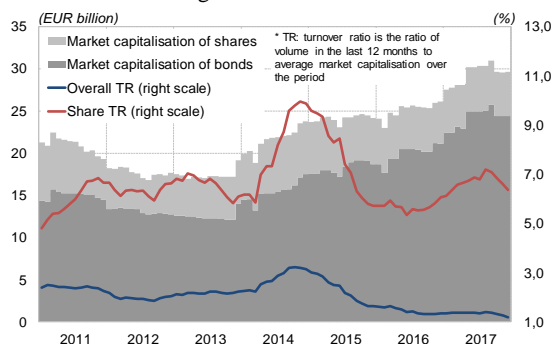
⁴⁷ The FSB's warning with regard to purchasing, storing and investing in virtual currencies was published on the Bank of Slovenia website on 9 October 2017. Link to FSB: [Warning with regard to purchasing, storing and investing in virtual currencies](#).

⁴⁸ On 18 January 2018 the Bank of Slovenia published a press release on its website entitled Frequently asked questions and answers about virtual currencies (<https://www.bsi.si/en/media/1180/pogosta-vprasanja-in-odgovori-o-virtualnih-valutah>).

⁴⁹ Taken from: ECB, Financial Stability Review, November 2017.

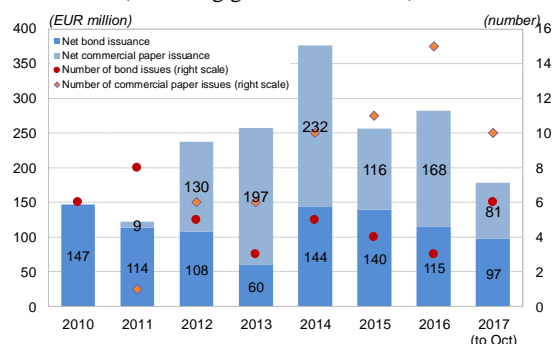
The domestic capital market remains poorly developed and poorly utilised. During the last economic crisis, it was shown that the financing of commercial projects exclusively through the utilisation of bank loans also increases liquidity risk and solvency risk. It is therefore vital to work harder to develop the domestic capital market, which would encourage firms to also finance projects by issuing equities. This would improve the debt-to-equity ratio.

Figure 4.22: Market capitalisation on the Ljubljana Stock Exchange and annual turnover ratios



Sources: LJSE, KDD, Bank of Slovenia

Figure 4.23: Issuance of bonds and commercial paper (excluding government sector)



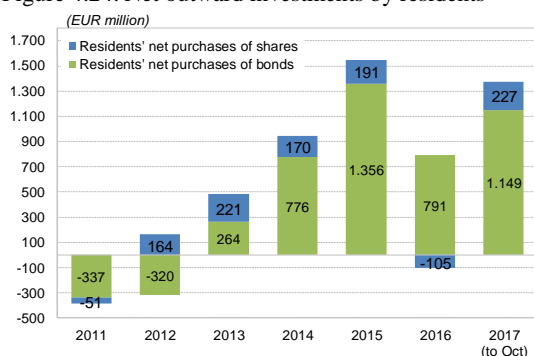
The domestic market in debt securities saw continued growth in the market capitalisation of debt securities as a result of the listing of additional government bond issues.⁵⁰ The market capitalisation of bonds increased by 15.6% over the first ten months of the year to EUR 24.4 billion. The increase in the market capitalisation of bonds was primarily attributable to the activity of the government sector, which increased its existing bond issues and issued a new 10-year bond for the purpose of buying back and replacing US dollar bonds. The increase in market capitalisation did not have any impact on the volume of trading in bonds, as the majority of trading was on the OTC market. The average monthly volume of trading in bonds on the Ljubljana Stock Exchange over the first ten months of the year was down 25.4% in year-on-year terms at EUR 10 million. Five bond issues accounted for the majority of the volume of trading in bonds (81%).

After increasing in 2016, total issuance of debt securities excluding the government sector declined in 2017. Issuance over the first ten months of the year was down 23.1% in year-on-year terms at EUR 178 million, which consisted of EUR 97 million in bonds and EUR 81 million in commercial paper. As in 2016, non-financial corporations issued the majority of debt securities in 2017, for EUR 170 million. The number of debt security issues increased from 13 in 2016 to 16 in 2017, of which 15 were non-financial corporations. The high capitalisation of non-financial corporations and the long-awaited reversal in their financing via bank loans since the beginning of 2017 have further reduced the already diminished market in debt securities.

The positive trend on the capital markets, the quest for alternative investments as debt securities mature and the rise in assets caused by economic growth are increasing residents' interest in foreign investments. Net investments in bonds over the first ten months of the year amounted to EUR 1.1 billion, compared with EUR 400 million in the same period of the previous year. The banks were the main factor in the increase in investments in foreign bonds: they made net purchases of bonds for EUR 980 million, the majority from euro area countries, followed by other EU countries, and by bonds issued in the US. The next-largest investors after the banks were insurance corporations, which recorded purchases of EUR 109 million, as they sold bonds from the euro area and purchased bonds from the US and third countries. This was further evidence of the quest for investments to provide higher returns in the low interest rate environment, albeit while taking up higher risk. Investors' appetite for foreign shares is increasing as a result of the positive trend on the capital markets and the increasing wealth in society. Residents invested EUR 226 million in foreign shares over the first ten months of 2017; meanwhile they were disinvesting in previous year. Insurance corporations and pension funds, in the net amount of EUR 114 million, made the largest net purchases of foreign shares over the first ten months of the year. The increased appetite for investing in shares is also evidenced at non-financial corporations and households, which recorded purchases of foreign shares in the amount of EUR 9 million and EUR 20 million respectively, having made net sales in the same period of 2016.

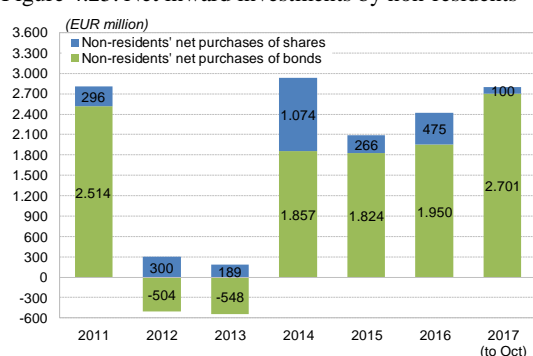
⁵⁰ The government issues debt securities on the domestic stock exchange, which has an impact on market capitalisation, but government borrowing is actually undertaken through the international environment.

Figure 4.24: Net outward investments by residents



Sources: KDD, Bank of Slovenia

Figure 4.25: Net inward investments by non-residents

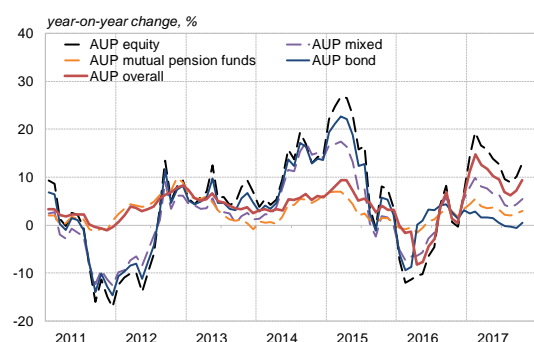


The partial buyback and replacement of US dollar bonds by means of an increase in existing issues and new issues brought an increase in net investments in bonds issued via the domestic capital market. Non-residents consequently made net purchases of EUR 2.7 billion in bonds issued in Slovenia.⁵¹ The largest purchases were made via residents of Belgium and Luxembourg. The majority of the purchases consisted of issuance and additional issuance of government bonds. Non-residents' net investments in domestic shares over the first ten months of the year amounted to EUR 100 million, down 77% in year-on-year terms. The sale of a domestic bank entered its final phase in 2016, which was a major factor in the increase in investments in domestic shares during that period. A major factor in net investments in shares over the first ten months of the year was the conversion of debt into equity in Slovenian public limited companies, which accounted for almost a third of net investment in domestic shares. Slightly more than a third of the net purchases of domestic shares (EUR 37 million) consisted of the acquisition of two Slovenian firms by a resident of the Netherlands and a resident of Slovakia. The other third consisted of net investments in diverse domestic shares.

Investment funds

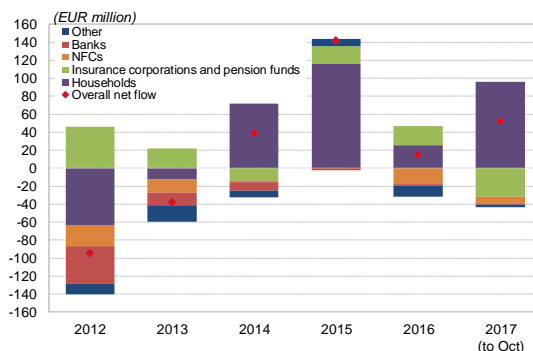
The favourable situation on the stock markets and the increased investor confidence are having a favourable impact on growth in average unit prices and net inflows into investment funds.⁵² Mutual funds' assets under management amounted to EUR 2.7 billion at the end of the October 2017, up 13.5% in year-on-year terms. The increase in assets under management was attributable to the positive developments on stock markets, which were reflected in a rise in average unit prices, and in an increased inflow into funds, particularly from households, as the majority of other institutional sectors recorded net withdrawals from funds. Households primarily invested in mixed funds and equity funds, an indication that they have renewed appetite to take up higher risk in the quest for higher returns. Insurance corporations, who recorded withdrawals from all fund types other than bond funds, recorded the largest net sales of investment fund units.

Figure 4.26: Growth in average unit price by type of mutual fund



Source: Bank of Slovenia

Figure 4.27: Net inflows into mutual fund by investor sector

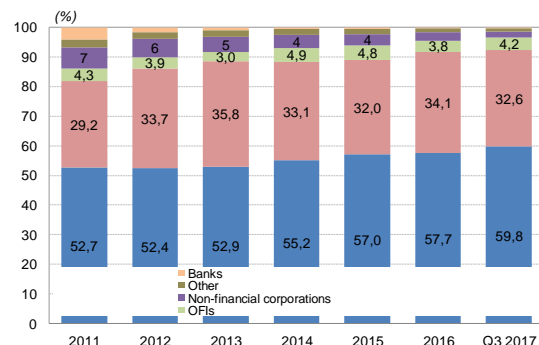


⁵¹ This is not a case of a net increase in Slovenian government borrowing, as non-residents sold Slovenian US dollar bonds issued in the rest of the world in exchange for their purchases of domestic bonds.

⁵² A lack of data means that only mutual funds are discussed below.

The differing dynamics in net inflows and withdrawals by investor sector has also been reflected in the ownership structure of mutual fund units. The proportion of mutual fund units owned by households stood at 60% in October 2017, up 2.2 percentage points in year-on-year terms, while the proportions accounted for by other sectors declined or remained unchanged as a result of withdrawals or minimal inflows.

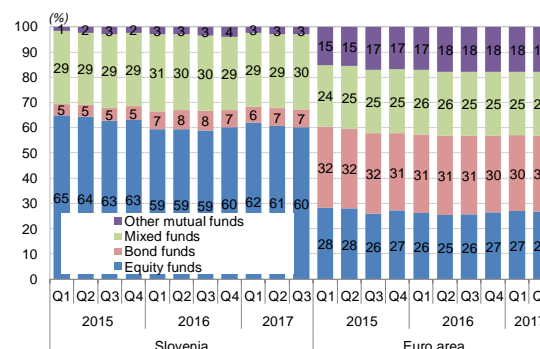
Figure 4.28: Ownership structure of domestic mutual fund units



Note: *Data for the euro area not available for the third quarter of 2017.

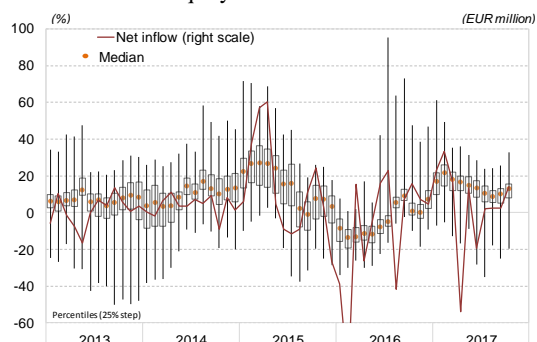
Sources: Bank of Slovenia, ECB

Figure 4.29: Breakdown of investments by fund type in Slovenia and the euro area*



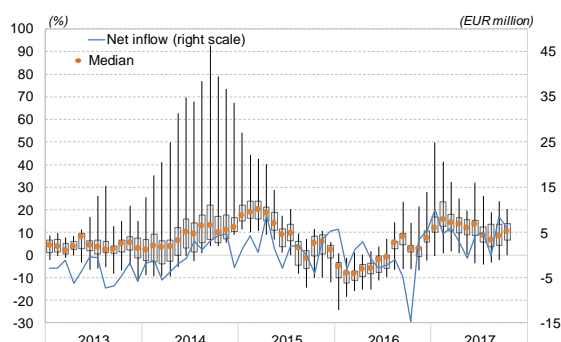
Equity funds and mixed funds are the most important forms of saving in mutual funds in terms of size. Equity funds account for 60% of mutual funds' total assets under management, and mixed funds for 30%. The distribution of annual returns on mutual funds narrowed in 2017, although individual equity funds recorded negative annual returns, some as large as 20%.

Figure 4.30: Distribution of annual returns and net inflows into equity funds



Source: Bank of Slovenia

Figure 4.31: Distribution of annual returns and net inflows into mixed funds



The range of returns between the 25th and 75th percentile of the distribution narrowed, most evidently at equity funds, where the large range of investment options means that the distribution of annual returns is usually widest. The median is also declining, which is further evidence of the strong growth seen on the stock markets over the two previous years, while growth slowed slightly in 2017.

5 MACROPRUDENTIAL POLICY INSTRUMENTS

5.1 Countercyclical capital buffer

The countercyclical capital buffer introduced pursuant to the ZBan-2 pursues the intermediate macroprudential policy objective of “mitigating and preventing excessive credit growth and excessive leverage”.

The purpose of the instrument is to protect the banking system against potential losses when excessive growth in lending is linked to an increase in risks in the system as a whole, which directly increases the resilience of the banking system.

Furthermore the countercyclical capital buffer indirectly contributes to a constraint on the expansive phase of the credit cycle by reducing the supply of loans or increasing the cost of lending. At the reversal of the credit cycle the Bank of Slovenia would relax the buffer, thereby mitigating the risk of the supply of loans being limited by regulatory capital requirements. This would increase the stability of the credit supply to the real economy over the entire financial cycle.

The countercyclical capital buffer rate may range from 0% to 2.5% of risk-weighted assets, and may exceptionally be higher.

The main criterion for determining the buffer rate is the private sector credit-to-GDP gap, i.e. the deviation in the private-sector credit-to-GDP ratio from its long-term trend. However, in light of the specific attributes of the Slovenian economy other indicators are significant, such as annual growth in real estate prices, annual growth in loans to the domestic private non-financial sector, the LTD ratio for the private non-banking sector, ROE and the ratio of credit to gross operating surplus.

The Bank of Slovenia reviews these indicators on a quarterly basis, and decides on any change in the buffer rate on this basis. The assessments in 2017 again revealed no need for a rise in the buffer rate, and it has remained unchanged at 0% since its introduction in January 2016.

5.2 Capital buffer for other systemically important banks

The buffer for other systemically important institutions (the O-SII buffer) introduced pursuant to the ZBan-2 aims to limit the systemic impact of misaligned incentives with a view to reducing moral hazard, which is also one of the intermediate macroprudential policy objectives set out by the Guidelines for the macroprudential policy of the Bank of Slovenia.

In identifying O-SIIs, the Bank of Slovenia partly followed the Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs). Under the aforementioned guidelines, banks are evaluated with regard to the criteria of size, importance to the economy of the European Union or of Slovenia, cross-border activity, and the interconnectedness of the bank or group with the financial system.

The ZBan-2 stipulates that at least once a year the Bank of Slovenia should verify the fulfilment of O-SII criteria and the appropriateness of O-SII buffer rates. In the identification process, the Bank of Slovenia took account of the mandatory indicators prescribed by the EBA, which are illustrated in Table 5.1.

Table 5.1: Mandatory indicators of systemic importance of banks

CATEGORY	WEIGHT	CRITERION	WEIGHT
Size	25%	Total assets	25%
Importance including substitutability and financial system infrastructure	25%	Value of domestic payment transactions	8,33%
		Private-sector deposits by depositors in EU	8,33%
		Private-sector lending to recipients in EU	8,33%
Complexity / cross-border activity	25%	Value of derivatives	8,33%
		Liabilities in jurisdiction of other country	8,33%
		Claims in jurisdiction of other country	8,33%
Interconnectedness	25%	Liabilities inside financial system	8,33%
		Assets inside financial system	8,33%
		Outstanding debt securities	8,33%

Source: EBA Guidelines

The score for each bank in the assessment of systemic importance is calculated in accordance with the guidance set out in point 8 of the EBA Guidelines:

- by dividing the indicator value⁵³ of each individual relevant entity by the aggregate amount of the respective indicator values summed across all institutions in the Member State (the “denominators”);
- by multiplying the resulting percentages by 10,000 (to express the indicator scores in terms of basis points);
- by calculating the category score for each relevant entity by taking a simple average of the indicator scores in that category;
- by calculating the overall score for each relevant entity by taking a simple average of its four category scores.

Point 9 of the EBA Guidelines stipulates that the “relevant authorities should designate relevant entities with a total score equal to or higher than 350 basis points as O-SIIs. Relevant authorities may raise this threshold up to 425 basis points as a maximum or decrease it to 275 basis points as a minimum to take into account the specificities of the Member State’s banking sector and the resulting statistical distribution of the scores, thereby ensuring the homogeneity of the group of O-SIIs designated in this way based on the O-SIIs’ systemic importance.” Given the specificities of the Slovenian banking market, extremely small banks that in terms of size (measured by total assets or ratio of total assets to GDP) bear no comparison with the O-SIIs in other parts of the banking union would be designated O-SIIs under a threshold of 425 basis points. The use of the previous threshold would also see two-thirds of the banks established in Slovenia identified as O-SIIs, which is not in keeping with the purpose of the EBA Guidelines. O-SIIs must meet the capital buffer requirement, and are therefore placed under a heavier burden (compared with institutions of the same size or even larger institutions from other countries), which breaches the principle of proportionality and the level playing field in the European environment.

The Bank of Slovenia therefore retained the EBA methodology, but derogated from the application of point 9 of the EBA Guidelines and raised the threshold for identification as an O-SII from 350 to 500 basis points, adjusting the scale linking the points score and the O-SII buffer rate. The rise in the threshold to a level above 450 basis points required the amendment of the Regulation on application of the Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs) (Official Gazette of the Republic of Slovenia, Nos. 66/15 and 68/17) and the Regulation on the determination of the capital buffer for other systemically important institutions (Official Gazette of the Republic of Slovenia, Nos. 96/15 and 68/17).

The new thresholds for brackets set out in the amended Regulation on the determination of the capital buffer for other systemically important institutions (Official Gazette of the Republic of Slovenia, Nos. 96/15 and 68/17) are illustrated in Table 5.2.

⁵³ The table uses the term “criterion”; the terms follow the wording of the EBA Guidelines.

Table 5.2: Thresholds of brackets and capital buffer rate

SCORE	CAPITAL BUFFER
5,400-	2%
4,700-5,399	1,75%
4,000-4,699	1,50%
3,300-3,999	1,25%
2,600-3,299	1,00%
1,900-2,599	0,75%
1,200-1,899	0,50%
500-1,199	0,25%

Source: Regulation on the determination of the buffer for other systemically important institutions

The scores in relation to the indicators of systemic importance defined in 2017 and the capital buffer rates that must be met by banks as of 1 January 2019 are illustrated in Table 5.3. Each bank must meet the buffer at the highest level of consolidation in Slovenia, through common equity Tier 1 capital.

Table 5.3: Scores in assessment of systemic importance and capital buffer rates

	SYSTEMIC IMPORTANCE SCORE	CAPITAL BUFFER as of 1 Jan 2019 (as proportion of total risk exposure)
NLB d.d.	3071	1,00%
SID banka d.d., Ljubljana	1183	0,25%
Nova KBM d.d.	951	0,25%
UniCredit banka Slovenija d.d.	710	0,25%
Abanka d.d.	659	0,25%
SKB d.d.	600	0,25%
Sberbank d.d.	535	0,25%

Source: Bank of Slovenia

5.3 Instruments for limiting risk of maturity mismatch and liquidity risk in banking

In accordance with a regulation adopted by the Governing Board of the Bank of Slovenia on 12 December 2017, two macroprudential measures aimed at limiting the risk of excessive maturity mismatch and illiquidity in banking entered into force as recommendations on 1 January 2018.

The Governing Board regulation sets a minimum recommended value for the liquidity ratio, which is the ratio of the sum of financial assets to the sum of liabilities with regard to residual maturity, and the minimum recommended value for the ratio of the annual change in the stock of loans to the non-banking sector before impairments to the annual change in the stock of deposits by the non-banking sector (GLTDF). In addition, it stipulates that the banks must report the liquidity ratio to the Bank of Slovenia on a daily basis.

5.3.1 Liquidity ratio

Any bank operating in Slovenia must regularly calculate and monitor its liquidity ratio, which is the ratio of the sum of financial assets to the sum of liabilities (in domestic and foreign currencies) with regard to residual maturity. To this end, banks must classify financial assets and liabilities by residual maturity into two buckets as follows:

- (a) first bucket: financial assets and liabilities with a residual maturity of up to 30 days, and
- (b) second bucket: financial assets and liabilities with a residual maturity of up to 180 days.

The liquidity ratio for each bucket must be calculated on a daily basis for the previous business day. The recommendation is to maintain a first-bucket liquidity ratio of at least 1, while the second-bucket liquidity

ratio is merely of an informative nature. At the request of the Bank of Slovenia, a bank that fails to attain the recommended value for the first-bucket liquidity ratio must provide relevant explanations for the failure to attain the recommended value, and must cite other measures by which it limits liquidity risk.

The liquidity ratio (first-bucket and second-bucket) was introduced in September 2001 as a macroprudential instrument, since which it has undergone several changes.⁵⁴ Owing to the introduction of harmonised liquidity standards, i.e. the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), it was necessary to abolish national macroprudential liquidity measures on 1 January 2018, unless they were not being applied as macroprudential measures. The Governing Board's regulation of 12 December 2017 *de facto* recognises the need for a recommendation to banks operating in Slovenia to monitor their liquidity position more frequently than is necessary for the calculation of the LCR, having regard for the Slovenian banking system's current exposure to systemic liquidity risk. The decision to retain the national liquidity ratio as a recommendation is justified, as this measure will purportedly limit the banking system's exposure to systemic liquidity risk, thereby helping to attain one of the intermediate objectives of macroprudential policy,⁵⁵ namely mitigating and preventing excessive maturity mismatch and illiquidity.

5.3.2 GLTDF

The GLTDF instrument (the ratio of the annual change in the stock of loans to the non-banking sector before impairments to the annual change in the stock of deposits by the non-banking sector, or gross loans to deposits flows) is a macroprudential measure whose purpose is to slow the pace of the decline in the LTD ratio in the banking system, thereby improving the impaired intermediation of financial assets to the non-banking sector.

It is recommended for a bank with a positive (annual) increase in deposits by the non-banking sector that the (annual) GLTDF at the end of the quarter be zero or positive:

$$\Delta D > 0 \Rightarrow \text{GLTDF} \equiv \frac{\Delta L}{\Delta D} \geq 0\%,$$

where ΔD (ΔL) is the annual inflow of deposits by the non-banking sector (loans to the non-banking sector). This means that banks that are seeing an increase in deposits by the non-banking sector are not reducing their stock of loans to the non-banking sector. The calculation of GLTDF takes account of the gross stock of loans, i.e. before impairments.

The measure was introduced in June 2014 as a macroprudential measure whose purpose was to mitigate and prevent excessive maturity mismatch and illiquidity, which is one of the intermediate objectives of macroprudential policy defined by the Guidelines for the macroprudential policy of the Bank of Slovenia.⁵⁶ Initially the measure *de facto* directed banks that were raising deposits but reducing lending to the non-banking sector (i.e. failing to meet the GLTDF requirements) to raise their liquidity ratio.

Given its evident positive effects, the measure has never been tightened, but one of the prescribed corrective measures, namely a minimum value that must be met on a quarterly basis (GLTDFq) for a bank that is failing to meet the annual GLTDF requirement, was relaxed in 2016.⁵⁷ The measure was converted into a recommendation in December 2017.

⁵⁴ The changes in the liquidity ratio requirement primarily concerned its relaxation, either in the form of a reduction in the risk weight for sight deposits (having regard for their observed stability) or the expansion of the category of financial assets that can be used in the calculation of the numerator in the liquidity ratio. The Governing Board thus resolved in December 2008 that financial assets pledged as collateral for ECB funding would be eligible for inclusion in the numerator of the liquidity ratio, thereby reducing the liquidity requirement's potential adverse impact on lending, which had already been adversely impacted by the financial crisis.

⁵⁵ The intermediate objectives of macroprudential policy are described in the [Guidelines for the macroprudential policy of the Bank of Slovenia](#) approved by the Governing Board of the Bank of Slovenia at its meeting of 6 January 2015.

⁵⁶ [Guidelines for the macroprudential policy of the Bank of Slovenia](#), approved by the Governing Board of the Bank of Slovenia at its meeting of 6 January 2015.

⁵⁷ Banks first had to meet the requirement of $\text{GLTDF} \geq 0\%$ between June 2014 and March 2015. The gradual tightening of the measure was envisaged in June 2014, whereby as of April 2015 banks would have to meet the requirement of $\text{GLTDF} \geq 40\%$.

Corrective measures in event of the failure to meet the GLTDF requirements were initially set out. Under the first corrective measure, banks with a positive quarterly increase in deposits by the non-banking sector would have to meet a higher GLTDF requirement calculated on quarterly changes in stock (GLTDFq), namely $\geq 40\%$ or $\geq 60\%$ depending on

5.3.3 Why is there a recommendation for the liquidity ratio and GLTDF? Liquidity risk in the current and envisaged scenario

On the basis of an assessment of the liquidity ratio and the GLTDF instrument, and the favourable developments in key indicators such as the stabilisation of the LTD ratio, in December 2017 the Governing Board adopted the Regulation on the conversion of the minimum requirements with regard to the liquidity ratio and GLTDF into a non-binding macroprudential recommendation, which entered into force on 1 January 2018. Through the maintenance of these instruments in the form of recommendations to banks, the Bank of Slovenia is communicating to credit institutions that they are required to monitor the stability of funding, to diligently manage liquidity risk and to gradually transform the released liquid assets.

As stated, the purpose of the liquidity ratio and the GLTDF instrument is to help stabilise the structure of the banking system's funding and to reduce systemic liquidity risk. Given the position when the measures were introduced, Slovenian banks are currently assessed as being less vulnerable in the event of the realisation of liquidity risk.

On one hand, the liquidity ratio is currently higher than it was at the time of introduction, while in addition liquid assets (as a proportion of total assets) have increased since the outbreak of the financial crisis in 2008, similarly to funding via deposits. However, the growth in deposits has been associated with an increase in the proportion of sight deposits (and a decline in the proportion of fixed-term deposits) by the non-banking sector. As far as possible developments in deposit structure are concerned, the most likely scenario is that during any rise in interest rates, sight deposits will shift back to fixed-term deposits.⁵⁸ The normalisation of interest rates will make the interest rate yield curve steeper, which will most likely result in a widening of the interest rate spread between sight deposits and fixed-term deposits, as a result of which fixed-term deposits will become more attractive to depositors than sight deposits. As a result of the anticipated reallocation of deposits towards fixed-term deposits, the banks will become less sensitive to refinancing risk.

However, the improvement in the economic situation and the anticipated rise in interest rates will probably increase consumption and new higher-yielding investment opportunities.⁵⁹ If these are more attractive to households and firms, an outflow of deposits from the banking system can be expected, although it will be gradual if it actually happens. Deposits by the corporate sector can be expected to be more sensitive to the risk of outflows from the banking system than deposits by Slovenian households, which over the longer term usually show a strong and stable preference for traditional forms of domestic saving/investment that are more familiar with, which means bank deposits. Therefore the money currently stored in deposits will probably not be transferred out of the banking system in larger volumes.

Given the possibility of the banks making differing adjustments to their deposit rates, there is a risk of the switching of deposits between banks, which could weaken certain banks' resilience to liquidity risk, and could potentially have systemic effects.

In light of the large proportion of liquid assets (on the balance sheet) and the anticipated shift from sight deposits to fixed-term deposits, it was resolved to relax the requirements with regard to the liquidity ratio and GLTDF, but to retain them as a recommendation because of the risk of partial withdrawal of deposits from the banking system or from less competitive banks, which could lead to adverse systemic effects. The conversion of the first-bucket liquidity ratio and the GLTDF instrument from mandatory measures to recommendations will likely encourage the banks to reduce the stock of liquid assets. Because the banks are required to report on the liquidity position on a daily basis, the Bank of Slovenia will be able to continually monitor any adverse developments and to intervene immediately.

the original requirement. Under the second corrective measure, banks that failed to meet the GLTDF and GLTDFq requirements would have to meet a higher liquidity ratio.

Because the LTD ratio began to stabilise after the introduction of GLTDF, the macroprudential measure was not tightened in 2015, even though this had previously been envisaged. The corrective measure was relaxed in 2016, and now the requirement is for a GLTDFq $\geq 0\%$.

⁵⁸ A more-detailed description of potential scenarios for developments in deposits is given in the thematic section of the [Financial Stability Review, June 2017](#).

⁵⁹ The total stock of deposits could be reduced by the wealth effect, which would encourage households to increase consumption and reduce saving. An increase in economic growth associated with higher wages and higher interest rates would actually increase household fixed income, which would lead to an increase in consumption and a decline in saving. Similarly, for firms it would be more profitable to use the money for material investments than to store it in the form of bank deposits.

5.4 Instruments for the residential real estate market

Macprudential recommendation

The Bank of Slovenia introduced two non-binding macroprudential recommendations for the residential real estate market in 2016. The first limits the maximum recommended ratio of the amount of a housing loan to the value of the real estate collateral (LTV). The second constrains the ratio of the annual debt servicing cost to borrower's annual income when a loan agreement is concluded (DSTI). The recommended LTV ceiling is 80% and is the same for all borrowers. The DSTI recommendation depends on monthly earnings. It is 50% for income up to EUR 1,700 and 67% for part of income above this threshold. Moreover, in the loan approval process (when assessing creditworthiness) it is recommended that banks apply, *mutatis mutandis*, the limitations on the attachment of a debtor's financial assets set out in the Enforcement and Securing of Claims Act (the ZIZ⁶⁰) and the Tax Procedure Act (the ZDavP-2⁶¹), i.e. earnings that are exempt from attachment and limitations on the attachment of a debtor's monetary earnings.

The two measures pursue the intermediate macroprudential policy objective of mitigating and preventing excessive credit growth and excessive leverage.

The introduction of the macroprudential instruments does not encroach on the responsibilities of banks in the assessment of risk and risk taking. Banks must continue to determine their own internal policies in the assessment of risk and risk taking with regard to the value of real estate collateral and the creditworthiness of borrowers.

In the recommendation the Bank of Slovenia announced that it would monitor compliance with the recommendation via annual surveys of the structure of new housing loans or during regular inspections of banks. The first assessment of compliance with the recommendation was conducted using a survey in 2017. Because the recommendation was adopted in September 2016, the survey primarily measures the risk level of bank lending activity in 2016.⁶² It will only be possible to review compliance with the recommendation by analysing the survey results for 2017. The purpose of the survey is to monitor potential build-up of systemic risks. In the event of increasing systemic risks, the survey will be used as the basis for potential tightening or reclassification of instruments from non-binding to binding. Compliance with the recommendation is verified during regular inspections of bank.

The data obtained using the survey is not up-to-date, as the survey is conducted in the middle of the year for the previous year. The Bank of Slovenia monitors average LTV on a monthly basis using regular reporting data. However, this data differs from survey data and does not allow for the monitoring of the magnitude of deviations from the recommended value.⁶³ However, it allows at least partial ongoing monitoring of developments on the housing loan market.

Content of survey

The banks responded to six questions. They were asked to submit data for 2013, 2014, 2015 and 2016.

The first question required the banks to cite the value of new housing loans in thousands of euros, the number of loan agreements, and the average LTV for housing loans for each individual year. They were subsequently required to submit data on the average LTV and amount and number of loan agreements in each LTV bracket

⁶⁰ Official Gazette of the Republic of Slovenia, Nos. 51/98, 72/98 [constitutional court order], 11/99 [constitutional court ruling], 89/99 [ZPPLPS], 11/01 [ZRacS-1], 75/02, 87/02 [SPZ], 70/03 [constitutional court ruling], 16/04, 132/04 [constitutional court ruling], 46/05 [constitutional court ruling], 96/05 [constitutional court ruling], 17/06, 30/06 [constitutional court ruling], 69/06, 115/06, 93/07, 121/07, 45/08 [ZArbit], 37/08 [ZST-1], 28/09, 51/10, 26/11, 14/12, 17/13 [constitutional court ruling], 45/14 [constitutional court ruling], 58/14 [constitutional court ruling], 53/14, 50/15, 54/15 and 76/15 [constitutional court ruling].

⁶¹ Official Gazette of the Republic of Slovenia, Nos. 117/06, 24/08 [ZDDKIS], 125/08, 85/09, 110/09, 1/10 [correction], 43/10, 97/10, 24/12 [ZDDPO-2G], 24/12 [ZDoh-2I], 32/12, 94/12, 101/13 [ZDavNepr], 111/13, 22/14 [constitutional court ruling], 40/14 [ZIN-B], 25/14 [ZFU], 90/14, 95/14 [ZUJF-C], 23/15 [ZDoh-2O], 23/15 [ZDDPO-2L], 91/15, 63/16 and 69/17.

⁶² Under the assumption that the limits set by the Bank of Slovenia in the recommendation are limits above which systemic risk begins to build up in the banking system. The Bank of Slovenia decided on the ceilings defined in the recommendations because they did not significantly encroach on the banks' credit activity and business policies at the time of the adoption of the recommendation. At that time the situation on Slovenia's real estate market did not entail any direct risk to financial stability.

⁶³ For more, see the section on the real estate market.

of up to 50%, more than 50% and up to 60%, more than 60% and up to 70%, more than 70% and up to 80%, more than 80% and up to 90%, more than 90% and up to 100%, more than 100% and up to 110%, and more than 110%.

The second question required the banks to submit data on the average DSTI and to report the quantity of new housing loans (in terms of thousands of euros and the number of loan agreements) where the DSTI was up to 10%, more than 10% and up to 20%, more than 20% and up to 30%, more than 30% and up to 40%, more than 40% and up to 50%, more than 50% and up to 60%, more than 60% and up to 67%, and more than 67%.

The third question required the banks to report average LTV and DSTI and the value and number of loan agreements concluded in each of the combinations of LTV and DSTI across the aforementioned brackets.

The fourth question required the banks to submit data on the number and value of loan agreements concluded and the average maturity of loans in the maturity brackets of up to 5 years, more than 5 years and up to 10 years, more than 10 years and up to 15 years, more than 15 years and up to 20 years, more than 20 years and up to 25 years, more than 25 years and up to 30 years, and more than 30 years.

In the fifth question the Bank of Slovenia requested data on the amount and number of new housing loans, their average maturity and average DSTI across combinations of the aforementioned maturity and DSTI brackets. Banks can avoid DSTI recommendations by extending loan maturity.

The final question was aimed at reviewing compliance with the complex DSTI recommendation, which differs with regard to the level of income. The banks reported the number and value of loan agreements, the average income and the DSTI in combinations of the aforementioned brackets of DSTI and the 17 brackets of net income (from less than EUR 500, then up in steps of EUR 100 as far as EUR 2,000, and a final bracket of more than EUR 2,000).

Responses to the survey were submitted by all banks and savings banks except for SID banka, which has no retail business. One of the branches also participated, which means that the survey covered 15 credit institutions. The majority of the banks reported data for only certain loans (around 75% of the total). This applies in particular to the data relating to maturity and DSTI, where the data should have been available for all housing loans, and not just for those secured by real estate collateral. These loans could potentially be higher-risk, as many of them are unsecured.⁶⁴ Certain banks were not yet systematically monitoring data on DSTI in 2016, but reported that they had begun monitoring or were at least preparing to do so. It is recommended that all banks diligently monitor data on earnings of their clients.

Survey results

Changes in the new loans market can happen extremely quickly, as changes in a bank's business policy are sufficient to cause them. Nevertheless, no major shifts in the observed indicators were evident over the period of four years (2013 to 2016).

The average amount of a housing loan secured by real estate collateral and captured by the survey increased significantly between 2013 and 2016: by 16% from EUR 65,000 to EUR 75,000.⁶⁵ In parallel, the considerably more modest growth in LTV indicates that the average loan amount is increasing more than collateral value, which points to the potential increased risk taking by banks, who are perhaps counting on further growth in prices on the real estate market.⁶⁶ The average value of a housing loan has increased more than prices of real estate on the Slovenian market, which is likely an indicator of increased purchases in areas of faster price growth, supported by loans.

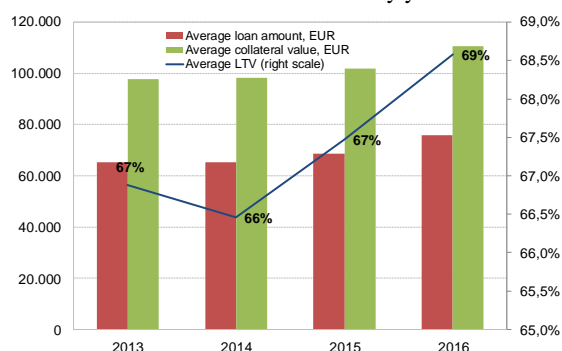
⁶⁴ It is evident from the banks' regular reporting that approximately 15% of all housing loans are unsecured.

⁶⁵ Loans not secured by a mortgage on real estate are smaller on average. This can be concluded from the responses to the question on maturity. Under this question certain banks also reported data on loans not secured by real estate collateral. The average loan amount under this question is lower (it stood at EUR 68,000 in 2016), but increased by approximately 15% between 2013 and 2016.

⁶⁶ The responses to the question on the outlook for the housing market, including expected developments in residential real estate prices in the Bank Lending Survey (BLS) do not indicate any changes in credit standards that would be related to price developments (in contrast to the similar question on the demand side: the banks attribute a significant part of the increased demand to expected developments on the real estate market), but in general it is unlikely that the banks would spontaneously report on the relaxation of credit standards. A similar conclusion can be drawn from the responses to the BLS question on the LTV: only in 2015 was LTV identified by the banks as having made a contribution to the relaxation of loan terms. Prior to this, the loan terms had remained unchanged or had been tightened since the beginning of 2008.

As illustrated in Figure 5.1, the LTV increased by 2 percentage points between 2013 and 2016.⁶⁷ In all the years analysed, most loans were approved in the LTV bracket of 70% to 80%, i.e. just below the ceiling deemed acceptable by the Bank of Slovenia. The proportion of such loans increased over the last two years, from 22% to 27% (see Figure 5.2). Despite compliance with the recommended value, a reduced or unchanged LTV in a situation of rising real estate prices does not necessarily entail no change in risks.⁶⁸ In the event of any reversal on the real estate market, falling prices could reveal the built-up risks. Many macroprudential authorities decide to tighten (reduce) the maximum allowed LTV in such a situation. The Bank of Slovenia will diligently monitor not just the amount of loans approved above the recommended ceiling, but also the amount of loans immediately below the ceiling, and will decide on potential tightening of the parameter in accordance with these developments and the developments on the real estate market.

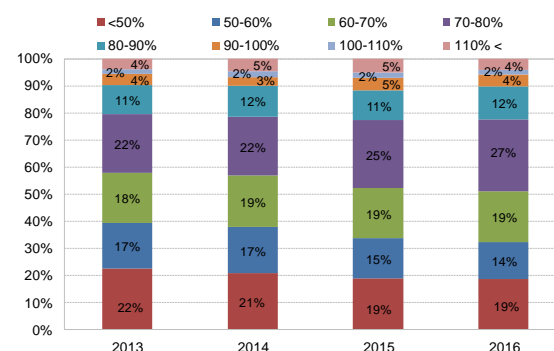
Figure 5.1: Average loan amount, average real estate collateral value and LTV by year



Note: Loans with outlying LTVs have been excluded from the calculation.

Sources: survey, own calculations

Figure 5.2: Distribution of loans by LTV by year



Note: The graph illustrates the percentages for 2013 to 2016.

Sources: survey, own calculations

Of course, loans where the LTV exceeds the recommended value are even higher-risk. The proportion of those loans remains stable at close to 22%. The largest proportion of loans, 12%, is approved in the bracket just above the recommended ceiling, i.e. between 80% and 90% (see Figure 5.2).

The banks are meeting the DSTI recommendation more than the LTV recommendation, most likely because of prudence and traditional observation of restrictions introduced in the phase of potential enforcement by the Enforcement and Securing of Claims Act.⁶⁹ There was no significant change in the average DSTI over four years, as it rose by just 2 percentage points (from 31% to 33%). The combined use of the two instruments is extremely important; a lower DSTI reduces the probability of default. The instrument is less sensitive to the credit cycle than LTV, which reduces loss given default. The DSTI is more important as a preventive instrument, as it prevents the occurrence of enforcement and the related sale of real estate collateral, i.e. the phase in which the LTV is important. Of course an appropriate LTV covers the bank in the event of default following the client's loss of income. Given the complicated definition of the DSTI recommendation, in the absence of data at the level of the loan, monitoring the requirement is relatively challenging, as each level of income has its own DSTI requirement. An assessment of the fulfilment of the DSTI recommendation can only be given in combination with the relevant data on income level, but the reporting of income brackets means that this is only approximate.

In all the analysed years, the largest proportion of loans, around 25%, were approved in the income bracket of more than EUR 2,000 (owing to the actual structure of the survey).⁷⁰ The peak in lower incomes falls in the three brackets between EUR 900 and EUR 1,200, which accounted for more than 26% of borrowers in 2016. The average income of a housing loan recipient declined from around EUR 1,800 in 2013 to around EUR 1,650 or even as low as EUR 1,600 in 2015, before rising again to close to EUR 1,660 in 2016.

⁶⁷ Certain loans with an LTV of more than 110% were excluded from the calculations on the grounds of evident errors.

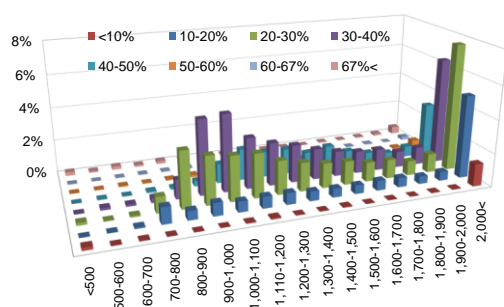
⁶⁸ A loan with an LTV of 80% in 2014, when real estate prices reached their low, does not entail the same risk as an LTV of the same level in 2016 or 2017, real estate prices having risen by 10.9% in the interim, which gives more room for any fall to a level seen in the past (or even lower).

⁶⁹ There is no compliance with the DSTI recommendation in between 8% and 19% of loans (depending on what the distribution of loans is within individual income brackets, regarding which there is no data), with the LTV recommendation in close to 22% of loans are not compliant.

⁷⁰ All incomes over EUR 2,000 are classed in the same bracket.

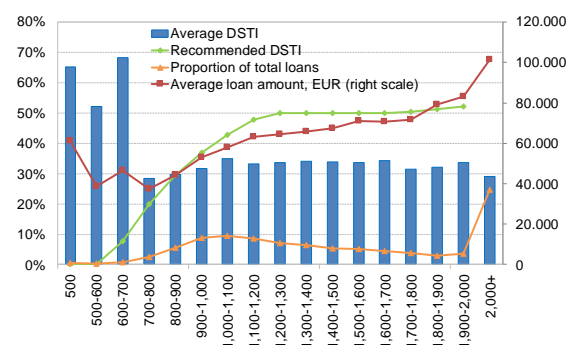
The data shows that the majority of loans in the four lowest income brackets fail to comply with the recommendation, and entail a risk to the banks that approve loans of this type.⁷¹ These loans are relatively large compared with the borrower's average income: in the first four income brackets, which also display non-compliance with the recommendation overall, loans range from approximately EUR 37,000 to EUR 61,000. That is more than the average loan in the next higher income brackets. Given the exceptionally small stock of these loans (they account for just 4% of total loans), it can be concluded that they do not give rise to systemic risk (see Figure 5.4). In any case the banks should be cautious in approving loans to borrowers with very low income, particularly if they are unable to offer adequate collateral. The current design of the survey unfortunately does not allow for the simultaneous monitoring of income, DSTI and LTV.

Figure 5.3: Distribution of loans with regard to borrower's income and DSTI, 2016



Sources: survey, own calculations

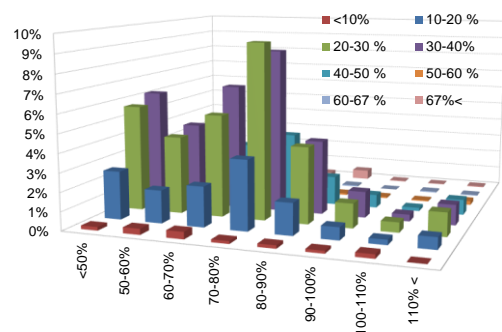
Figure 5.4: Recommended DSTI, weighted average DSTI for new loans, average loan amount, and percentage of loans approved, by income bracket in 2016



Sources: survey, own calculations

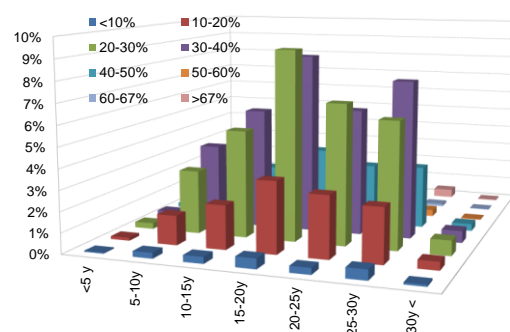
In 2016 the largest proportion of loans (9% of the total) were approved in the LTV bracket of 70% to 80%, i.e. just below the recommended ceiling, and in the DSTI brackets of 20% to 30% and 30% to 40% (see Figure 5.5). The lack of simultaneous data on income means that compliance with the DSTI recommendation cannot be verified, although it can be concluded that these loans are mostly within the limits of the recommended values.⁷² Merely just over 1% of loans are potentially higher-risk with an LTV of more than 80% and a DSTI of more than 50%.⁷³

Figure 5.5: Distribution of loans with regard to LTV and DSTI, 2016



Sources: survey, own calculations

Figure 5.6: Distribution of loans with regard to maturity and DSTI, 2016



Sources: survey, own calculations

The banks can adjust to the DSTI restrictions by lengthening loan maturities. The average maturity of new housing loans ranged from 20 to 21 years during the years analysed. The largest proportion of loans were

⁷¹ Between 7% and 19% of loans in the income brackets of EUR 800 to EUR 1,700 failed to comply with the recommendation in 2016, compared with just 2% to 4% of loans in the brackets above EUR 1,700. This is understandable, as borrowers with higher income do not necessarily purchase much more expensive properties than borrowers with low income, but there is a greater likelihood of them having savings that allow them to invest a larger proportion of their own assets and consequently to take out a smaller loan with lower monthly instalments.

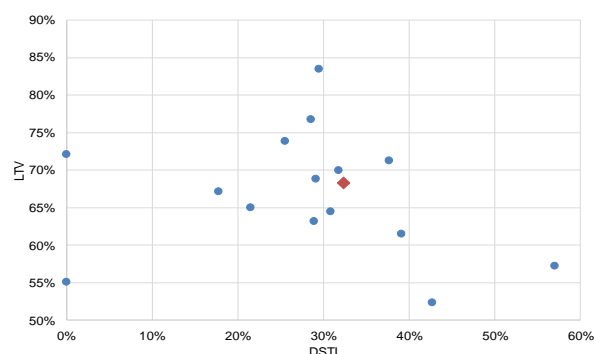
⁷² Between 5% and 17% of loans in the DSTI brackets of 20% to 40% failed to comply with the recommendation in 2016.

⁷³ It follows from the combination of DSTI and income data that more than 80% of the loans with a DSTI of more than 50% failed to comply with the recommendation in 2016.

approved with a maturity of more than 15 and up to 20 years (26% in 2016), followed by loans with a maturity of between 20 and 25 years (21% in 2016) and loans with a maturity of between 25 and 30 years (20% in 2016). There was a significant change in the proportion of new loans with a maturity of more than 30 years. The figure increased gradually, from 1% in 2013 to 5% in 2016. The banks must be careful to adequately hedge against interest rate risk, particularly when approving fixed-rate loans with very long maturities. They must also be attentive of the risks related to the approval of loans to less creditworthy clients, where compliance with the DSTI recommendation is enabled. It would be problematic to observe that DSTI also rose at longer maturities, particularly when banks approved a variable-rate loan to a barely creditworthy client who could not obtain a fixed-rate loan. Such loan could be subject to above-average credit risk. The largest proportion of loans (9% of the total) were approved in the DSTI brackets of 20% to 30% and 30% to 40% with a maturity of 15 to 20 years. Loans with a maturity of 25 to 30 years and a DSTI of between 30% and 40% are also prominent. Higher-risk loans with a DSTI of more than 50% and a maturity of more than 20 years account for less than 2% of the total (see Figure 5.6).

DSTI and LTV values vary considerably from bank to bank: the average DSTI ranges from 17% to 58%, while the average LTV ranges from 60% to 87%. One bank has an average LTV above the recommended value, and the same is true of DSTI (see Figure 5.7). The proportion of loans where the recommended values are exceeded also varies. In the case of binding measures, macroprudential authorities usually allow a certain proportion of loans (between 10% and 20%) approved at an individual bank to not comply with the requirements.⁷⁴ The data for Slovenian banks reveals that more than 20% of loans at eight banks and across the banking system as a whole deviate from the recommended LTV. There are two banks where more than 20% of loans exceed the recommended DSTI, while the figure for the banking system overall is less than 20%. At no bank do more than 20% of loans fail to comply with the requirement for each indicator (see Figure 5.8⁷⁵), an indication of the banks' different preferences with regard to the use and strictness of the two creditworthiness indicators. These results further show that any mandatory application of the instruments would see a large proportion of banks limit their lending activity: the non-compliant loans would either not be approved or would only be approved in part (if the client could purchase the real estate with a reduced loan).

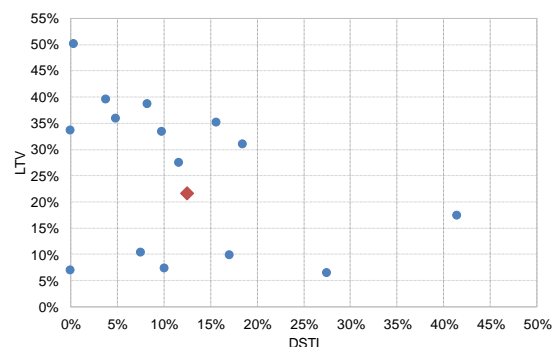
Figure 5.7: Average LTV and DSTI at individual banks, 2016



Note: The two banks that failed to report any DSTI data are illustrated on the vertical axis. Outliers are omitted from the illustration and calculation. The figures for the banking system overall are illustrated in red.

Source: survey

Figure 5.8: Proportion of loans at individual banks that exceed recommended LTV and DSTI, 2016



Note: The two banks that failed to report any DSTI data are illustrated on the vertical axis. The DSTI result is the average of the extreme proportions of loans that are assessed as not complying with the recommendation. The figures for the banking system overall are illustrated in red.

Source: survey

⁷⁴ These arrangements apply for example in the Czech Republic (which applies a recommendation, not a binding instrument), Slovakia and Ireland.

⁷⁵ The DSTI data is not available for one of the banks where more than 20% of the loans exceeded the recommended LTV in 2016.