



EUROSÜSTEEM

# FINANCING OF THE ECONOMY

MARCH  
2020

## **FINANCING OF THE ECONOMY**

The review of financing and lending in the non-financial sector covers banking and leasing statistics, financial accounts analysis and credit supply and demand. It is published once a year.

FINANCING OF THE ECONOMY is available at

<http://www.eestipank.ee/en/publications/series/lending-review>.

and is free of charge to subscribers.

Email: [publications@eestipank.ee](mailto:publications@eestipank.ee).

Review by Taavi Raudsaar, Silver Karolin, Gaili Grüning, Eva Branten,  
Madis Laas, Ulla Tischler

Online ISSN 2504-5482

Layout Urmas Raidma

**March 2020**

## CONTENTS

SUMMARY .....	<u>4</u>
1. COMPETITION IN THE ESTONIAN BANKING MARKET .....	<u>5</u>
2. THE EQUITY AND FUNDING OF THE BANKS AS A FACTOR IN THE SUPPLY OF CREDIT .....	<u>9</u>
3. ACCESS OF COMPANIES TO FUNDS .....	<u>12</u>
4. ACCESS OF HOUSEHOLDS TO FUNDING .....	<u>15</u>
5. GROWTH IN THE DEBT OF HOUSEHOLDS AND BUSINESSES AND THE FORECAST FOR THE YEARS AHEAD .....	<u>18</u>
6. CORPORATE EQUITY .....	<u>21</u>

## SUMMARY

The financing of the Estonian economy is based largely on the local banking sector. Non-bank financing has so far only played a modest role. Estonia is a small country, and so the number of banks operating in it and the average assets that they hold are among the smallest in the European Union. The small number of banks and the consequent high market concentration does not mean though that borrowers always have worse access to loans or stricter conditions. In recent years the larger banks have not tried to use loan pricing aggressively to win new clients and increase their market share. Although borrowers have to pay higher interest costs than those in many other countries at present, the good profitability of the banks helps to ensure sustainable lending to the non-financial sector.

In the past couple of years, several foreign-owned banks have exited the Estonian banking market or merged their business activities. This has reduced competition a little for corporate loans and housing loans. Some banks based on local capital are growing quickly but are not able to compete in all loan segments and at all lending prices. The problem is eased somewhat in the market as a whole because the Estonian banking sector does not face any substantial restrictions on funding or capitalisation in lending to the non-financial sector. In addition, other sources of funding have to some extent managed to replace the banks. Finding a new bank or other lender is evidently a hassle and demands effort, but fortunately it is happening at a good point in the economic cycle when the non-financial sector can cope more easily, and in the long term it is beneficial that sources of financing become more varied through different participants in the financial sector.

The interest rates on loans issued by banks operating in Estonia are higher than the average in the euro area. It should be remembered though that growth in the Estonian economy and inflation are also notably higher, and it is possible that the average interest rate in the euro area would be too low for the point in the Estonian economic cycle. Real interest rates, which indirectly take account of the position of the economy, are quite similar in Estonia and the euro area. A high nominal interest rate could well be a problem for the competitiveness of exporting companies, as Estonian companies

compete in foreign markets with competitors who can get better financing conditions.

There are fewer lenders in the housing loan market, and competition has declined. Strong demand for loans has allowed banks to choose their clients more than ever before, and to issue loans with higher interest margins. The capacity of clients to take housing loans remains good though as wages continue to rise fast. Large amounts of consumption loans are also being issued, primarily because there are a lot of lenders, but the cost of credit<sup>1</sup> for such loans can be quite high. Eesti Pank forecasts that the growth in loans will fall a little in the coming years from the current 7% to around 6%, because although growth is slowing in the economy, the labour market still remains quite good for workers.

Growth in the total debt of Estonian companies accelerated to 6% in 2019. The growth was probably boosted by an increase in investment in fixed assets. The Eesti Pank forecast expects the growth in corporate debt to slow to close to 5% in future. Companies continue to borrow mainly from banks operating in Estonia, though the growth in bank loans slowed last year. There was an increase at the same time though in borrowing from foreign parent companies, and in funding taken from the domestic non-bank financial sector.

The buffers they have built up mean that Estonian companies have high levels of liquid assets, and their ability to fund their activities from own funds remains good. This means that companies can finance the purchase of assets and investment using their own funds to a large extent, and this should reduce the need to borrow. Even so, the strong position of liquid assets and own funds should allow them to borrow more easily and on better conditions if necessary.

The amount of foreign investment in Estonia has increased. Particularly notable is the increase in equity investment. This has not been reined back even by the stricter attitude of banks to opening and closing accounts because of tougher anti-money laundering measures. At the same time the foreign-owned companies operating in Estonia have increased their profit distribution. This has been made possible by the large buffers they have built up, and has been encouraged by changes in the income tax law.

---

<sup>1</sup> The cost of credit shows the total cost of a loan for the borrower.

# 1. COMPETITION IN THE ESTONIAN BANKING MARKET

**The Estonian financial sector is bank-focused.** The portfolio of loans taken from the banking sector by the non-financial sector in Estonia is proportionally one of the largest in the European Union, and is more than four times the total value of the equity and bonds market (see Figure 1). Although non-bank financial intermediation is increasing in Estonia, it is still not able to offer very much competition to the banking sector. This means that the banking sector and what happens in it is very important for the financing of the economy.

## COMPETITION IN THE ESTONIAN BANKING SECTOR

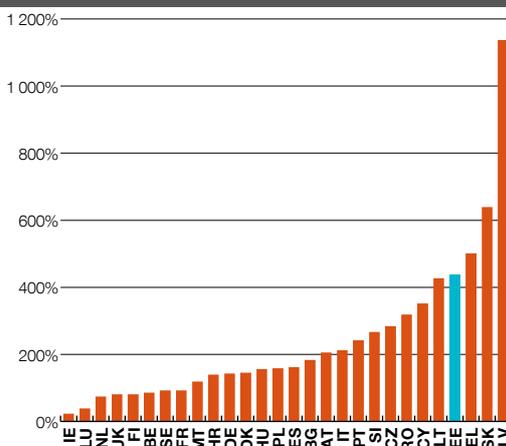
**Estonia is a small country, and so the number of banks operating in it and the assets that they hold are among the smallest in the European Union.** This makes the fixed costs of creating and operating a bank in Estonia higher, which sets some limits on new banks entering the market. In consequence the Estonian banking sector is extremely concentrated, and at the end of 2019 the five largest banks had total market share of 90%. The Herfindahl–Hirschman index<sup>2</sup> for the Estonian banking sector was almost 2700 at the end of 2018, which reflects a high level of concentration (see Figure 2). The high level of concentration also means that structural competition is much weaker in Estonia than in other countries of the European Union.

**A high level of concentration in the banking sector does not always mean though that prices are higher for loans.** There are some countries in the European Union that have the same levels of concentration in the banking sector but lower interest rates, and there are others where market concentration for banks is lower, but interest rates are higher (see Figure 3). This means there is no single, fixed link in the European Union countries between concentration in the banking sector and loan interest rates.

**Competition can be measured using indicators for structure and concentration in the banking sector, but also through various indicators for pricing and efficiency.** Data from

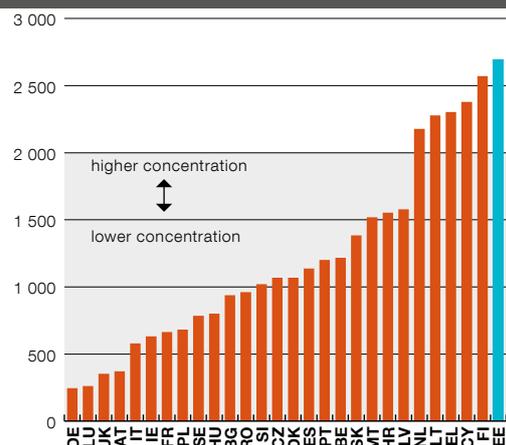
<sup>2</sup> The Herfindahl–Hirschman index measures market concentration on a scale from 0 to 10,000. The higher the value, the more concentrated the market is. Markets in the European Union are considered to be very concentrated when the index is above 2000, and in that case there is probably insufficient competition.

**Figure 1. Ratio of non-financial sector bank loans to securities issued**



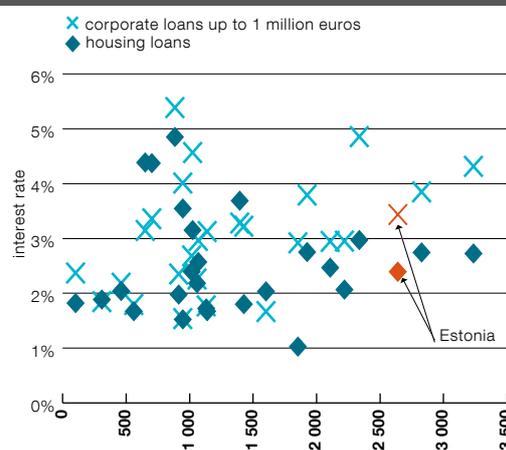
Sources: European Central Bank, Eesti Pank calculations

**Figure 2. Banking sector Herfindahl–Hirschman Index, 31.12.2018**



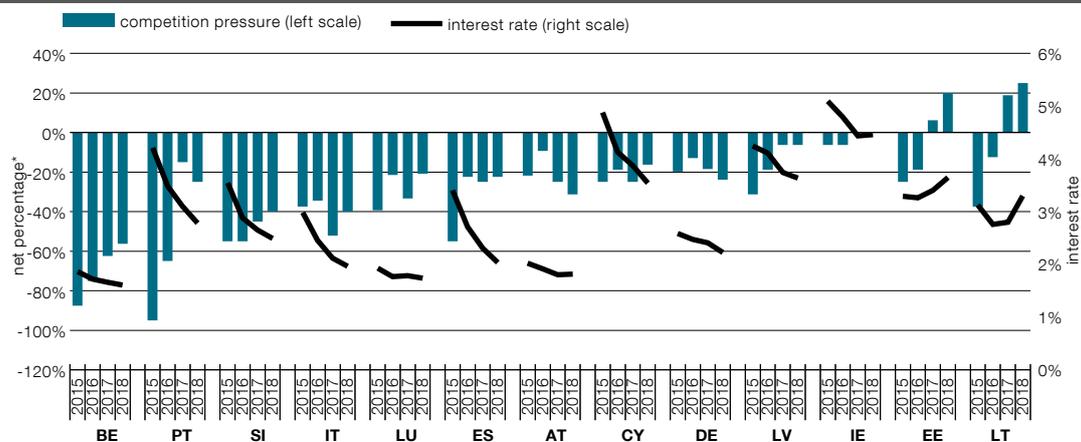
Source: European Central Bank

**Figure 3. Banking sector Herfindahl–Hirschman Index and interest rates\***



\* 2016-2018 average  
Sources: European Central Bank, Eesti Pank calculations

**Figure 4. Competition pressure on the margins of average corporate loans, and the interest rate**

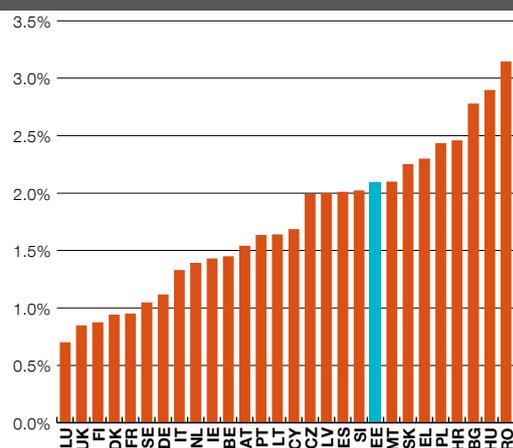


Sources: European Central Bank, Eesti Pank calculations

the World Bank<sup>3</sup> indicate that the Lerner index for the Estonian banking sector, which measures the price-cost margin as a ratio to interest income, was below the median for other countries in the European Union in 2010. This means that competition in the Estonian banking sector was higher than the median. However, this indicator, like the concentration index, is not directly linked to interest rates in the countries of the European Union, meaning the lowest price-cost margin and the lowest interest rates are not always to be found in the same countries. Equally the latest data from the World Bank show that the Boone indicator, which measures the elasticity of profits to marginal costs, was below the median for the European Union countries in 2014 in Estonia, meaning that competition in Estonia was above the average. No relation with loan interest rates is seen for this indicator either, as loan prices are affected by other factors, some of them demand side.

**Competition generally affects loan prices when banks are fighting actively for new clients or market share and react to competition pressure coming from other market participants.** In the past four years, banks in several countries in the euro area have reported that competition pressure has affected their loan margins (see Figure 4<sup>4</sup>). In almost all the countries where the banks reported that loan margins had been affected by competition pressure, interest rates fell.

**Figure 5. Net interest income of the banking sector, % of total assets, 31.12.2018**



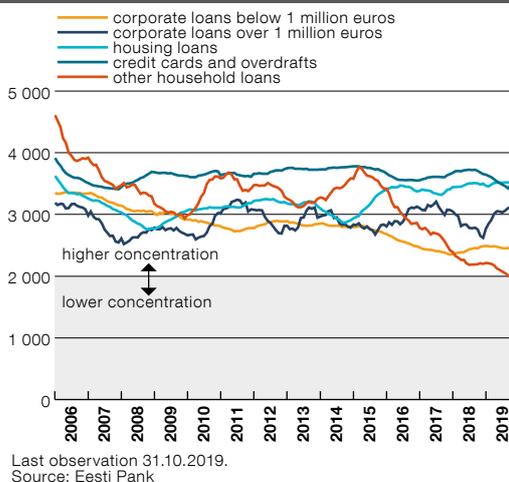
Source: European Central Bank

Naturally the price of loans also affects the profitability of banks. Competition pressure and low interest rates are generally good for the financing of an economy, but if the pressure is too strong and loan prices and the profitability of the banks are too low, the ability of the banks to continue financing the economy can become doubtful. This is because low profitability may mean that banks do not hold the buffers they need, and in bad times when the non-financial sector really needs support from the banking sector, it can be hard to access loans. In consequence the European Central Bank has drawn attention to the risks from overbanking and low

<sup>3</sup> <https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database>

<sup>4</sup> Net share is the difference between the numbers of banks reporting a reduction in pressure and an increase in pressure. A negative value indicates that a larger share of banks have reported an increase in pressure.

**Figure 6. Herfindahl–Hirschman Index across different loan segments**



profitability<sup>5</sup>. The net interest income of the banks operating in Estonia as a ratio to total assets is above the average for the European Union (see Figure 5). Their good profitability and loan quality mean that the profit of Estonian banks in ratio to assets and equity is among the highest in the European Union<sup>6</sup>.

## COMPETITION FOR DIFFERENT LOAN TYPES

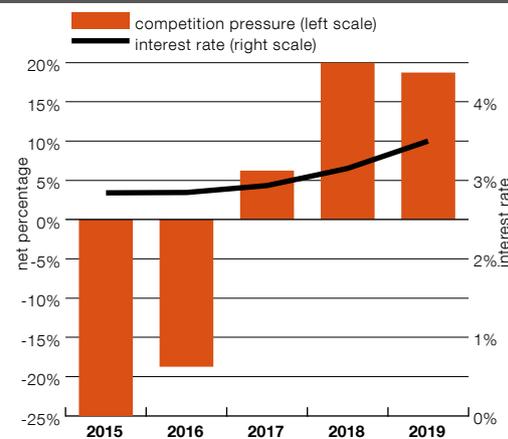
**Market concentration is different in Estonia for different types of loans and has changed over time** (see Figure 6). The highest concentration is in the markets for housing loans, credit cards and overdrafts, and the lowest is in the market for other loans to households, which are mainly consumption loans. Concentration has declined from where it was five years ago in the markets for other household loans and corporate loans of under one million euros. However it is not the case for all loan types that reduced concentration in the segment has led to lower interest rates or increased concentration to higher rates. The price of loans depends on other factors.

**Competition has affected loan margins in different segments differently in the past three years. Competition between banks started to decline in the market for corporate loans in 2017, and interest rates rose at the same time**

<sup>5</sup> Euro area banks: the profitability challenge (<https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190625~6d-33411cff.en.html>).

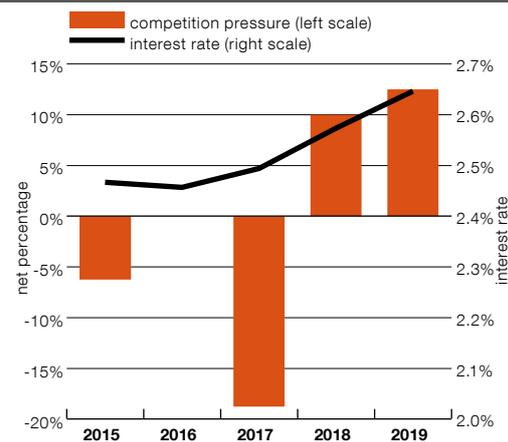
<sup>6</sup> Overcapacities in banking: measurements, trends and determinants (<https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op236~3021bf6dbb.en.pdf>).

**Figure 7a. Competition pressure on the margins of corporate loans, and the interest rate**



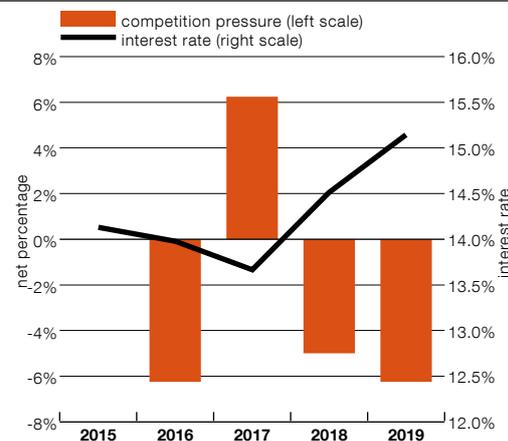
Sources: European Central Bank, Eesti Pank calculations

**Figure 7b. Competition pressure on the margins of household loans, and the interest rate**



Sources: European Central Bank, Eesti Pank calculations

**Figure 7c. Competition pressure on the margins of household loans, and the interest rate**



Sources: European Central Bank, Eesti Pank calculations

(see Figure 7). The same thing happened in the housing loan market. The average interest rate on other household loans has not been affected by pressure from competition though. Competition did put increased downward pressure on margins in 2018 and 2019, but interest rates actually rose. One reason why competition pressure did not directly affect interest rates in the market for household loans is that it is a very heterogeneous market and the dynamics of interest rates are affected by structural changes within the loan segments. Another reason may be demand-side factors, as borrowers do not necessarily carry out thorough market research when taking out a relatively small loan, and they may prefer to take a more expensive loan if this saves them time.

**The problems that may be caused by excessive market concentration could be eased if more Estonian companies and households had access to banking services from abroad if cross-border banking functioned better in the European Union.** Only very large Estonian companies, of which there are relatively few, have so far borrowed from banks based in other countries. Most of the companies in Estonia are small, and it is costly for banks based abroad to analyse their credit risks, and so it is not financially worthwhile to do so. Furthermore, many banks do not accept collateral that is based in other countries, and cross-border lending is hampered by differences in bankruptcy laws.

## 2. THE EQUITY AND FUNDING OF THE BANKS AS A FACTOR IN THE SUPPLY OF CREDIT

**The share of own funds of the banks does not currently limit the supply of credit.** Although it varies between banks, the capitalisation of the banking sector is generally good. The total own funds of the banking groups consolidated in Estonia covered 26% of their risk exposures as at 30 September 2019, and the financial leverage ratio was 11.8%.

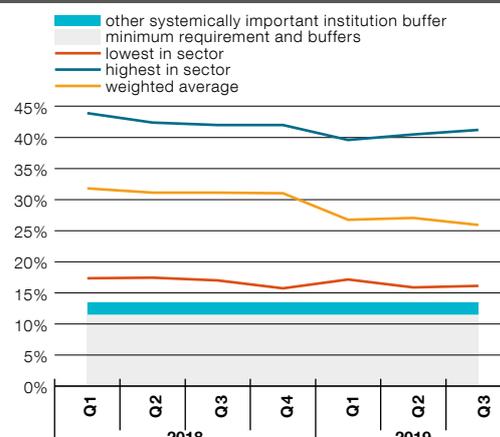
**The amount of available capital in excess of capital requirements is clearly different at different banks** (see Figure 8). Groups that have a long history of operations have built up more in own funds, as they have left their profit undistributed as dividends in response to the income tax rules that previously applied in Estonia. The three most highly capitalised banks have between them around two thirds of the market share for loans. Banks that have been operating for a shorter time and are expanding faster have less capital in excess of capital requirements available. The three banks with the least available capital have total market share between them of around a fifth. As the least capitalised banks have not earned enough profit to expand their operations, they have taken in additional capital by issuing shares and bonds. Their current level of own funds would allow them to expand their assets by almost a fifth.

**It is probable that in future the banks will not be able to increase their capitalisation by moving profits to equity as fast as they could in previous years.** The tax rules that apply from 1 January 2018 apply a lower tax rate of 14% to regular advance payments of income tax, which can encourage banks to pay out a larger part of their profit than previously as dividends. The capacity to lend of banks with a larger share of own funds may be affected by the introduction of advance income tax, and it will make it harder for banks with lower capitalisation to increase their equity from profits.

The ability of the banks to lend is affected by their access to funding and the price of it as well as by their capital position.

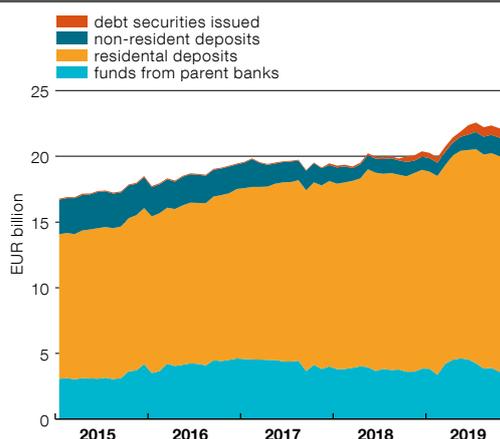
**Although the banks have different funding models, the banking sector as a whole is well funded.** The main source of funds remains domestic deposits (see Figure 9). The main part of these are demand deposits, which are lower in price than other sources of finance. Structural

**Figure 8. Capital requirements for banks and their buffers**



Graph does not contain microprudential buffers  
Source: Eesti Pank

**Figure 9. Structure of the debt liabilities of banks**



Source: Eesti Pank

changes in the domestic banking sector in recent years have encouraged the reallocation of deposits between banks. There has been particular growth in domestic deposits at small banks, which grew by as much as 50% in the second half of 2019. The growth in domestic deposits in the banking sector as a whole was around 10% at the same time. The subsidiaries of foreign banks can if necessary access funding from their parent banks, but their independence from their parent banks has gradually increased and the share of funding from that source fell from 17% in 2018 to 13% by the end of 2019.

**Several banks have moved to take more funding from other sources alongside domestic deposits to increase their funding capacity and to support growth.** Three banks have accessed

funding from online platforms for intermediating deposits in foreign markets. This source of funding is relatively easy to access, but it is more expensive. As in the previous couple of years, the banks have become more active at issuing bonds. Structural changes that saw foreign

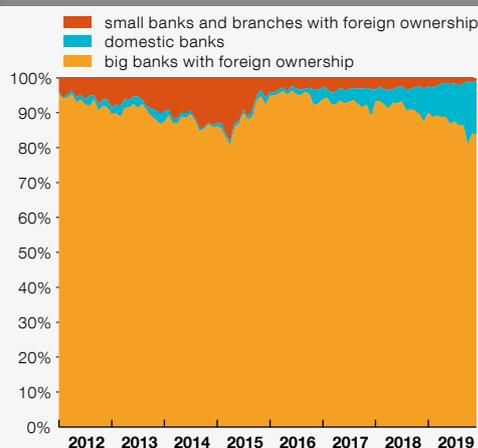
banks with good access to low-priced funding exit the market caused the average price of funding to rise a little from 0.06% in 2017 to around 0.1% in 2019. With interest rates very low this is still a relatively marginal rise.

## The big foreign-owned banks are able to lend at lower interest rates than the domestic banks

**Although large foreign-owned banks continue to dominate the market for loans, the market share of domestic banks has increased<sup>7</sup>.** In the past couple of years, several foreign banks have exited the Estonian banking market. Additional banks based on domestic capital have appeared at the same time though, and while they are small, some of them have grown fast. In consequence the market share of domestic banks, particularly for corporate loans and consumption loans to households, has increased (see Figure 10). Their share of the housing loan market has also increased a little (see Figure 11).

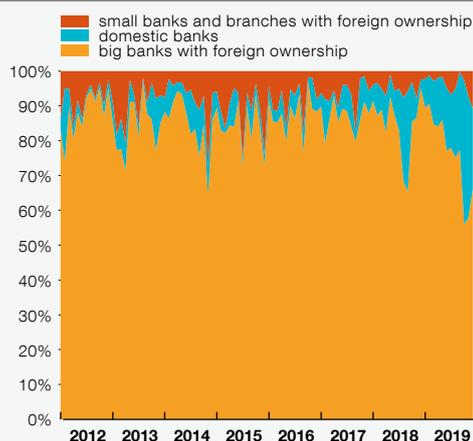
**The big foreign-owned banks are able to lend at lower interest rates.** The interest rates on long-term corporate loans issued by domes-

Figure 11. Market share for home loans



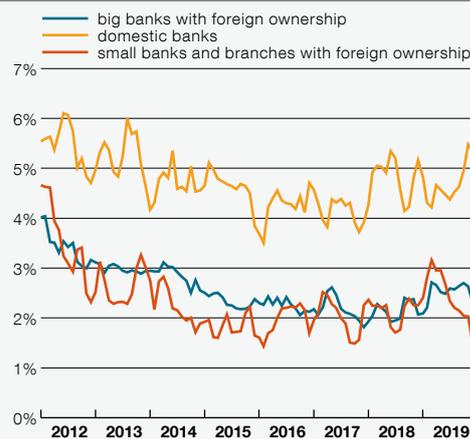
Source: Eesti Pank

Figure 10. Market share for long-term corporate loans



Source: Eesti Pank

Figure 12. Interest rates on long-term corporate loans\*



\* three-month moving weighted average  
Source: Eesti Pank

7 The groupings of banks that issue housing loans are as follows. Large foreign-owned banks: AS SEB Pank, Swedbank AS and Luminor Bank AS. Domestic banks: LHV Pank AS, Coop Pank AS and AS TBB pank. Small foreign-owned banks or branches: Danske Bank A/S Estonia Branch, Svenska Handelsbanken AB Estonia Branch and AS Citadele banka Estonia Branch.

The groupings of banks that issue long-term corporate loans are as follows. Large foreign-owned banks: AS SEB Pank, Swedbank AS and Luminor Bank AS. Domestic banks: LHV Pank AS, Coop Pank AS and AS TBB pank. Small foreign-owned banks or branches: Danske Bank A/S Estonia Branch, OP Corporate Bank plc Estonia Branch, Svenska Handelsbanken AB Estonia Branch and AS Citadele banka Estonia Branch.

Figure 13. Interest rates on housing loans\*

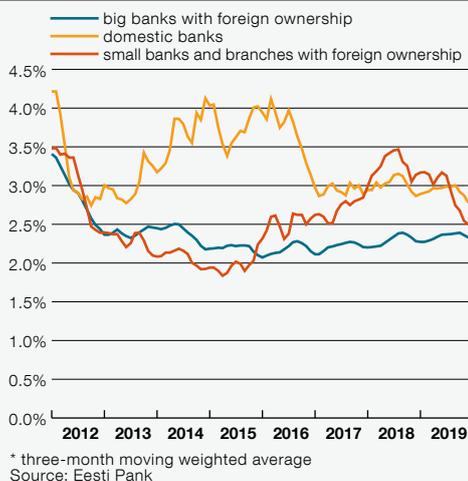
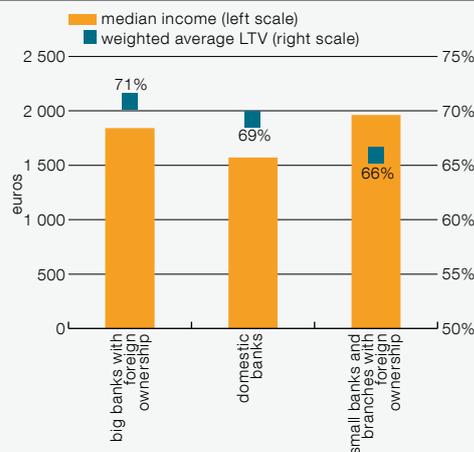


Figure 14. Median income and LTV of home loan applicants across different bank groups



Source: Eesti Pank

tic banks have been higher (see Figure 12), as have the interest rates on housing loans they have issued (see Figure 13). The higher interest rates on loans issued by domestic banks have raised the average interest rates for the loan market as a whole, as their market share has increased at the same time.

**Although domestic banks have lent with higher interest rates, this does not necessarily mean that their loans have been riskier or have been issued to riskier clients.** Housing loans issued by the different banking groups for example are not overall very different in their characteristics, though the median income of those who have taken housing loans from domestic banks is a little lower (see Figure 14). The domestic banks require a larger down payment though. The average ratio of debt service-to-income is lower for the clients of domestic banks, which means that the overall loan burden for those clients is smaller than that for the clients of the foreign-owned banks.

**There are several reasons why the interest rates are lower at the large foreign-owned banks.** The first is that they have a large client base, which means that they can benefit from scale effects. They can also access funding from their parent banks, which makes their loan capital cheaper. The large banking groups are generally more stable, which means they can raise capital more cheaply. They also gain some advantage from the synergy of the banking group, which means that different functions can be distributed across different countries, and they can be more cost efficient and can share skills and knowledge better. Although the domestic banks have been more profitable than the foreign-owned ones, the difference is not as large as might be concluded from the loan interest rates. The domestic banks have probably managed to increase their market share despite their higher interest rates because many clients do not request loan offers from multiple banks, and domestic banks can respond to loan applications more quickly. National patriotism may also affect the choices of clients to some extent.

### 3. ACCESS OF COMPANIES TO FUNDS

**In the past couple of years, several foreign-owned banks have exited the Estonian banking market or merged their business activities.**

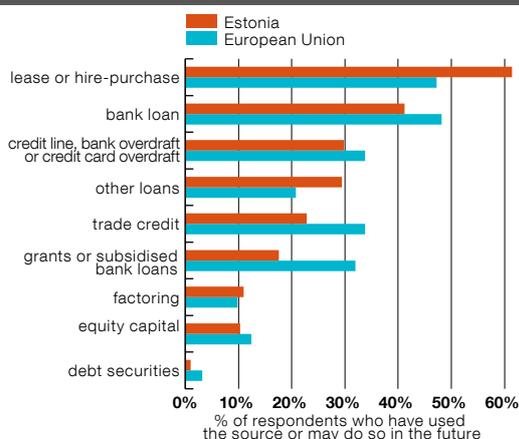
Additional banks based on domestic capital have appeared at the same time though, and while they are small, some of them have grown quite fast. Other financial intermediation has also been increasing. This makes it relevant to analyse how these changes have affected the funding options for companies and their access to finance.

**Like in the rest of Europe, funding mainly continues to mean loan products from commercial banks for Estonian companies, though there has been a small rise in the use of other sources of funds** (see Figure 15). A survey by the European Central Bank found that some 75% of Estonian companies have used loan products from a bank during the year or are planning to do so. This shows how access to loan products from banks is the most important source of financing.

**The assessment of companies about access to financing has got worse.** This is primarily because their estimate of the loan products given by banks has deteriorated (see Figure 16). This is probably because access to bank loans has become more restricted and loan interest rates have risen and because of a general negative attitude towards commercial banking. Banks also state that the share of loan applications rejected has increased a little and competition has weakened<sup>8</sup>. The survey by the European Central Bank of financing options found another reason for the deterioration in assessments was the increasing public discussion about a downturn in the economic cycle and a possible recession, which would make it harder than usual to access loans. The assessments of Estonian companies have been consistently better than the European Union average over the past five years, but the European Union opinion improved in 2019 and that in Estonia worsened sharply, and so now the assessments by Estonian companies are a little below the average (see Figure 17).

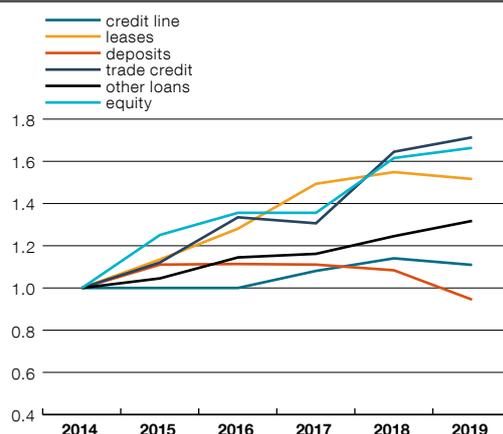
**It is no longer as easy to access bank loans as it was, and loan interest rates have risen for companies in all sectors** (see Figures 18 and 19). The rise in interest rates in all sectors while the risk weights for corporate loans have remained relatively stable indicates that the general rise in rates has been driven not by the risk assess-

**Figure 15. Significant sources of financing for Estonian companies**



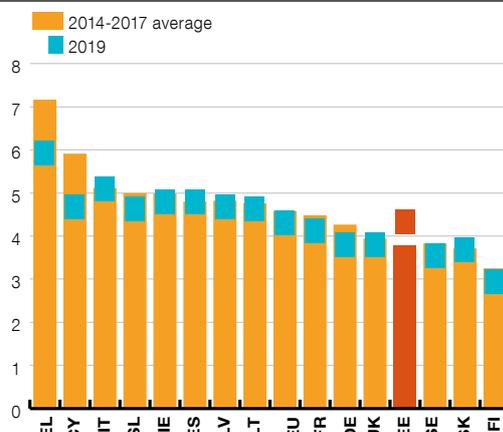
Sources: European Central Bank, SAFE

**Figure 16. Access to finance**



A rising line indicates better access and a falling line worse access  
Sources: European Central Bank, SAFE, Eesti Pank calculations

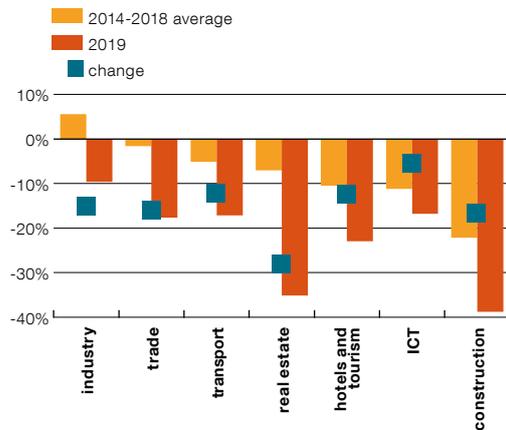
**Figure 17. Assessment by SMEs of access to external sources of funds\***



\* 1 - does not affect business activities at all,  
10 - affects business activities a great deal  
Sources: European Central Bank, SAFE

<sup>8</sup> Data from the bank end of year survey and the ECB Bank Lending Survey.

**Figure 18. Assessment by companies of the willingness of banks to lend**

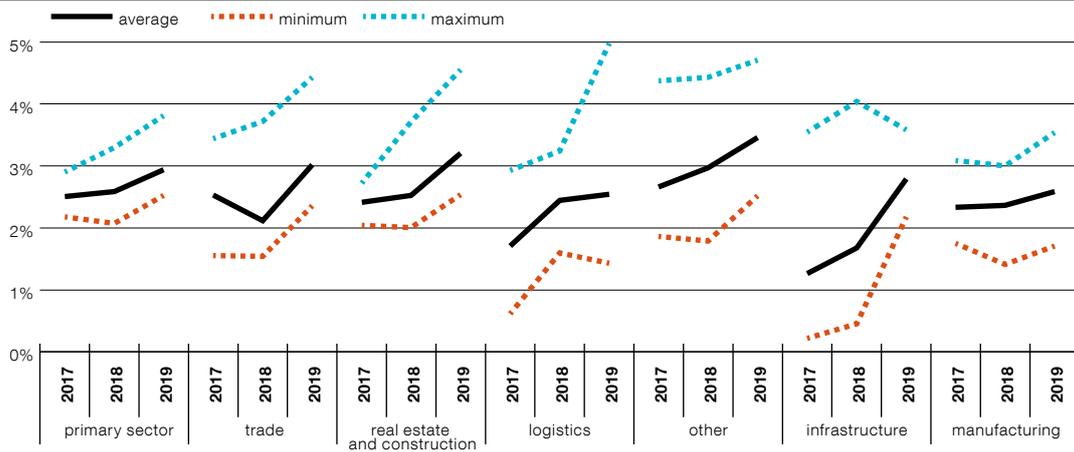


Note: net share of companies assessing the climate positively and negatively  
Source: Estonian Institute of Economic Research

ments of banks but more by other factors. The risk assessments of the banks may understandably have changed for some individual sectors, and access to loans has become worse and interest rates higher in real estate and construction especially, where risks have probably deepened in recent years.

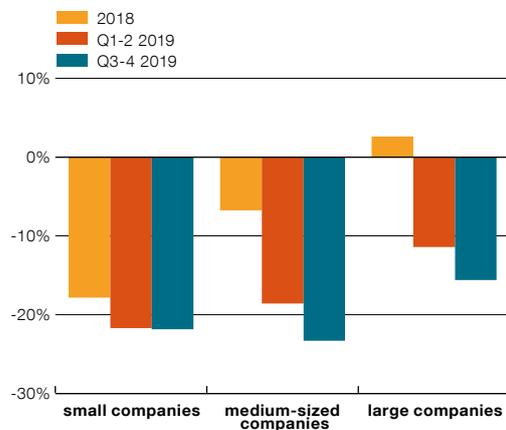
**The changes in the banking sector have affected medium-sized and large enterprises the most, and so it is their assessments that have deteriorated the most** (see Figure 20). One foreign bank that has exited the market was particularly active in lending to large companies and lent at cheaper rates than the market average. After the departure of the bank, its clients had to change bank, which is costly in any case, and the new bank

**Figure 19. Average interest margins on long-term corporate loans and variation in them**



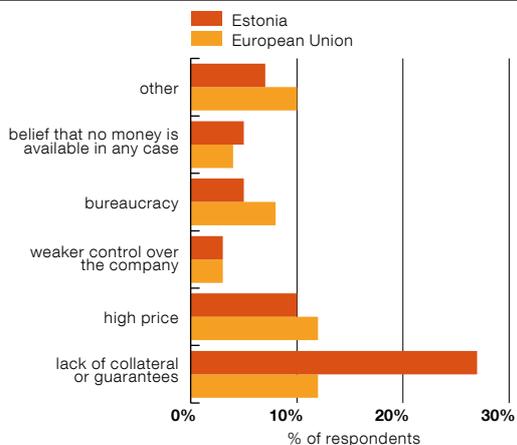
Source: Eesti Pank

**Figure 20. Assessment by companies of the willingness of banks to lend**



Note: net share of companies assessing the climate positively and negatively  
Source: Estonian Institute of Economic Research

**Figure 21. Factors posing the biggest obstacle to funding for companies in the years ahead**



Sources: European Central Bank, SAFE

did not necessarily offer loans as cheaply. There are also now fewer banks in the market that can offer large loans and so competition is consequently weaker<sup>9</sup>. The departure of banks from the market affected the supply of loans and the price of them to small companies, but the remaining banks and new ones have managed to fill this gap fairly quickly as smaller banks are able to issue small loans.

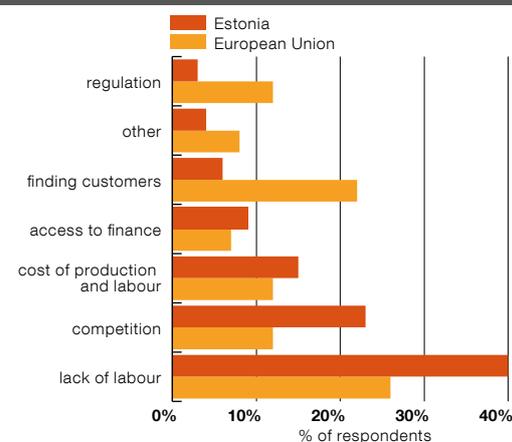
**The biggest worry for companies in Estonia was finding collateral** (see Figure 21). This is a problem throughout the Baltic states, where companies are smaller than the average in Europe and the credit risk policy of the bank groups has been similar in all three countries. It is particularly difficult for new companies and regionally-based companies to find collateral that is suitable for the banks.

The access of companies to funding can be assessed in terms of the overall access to funding or the price of loans.

**The changes that have taken place in the banking sector mean that access to bank loans has probably been reduced and made harder.** Furthermore, many companies have had to change bank, which requires a lot of effort and funds. However only a few companies say that the main problem in business is access to funding (see Figure 22). This is shown by the way that companies managed to increase their investments in 2019 even as the funding environment became less favourable. Taking the market as a whole, the funding and capitalisation of the Estonian banking sector do not place substantial restrictions on the supply of loans to companies in the non-financial sector<sup>10</sup>. In addition, other sources of funding have to some extent managed to replace the banks<sup>11</sup>. There are certainly inconveniences and additional costs involved in finding a new bank or other lender in the short term, but it is a good thing that this happened while the economy is doing well cyclically. It is a welcome development in the longer term if sources of funding become more varied.

**The price of lending by banks, or the interest rate, can be categorised in two ways.** Looking at how well the current interest rate suits the current position of the economy reveals there to be no

**Figure 22. Factors posing the biggest obstacle to business**



Sources: European Central Bank, SAFE

**Figure 23. Average annual interest rate on new corporate loans**



Source: European Central Bank

major problems. Although the loan interest rates from banks operating in Estonia are notably higher than the euro area average, it should be remembered that economic growth and inflation are substantially higher in Estonia, and the euro area average interest rate would be too low for the point in the Estonian economic cycle (see Figure 23). Real interest rates, which indirectly take account of the position of the economy, are quite similar in Estonia and the euro area<sup>12</sup>. There may be more of a problem for the competitiveness of exporting companies, as Estonian companies have to compete in foreign markets with companies that have some advantage in the cost of financing.

9 See also the section on competition in the Estonian banking market.

10 See also the section on the equity and funding of the banks as a factor in the supply of credit.

11 See also the section on trends and forecast for the debt of companies and households.

12 The real interest rate on bank loans in Estonia at the end of 2019 was at its average level of the past 15 years, which is the time since the large foreign-owned banks entered the Estonian market.

## 4. ACCESS OF HOUSEHOLDS TO FUNDING

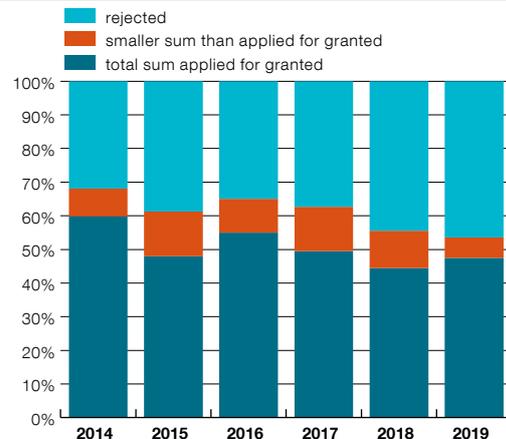
### Demand for loans from Estonian households has been strong in recent years.

There are fewer lenders in the housing loan market, and competition has declined. This has allowed banks to choose their clients more, and to issue loans with higher interest margins. The access of households to the housing loan market has improved though, as wages continue to rise fast. Access to consumption loans is good because of the number of lenders, though the cost of the loans can be high for the consumer. The easy access of households to loans is reflected in the fairly rapid growth in lending.

In recent years there has been an increase in the share of housing loan applications rejected (see Figure 24). This is probably partly because demand for loans has increased, but also because of the reduction in recent years in the number of banks that offer housing loans. Estimates by the banks put the volume of housing loan applications rejected below what household surveys indicate, but there has still been an evident upward trend in the past couple of years. Despite the rise in the number of applications rejected, the stock of housing loans has grown rapidly in recent years by around 7% a year, indicating that loans are still relatively easy to access.

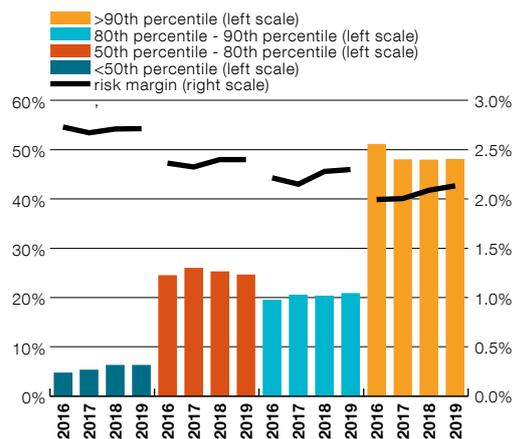
The average interest rate on housing loans has risen slightly in recent years. The share of households with low incomes among loan clients has not increased, and a rise in interest margins on housing loans has been apparent on loans issued to all income groups. This suggests that interest margins have not risen in response to borrowers becoming riskier (see Figure 25). The average interest rate on housing loans issued in Estonia is higher than the rates in many other countries in the euro area (see Figure 26). Demand for loans and loans issued, together with housing prices and other prices, have all been rising faster in Estonia than the average in the euro area, and so real interest rates are close to the average for the euro area. The interest rates on housing loans at the end of 2019 were low by the standards of the preceding decade. The other conditions for housing loans, which are the loan-to-value ratio and the maturity have not particularly changed in recent years (see Figure 27).

Figure 24. Success of applications for housing loans as a share of households that applied



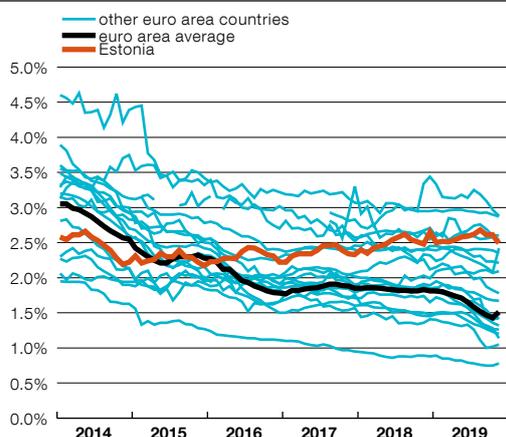
Sources: TNS Emor, Turu-uuringute AS

Figure 25. Volume of housing loans issued and risk margins by net income



Sources: Eesti Pank, Tax and Customs Board

Figure 26. Average annual interest rate on new housing loans



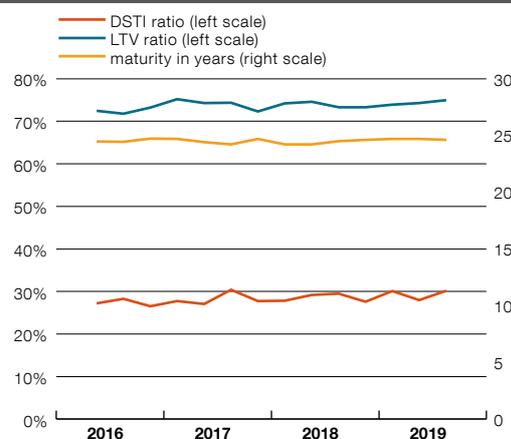
Source: European Central Bank

There has been some small increase in the share of households that are able to buy an average apartment within the limits set by Eesti Pank for housing loans. A housing loan to buy an apartment of average size at the average square metre price that would fall within the limits set by Eesti Pank on the loan-to-value ratio, maturity and the debt-service-to-income ratio was estimated to be accessible in 2019 for an applicant with a monthly net income of a little over 730 euros<sup>13</sup>. Around 70% of those earning a wage had a net wage of more than 730 euros a month, and that share has increased a little in the past five years (see Figure 28). The share of households able to take a loan at the average conditions in the loan market has also increased. It should be remembered that many housing loans also involve a co-applicant, increasing the potential number of creditworthy borrowers. This calculation does not however take account of any other liabilities or assets of the loan applicant.

**The share of applications for consumption loans that were rejected was smaller than that of housing loan applications.** In 2018, 71% of applicants for consumption loans received the amount they applied for, and 5% received a loan for a smaller amount. Still, the share of applications for consumption loans that have been rejected has increased a little in recent years, as has demand for such loans.

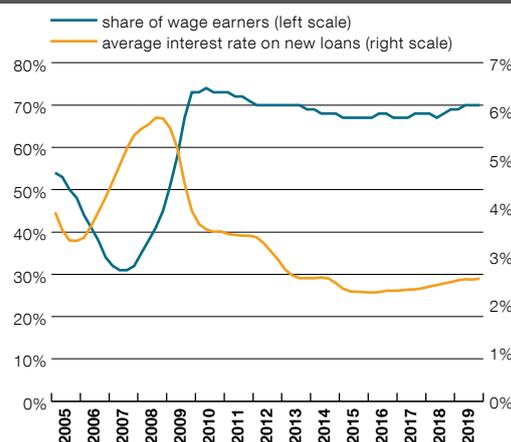
**Consumption loans cover very different types of loan, and the interest rates on them have moved in different ways in recent years.** The cost of credit on bank loans issued for purchasing consumer items, not including overdrafts and credit card loans, has remained about the same in recent years (see Figure 29). The average interest rate on car leases has risen a little. Credit issued by lenders in the non-bank sector is much more expensive for consumers than bank loans, but it has become a little cheaper in recent years.

Figure 27. Weighted average values of indicators for housing loans



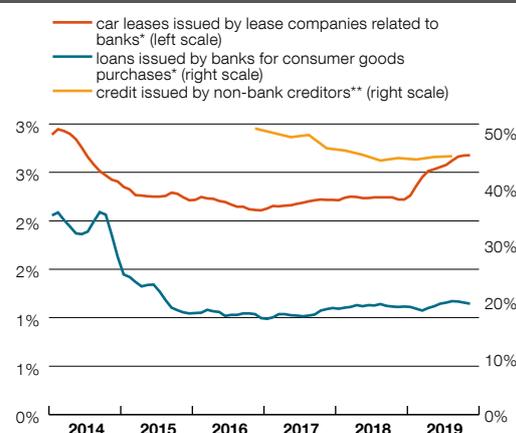
Source: Eesti Pank

Figure 28. Share of wage earners able to purchase an average apartment with a housing loan, and the interest rate on housing loans\*



\* four-quarter moving average  
Sources: Eesti Pank, Estonian Land Board, Tax and Customs Board

Figure 29. Interest rate on new car leases and percentage rate of charge on consumer loans



\* three-month moving average  
\*\* four-quarter moving average, leases not included  
Sources: Eesti Pank, Finantsinspeksioon

<sup>13</sup> The calculation uses the statistics on average square metre prices for apartment transactions from the Land Board, and the size of an apartment is taken as 55m<sup>2</sup>.

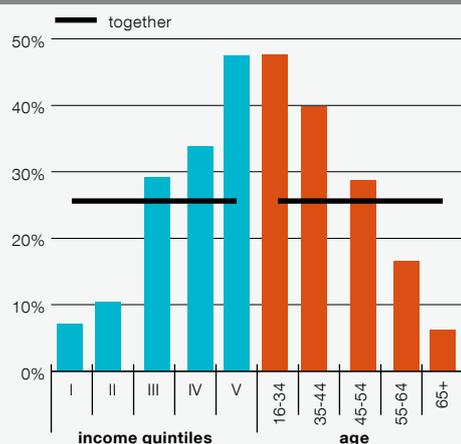
## It is most commonly loan applications from households with lower incomes and younger households that are rejected

The results of the Household Finance and Consumption Survey (HFCS)<sup>14</sup> for 2017, which were published in 2019, allow the characteristics of the households that applied most for loans and that were refused the most to be analysed.

Some 26% of households had applied for a loan in the three years leading up to 2017. When the previous HFCS was run in 2013, this figure was around 19%. All income and age groups applied more for loans, with wealthier and younger families seeing particular increases (see Figure 30)<sup>15</sup>.

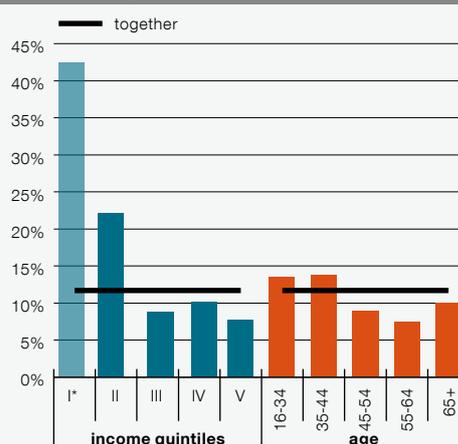
As the number of loan applications increased, so the number that were rejected by the banks or were only granted in part rose a little. This share is notably larger among households with lower incomes, and also among younger households (see Figure 31). The share of credit-constrained households<sup>16</sup> among all households in Estonia was 6.8% in 2013, which was below the average of 8% in the euro area and below the figures for other Central and Eastern European countries. This figure had risen to 7.7% in Estonia by 2017, as there were more households that applied for loans and more that got rejected.

**Figure 30. Share of households that have applied for credit within the last three years, 2017**



Sources: Eesti Pank, HFCS

**Figure 31. Share of households among those that applied in last three years whose credit application was refused or reduced, 2017**



\* Few observations  
Sources: Eesti Pank, HFCS

<sup>14</sup> For more on the results of the survey see Meriküll, J., Rõõm, T. Household Finance and Consumption Survey: Results of the 2017 Survey. Eesti Pank Occasional Papers 1/2019.

<sup>15</sup> Income groups are income quintiles, where the highest quintile contains those with the highest incomes. The age groups are: 16-34; 35-44; 45-54; 55-64; and 65 and over.

<sup>16</sup> Households who were not granted their loan application or were not granted it in full, or who did not apply because they felt that they would be refused.

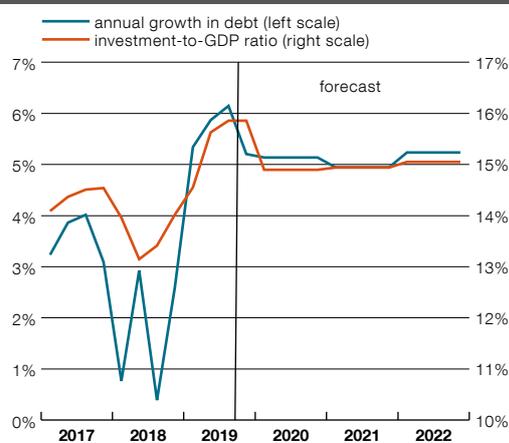
## 5. GROWTH IN THE DEBT OF HOUSEHOLDS AND BUSINESSES AND THE FORECAST FOR THE YEARS AHEAD

**Corporate debt grew faster in 2019 as yearly growth in it reached some 6% at the end of the third quarter, so it stood at 20 billion euros.** The growth was probably boosted by an increase in investment in fixed assets (see Figure 32).

**Estonian companies again borrowed mostly from banks operating in Estonia, but they also used other sources of loans more than they did last year.** Loan liabilities to the banks operating in Estonia made up 48% of all the debt liabilities of Estonian companies at the end of the third quarter. This means that the banks still remain the most important source of debt capital for companies. It is notable though that the growth in borrowing from banks in Estonia slowed in 2019. The growth in investment meant that demand for loans was strong at the same time and more was borrowed from other sources, so it may be that the lending conditions of the banks have tightened. Borrowing from abroad increased in 2019, having been gradually declining in the preceding years, and it accounted for 33% of borrowing from all sources. Borrowing from the non-bank financial sector and from other non-financial companies also grew faster than previously (see Figure 33).

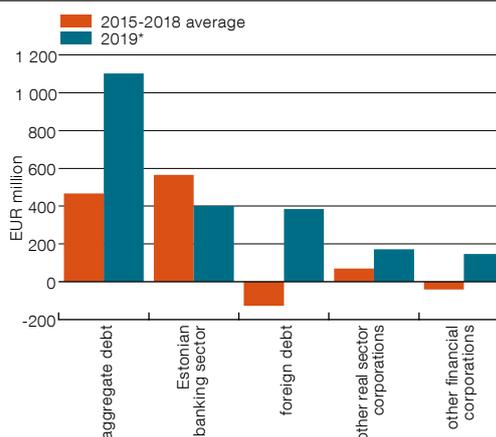
**The growth in corporate debt will be a little slower in future and the Eesti Pank December forecast expects it will be close to 5%.** It will grow more slowly as the growth in corporate investment and demand for loans weakens. Funding options on the supply side will not change much and may even improve. Estonian companies will mainly borrow from banks operating in Estonia in the future. The loan supply capacity of the larger banks will remain good, and the capacity of the smaller ones is gradually improving, and so a gradual tightening of competition is expected. Larger and foreign-owned companies will be able to borrow from abroad in future, giving them an alternative to borrowing from local banks. The non-bank financial sector is developing rapidly and is more and more able to finance companies in the non-financial sector despite its small size. Many companies have built up large stocks of funds. These funds can then be used to lend to other companies within the same group, meaning that the lending between non-financial sector companies may be even larger. It also means though that those companies are well

Figure 32. Growth in corporate debt



Sources: Eesti Pank, Statistics Estonia

Figure 33. Annual growth of corporate debt



\* annualised growth of the first three quarters  
Source: Eesti Pank

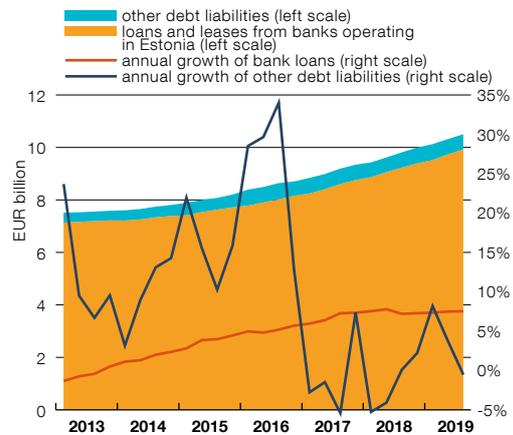
able to finance their investments, meaning they have little need for new loans.

**Household debt grew rapidly in 2019 and stood at 10.5 billion euros in the third quarter of last year.** It is probable that the growth peaked in the first half of the year though. Demand for loans is strong as the labour market continues to favour employees, and in consequence wages are growing fast and confidence is high. An active market for residential property and increasing investment in it kept the yearly growth in the stock of housing loans strong at 7%. The volume of new loans increased primarily because real estate prices rose, meaning that loans had to be larger, while the number of loans did not rise. The earlier very fast growth in consumer loans slowed notably in 2019. Loans issued by other creditors grew less than bank loans and leases

did. The total debt of households was 7% larger at the end of the third quarter than a year earlier (see Figure 34).

**The growth in it is likely to slow only a little in future to between 6% and 7% as the labour market will remain relatively favourable for employees even as the economy grows more slowly.** The Eesti Pank December forecast expects wages to rise more moderately, though unemployment will remain low, people will become even better able to borrow, and new residential property will be added rapidly. No notable changes stand out on the loan supply side. The ability of the largest banks to issue housing loans remains good, though the weak competition means that loan interest rates remain higher than they are in other countries. Competition is stronger in the consumer loan segment, where the smallest banks and other lenders mainly

Figure 34. Household debt



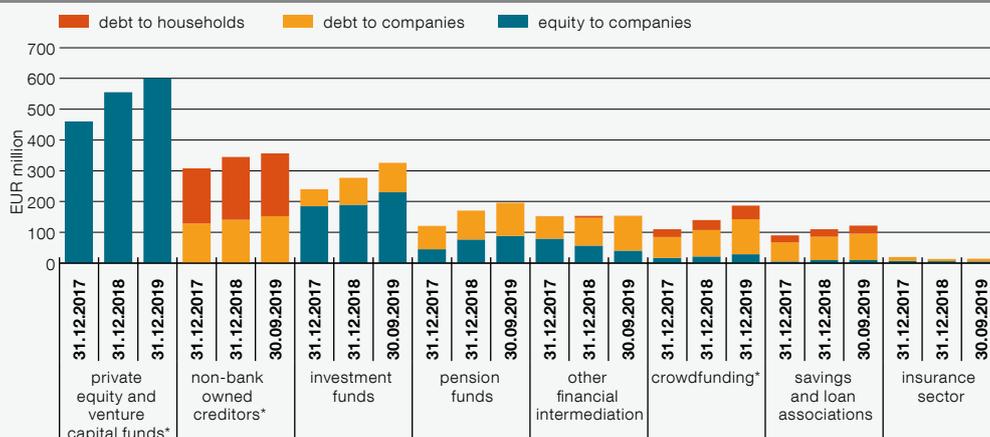
Source: Eesti Pank

operate, and this will probably push interest rates down a little lower from their current high levels.

### Non-bank financial intermediation is growing and is bigger than in Latvia or Lithuania, but smaller than in Finland

**The amount of funding taken by companies from non-bank financial intermediation grew strongly in 2019.** The growth in borrowing by households from this sector was more modest (see Figure 35). The earlier very fast growth in private equity and venture capital funds slowed in 2019. The growth in their ability to fund non-financial companies will be sharply restrained in the future by the planned change to make the second pension pillar voluntary. Pension funds are an important investor for private equity and venture capital funds as they not only invest directly themselves, but also encourage foreign investors to enter the market. Pension funds have started more and more to invest directly in non-financial companies in recent years. The planned reform would make it very hard for them to continue doing so. The role played by investment funds and loan sources not connected to banks in funding companies also increased last

Figure 35. Funding of non-financial companies and households from non-banking financial intermediation

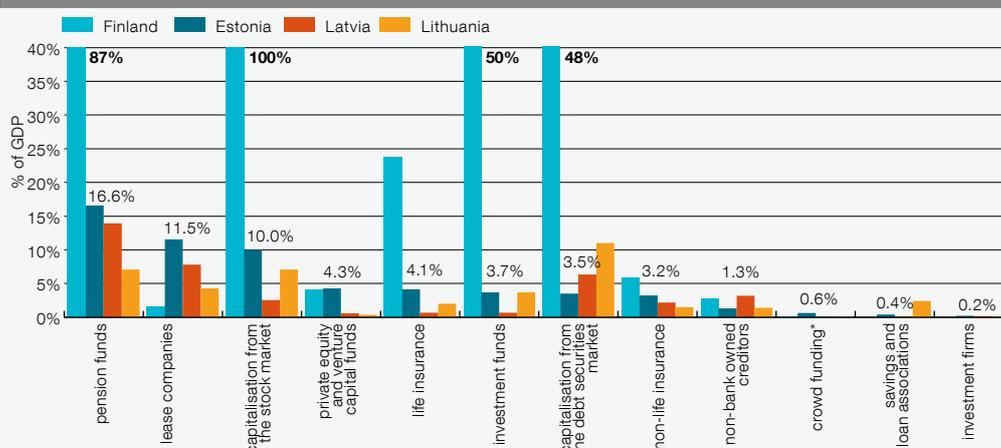


\* estimate  
Sources: Eesti Pank, EstCVA

year. There was no notable growth in loans by creditors to households in at least the first three quarters though. Crowdfunding platforms and savings and loan associations are small, but having grown in giant leaps in recent years they continued to do so in 2019 too. Companies in both areas faced more problems in 2019 than previously, especially through a lack of transparency and investor protection. It is probable that both of these areas, which have been lightly regulated and supervised until now, will face more regulation in the coming years.

**The non-bank financial sector in Estonia is a little bigger than those in the other two Baltic states** (see Figure 36). This probably reflects above all the larger debt burdens of Estonian companies and households. The bond market in Estonia is small, but that is because there are so

**Figure 36. Non-bank financial sector assets in ratio of GDP at the end of 2018**



Note: data may not be 100% comparable across countries for all sectors. \* No data for Latvia  
Sources: Finantsinspeksioon, Eesti Pank, Latvijas Banka, Lietuvos Bankas, Suomen Pankki

few public sector bonds. The savings and loan associations in Lithuania are larger than those in Estonia or Latvia. Comparative data for crowdfunding are hard to find and it is hard to compare indicators for it, but the amounts intermediated by Lithuanian crowdfunding platforms are quite probably smaller than those in the other two Baltic states. The amounts in Latvia are very large, but this is result of there being only one very large platform there, which uses a slightly different business model to the majority of crowdfunding platforms. Elsewhere, Estonian non-bank financial intermediation is larger than in Latvia or Lithuania. The non-bank financial sector in Finland, where the standard of living is higher than in the Baltic states and the financial sector has had a lot longer to develop, is substantially bigger again. There are some sectors however, such as private equity and venture capital funds and crowdfunding, where the volume of assets in Estonia is similar to that in Finland.

## 6. CORPORATE EQUITY

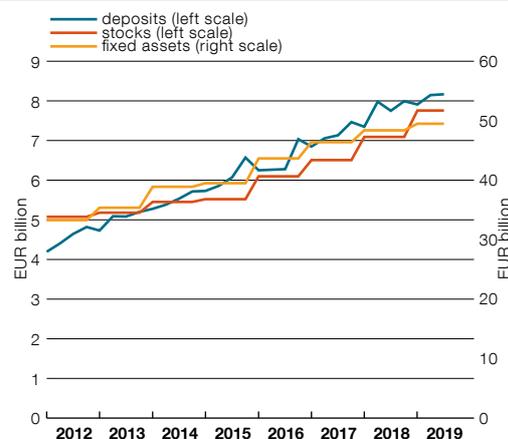
**The primary and most important source of funds for companies is equity, or the funds from within that company.** These are primarily current cash flows and financial buffers that were built up earlier. Companies can use their own funds to buy inventory and make investments. Own funds are also needed to allow companies to borrow.

**The sales revenues and profits of companies increased further in 2019, though more slowly than previously.** At the same time the growth in liquid assets slowed. Deposits have in recent years grown faster than inventory and fixed assets, or at least at the same rate (see Figure 37). The rate of growth in deposits was still slower than in 2017 and 2018 though.

**The buffers they have earlier built up mean that Estonian companies still have high levels of liquid assets, and their ability to fund their activities from own funds remains good.** This means that they can finance the purchase of inventory and investment using their own funds to a large extent, and this should reduce the need to borrow. Equally, the large share of liquid assets and own funds should allow them to borrow more easily and on better conditions if necessary. Having deposits and liquid assets may also encourage lending between non-financial companies, especially within groups.

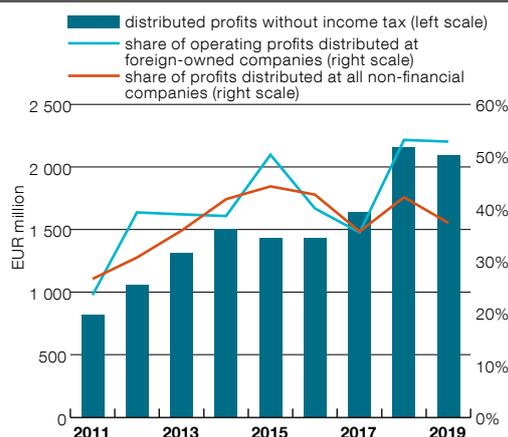
**The buffers they have built up and changes to the income tax law have increased the distribution of profits by foreign-owned companies.** Companies now have more in liquid assets that they can distribute to their owners as dividends. An amendment to the Income Tax Act came into force from 2018 applying a lower rate of income tax to dividends paid out on a regular basis. Foreign owners gain particularly from this, as payments to individuals in Estonia are additionally subject to personal income tax. In consequence, foreign-owned companies have for two years in a row paid out a larger share of their profit than companies owned by residents of Estonia (see Figure 38). These payouts should start to decline in future together with income tax however, as an ever larger part of profit is being taxed at the lower rate. The incentive to distribute profits given by the changes to the income tax law should stabilise in future, and so the own funds of companies should start growing more quickly.

Figure 37. Deposits, stocks and fixed assets



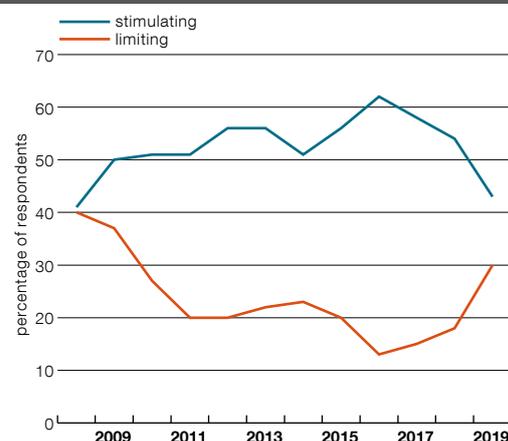
Sources: Eesti Pank, Statistics Estonia

Figure 38. Distributed profits of non-financial corporations



Sources: Eesti Pank, Tax and Customs Board

Figure 39. Profits and financial position as factors affecting investment in the current year



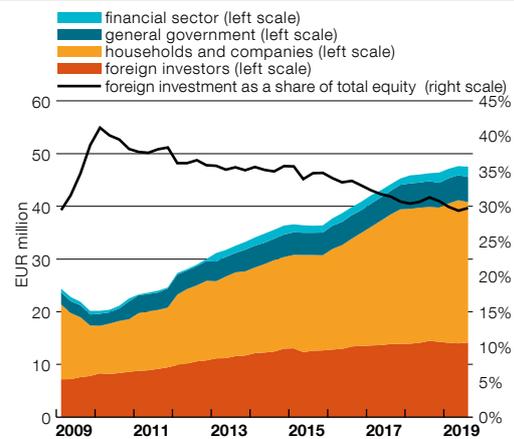
Source: Estonian Institute of Economic Research

**The assessments by industrial companies of their profits and financial positions have become more negative** (see Figure 39). The profit of non-financial companies has increased, but the increase in profit in the industrial sector has been very volatile, and profitability has fallen in the sector. Profit margins in the industrial sector have come under pressure from rising labour costs and a cooling global economy, which affects the industrial sector directly through exports. Confidence and the outlook for profits have in consequence declined in the industrial sector.

**Growth in corporate equity has slowed** (see Figure 40). The growth in own funds is being restrained by relatively high levels of profit distribution and by slower growth in profits. The equity that Estonian companies have built up in the past decade means they are generally well capitalised and have low financial leverage.

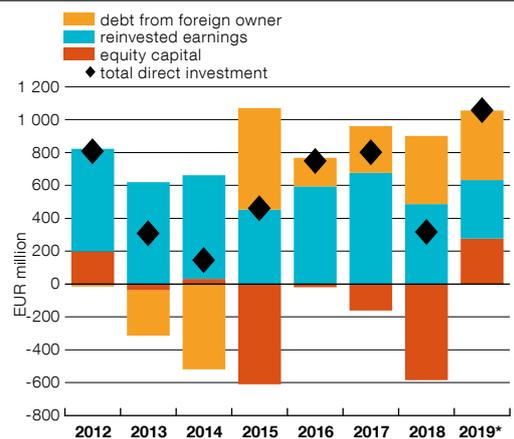
**The volume of foreign investment in Estonia in the first three quarters of 2019 was higher than in earlier years** (see Figure 41). Particularly notable is the increase in equity investment. However the share of equity owned by foreign residents did not increase, which indicates that foreign-owned companies have made relatively large dividend payouts. Foreign investors have shown notably more interest in wholesale and retail trade. It can be estimated that the share of foreign investment in trade is increasing, as several transactions were made in the third quarter of 2019 in that sector. Activity in equity investment by foreign investors and domestic sources of finance is indicated by the opinion of companies themselves that it is has become easier to access equity<sup>17</sup>. Stable equity investment in Estonia is made most by investors from neighbouring coun-

Figure 40. Corporate equity by investors



Source: Eesti Pank

Figure 41. Foreign direct investment in non-financial companies in Estonia



\* Q4 2018 - Q3 2019  
Source: Eesti Pank

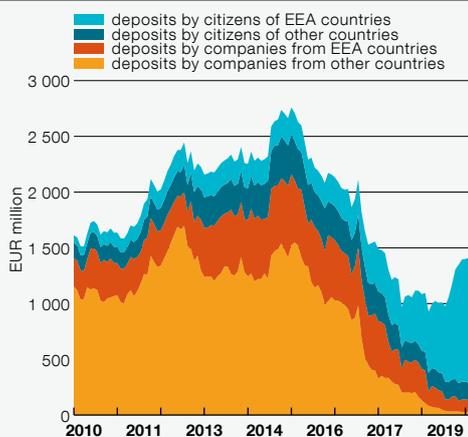
tries like Finland, Lithuania and Sweden, while relatively large sums have also been invested from Luxembourg, the Netherlands and the Cayman Islands.

17 Survey of corporate funding options by the European Central Bank.

**Tighter controls by the banks on opening accounts have not particularly affected new foreign equity investment in Estonia, or discouraged foreign investment to any major extent**

Requirements have tightened sharply in recent years, which is a consequence of the fight against money laundering and terrorist financing, and the know-your-client principle. The banks operating in Estonia have naturally taken the necessary steps and have extended their control mechanisms substantially. Clients need to submit more data to the banks on their business activities than previously and demonstrate a connection between that business and Estonia. This makes it a bit more difficult to open bank accounts and access banking services. The banks

**Figure 42. Non-resident deposits in banks operating in Estonia**



Source: Eesti Pank

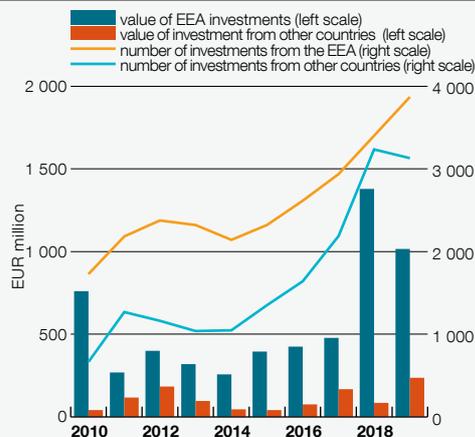
operating in Estonia have also stopped servicing some foreign clients and have closed their accounts<sup>18</sup>.

**Tighter anti-money laundering measures have not particularly reduced the equity investments made in Estonia.**

The opening and closing of accounts by foreign residents probably went hand-in-hand with changes in their deposits (see Figure 42). Although the deposits of foreign residents have declined substantially in the past four years, the number of equity investment transactions in Estonia and their total value have not declined. Quite the contrary indeed, as the amounts invested in equity in Estonia have increased in recent years. The number of foreign investment transactions has also risen. Investments in Estonia are mainly made by investors from countries in the European Economic Area, though in recent years there has been a steady increase in the number of investments coming from other areas (see Figure 43).

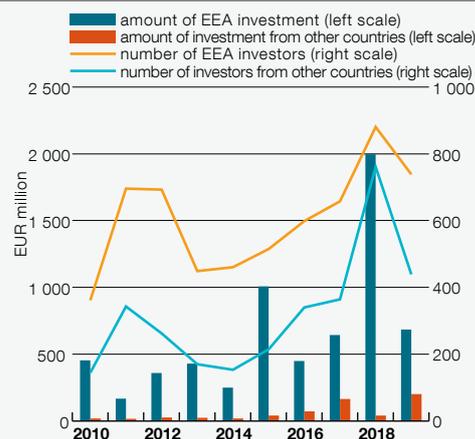
The closure of bank accounts and termination of client relationships could theoretically mean that some foreign investors have had to leave Estonia. This is hard to measure, though it may be reflected to some extent in reductions in the equity of foreign-owned companies and in sales to Estonian residents. The number of such transactions has increased in recent years, though these are mainly individual very large transactions that are not related to the fight against money laundering or to the closure of accounts (see Figure 44).

**Figure 43. Equity investment from the European Economic Area and other countries**



Source: Eesti Pank

**Figure 44. Equity investments repurchased from foreign investors**



Source: Eesti Pank

<sup>18</sup> Accounts have also been closed for other reasons, such as the client's own discretion, closure of unused accounts, refusal of claims after repeated entry of client data, and so forth.