

Quarterly Bulletin of Statistics Estonia

3/2018

Family formation – from traditional model to multiplicity of choices

Retail sale of foodstuffs from consumer's and trader's perspective

About tourism statistics: first-time and repeat visitors to Estonia

About foreign trade statistics of Estonian areas in 2017



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EXPLANATION OF SYMBOLS

...	data not available or too uncertain for publication
..	category not applicable
x	data are confidential
M	males
F	females

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FAMILY FORMATION – FROM TRADITIONAL MODEL TO MULTIPLICITY OF CHOICES

Kadri Raid

In the last decades, many family researchers have been fascinated by the changes that have taken place in families. Earlier, a rather similar model was followed to build a family: people got married, had children and stayed married. Today, family life is characterised by an abundance of options as regards planning family events as well as deciding their order of priority, which, in turn, has changed the way families are formed.

In the 20th century, the reigning family model was a traditional family based on registered marriage. The husband was the breadwinner and the wife was responsible for looking after the home and children. Back then, families were also quite stable, as divorce was not compatible with general social norms. If the wife did not earn a separate income, she was unable to raise the children alone. In the middle of the 20th century, the situation began to change due to the spreading of individualisation and gender equality, which, in turn, resulted in the diversification of family types. Also the family model with the traditional division of roles, in which case the husband was the main breadwinner, started to disappear. This was replaced by a family model with two equal partners, which allowed women more independence and an option to divorce an unsuccessful marriage if they so wished. At that time, also the attitude towards divorce became more tolerant in the society. In addition, a new form of union began to spread alongside marriage: consensual union, or cohabitation.^a

By the beginning of the 21st century, other forms of union alongside marriage had appeared. Today, in Estonia, cohabitation can barely be distinguished from marriage in daily life and children are born and raised in both unions. Likewise, it has become customary that an unsatisfactory marriage can be divorced, a new partner found and a new family started. This, however, has made explaining the patterns of forming a family more complicated.

In this article, an overview of changes in family formation in Estonia in 1970 to 2017 is given. Statistics on marriages, divorces and births have been used, based on which, changes can be detected.

Changes in family formation

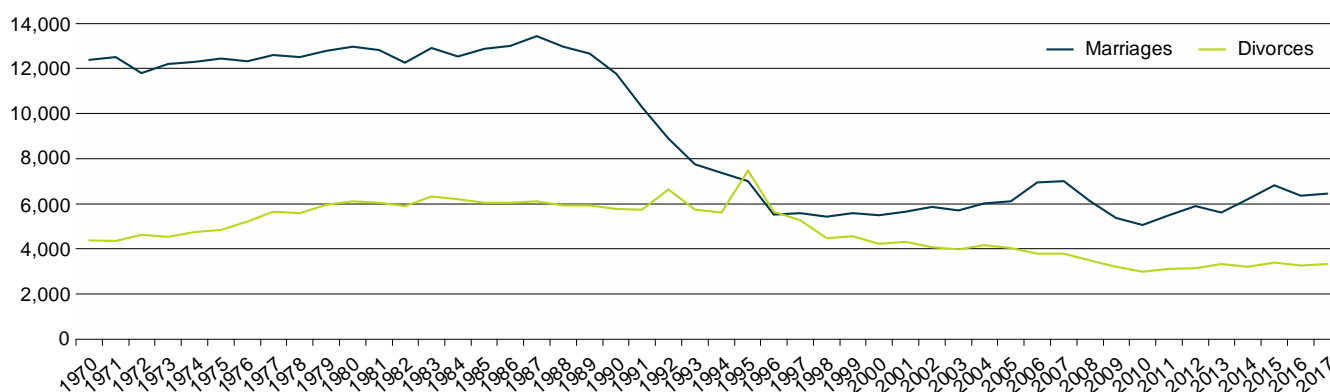
In the second half of the 20th century, a new form of union – consensual union – began to spread. At first, this union was primarily used by couples who had divorced their first marriage, but later it became a separate form of union (Kirenan 2001). Kirenan (2004) points out that consensual union was accepted in European countries in four stages. How fast the countries passed through the stages or in what stage they were at a specific moment in time, could differ. In the first stage, cohabitation was considered an innovative phenomenon. In the second stage, it was accepted as a trial period before marriage. In the third stage, it became an accepted alternative to marriage, and in the fourth stage, it could no longer be distinguished from marriage. In the last stage, consensual union had all the characteristics of a family, including having and raising children. The couple behaved as a married couple also while engaging in daily activities.

In order to get a general picture of how consensual union gained a foothold in Estonia, let us look at what has changed in regard to contracted marriages, divorces and the age of persons at registration of first marriage.

In 1970, the number of marriages contracted was 12,373 and the marriage rate remained relatively stable until the beginning of the 1990s (Figure 1). The number of marriages declined considerably in the first half of the 1990s. In 1990, the number of contracted marriages was 11,774, in 1993, it was 7,745 and in 1996, it declined even further and was 5,517. A significant decline in the number of marriages at the beginning of the 1990s was affected also by the overall decline in the population due to emigration, especially in the age groups of younger persons of family-forming age. Also the number of couples who preferred consensual union to marriage increased. Thorton and Philipov (2009) call such an abrupt change developmental idealism, i.e. a rapid change in values and norms. This process was speeded up by the belief that the western lifestyle is an ideal to follow and western values, beliefs and customs are to be adopted. Consensual union as a separate form of union had already gained ground in the Nordic countries and the rest of Europe and therefore quickly became popular also in Estonia.

Today, it is impossible to distinguish cohabitation from marriage in daily life, and children are being born and raised in marriages as well as in consensual unions. In both cases, the couple has a common home and supports each other financially. As consensual union closely resembles marriage, an impetus for marriage may be missing (McGinnis 2003). Even if at the beginning of cohabitation, partners may wish to get married, it may weaken over time due to lack of clear need (Kasearu 2003; Kennedy & Bumpass 2008). In the eyes of the couple, marriage might not change anything significantly in their relationship so as to take this step. This is why the economic situation has started to affect the contraction of marriages. For instance, in economically more difficult times, the contraction of marriages also declines (e.g. in the period 2008–2010). On the other hand, when the economy grows, there are more marriages (e.g. in the period 2006–2007). Generally, the number of marriages has remained between 5,000 and 7,000 since the year 2000.

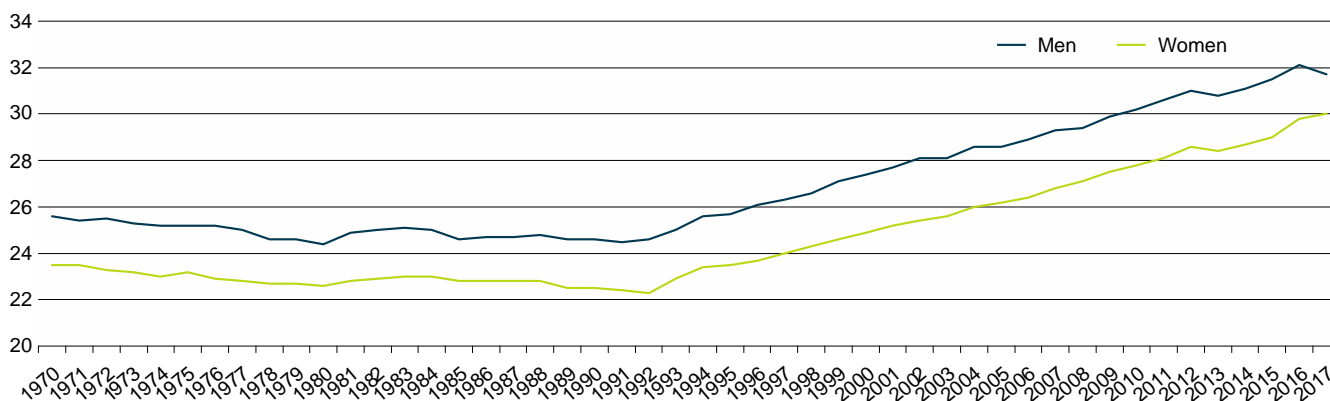
^a In the article, "consensual union" and "cohabitation" are used as synonyms.

Figure 1. Marriages and divorces, 1970–2017

The number of divorces began to grow some time before the 1970s, when the new code on marriage and family took effect, which made divorce significantly easier (Ainsaar 1997). There has been an attitude of tolerance towards divorce in Estonia compared to other European countries, and neither was it condemned in Soviet times (Tiit 2000). For instance, in 1970, the number of divorced marriages was 4,379 and it has increased ever since. Beck and Beck-Gernsheim (2002) indicate that in the second half of the 20th century, institutional marriage, which emphasised compliance with specific social norms and rules, started to weaken. Institutional marriage had also acquired many characteristics of a marriage based on partnership. Therefore, the affection of partners was increasingly more important in the relationship. From there on, marriages became increasingly more individualistic, i.e. happiness in marriage began to be assessed based on what it contributed to the self-development of a person and whether it satisfied the deepest psychological needs of partners. This brought about an increase in the divorce rate.

Individualisation in marriages occurred in the middle of the 1990s, when the number of divorces also increased. Generally, the number of divorces in the 1990s stayed slightly below 6,000, but in 1995, it even exceeded the number of marriages contracted in that year: the number of dissolved marriages numbered 7,456. The large number of divorces in the 1990s can be explained by the fact that new passports were issued in this period, during which marriages that were dissolved in previous years were also registered (Hansson 2000). Since then, the number of divorces has been declining, and since 2006, has remained below 4,000. In 2017, there were 3,323 divorced marriages. The number of divorces has declined over time, but there are also less marriages and more consensual unions.

In addition to a decline in the number of marriages, also the marital age has increased (Figure 2). Traditionally, marriage was a sign of reaching adulthood and starting a family (Amato et al. 2009). Marriages were entered into at a relatively young age and enabled to be part of an institution, which was bigger and more important than the man and woman themselves (Cherlin 2010). Marital age started to increase in the second half of the 20th century, but in Estonia, it decreased instead. Hansson (2000) points out that this may be attributable to the internal migration in the Soviet Union and different demographic behaviour of immigrants from eastern countries. The availability of contraceptives was also limited and sex education inadequate. However, as marriage was considered the most proper form for raising children, news of pregnancy usually resulted in an official registration of marriage. Likewise, many social benefits were limited to married couples only. For instance, they were preferred as occupants of newly built apartments and the spouse's job was considered when determining the partner's job.

Figure 2. Age at first marriage, 1970–2017

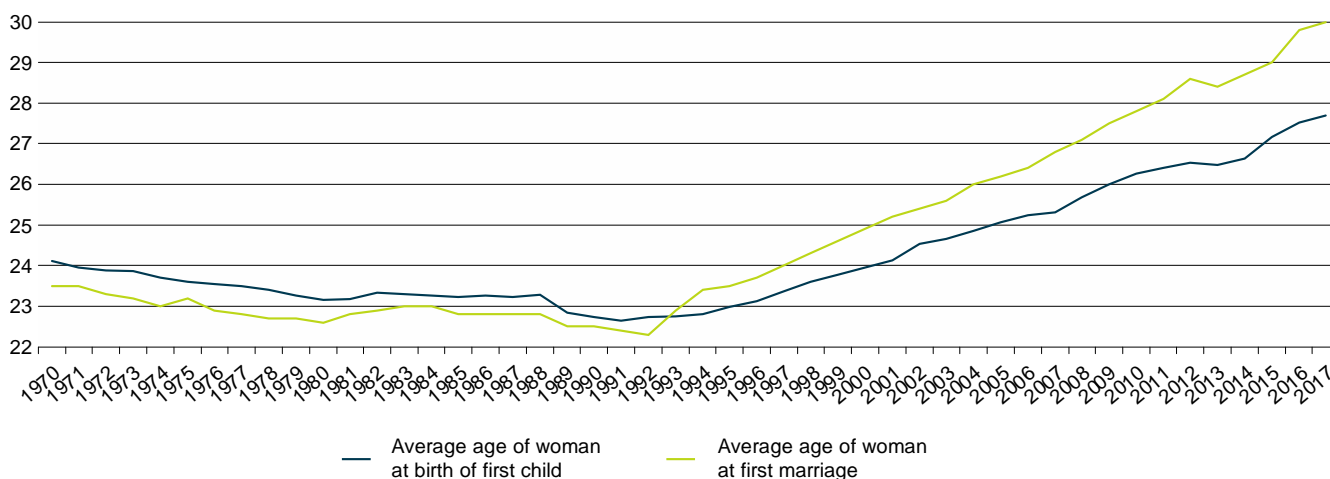
In 1970, the average age for men at registration of first marriage was 26 and for women 24. In 1980, however, the respective numbers were 24 and 23. After Estonia regained its independence, the average age at registration of first marriage started to increase. While in 1992, it was 25 years for men and 22 years for women, in 2000, the respective numbers were 27 and 25. In 2017, the average age for men at the registration of first marriage was 32 and for women, 30. Therefore, it can be stated that marriages are contracted later in life.

Order of family formation events has changed

Earlier, family formation mostly followed a clear pattern. Courtship was followed by four normative elements: marriage, moving in together at the same time, beginning of a sexual relationship (formally, extramarital sexual relationships were not tolerated) and in a year or so, birth of child (Trost 2010). This pattern also emerges when looking at the average age of women at first marriage and at birth of first child (Figure 3). In the figure, it can be seen that until the beginning of the 1990s, the age of women at first marriage was lower than at birth of their first child. Therefore, building a family was rather straightforward and marriage usually preceded family planning. Starting from 1993, however, this structure changed due to consensual union having become more widespread.

The view that a family can be started after the contraction of marriage was changing. An increasing number of couples were having children in consensual unions. Since 1993, the average age at birth of first child has been lower than the average age at first marriage. Therefore, there are no longer direct links between marriage and moving in together, marriage and having a child or marriage and beginning sexual activities. By 2017, the average age of women at birth of first child was 27.7 and at first marriage, 30 years.

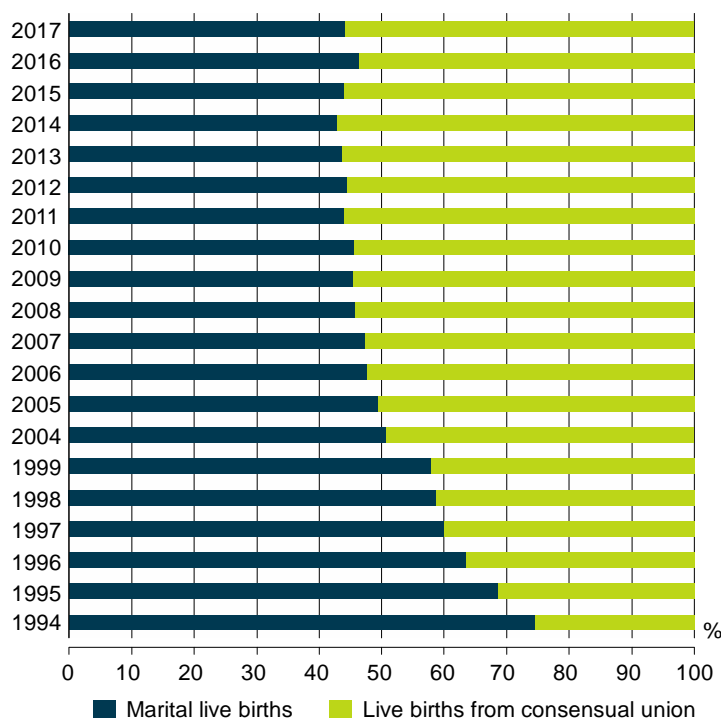
Figure 3. Average age of woman at first marriage and birth of first child, 1970–2017



Changes in opinions about starting a family are also reflected by the change in the share of children born in wedlock. The share was considerable in the 1970s, accounting for nearly 90%, but began to decline since then and constituted 73% in 1990. As pointed above, in the beginning of the 1990s, the number of couples in consensual union increased, which resulted in a fast decline in the number of births in wedlock. Until 1990, however, more children were born to married couples than to consensual union couples (Figure 4). Since 2004, however, more than half of children have been born to parents in consensual union. Having a child in a consensual union, however, does not mean that a decision about the form of union has been made.

The average age of women at birth of first child is lower than at first marriage, and, therefore, it can be said that the time of marriage in life has changed and now it more often occurs after having had a child together. Having a child in a consensual union also makes couples think more about marriage (Raid 2013). Only 12% of the couples who got married in 1992 had children in common, while in 2017, the share of such couples accounted for a third of newlyweds.

It can be said that family life today is characterised by a multiplicity of choices. It is possible to live together without registering the partnership and also have children in such a union, marry sometime later or remain in a consensual union. One may also follow the traditional route and marry before childbirth. Even though more children are born to cohabiting than to married parents, most children today are growing in families with married parents. According to Eurostat, 53% of minor children were in families with married parents, 31% in families with cohabiting parents and 16% in families with single parents. This, in turn, confirms that the order of family formation events has changed. Although a couple may have a child in a consensual union, they may register their union at a later date. An existing family may also break up and a new partner may be found, with whom decisions regarding building a family need to be made again. More than a quarter of marriages have been repeated marriages already since the first half of the 1980s.

Figure 4. Live births from marriage and consensual union, 1994–1999 and 2004–2017^a

Interpretation of changes in family formation

Researchers have tried to explain changes in family formation with the help of various theories. Beck and Beck-Gernsheim (2002) describe it in the light of individualisation. Individualisation is a historical process, which considerably changes a person's traditional pace of life and places a question mark over it. Earlier, family life was based on traditions and rules, but in the course of individualisation, people need to plan their life themselves more than ever before and also take responsibility for it. Earlier, a uniform model for building a family was traditionally followed, but now there are many options available. All this has made family ties more fragile and borders around the family less clear. It is no longer obvious, who belongs in the family, as traditional definitions which determine family ties (marriage and blood relationships) no longer hold. This means that families are increasingly formed on the basis of personal relationships and preferences. Even children who grow up in the same household may have a different understanding about their family. This, however, brings a certain fluidity and uncertainty into family relationships. Therefore, more time needs to be devoted to family relationships, as nothing can be taken for granted. All this is linked to the declined birth rate, postponing of marriage and childbirth, spreading of consensual union and an increased number of divorces (Thorton & Young-Marco 2001).

Goldscheider et al. (2015) describe changes in family formation in the light of the gender revolution, dividing it into two parts. In the first part, which took place in the second half of the 20th century, family ties weakened, as women were thought to be carrying a double burden due to working outside home and, at the same time, taking care of children and the family home. Due to heavy workload, they postponed important family-related responsibilities such as marriage and parenthood. This resulted in a lower birth rate. In the other part of the gender revolution, men are included more, as their contribution increases both in terms of sharing the responsibilities of taking care of children and the family home, especially if they believe in equality as regards gender-specific roles. Goldscheider et al. (2015) outline that due to the gender revolution, working time in the society and at home has changed, which may bring about a new balance, based on a more equal relationship between men and women as well as on a greater dedication to the relationship and, in the case of men, greater dedication to their children. Many surveys have also confirmed that a partnership striving for equality may increase the desire to have more children (e.g. Kaufman 2000; Miettinen, Basten & Rotkirch 2011; Mills 2010).

Individualisation rather tries to explain the basis for changes in family formation, while the gender revolution also suggests how to find a new balance and ensure security both in the partnership and family relationships. It is certain, however, that families with children today are a lot more diverse than decades ago. A family based on marriage will most certainly survive, but the way it is reached may be different for couples. In addition to a family based on marriage, families based on other forms of union have increased in number, and also the stability of family relationships has changed.

^a In 2000–2003, Statistics Estonia revised the calculation of births in consensual unions and such births in this period have been underestimated, which is why this period has not been included in the figure or analysis.

Summary

The article discusses changes in family formation. Earlier, the family formation model was rather uniform: first people got married and then had children. This, however, has been replaced with a multiplicity of choices due to individualisation. Instead of a family based on traditional marriage, there is a great diversity of family types. In the second half of the 20th century, a new form of union began to gain a foothold: consensual union. At first, it was an innovative phenomenon, but over time, it became popular. As a result, the number of marrying couples has declined, as consensual union in daily life is very similar to marriage. Likewise, people are having children and getting married later in life.

Due to consensual union having become more widespread, the order of family events has changed. The age of women at first marriage was lower than the age at birth of first child until the beginning of the 1990s. In the first half of the 1990s, the situation changed and women were younger at the birth of their first child than at their first marriage. Since 2004, more children have been born to parents in consensual union than to married parents. It cannot, however, be said that the couples who have had a child in a consensual union had made a prior decision about their form of union, as the share of newlyweds who already have children in common has increased.

It can be said that the time of marriage in a person's life has changed. Earlier, marriages were contracted before the birth of a child, but today, marriages are often registered later in life. It may also happen that an existing family breaks apart and a new partner is found with whom decisions about building a family need to be made again. As a result, a family can no longer be clearly defined and family relationships have become more diverse and also more fragile. Today, children are growing in families very different from what they used to be, as there are a lot more types of family and forms of union.

Sources

- Ainsaar, M. (1997). Eesti rahvastik Taani hindamisraamatust tänapäevani. Tartu: Tartu Ülikooli Kirjastus.
- Amato, P. R., Booth, A., Johnson, D. R., & Rogers, S. J. (2009). *Alone Together: How Marriage in America Is Changing*. United States of America: Harvard University Press.
- Beck, U., & Beck-Gernsheim, E. (2002). *Individualization*. London: SAGE Publication.
- Cherlin, A. J. (2010). *The Marriage – Go- Around*. United States of America: Vintage Books.
- Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The Gender Revolution: A Framework for Understanding Changing Family and Demographic Behavior. *Population and Development Review*, 41, 207–239.
- Hansson, L. (2000). Muutuv perekond Eestis ja Euroopas. Eesti inimarengu aruanne, pp. 42–48.
- Kasearu, K. (2003). Kooseluvormide eelistused ja kavandatav pereloomeline käitumine. Millist perekonnapoliitikat me vajame? Tartu Ülikooli Kirjastus.
- Kaufman, G. (2000). Do gender roles attitudes matter? Family formation and dissolution among traditional and egalitarian men and women. *Journal of Family Issues*, 21, 128–144.
- Kennedy, S., Bumpass, L. (2008). Cohabitation and children's living arrangements: new estimates from the United States. *Demographic Research*, 19, 1663–1692.
- Kiernan, K. (2001). The rise of cohabitation and childbearing outside of marriage in western Europe. *International Journal of Law, Policy and the Family*, 15, 1–21.
- Kiernan, K. (2004). Redrawing the Boundaries of Marriage. *Journal of Marriage and Family*, 66, 980–987.
- McGinnis, S. L. (2003). Cohabiting, Dating, and Perceived Costs of Marriage: A Model of Marriage Entry. *Journal of Marriage and Family*, 65, 105–116.
- Miettinen, A., Basten, S., & Rotkirch, A. (2011). Gender equality and fertility intentions revisited: Evidence from Finland. *Demographic Research*, 24, 469–496.
- Mills, M. (2010). Gender roles, gender (in)equality and fertility: An empirical test of five gender equity indices. *Canadian Studies in Population*, 37, 445–474.
- Raid, K. (2013). Kuidas meist sai perekond ... Abielupaaride pereloomelised narratiivid. http://dspace.ut.ee/bitstream/handle/10062/31657/raid_kadri.pdf (14.09.2018)
- Thornton, A., Young-DeMarco, L. (2001). Four decades of trends in attitudes toward family issues in the United States: The 1960s through the 1990s. *Journal of Marriage & Family*, 63, 1009–1037.
- Thornton, A., Philipov, D. (2009). Sweeping changes in marriage, cohabitation and childbearing in Central and Eastern Europe: New insights from the developmental idealism framework. *European Journal of Population*, 25, 123–156.
- Tiit, E-M. (2000). Sündimuse dünaamika Eestis. Mõjutused, trend ja prognoos Euroopa rahvastikuprotsesside taustal. https://www.sm.ee/sites/default/files/content-editors/Ministeerium_kontaktid/Uuringu_ja_analuusid/Sotsiaalvaldkond/sundimuse_dunaamika_eestis.pdf (14.09.2018)
- Trost, J. (2010). The Social Institution of Marriage. *Journal of Comparative Family Studies*, 41, 507–514.

RETAIL SALE OF FOODSTUFFS FROM CONSUMER'S AND TRADER'S PERSPECTIVE

Märt Leesment

In this article, a brief overview of the retail sale of foodstuffs is given. The topic is approached from two perspectives: demand and supply. Retail sale of foodstuffs brings together two parties – the trader and the consumer, and it is difficult to consider one more important than the other. Therefore, in this article, the focus is on both of them. Grocery stores are important, or in fact vital, as in the society today, the share of food obtained from outside trade is quite marginal.

Although trade (incl. the trade of foodstuffs) has accompanied the thinking and communicating human already for millennia, it nevertheless is a continuously developing phenomenon. In Estonia, the most important changes occurred in the past decades due to change of regime and economic system: a fundamental shift in trade, economic life as well as in the society as a whole took place. Extensive changes took place also afterwards. The consumer mainly noticed empty shelves being replaced by a wide range of goods, and later also changes in the size and location of stores (instead of small centrally located shops, large super- and hypermarkets mostly at the edge of cities were built). Lately, increasingly more effects of mechanisation and use of technology are visible (sale via the internet, self-service checkouts, etc.).

In the article, the focus is first on some of the most important patterns related to consumers' food spending. Answers to questions about whether and how they have changed over time and whether a similar logic exists in other countries provides an important input into projecting the future situation.

From the trader's perspective, the article shall look at the situation of enterprises specialising in the retail sale of foodstuffs and at how the indicators compare with those of trade in general and the average for all economic activities. What is the situation like in comparison with the rest of Europe?

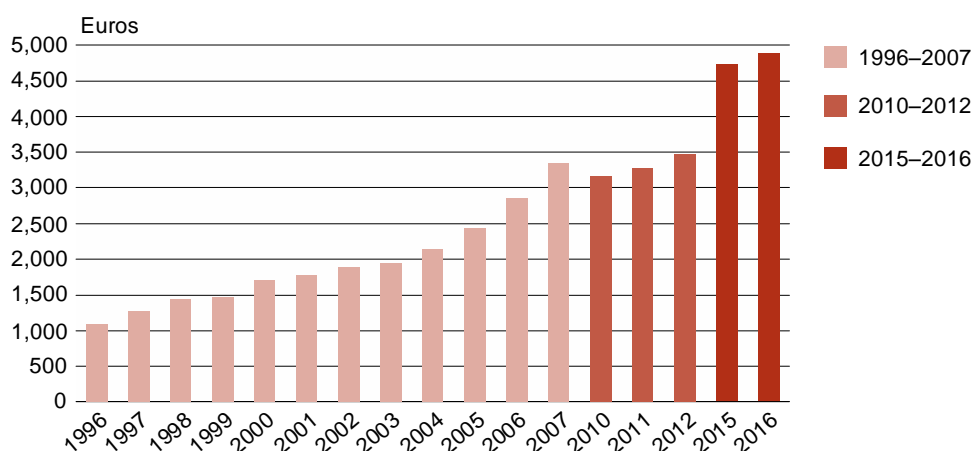
In addition, physical characteristics of stores are briefly discussed: what has changed over time and what kind of changes could take place in the future.

Consumption of foodstuffs

Food expenditure in Estonia

The life of consumers has improved at least financially. Wages and salaries have increased (in 2017, the average monthly gross wages and salaries increased year on year by 6.5% to 1,221 euros), inflation (measured by the consumer price index) has remained modest and the real income of Estonians has increased (real wages and salaries increased in 2017 by 3%, having increased even more before – in 2016 by 6.5% and in 2015 by 6.9%). More money, however, means that more can be spent. Results of the Household Budget Survey show that the average annual expenditure of a household member has multiplied over two decades (Figure 1). The economic crisis did bring about some decline and the pre-crisis (2007) level was not reached until in 2012, but the indicators for 2015 and 2016 were already considerably better. Note: The time series in the figure is not continuous as the Household Budget Survey is not conducted on a yearly basis.

Figure 1. Average annual expenditure of household member, 1996–2007, 2010–2012, 2015–2016



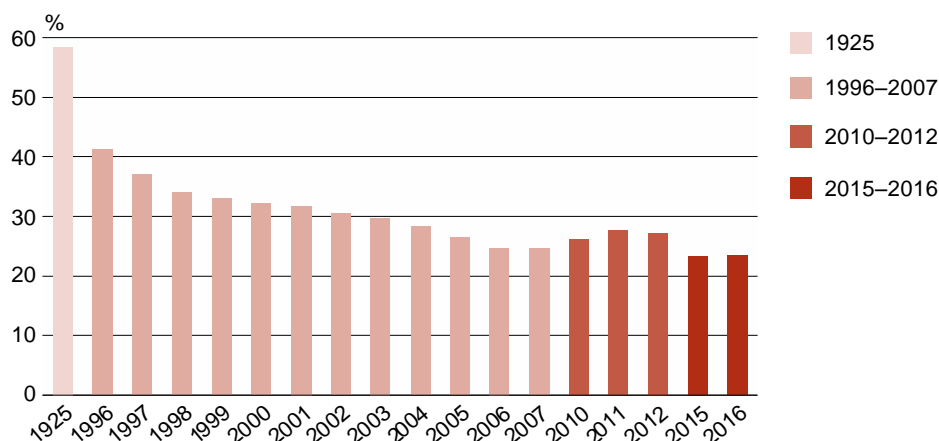
Expenditure on food and non-alcoholic beverages in the total expenditure of a household member in 2016 amounted to a little less than a quarter – 23.4%. Observation of the longer trend reveals that the share of this expenditure has declined.

The first more or less relevant reference data about the household budget of Estonians date already from the first half of the previous century, from the early days of the Estonian Republic. The first Household Budget Survey that could be considered

was conducted in 1925 (*Eesti töölisebühdzhet 1925*), the results of which were published in the Monthly Bulletin of Estonian Statistics in March 1926. Although the survey sample was very limited, including only the working households of Tallinn and Narva, and caution should be exercised when drawing conclusions, it nonetheless gave an approximate picture of the situation at the time. In 1925, working households in Tallinn spent 58.5% of their expenditure on food. Note: As aggregated data were not published and the sample for Narva was much more limited, only the indicators for Tallinn are included.

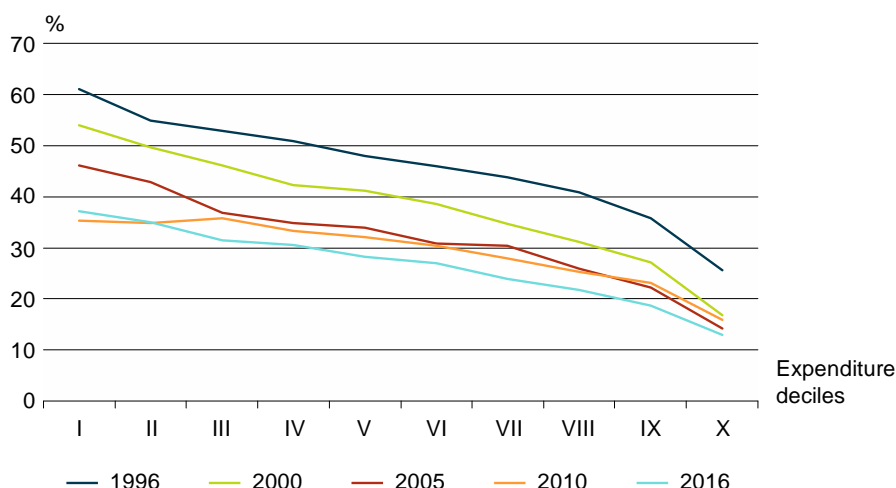
The first results comparable with the current methodology date from 1996. The residents of a country having enjoyed a few years of independence spent 41% of their expenditure on food and non-alcoholic beverages. The share decreased steadily, dropping to less than 25% by 2007 (Figure 2). In the following two years, the Household Budget Survey was not conducted, and the next data date from 2010. In 2010, the share of expenditure on food and non-alcoholic beverages was slightly bigger (26%) and in 2011 even bigger (28%). As an economic crisis was faced in this period, it can be observed that the share was small in the boom years (2006–2007) but somewhat bigger in the crisis years (2010–2011).

Figure 2. Share of expenditure on food and non-alcoholic beverages in total expenditure of household (member), 1925, 1996–2007, 2010–2012, 2015–2016



Therefore, in comparison with the total expenditure, expenditure on food tends to fluctuate somewhat less. Another observation can be seen in Figure 3 – the wealthier the household, the smaller the share of its expenditure on food and non-alcoholic beverages. This pattern has emerged in all the years during the two decades when the Household Budget Survey has been conducted.

Figure 3. Share of expenditure on food and non-alcoholic beverages in total expenditure of household member by expenditure decile^a, 1996, 2000, 2005, 2010, 2016

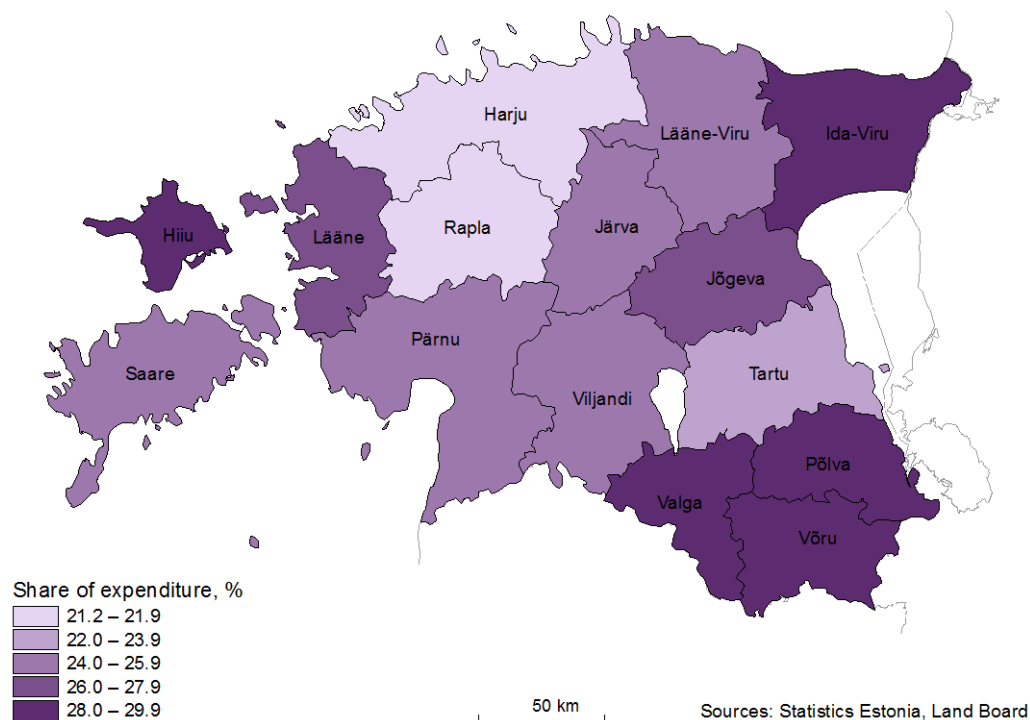


^a **Expenditure decile** is the variation line of households divided into ten equal parts. Division points are called decile points and the parts of variation line between them are called decile intervals or deciles. Households whose expenditure is smaller than the first expenditure decile point belong to the first expenditure decile interval and those whose expenditure exceeds the ninth expenditure decile point belong to the tenth expenditure decile interval, i.e. the extreme expenditure decile intervals are actually open (with one final point).

In fact, this phenomenon is not new – a similar result was reached already during the first Household Budget Survey in 1925. In that survey, a reference was made to the Engel's law: "The smaller the income of a household, the bigger the percentage of the household's expenditure on food – and vice versa" (*Eesti töölisebühdzhet 1926*: 31). It was stated in the overview that similar results were reached also in other countries.

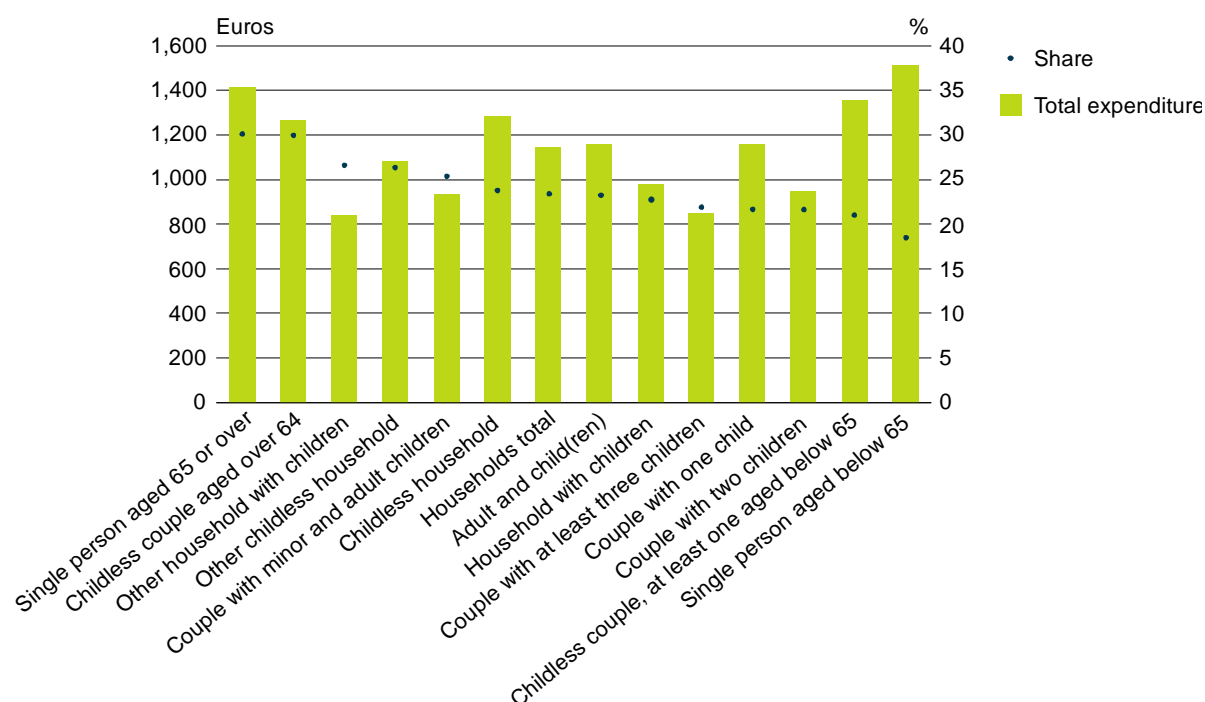
In the following overview, differences in the shares of food expenditure in counties are discussed. The share of expenditure on food and non-alcoholic beverages was smallest in Harju county (expenditure on food and non-alcoholic beverages accounted for 21.2% of the total expenditure). The share was biggest in Ida-Viru county, accounting for 29.6% of the total expenditure of a household member. In absolute terms, the average expenditure of a household member on food and non-alcoholic beverages in 2016 was the highest in Hiiu county (1,310 euros) and the lowest in Põlva county (1,018 euros). The comparison of 2016 and 2010 shows that the share of expenditure on food and non-alcoholic beverages increased in Hiiu, Valga and Lääne counties, and decreased in other counties.

Map 1. Share of household member's expenditure on food and non-alcoholic beverages, 2016



By household type, the share of expenditure on food and non-alcoholic beverages in total expenditure is biggest among older persons (Figure 4). In 2016, a single person aged 65 or over spent 30.1% and a childless couple aged over 64 spent 30% of their expenditure on food and non-alcoholic beverages. The expenditure on food and non-alcoholic beverages was lowest among single persons aged below 65 (18.5%).

Figure 4. Expenditure on food and non-alcoholic beverages and their share in total expenditure by household type, 2016



Food expenditure in European Union countries

The phenomenon in which case the share of food spending decreases along with the accumulation of wealth is not characteristic only of Estonia but also of other countries. For the comparison with other European countries, data of the 2015 Household Budget Survey have been used. Note: Data for 24 European Union countries are available.

Regardless of whether wealth has been expressed as the GDP level or expenditure of an adult household member, a pattern clearly emerges, showing that the wealthier the country, the smallest the share of expenditure on food and non-alcoholic beverages in the household's total expenditure (Figures 5 and 6). The share of food spending varies greatly among the countries, ranging in 2015 from 8.7% in Luxembourg to 30.2% in Romania. However, a convergence has occurred in the shares of food expenditure in countries. For instance, in 1999, households in Romania spent on average 51.9% of their expenditure on food and non-alcoholic beverages. The share in Luxembourg was only slightly bigger (10.1%) in 1999.

Figure 5. Share of expenditure on food and non-alcoholic beverages in household's total expenditure and GDP per capita compared to EU average by purchasing power parity, 2015

(EU-28 = 100)

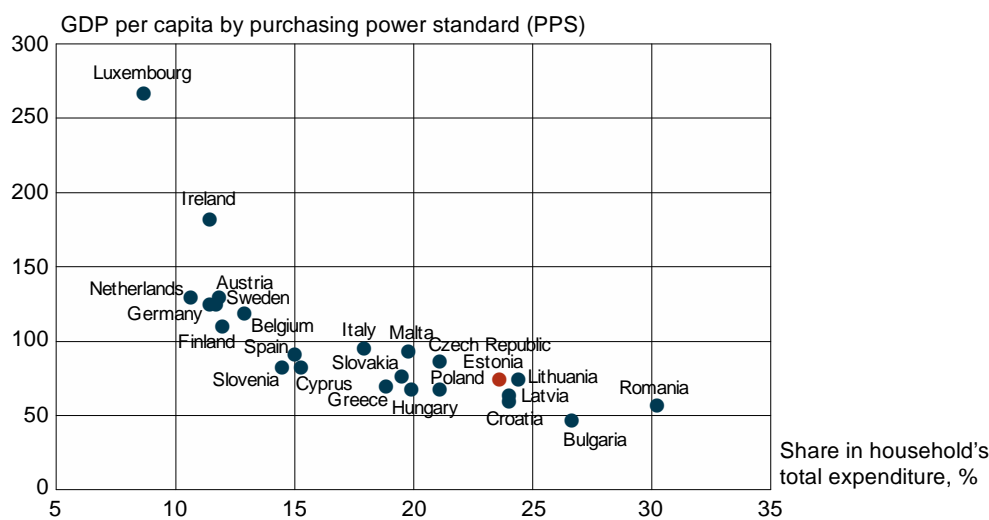
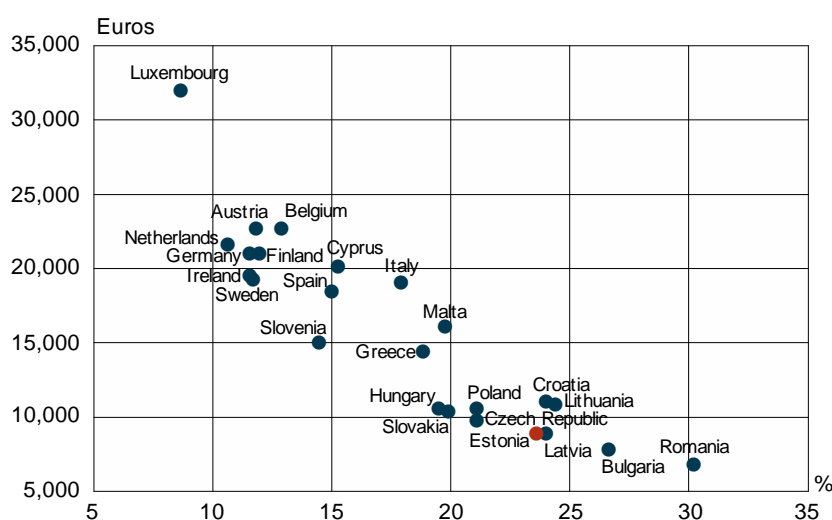


Figure 6. Share of expenditure on food and non-alcoholic beverages in household's total expenditure and expenditure per adult household member by purchasing power parity, 2015

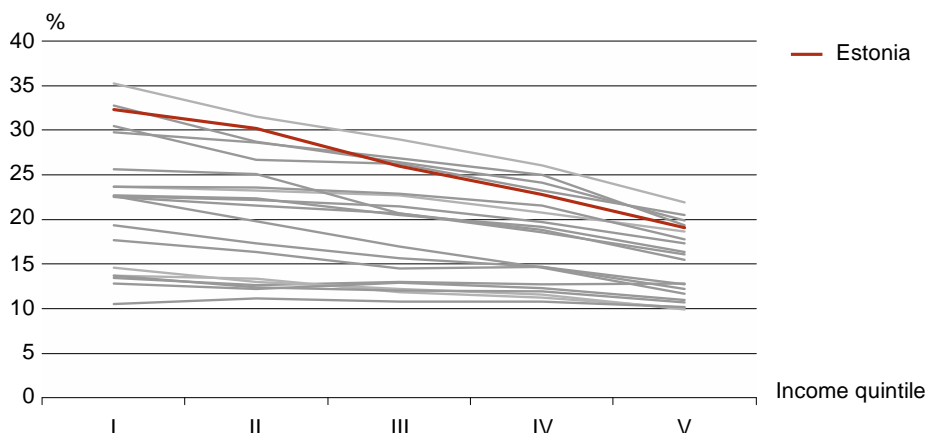


When studying the shares of food expenditure by income level in specific countries, the pattern generally also emerges (Figure 7; the indicator for Estonia is in red). While in the case of Estonian data, expenditure deciles were used, Eurostat publishes data by income quintile^a. Both can successfully be used to indicate wealth level, as the larger the income, the higher the expenditure. The higher the income quintile, the smaller the share of expenditure on food and non-alcoholic beverages in the household's total expenditure. However, the pattern emerges with certain exceptions, as, for instance, in Belgium and the Netherlands, the share of food spending is essentially at the same level in all income quintiles. It tends to be

^a **Income quintile** is a fifth of the population ordered by equivalised annual disposable income. The first or the lowest quintile contains one fifth of the population receiving the lowest income, the second quintile contains the next fifth and so on.

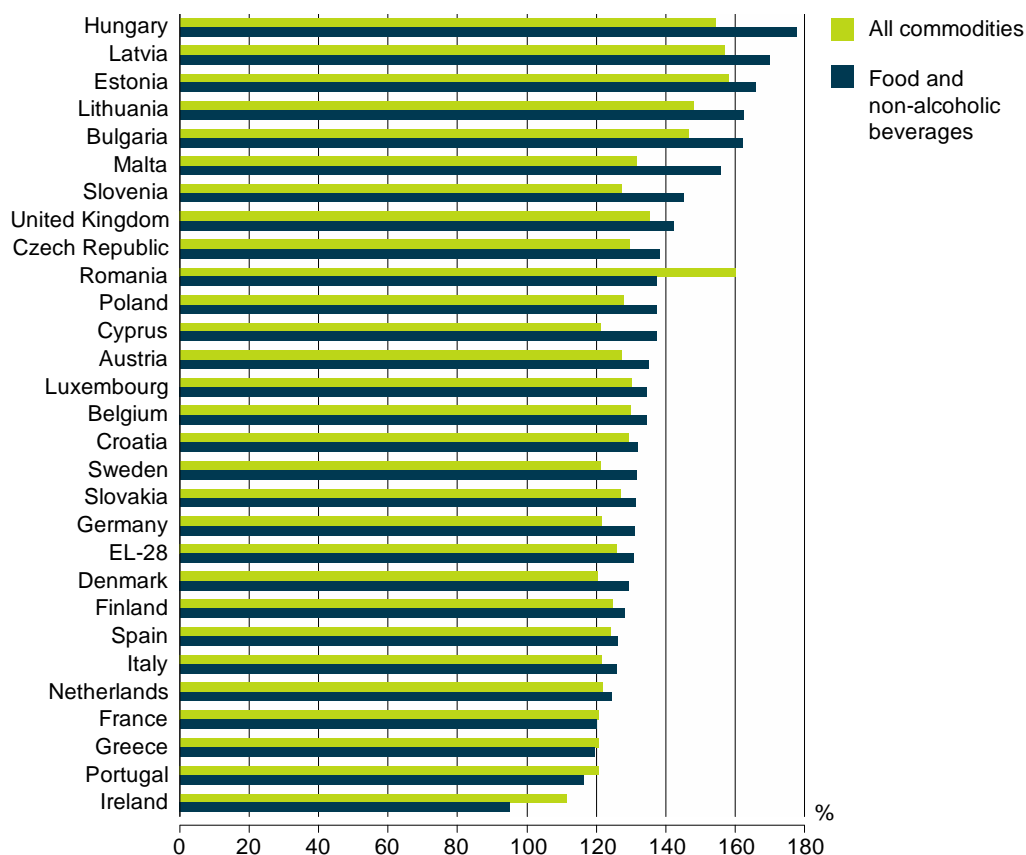
that the bigger the general share of food spending in the country, the bigger the difference between the shares at different income levels.

Figure 7. Share of expenditure on food and non-alcoholic beverages in household's total expenditure by income quintile, 2015



The increased food spending does not only mean that Estonians are eating more and/or buying relatively more expensive products, but also that prices have increased. Price increase has been rapid in Estonia. Compared to 2005, in Estonia, the increase in the prices of all commodities was the second fastest and in the prices of food and non-alcoholic beverages the third fastest among the European Union countries (Figure 8). The largest increase in the prices of food and non-alcoholic beverages was recorded in Hungary; prices have dropped only in Ireland. In most European Union countries, the prices of food and non-alcoholic beverages have gone up slightly faster than the prices of all commodities.

Figure 8. Change in consumer price indices for all commodities and foodstuffs, August^a 2018
(2005 = 100)



^a July 2018 for the UK

Possible changes in customer base

Generally, the consumption of foodstuffs depends on two factors: the consumption of a specific person and the number of consumers. The financial expenditure of the consumer increases together with the rising living standard, but in terms of quantity, the increase is not necessarily as significant.

How might the number of consumers change? Assuming that everyone consumes food and that most of us usually buy it from shops, the prediction about the change in the consumer base can be based on population projections. Statistics Estonia's population projection for Estonia in force at the time of writing this article was compiled in 2014, and even though in the meantime there have been changes in the factors affecting potential trends as well as in methodology, there is no reason to believe that general trends would change over a longer period. Even the most positive (both the birth rate and migration are increasing) of the possible scenarios (Krusell et al. 2015) drawn up on the basis of the population projection in force (for a period until 2040) did not foresee a considerable population increase over a longer term.

An even longer term projection (covering the 21st century) is included in the 2016/2017 National Human Development Report (Sakkeus et al. 2017). Only the most positive of the scenarios described in the report predicts that by the end of this century (based on the data for 2015), Estonian population will reach 1.4 million. At the same time, no scenario foresees the number of working-age persons (persons aged 20–64, who are also consumers with higher purchasing capacity) reaching the number registered in 2015 by the end of the century.

Therefore, even the most optimistic projections do not predict a significant increase in the number of Estonians in the long run. Rather, there will be fewer of us. In other words, there will be fewer consumers of foodstuffs, which makes each and every customer more important for the trader. Competition for consumers will increase. How consumers are attracted is not the focus of the current article, but the author has previously studied one of the techniques (Leesment 2017). It is likely that increasingly more information about the customer will accumulate and that it will be used more intensively (despite the restrictions arising from data protection).

Activities of enterprises

Retail sale of foodstuffs

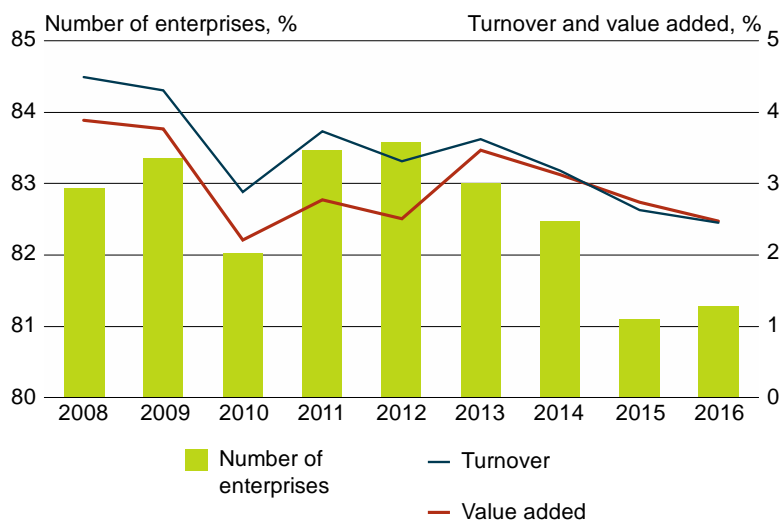
To meet the demand, supply is required, and therefore attention will next be turned to the activities of traders. In 2016, Estonian retail trade enterprises sold foodstuffs worth approximately 2.27 billion euros, of which food accounted for 1.66 billion. Although by foodstuffs primarily food is referred to in this article, in this case (in retail sale figures), foodstuffs include also alcoholic beverages and tobacco products, which were sold for 0.61 billion. 87% of the retail sale of foodstuffs (incl. 89% of the retail sale of food and 82% of the retail sale of alcoholic beverages and tobacco) took place in economic activity G4711 – retail sale in non-specialised stores with food, beverages or tobacco predominating. Foodstuffs were also sold in enterprises of economic activities G472 (retail sale of food, beverages and tobacco in specialised stores), G473 (retail sale of automotive fuel in specialised stores), G4719 (other retail sale in non-specialised stores) and G478 (retail sale via stalls and markets). Retail sale of foodstuffs in other economic activities was marginal. Among economic activities, retail sale of foodstuffs has increased at a significantly faster pace (2015 vs 2006) in the retail sale of automotive fuel and retail sale via stalls and markets.

Considering that one economic activity clearly dominates, the focus in the article is on this economic activity: G4711, i.e. retail sale in non-specialised stores with food, beverages or tobacco predominating. This includes also enterprises operating super- and hypermarket chains. In order to avoid wordiness, the economic activity will hereafter be referred to as G4711.

In 2016, there were 422 enterprises operating in economic activity G4711 in Estonia. The change in the number of enterprises operating in this economic activity, however, has clearly differed from the average for economic activities. While the average number of enterprises in economic activities has increased 1.7 times in 2006–2016 and the number of retail enterprises nearly one and a half times, the number of enterprises in economic activity G4711 has halved. The biggest fall was seen during the crisis – in 2010, there were 184 fewer enterprises operating in this economic activity than a year earlier. Many small operators were unable to cope and were forced to end their activities; many joined grocery chains to improve their outlook. In addition, the economic activity of some enterprises was likely to have changed, as in 2010, for instance, the number of enterprises registered under economic activity G472 increased.

The majority of enterprises operating in economic activity G4711 are micro-enterprises, i.e. with less than 10 persons employed (Figure 9). In 2016, the share of such enterprises in all active enterprises operating in this economic activity was 81%. At the same time, the share of micro-enterprises has decreased slightly over the years: in 2012, for instance, it was 84%. In terms of the added financial value, the importance of micro-enterprises is quite marginal. In 2016, both the turnover and value added generated by micro-enterprises accounted for only 2.5% of the total of the economic activity. Compared to previous years, the share has declined.

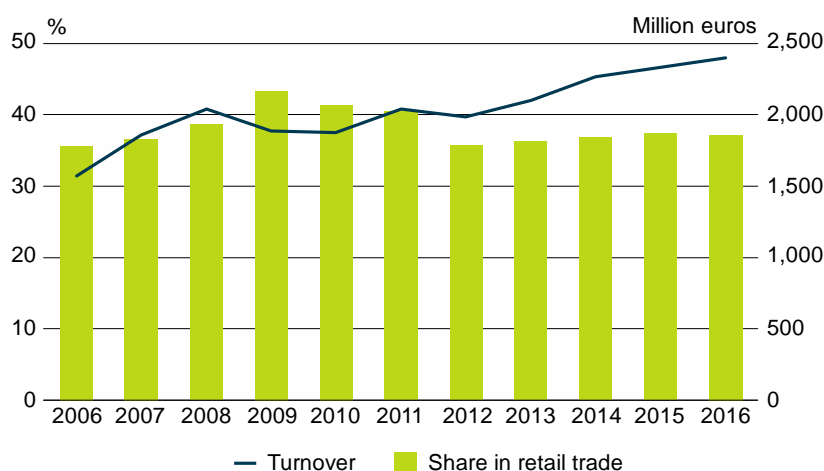
Figure 9. Share of number, turnover and value added of micro-enterprises in all enterprises in economic activity G4711, 2008–2016



Financial statistics of enterprises in economic activity G4711

Turnover generated in the most important economic activity as regards the retail sale of foodstuffs (G4711) amounted to nearly 2.4 billion euros in 2016 – one and a half times more than in 2006 (Figure 10). The share of the turnover of economic activity G4711 in retail sale in 2016 was at the same level as ten years earlier (37% in 2016). Certain fluctuations have, however, occurred in the meantime – the share increased during the economic boom and decreased during the crisis. It has remained quite stable in the post-crisis period.

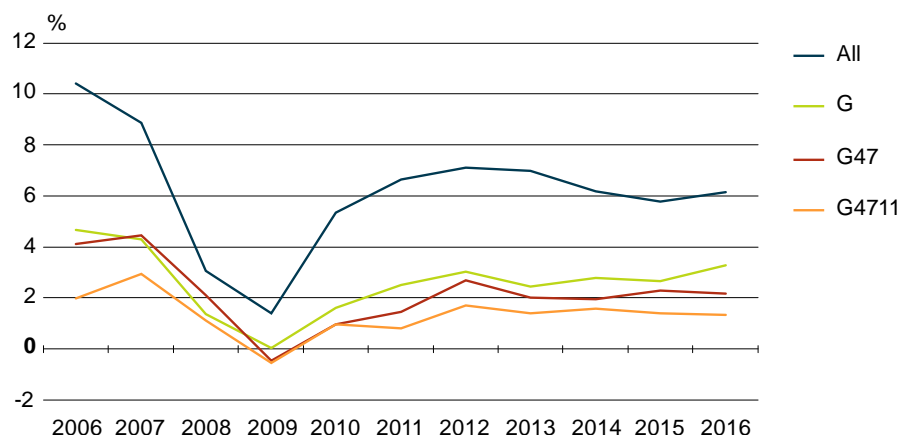
Figure 10. Turnover of enterprises in economic activity G4711 and its share in retail trade, 2006–2016



The share of turnover generated in trade in the average for economic activities has fluctuated slightly since the crisis, but no downward or upward trends emerge. A similar change has occurred in the share of retail trade in total trade (and, therefore, also in the average for economic activities).

Profit generated per person employed in the retail trade of foodstuffs is relatively low. This is reflected also in profitability indicators, which have remained lower than the average for economic activities also in total trade. The profit margin, i.e. the ratio between profit/loss and turnover, which essentially shows how many net profit cents were earned per turnover euro, is even lower among the enterprises specialising in the retail sale of food than the average for wholesale and retail trade: the average value of the profit margin for all economic activities was 6.2% in 2016, but in economic activity G4711, it was 1.3% (Figure 11). Therefore, enterprises operating in the retail sale of food have reaped relatively modest profit. Negative values of retail trade activities in 2009 indicate that mostly losses were incurred in these areas.

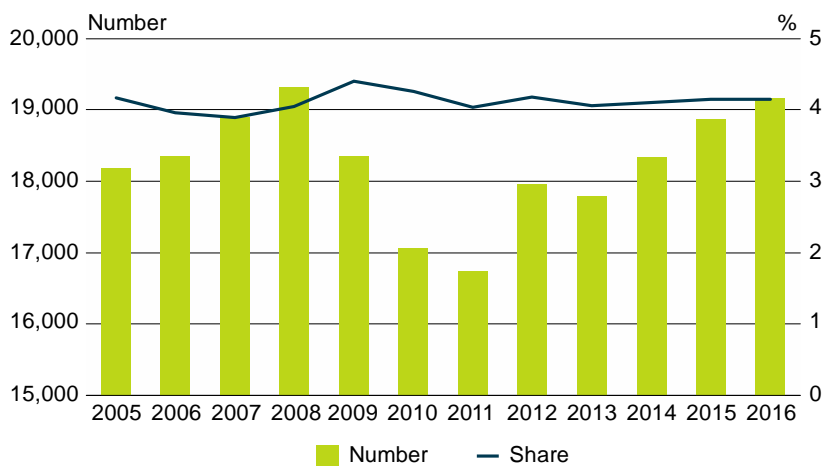
Figure 11. Profit margin: average for all economic activities (All), in trade (G), in retail trade (G47) and in economic activity G4711, 2006–2016



While the productivity of labour costs (which shows the ratio between value added and labour costs) in trade has remained more or less at the same level as the average for economic activities, the indicators for retail trade, and especially economic activities more directly related to the retail sale of food are lower. In post-crisis years, the productivity of labour costs has followed a slight downward trend and given the wage pressure, it complicates the situation.

The number of persons employed in economic activity G4711 has increased in recent years (Figure 12). In 2016, there were 19,175 persons employed in this economic activity; the last time that the number was higher (although only slightly) was in 2008. In a decade, the number of persons employed in economic activity G4711 has fluctuated quite considerably and has followed the same path as other economic indicators – increasing during the economic boom, declining during the crisis and increasing again after the crisis. There has been nothing substantially different in the number of persons employed in economic activity G4711 compared to other economic activities – employment decreased also in other economic activities during the economic crisis. However, it can be seen that employment in economic activity G4711 was affected by the crisis somewhat later than the average for economic activities. In other words, the decline in the number of persons employed on average in economic activities was slightly more significant in 2009. In post-crisis years, the share of persons employed in economic activity G4711 has remained relatively stable.

Figure 12. Number of persons employed in economic activity G4711 and their share in all persons employed, 2005–2016



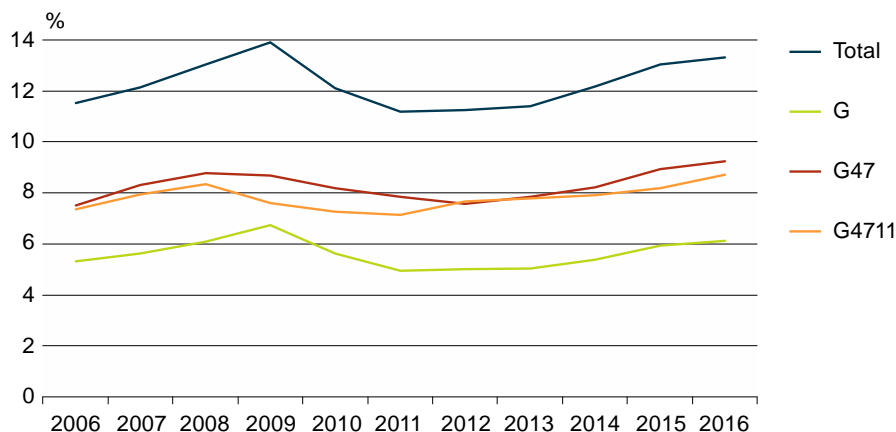
There is increasing talk of automation and the phenomenon affects also the retail sale of foodstuffs. One of the clearest manifestations are self-service checkouts. They have been in use already for some time, having even become a normality. It has been suggested in the media that on average a quarter to a third of shoppers pay for their purchases in the self-service checkout (Pärli 2018). Nonetheless, at least until 2016, the number and share of persons employed had not declined: robots have not taken over jobs in this economic activity just yet.

While in 2016 on average in economic activities, 57% of persons employed were employed in enterprises with 20 or more persons employed, in economic activity G4711, the share was 93%. Unlike the average for economic activities, the share has increased compared to previous years, as in 2008, it amounted to 87%.

While speaking about persons employed, wages and salaries must not be overlooked. In 2017, the average monthly gross wages and salaries in Estonia were 1,221 euros, amounting to 1,105 euros in wholesale and retail trade and 907 euros specifically in retail trade. In a situation where the employment rate increases and the unemployment rate declines, trade enterprises will have more difficulties finding suitable labour force. Although the average wage level in trade is not

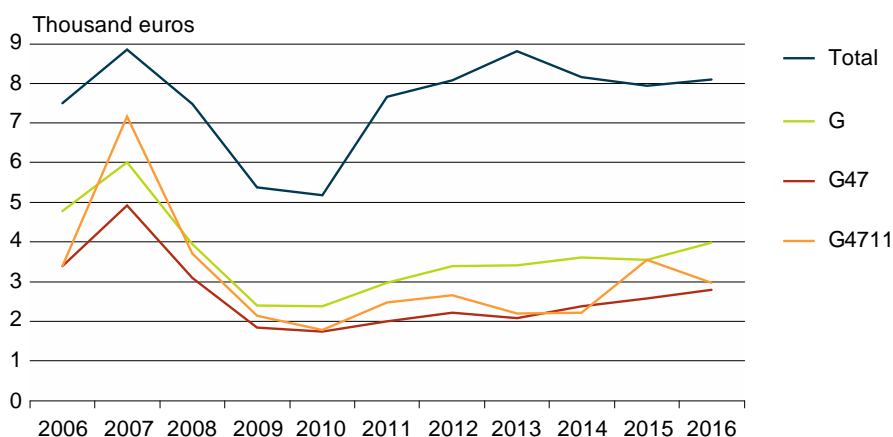
considerably below the average for all economic activities, the difference may still bring about a permanent wage pressure or even intensify it. While higher wages mean that consumers have a higher purchasing capacity, wage pressure brings about increased labour costs. The trend has been similar in the case of all observed economic activities. The share of labour costs increased during the economic boom, decreased in the crisis years and has again been steadily increasing after the crisis (Figure 13). In 2016, the shares were the biggest in a decade in both retail trade and economic activity G4711. Smaller labour cost shares in trade are due to the specific nature of the economic activity – goods purchased for sale have also been included under expenditure.

Figure 13. Share of labour costs in total expenditure, 2006–2016



More productive activity often requires investments. In trade, however, half the amount of investments are made compared to the average for economic activities (Figure 14). The other ratio – investment rate, i.e. the ratio between investment in fixed assets and value added has been slightly lower in trade than on average in economic activities. The indicators have remained relatively stable in all observed economic activities after the crisis. Investment activity in trade as well as in economic activities in total peaked shortly before the economic crisis. Investment level in economic activity G4711 was particularly high in 2007 due to a considerable increase in investments in construction and reconstruction of buildings. The share of investments in fixed assets made in economic activity G4711 in total trade was 15.3% in 2016. Although the share has varied over the years (e.g. a year earlier, the share was 20.6%), it has rather decreased in the past decade, although not much.

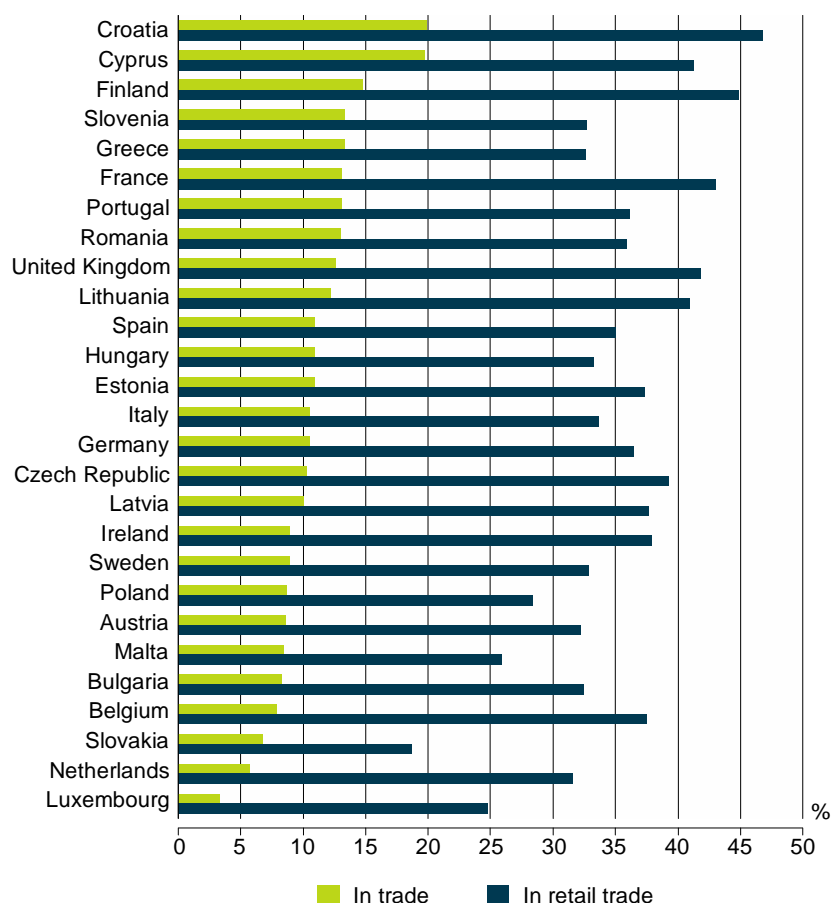
Figure 14. Investments per person employed in economic activities, 2006–2016



Enterprises in economic activity G4711 in European Union countries

When examining the financial statistics of enterprises operating in Estonia, a legitimate question may arise about whether and how does the overall picture differ from the rest of Europe. In a situation where in Germany, a hundred times more turnover is generated in economic activity G4711 than in Estonia (in the case of an even smaller country, the difference may be even larger), it is appropriate for better comparison to look at the share of turnover generated in economic activity G4711 in the trade of a particular country. The share varies from 3% in Luxembourg to a fifth in Croatia and Cyprus (Figure 15). In the majority of countries, the share of turnover generated in economic activity G4711 in total trade is between 8% and 13%. With 11%, Estonia ranks in the middle.

The share of turnover generated in economic activity G4711 in the turnover of retail trade was below 50% in all observed countries. Croatia (47%) and Finland (45%) were among the countries with the biggest share, and the share was smallest in Slovakia (19%). The share in Estonia (37%) ranked in the middle.

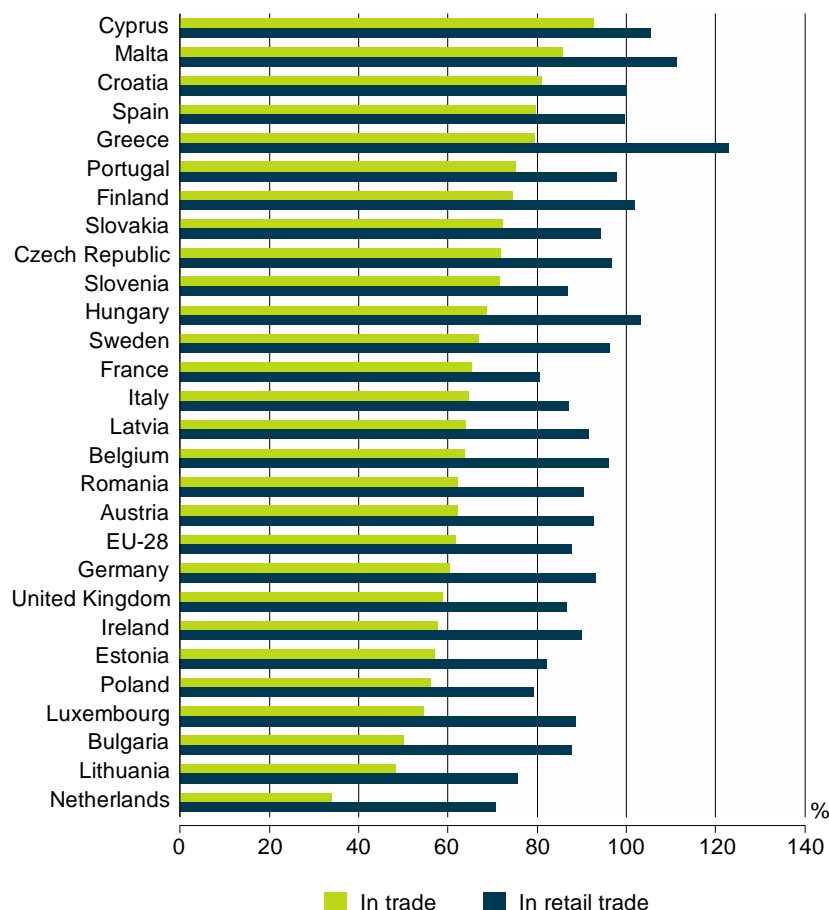
Figure 15. Share of turnover generated in economic activity G4711 in trade and retail trade, 2015

The comparison of years 2008–2015 reveals that in economic activity G4711, turnover has increased the most in Bulgaria, where it has almost doubled. The increase in Estonia has been neither extraordinary nor modest, i.e. it ranks in the middle among the European countries.

Countries are different and so are their economies and level of development. The general economic development and differences between countries are not discussed in this article. However, to understand the background, it should be noted that the value added per person employed in 2015 was lowest in Bulgaria (6,400 euros) and highest in Belgium (54,200 euros). The European Union average was 29,000 euros and Estonia was among those at the bottom of the list with 13,400 euros.

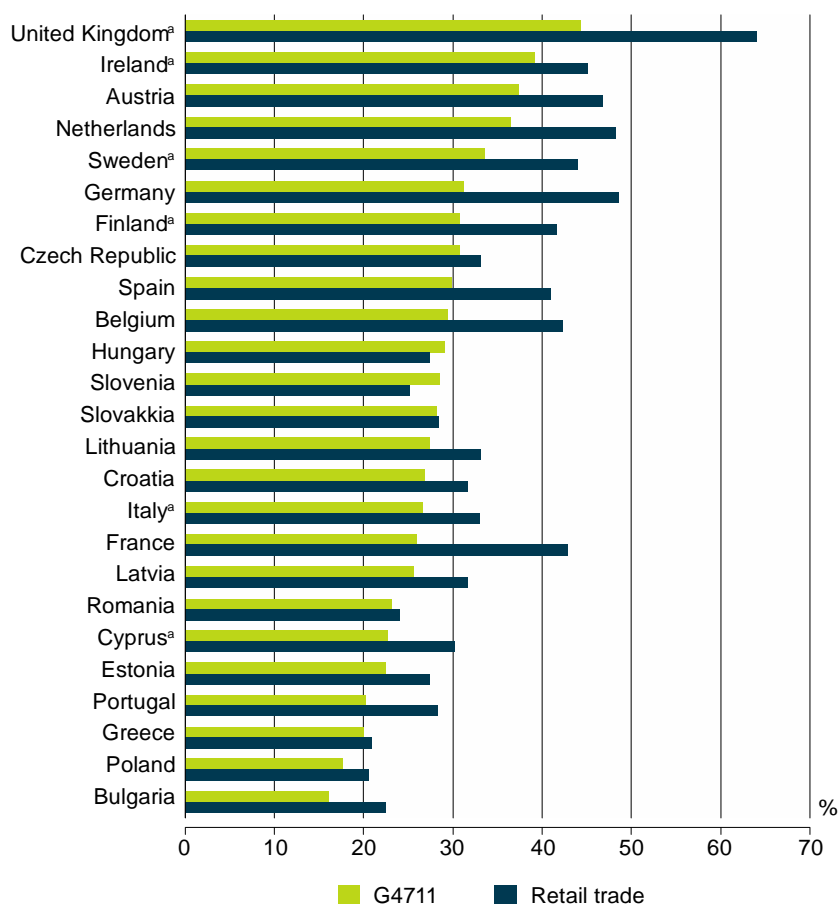
In order to remove the differences between countries and compare the importance of economic activity G4711 in the context of trade, the level of value added generated per employee in economic activity G4711 is compared with the respective indicator for trade as well as for retail trade in the observed country. In 2015, in all European Union countries, the importance of the value added of economic activity G4711 was more marginal than the indicator for trade (Figure 16). The share of the indicator for Estonia in total trade (57%) was somewhat smaller than the European Union average (62%).

Figure 16. Share of value added generated per person employed in economic activity G4711 in value added generated per person employed in trade and retail trade, 2015



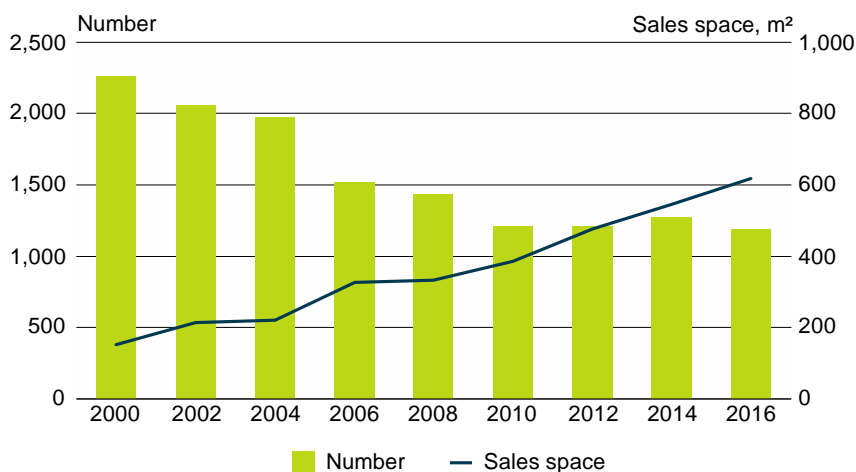
Value added per person employed (productivity) in economic activity G4711 is more comparable with the respective figure in retail trade, but is still slightly lower in most countries. In the European Union, the productivity of economic activity G4711 accounted on average for 88% of the indicator for retail trade; in Estonia the share was 82%. The productivity of economic activity G4711 has mostly increased in the European countries in 2015 compared to 2008. In Malta it has doubled and in other countries the growth has been more modest. Productivity has declined in five countries, with the steepest decline having taken place in Greece. In Estonia, productivity growth is among the average.

In order to cover the expenditure and to generate profit, traders must sell their goods and services at a higher price (in general) than what was paid for obtaining them. In the case of European countries, the trade margin has been calculated by dividing the gross margin on goods for resale by the value of purchases of goods and services purchased for resale in the same condition as received. Included are those European Union countries for which data was available; preference was given to 2016 data, or, if data for 2016 was unavailable, 2015 data was used. Examination of the trade margins of countries reveals that in general (excl. Hungary and Slovenia) in economic activity G4711, trade margin is smaller than in retail trade total (Figure 17). The trade margin in economic activity G4711 was the biggest in the UK (44%) and the smallest in Bulgaria (16%). Estonia (23%) was among those at the bottom of the list. Although the consumer might feel that the trade margin is too big in Estonia, it is in fact even higher in other countries.

Figure 17. Trade margin in selected European Union countries, 2016 (2015^a)^a 2015 data

Physical description of grocery stores

The nature of stores of economic activity G4711 has changed in comparison with the turn of the millennium, which mainly manifests itself in the average sales space of stores, which quadrupled in 2000–2016. The number of stores (not to confuse with enterprises) has nearly halved: while in 2000, there were 2,264 stores, in 2016, there were 1,189 (Figure 18). The number of small-scale operators on the market has declined over time and so has the number of stores. The share of bigger grocery chains, however, has increased, bringing along larger stores. Although Statistics Estonia does not collect information by store format (size), other sources suggest a rise in the number of super- and hypermarkets (Eerme 2018). Most Estonian residents buy foodstuffs at least twice a week and mainly from large grocery stores. Over the past decade, the share of those who purchase food daily has declined (Eesti elanike ... 2016).

Figure 18. Number of shops in economic activity G4711 and their average sales space, 2000–2016

The average sales space of stores has seen a major and steady increase over time, but more interesting developments have occurred in relation to turnover generated per sales space. In 2000, in economic activity G4711 (in 2000–2004, economic activity “retail sale in non-specialised stores with food predominating”), 1,922 turnover euros were generated per square meter. In 2008, the amount was more than twice the size – 4,270 euros. After that, turnover generated per square meter has declined and was 3,256 euros in 2016. The latter may also be because even though sales space has increased, shops have become more spacious (incl. more space between shelves).

One of the most important if not the most important aspects characterising a store is its location. The location of a retail store may be the most important factor determining its success or failure (Ghosh & Craig 1983; Vandell & Carter 1993). The location as one of the elements of the marketing mix is special because unlike other elements, it is not easily changed, making it a long-term and unique fixed investment (ibid.). The location is important because there is a direct link between the turnover and number of buyers, and in order to determine the optimal location of the store, a suitable balance between sales opportunities and expenditure should be found (Siimon 2014). In the city centre or in the middle of a commuter suburb there are a lot of people but not much space and high real estate prices. In peripheral rural areas, the situation is the reverse.

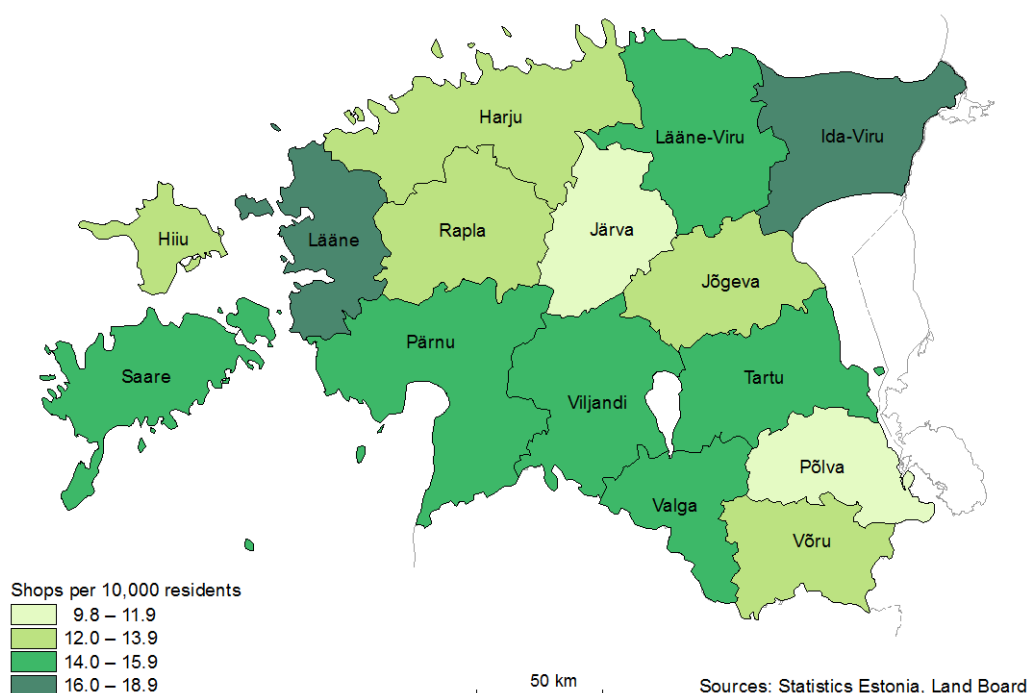
On the one hand, access to the store is the spatial distance, but on the other hand, the time it takes to reach the store. In the long run, significant changes have taken place in how people go to the store, i.e. the effects of motorisation are being felt. While in 1997, there were 30 passenger cars registered in Estonia per 100 residents, in 2007, there were 39 and in 2017 already 55. This has had an effect on the change of store formats (also mentioned above) and also on the location of shops. Thanks to cars, the shop may be located significantly further from the person's place of residence, but the time it takes to reach the shop may be a lot shorter than when going on foot. Therefore, stores were increasingly being built on the edges of cities and required a lot more space, not least due to a need for bigger car parks.

The location of grocery stores is not important only from the perspective of satisfying the business interests of a particular enterprise. It is a much wider and more important social issue. In urban areas, the location of a particular store (but also its closure) is not very important. It is another story in peripheral rural areas – the closure of a shop may mean for the locals that many additional kilometres to the more distant store must be travelled, i.e. there, grocery stores may be considered a regional policy measure. The situation may be looked at from two ends. On the one hand, the existence of a grocery store shows the viability of a region – that there are solvent customers. On the other hand, the existence of various services (incl. grocery stores) is a factor which makes the region attractive for potential residents.

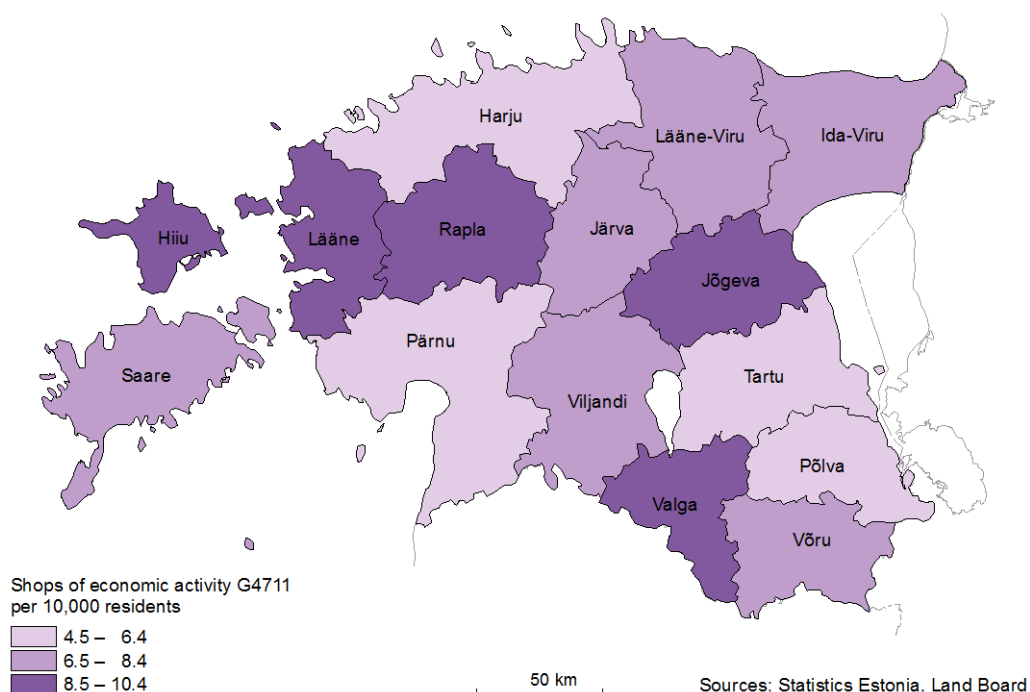
The importance of store location came to the fore also in the context of the intensified trade across the Estonian-Latvian border due to price difference of excise goods. Namely, it has been claimed that many shops near the southern border have been closed due to lack of customers. As this is quite a new phenomenon, statistics are still wanting to draw relevant conclusions. Undoubtedly, this area deserves attention in the future.

Although shops have concentrated mainly into bigger cities, so have residents. The comparison of the number of shops and the number of residents and the comparison of counties reveals that Tallinn is not dominating. The phenomenon is shown in Map 2 and 3, where all shops and shops of economic activity G4711 per 10,000 residents with Veterinary and Food Board permit for handling food by county have been included. Among all shops with a permit for handling food, Harju county ranked near the bottom of the list and had the lowest number of shops of economic activity G4711. Among all shops, Lääne county had the biggest share and in economic activity G4711, Valga county was on top of the list.

Map 2. All shops with Veterinary and Food Board permit for handling food per 10,000 residents by county, 2016



Map 3. Shops with Veterinary and Food Board permit for handling food per 10,000 residents of economic activity G4711 by county, 2016



It should be pointed out that the average number of shops registered in the county per 10,000 residents has been calculated and that no estimation has been made in terms of availability, accessibility or size of shop (range of goods). There are certainly many of those in Estonia who have to travel twenty or more kilometres from their home to purchase food. Identification of such regions deserves a separate analysis.

A few thoughts about trends

Since the beginning of this millennium, average sales space has increased considerably in Estonia – shops have become bigger. In the last few years, however, signs of an end to the enlargement of stores have been detected (Pärli 2017). This means that while a few years earlier, new stores were mainly large super- and hypermarkets, a growing number of shops with smaller sales space have been set up. Large stores are no longer considered very convenient. For instance, if one wishes to purchase milk, it is time-consuming and arduous to go to a large store at the edge of the city and look for the milk counter, which is usually located at the furthest corner from the entrance. As free time and convenience are increasingly valued, it is often better to go to a small shop near home, even if there a particular product is slightly more expensive. Nevertheless, the disappearance of larger formats should not be considered a widespread trend in Estonia just yet.

Globally, this trend was observed earlier. For instance, in the overview by Nielsen a few years ago, it was pointed out that even though super- and hypermarkets make up a half of the market, the share of smaller formats has increased faster. The research company also outlined that the share of super- and hypermarkets is bigger in developed countries and smaller in developing countries, where, on the other hand, the share of traditional channels is bigger. Smaller formats have become more numerous as they are able to offer more convenience and going there is less time-consuming (The Future ... 2015). Euromonitor International, however, proposes that instead of traditional grocery stores (super- and hypermarkets), the importance of alternative channels shall increase in western countries (Hoşafçı 2018). These channels have been significantly shaped by the emergence of online trade – as a result, hybrids are born, where a traditional store is intertwined with an online store. The possibility to purchase food without having to spend time on going to the store and standing in a queue is tempting for customers.

One of the most important latest trends is online sale. Compared to consumer goods, the sale of foodstuffs over the internet has taken somewhat longer to develop. Nevertheless, according to Statistics Estonia's survey "Information technology in households", there were nearly 12,000 persons aged 16–74 in Estonia who had ordered food and consumer goods over the internet in 2010. In 2018, the estimated number was already 196,700. Unfortunately, Statistics Estonia does not yet collect information about the monetary value of the internet sales of foodstuffs. Considering the rapidly spreading internet sales (of foodstuffs), also the demand of the society for related information increases. Therefore, the earlier the collection of such information is started, the better.

What the situation may be in the future is quite impossible to predict but, nonetheless, there have been attempts to outline potential trends. KPMG suggests that among the most important current trends in retail trade are, for instance, the growing importance of the customer experience, which has become more important than ever before; a wider use of artificial intelligence; increased awareness of customers; also traders are increasingly more capable of taking into account the expectations of customers (Global ... 2018). The common feature is that shopping is increasingly less a sterile phenomenon, where a customer enters the shop, chooses from the goods available and leaves with what (s)he at that moment needed the most from what was available. The customer expects more and the trader must be able to provide it.

Successful traders are able to trigger positive emotions in the customer. Shopping should be a positive, pleasant experience, not a tiresome chore. A broader view of retail trade shows that large shopping centres have become activity centres. Customers go there to spend their free time and use other services besides shopping for necessary commodities. If one wishes to simply swap money for goods, more convenient alternatives are now available. It is likely that also in the retail market of foodstuffs, solutions triggering positive emotions shall be used more widely.

Summary

The analysis revealed that while the food expenditure of Estonians has been increasing along with income, the share of food spending in their cost base has decreased. A pattern exists according to which the higher the income/expenditure, the smaller the share of food spending. Therefore, it may be anticipated that together with further increase in income, the share shall continue to decrease. In comparison with wealthier western countries, the food expenditure of Estonians still accounts for a considerable share.

The majority of the retail sale of foodstuffs takes place in economic activity G4711 – retail sale in non-specialised stores with food, beverages or tobacco predominating. The number of enterprises in this economic activity has gradually declined, especially during the economic crisis, with enterprises having gone bankrupt, been consolidated or changed the economic activity. At the same time, the share of turnover generated in economic activity G4711 in the average for economic activities has not changed considerably. The profitability as well as investment activity of economic activity G4711, however, is modest compared to the average for all economic activities. Even though automation is increasingly on the agenda (especially the replacing of customer service clerks with self-service checkouts), machines have not yet been the cause for a massive loss of jobs in economic activity G4711. The number of persons employed has increased more or less at a similar pace with the average for all economic activities. Along with an increasing wage pressure, it means for enterprises that it is difficult to limit expenditure growth, which in turn prevents improvement in profitability.

Comparison of Estonia with other EU countries reveals that the share of turnover generated in economic activity G4711 in total trade ranks in the middle of the list of countries. Estonia, however, ranks in the bottom half of the list of EU countries in terms of the share of value added generated per person employed in enterprises in economic activity G4711 in total trade.

Since the beginning of the millennium (most probably even earlier), the number of shops in Estonia has substantially declined, but the average sales space has increased considerably. Small shops have been replaced by larger super- and hypermarkets. In this article, the data of specific enterprises were not discussed, but it could be argued that a large part of the market has concentrated in the hands of a limited number of enterprises. However, competition at the top is fierce and due to

the limited number of residents, every customer is important. An interesting competition is taking place between traders: the attention of customers is attracted with campaigns, various solutions are experimented with, which should make life easier for both the consumer and trader. Self-service checkouts have already become a normality, the online sale of foodstuffs is developing, pickup points and automated parcel terminals for foodstuffs, etc. are experimented with. Estonians are quite active in embracing such solutions. According to the survey conducted by Nielsen (2016), in terms of the use of self-service checkouts and also portable bar code readers, Estonia ranked on top of the list of developed countries. However, the life of traders is to become even more interesting, as new competition is threatening to enter the market (e.g. the German grocery giant Lidl).

Until traditional sale via physical stores (i.e. not internet sale) dominates in the retail sale of foodstuffs, the success of the enterprise is largely decided by the location of store(s).

Trends point to the fact that the expectations and awareness of consumers are increasing and in addition to an attractive price-quality-range ratio, they are expecting a lot more from their purchasing experience. A successful trader is able to offer that and also positive emotions.

Sources

- Eerme, M. (13.04.2018). Nielsen: Toidukaupluste arv on sel kümnendil vähenenud 24%. Kaubandus.ee <http://www.kaubandus.ee/uudised/2018/04/13/nielsen-toidukaupluste-arv-on-sel-kumnnendil-vahenenud-24>
- Eesti Konjunkturiinstituut. (2016). Eesti elanike toidukaupade ostueelistused ja hoiakud. Tallinn. <https://www.agri.ee/sites/default/files/content/uuringud/2016/uuring-2016-ostueelistused.pdf>
- Ghosh, A., & Craig, C.S. Formulating Retail Location Strategy in a Changing Environment. (1983). Journal of Marketing, 47(3), 56–68.
- Hoşafçı, P. (16.03.2018) 8 Food Trends for 2018. Euromonitor International blog. <https://blog.euromonitor.com/2018/03/8-food-trends-2018-2.html>
- KPMG International. (2018). Global Retail Trends 2018. <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2018/03/global-retail-trends-2018.pdf>
- Krusell, S., Tammur, A., & Tõnurist, A. (2015). Rahvastikuproгноosi tulemused Eestis ja maakondades. Rahvastiku areng, pp. 132–145. Tallinn: Statistikaamet.
- Leesment, M. (2017). When 4.99 is better than 5.00: background and application of odd pricing. Economic and labour market trends, pp. 112–124. Tallinn: Statistics Estonia.
- Nielsen. (2015). The Future of Grocery. [https://www.nielsen.com/content/dam/nielsen/global/vn/docs/Reports/2015/Nielsen%20Global%20E-Commerce%20and%20The%20New%20Retail%20Report%20APRIL%202015%20\(Digital\).pdf](https://www.nielsen.com/content/dam/nielsen/global/vn/docs/Reports/2015/Nielsen%20Global%20E-Commerce%20and%20The%20New%20Retail%20Report%20APRIL%202015%20(Digital).pdf)
- Pärli, M. (18.10.2017). Suurte toidukaupluste turg on küllastunud, tulevik on väikepoodide päralt. ERR. <https://www.err.ee/637352/suurte-toidukaupluste-turg-on-kullastunud-tulevik-on-vaikepoodide-paralt>
- Pärli, M. (05.04.2018). Jaeketid rajavad populaarsust koguvaid selvekassasid üha juurde. ERR. <https://www.err.ee/694181/jaeketid-rajavad-populaarsust-koguvaid-selvekassasid-uha-juurde>
- Riigi Statistika Keskbüroo. (1926). Eesti töölisebühdzhet 1925 a. Tallinna ja Narva töölisleibkondade majanduslik olukord. Eesti Statistika Kuukiri, March 1926, 48(3). Tallinn.
- Sakkeus, L., McKibben, J., Puur, A., Rahnu, L., & Abuladze, L. (2017). Rahvastikuproгноos erinevate rändestsenaariumide korral. Eesti inimarengu aruanne 2016/2017, pp. 59–67. https://inimareng.ee/static_assets/pdf/EIA%202016%E2%80%939317%201.5.%20Rahvastikuproгноos%20erinevate%20r%C3%A4ndestsenaariumide%20korral.pdf
- Siimon, A. (2014) Kaubandus: Põhimõisted ja -seosed. Innove.
- Vandell, K.D., & Carter, C.C. (1993). Retail Store Location and Market Analysis: A Review of the Research. Journal of Real Estate Literature, 1(1), 13–45.

ABOUT TOURISM STATISTICS: FIRST-TIME AND REPEAT VISITORS IN ESTONIA

Jaanika Ait, Mari-Liis Perend

Foreign visitors to Estonia include almost four times more repeat visitors than first-time visitors. Most repeat visitors (91%) come to Estonia from nearby countries. Compared to first-time visitors, they make more shopping and transit trips, visit friends and relatives, but come less for holiday. First-time visitors as a group are more diverse – approximately two-thirds of them arrive from countries further away.

Introduction

Overviews of 2017 brought positive news about a record year in tourism in Estonia and other countries. 1.32 billion overnight foreign trips were made across the world. 2.2 million foreign tourists stayed in Estonian accommodation establishments, which is 5% more than in 2016. The national monitoring of tourism is based on accommodation statistics, which also are a foundation for tourism projections and development strategies. Therefore, in tourism statistics, attention is paid the most to overnight tourists and the distinction between over-night and same-day visitors.

From the perspective of marketing and the development of countries as tourism destinations, it is as important to distinguish first-time and repeat visitors, know their composition and specific behaviours.

In tourism, first-time visitors are new consumers who are exploring a destination for the first time. They are a target market whose minds are changeable and who are easily influenced. Capturing their attention and drawing them to a destination is time-consuming and costly. At the same time, first-time visitors make the tourism scene more diverse, which makes it easier to bring new tourism products to the market and offer alternative services (Lau & McKercher 2004). Repeat visitors, on the other hand, mainly act as a balancing force on the destination's tourism market (Oppermann 2000), bringing in stable income that can be invested in developing a new market (Lau & McKercher 2004). Repeat visitors have got to know the destination from previous visit(s) and experience(s) and often have had a positive travel experience which motivates them to visit the destination again. In addition to smaller marketing costs, repeat visitors help to spread information themselves (Oppermann 1998). A positive experience of a family member or friend is reassuring and could play an important role in a potential visitor's trip decision. Therefore, satisfied visitors help to advertise the destination and raise awareness among potential visitors (Reid & Reid 1993 as cited in Lau & McKercher 2004). Finding a balance between first-time and repeat visitors is the main challenge for most involved in tourism planning (Lau & McKercher 2004).

Prior tourism studies have revealed differences between first-time and repeat visitors. For example, it has been found that first-time visitors stay in a destination for a shorter time (Oppermann 1997; Lau & McKercher 2004; Wahid et al. 2016), but they visit more places and attractions (Oppermann 1997; Wahid et al. 2016) as well as participate in more activities compared to repeat visitors (Oppermann 1997). First-time visitors also tend to be younger than repeat visitors (Lau & McKercher 2004; Wahid et al. 2016). Differences between first-time and repeat visitors also appear in motivations and purposes for travelling. First-time visitors are primarily interested in the destination itself (cultural heritage, nature, attractions, etc.) and come to explore these, while repeat visitors come back for more practical reasons: visiting friends and relatives and shopping. This difference is also reflected in the activities at the destination: first-time visitors are more willing to participate in paid excursions and visit well-known symbolic attractions, while repeat visitors prefer shopping and eating out (Lau & McKercher 2004). Even in resorts, which are mainly holiday destinations, first-time visitors are more likely to look for diversity and new experiences, whereas repeat visitors look for comfort, relaxation and places they know (Gitelson & Crompton 1984 as cited in Oppermann 1997).

The differences between the two groups are also evident in the visitors' places of origin. First-time visitors are more likely to come from countries further away and repeat visitors from nearby countries (Lau & McKercher 2004). Li et al. (2008) have also shown that first-time visitors are ready to travel to far destinations, whereas repeat visitors make weekend trips and visit friends and family. Although costs on travel greatly depend on the length and purpose of the trip, the prevailing opinion is that repeat visitors are more price-sensitive (Li et al. 2008) and first-time visitors spend more at the destination (Oppermann 1997, Li et al. 2008).

This article is focused on the study of first-time and repeat visitors and shows important differences based on the Estonian example. The reader will learn which foreign visitors belong to these groups, for what purpose and how long they visit Estonia, where they go in Estonia, how much they spend, what are their preferences in terms of accommodation and activities and how these activities fulfil their expectations. The analysis is based on the data of the Foreign Visitors Survey organised in 2017 in cooperation between Enterprise Estonia (EAS) and Statistics Estonia. The survey involved interviewing 9,500 foreign visitors at main border crossing points in Estonia during ten weeks. The interviews took place in the summer from 17 July to 13 August and in winter from 1 November to 17 December. The results were weighted to the foreign visitors who visited Estonia during the survey period, but due to seasonality of visits, they could not be expanded to the whole year.

Repeat visitors are foreign visitors who have not lived in Estonia but have been to Estonia at least once. Persons who had lived in Estonia previously (9% of visitors to Estonia during the survey period) were excluded from the analysis, mainly to avoid including Estonians and foreigners working (temporarily) abroad as repeat visitors. Of the respondents who had previously lived in Estonia, 82% had Estonian roots, which indicates a large share of Estonian residents who had moved abroad in this group. The travel patterns of these persons differ significantly from the patterns of visitors who have not lived in

Estonia, because the former have a stronger connection to Estonia and to the people living here. However, persons who had not lived in Estonia, but responded positively to the question “Were you or your parents born in Estonia?” were included in the survey. These visitors accounted for 3% of both first-time and repeat visitors. First-time visitors meant foreign visitors who had previously not visited or lived in Estonia. Foreign visitors who had stayed in Estonia for over six months were excluded from the analysis.

During the survey period, an estimated 1.38 million foreign visitors came to Estonia, of whom 21% were first-time visitors and 79% were repeat visitors. Most repeat visitors (74%) had visited Estonia more than five times, 12% had come for a visit three to five times and 14% had been to Estonia once or twice.

Background of visitors

Country of residence

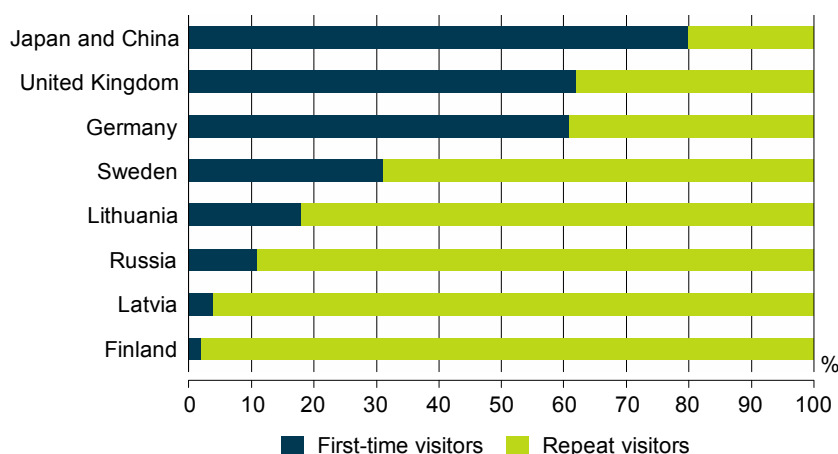
There was quite a wide range of visitors during the survey period: foreign visitors came from a hundred different countries. The biggest share of them came from the closest countries. 67% of the foreign visitors who visited Estonia during the survey period came from three countries: Finland, Russia and Latvia. Together with Sweden and Lithuania, these countries account for 80% of the total number of foreign visitors.

Table 1 shows the main countries of residence of visitors to Estonia and the relevant share in the total number of first-time and repeat visitors during the survey period. The gap between first-time and repeat visitors is quite significant. 91% of repeat visitors came from the above-mentioned nearby countries, whereas first-time visitors from these countries accounted for just a third (34%) of all first-time visitors. First-time visitors as a group are more diverse compared to repeat visitors and their distribution by country is more even. The most first-time visitors came from Sweden, Russia, Germany and the two main Asian markets, i.e. Japan and China.

Table 1. First-time and repeat visitors by country of residence, July–August and November–December 2017

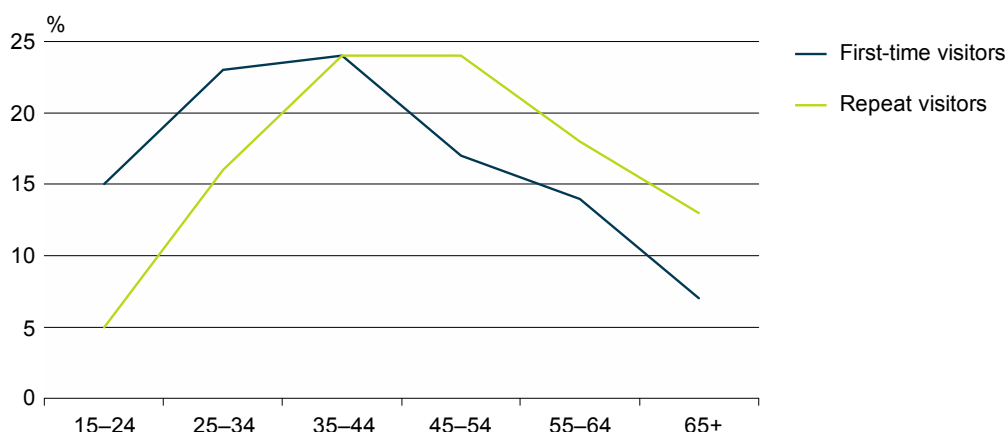
Country of residence	Number of visitors	Share, %		
		Of all visitors	Of first-time visitors	Of repeat visitors
Finland	422,000	31	3	38
Russia	286,000	21	11	23
Latvia	207,000	15	3	18
Sweden	126,000	9	14	8
Lithuania	51,000	4	3	4
Germany	35,000	3	7	1
Japan and China	29,000	2	8	1
United Kingdom	17,000	1	4	1
Other countries	210,000	14	47	6
Total	1,383,000	100	100	100

Figure 1 shows the shares of first-time visitors and repeat visitors among visitors to Estonia from specific countries. The share of repeat visitors varies quite a lot by country, and first-time visitors are in the majority among visitors from countries located further away. However, most tourists from the neighbouring countries are repeat visitors. Finland and Latvia accounted for the largest shares of repeat visitors (over 95%), followed closely by Russia (89%). The opposite pattern was evident, for example, in the case of Asian countries as well as Germany and the United Kingdom. In addition to the physical distance, accessibility, or the frequency and availability of transport connections could play a major role here. As a rule, it is faster and cheaper to travel to countries that are geographically closer, as the time to travel is shorter. Moreover, if there are land or sea transport routes, using these is often cheaper than air transport. Nevertheless, in reality, opening direct air routes often helps to make a destination more attractive and increase the number of tourists visiting the destination country.

Figure 1. Share of first-time and repeat visitors by country of residence, July–August and November–December 2017

Age of visitors and travelling with children

First-time visitors coming to Estonia primarily belonged to the age group 25–44 and repeat visitors to the age group 35–54 (Figure 2). Compared to repeat visitors, there were more young people among visitors coming to Estonia for the first time: the differences for age groups 15–24 and 25–34 were 9 and 7 percentage points, respectively. In contrast, the share of repeat visitors was larger among the older age group: the share of visitors aged 55 and over was 9 percentage points bigger.

Figure 2. Share of first-time and repeat visitors by age group, July–August and November–December 2017

Travelling with children was studied for the benefit of developing family-friendly tourism. 16% of first-time and 18% of repeat visitors travelled to Estonia with children under 14 years of age. A closer look at children's age groups shows that 8% of first-time and 10% of repeat visitors came with children under 7, while 10% of first-time and 12% of repeat visitors travelled with children aged 8–14. Compared to repeat visitors, first-time visitors travelling with children came more for same-day trips (difference of 3 percentage points) and repeat visitors for overnight trips (difference of 6 percentage points).

Time spent in destination

Visitors' time spent in destination is one of the most important indicators in the tourism sector. The longer a visitor stays in a location, the more money they leave behind, thereby supporting the economy. Of the foreign visitors who came to Estonia during the survey period, 55% made an overnight trip and 45% made a same-day trip. A clear difference appears between first-time and repeat visitors. Among repeat tourists, the shares of people who stayed overnight and for a day were close to equal (49% and 51%, respectively), whereas the majority of first-time visitors made an overnight trip (71%).

Most overnight visitors (60%) stayed in Estonia for 1–2 nights and a third (33%) for 3–7 nights. Therefore, just 7% of the accommodated tourists stayed in Estonia for more than a week. Both first-time and repeat visitors stayed in Estonia for 4 nights on average, but repeat visitors came on more short visits (one night) and longer-than-average visits (over a week) compared to first-time visitors. In contrast, the share of visitors staying for 3–7 nights was larger among first-time visitors (Table 2).

Time spent in the country by same-day visitors can be measured in hours. Although most (62%) same-day foreign visitors stayed in Estonia for over three hours, the share of very short stays (3 hours or less) was remarkably high (38%). The main reason for this are shopping trips (55%) and transit trips (28%), which are typically short trips from Latvia (63%), Finland

(15%) and Russia (8%). Table 2 shows that just 16% of first-time visitors stayed in the country for 3 hours or less, whereas among repeat visitors the share of very short stays reached 42%. The difference is linked to the purposes of visiting: repeat visitors make remarkably more shopping and transit trips compared to first-time visitors.

Table 2. Share of time spent in Estonia by first-time and repeat visitors, July–August and November–December 2017

	Share, %	
	Of first-time visitors	Of repeat visitors
Same-day visitors		
3 hours and less	16	42
Over 3 hours	84	58
Overnight visitors		
1–2 nights	57	61
incl. 1 night	29	34
incl. 2 nights	28	28
3–7 nights	38	31
8–14 nights	3	5
15+ nights	2	3

Purpose of trip

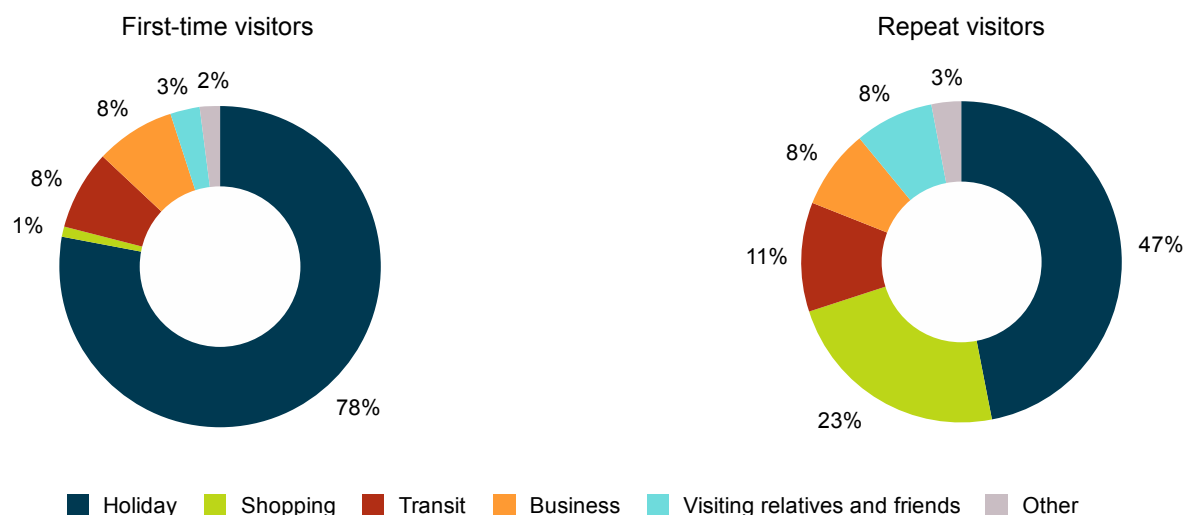
The trip destination that visitors choose depends on many co-existing factors: available time and money, motivation, interest in the destination, prior travel experience, etc. Sometimes, however, visiting a place is not the traveller's own choice, but rather something they have to do. For example, in the case of business-related trips, the visitor might not have interest in the destination and in the worst case is not even motivated to go on the trip, but for business or other purposes the person is required to travel. The same applies to transit and shopping trips, which are affected by the geographical location of the main destination and the traveller's resources. Therefore, the purpose of the trip is one of the key indicators helping to define different visitor groups as well as direct and promote the relevant tourism services.

During the survey period, most (53%) foreign visitors travelled to Estonia for holiday. These were mainly overnight stays (73%) and lasted on average for 3–4 days. In contrast, shopping trips were mainly same-day trips (90%), and in half the cases, did not last for more than 3 hours. Almost a fifth of respondents visited Estonia for shopping purpose. A third reason for coming to Estonia were transit trips (11%). Transit visitors' behaviour is similar to that of shoppers – 88% of them did not spend a night in Estonia and a half of them stayed for 3 hours or less.

These purposes were followed by business trips (8%) and visiting relatives and friends (7%). Business trips usually involved staying overnight (79%). Conference and seminar participants spent on average 2–3 nights in Estonia, business trips for other purposes were generally longer. Visiting relatives and friends was an overnight trip in 85% of cases and had the average longest duration of 7–8 days. Other travel purposes (2%) mentioned were mainly studies, medical treatment, voluntary work, activities related to real estate and car maintenance and applying for various documents.

First-time and repeat visitors travel to Estonia for different reasons. By far, the first-ranking purpose for first-time visitors was holiday (78%), followed by transit and business trips with much smaller shares (8%). Among repeat visitors, holiday was the main reason for travelling to Estonia for nearly a half of tourists and shopping trips followed second with 23%. It is noteworthy that only 1% of first-time visitors came on a shopping trip. In addition, visiting relatives and friends as well as transit trips had larger shares in the case of repeat visitors (Figure 3).

Figure 3. Trip purposes of first-time and repeat visitors, July–August and November–December 2017



Trip destinations

Destinations outside Estonia

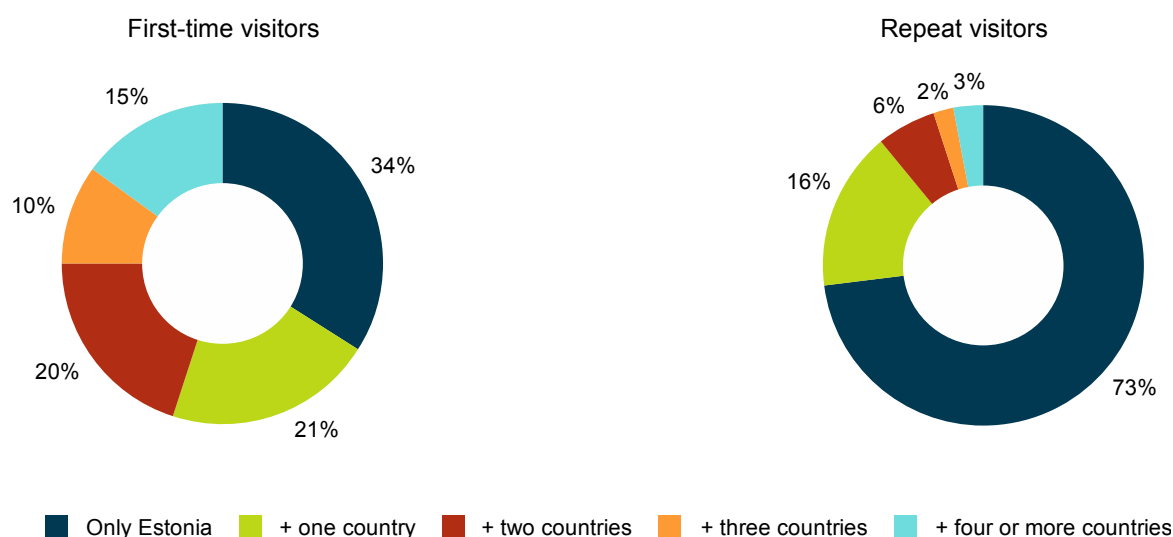
During one trip, people can visit many destinations and countries. On the one hand, this is effective use of resources (saving on time and transport costs when travelling to a destination and back), and on the other hand, it makes the trip more interesting. Of the foreign tourists who visited Estonia, over a third (35%) also visited some other country. A half of the latter visited two or more countries besides Estonia.

Visiting other countries was common among first-time visitors (66%), only a fourth (26%) of repeat visitors visited other countries. The differences stand out also in terms of the number of countries visited. People who came to Estonia for the first time, visited more countries during the same trip than did repeat visitors. Table 4 shows that 21% of first-time visitors went to one other country besides Estonia, but 45% went to two or more countries. The pattern for repeat visitors, however, was the opposite: the share of those who visited several countries (11%) was smaller than the share of visitors going to one country besides Estonia (16%).

In order to get a better overview of the geographical patterns of the trips of foreign visitors, it was studied which countries and to what extent were visited in addition to Estonia. The majority preferred the countries closest to Estonia – with the most visitors visiting the southern and northern neighbours Latvia (57%) and Finland (43%). Almost an equal number went to Lithuania (26%) and Sweden (27%), followed by Russia (9%).

Some differences appear also in the country preferences of first-time and repeat visitors. Among first-time visitors, Finland ranked first (59%), followed by Latvia (53%). Repeat visitors clearly visited Latvia the most often (59%), followed by Finland (33%). A similar trend was seen for Sweden and Lithuania: first-time visitors preferred Sweden more than Lithuania, whereas Lithuania was ahead of Sweden for repeat tourists. It is likely that the first-time visitors who travel to several countries on their trip visit Estonia along with Scandinavian countries and repeat tourists visit it as part of a Baltic trip. Visiting Russia ranked fifth for both groups.

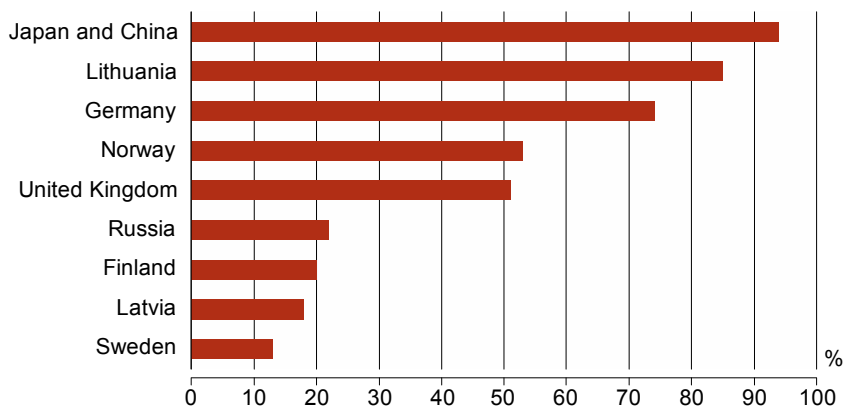
Figure 4. Number of countries visited on trip by first-time and repeat visitors, July–August and November–December 2017



It can be concluded that first-time visitors tend to visit the wider region where Estonia is one of the destinations, while the majority of repeat visitors are focused on visiting Estonia. On the one hand, the distance from the visitor's country of residence is a factor, as people from more distant countries tend to visit several countries more often than the visitors living closer (Figure 5). Visitors coming to Estonia by land transport are also likely to visit more countries, such as Lithuania, Poland, etc. On the other hand, the purpose of the trip is an important factor. Visiting other countries was more common among holiday travellers (37%) and the least common among those coming for shopping (2%). Also, visitors coming to Estonia to see relatives and friends did not visit other countries as often (18%).

Therefore, the impacts of the distance from the country of residence and the purpose of the trip appear here. The above showed that the majority of first-time visitors came from more distant countries (Table 1) and stood out with a large share of holiday trips and marginal share of shopping trips and visits to friends and relatives (Figure 3). In contrast, repeat visitors came more often from the closest countries and, compared to first-time visitors, included considerably more people who came for shopping and to visit relatives and friends.

Figure 5. Foreign visitors who visited other countries besides Estonia, by country of residence, July–August and November–December 2017



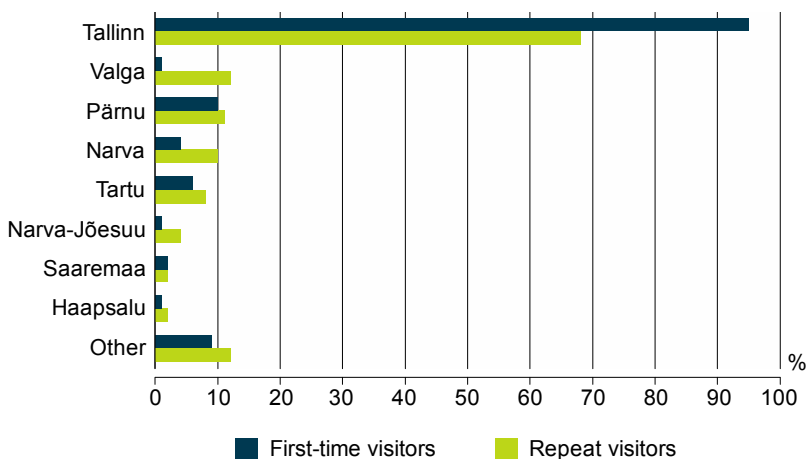
Destinations in Estonia

Most (80%) foreign visitors visited only one destination in Estonia during the trip, 14% went to two destinations and 3% visited three or more destinations. In terms of the number of destinations visited, there were no differences between first-time and repeat tourists, but contrasts appeared in their destination choices.

The most popular destination among both first-time and repeat tourists was Tallinn, but the stays of repeat visitors were less Tallinn-centred. 68% of repeat visitors and 95% of first-time visitors went to Tallinn. Therefore, only 5% of first-time visitors did not go to Tallinn. The capital Tallinn is attractive and well-known for its well-preserved medieval Old Town, which is a UNESCO World Heritage site. In addition, the capital offers the best selection of cultural events and shopping opportunities. At the same time, the port of Tallinn and the airport are the main places through which visitors enter Estonia. This makes it easy to get to this destination.

Pärnu, the summer capital and well-known resort town, ranked as the second most popular destination for first-time visitors (10%). Tartu, the centre of Southern Estonia and a university town, ranked third (6%), followed by Narva and Saaremaa. Among repeat visitors, the town of Valga stood out as the second most popular destination, visited by 12% of the visitors. Most of them were people living in Latvia who come on one-day shopping trips to Estonia. The same pattern was repeated in Narva, where people living in Russia come to shop. For repeat visitors, Pärnu ranked third among the main destinations, followed by Narva and Tartu.

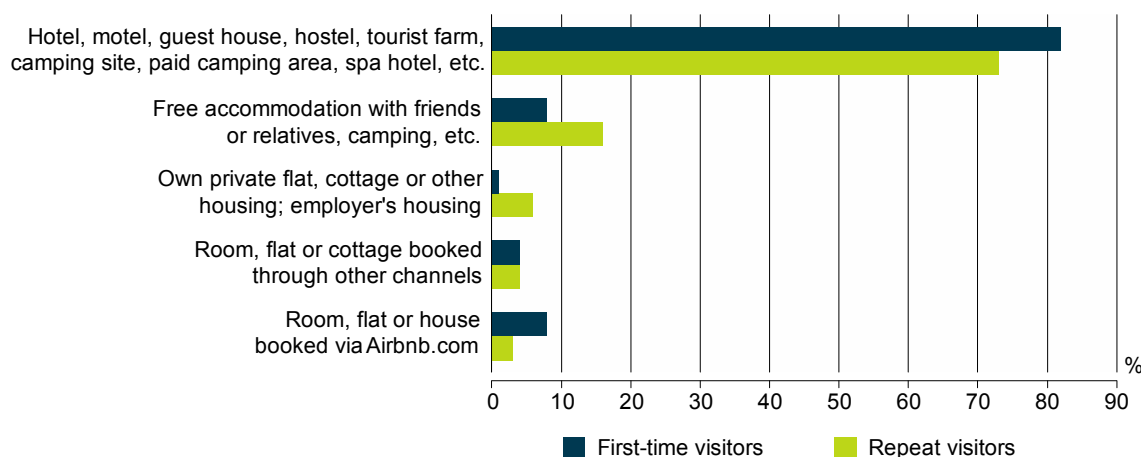
Figure 6. Most popular destinations visited in Estonia by first-time and repeat visitors, July–August and November–December 2017



Accommodation of visitors

Overnight foreign visitors were asked which type of accommodation they used while in Estonia. 91% of first-time visitors and 78% of repeat visitors used only paid accommodation in Estonia. Only free accommodation was used by 7% of first-time and 20% of repeat visitors. Therefore, it appears that using free accommodation is more popular among repeat visitors. Figure 7 shows in more detail the types of paid and free accommodation and their shares for first-time and repeat tourists.

Figure 7. Types of overnight accommodation used by first-time and repeat tourists, July–August and November–December 2017



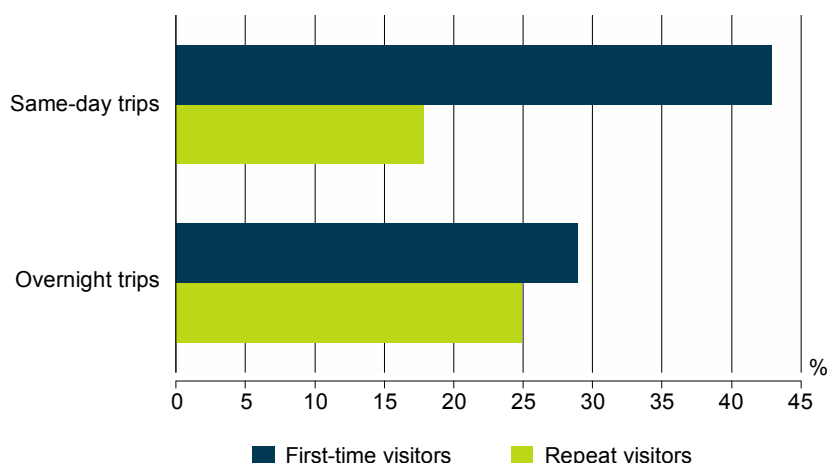
The most used types of paid accommodation were hotels and other similar overnight accommodation belonging to accommodation enterprises – compared to repeat visitors, first-time visitors used this service more (a difference of 9 percentage points). The share of first-time visitors who booked accommodation through Airbnb.com website was also larger. The two groups equally used other channels (excl. Airbnb.com) to book a room, flat or cottage (4%). Of the types of free accommodation, repeat visitors stayed more than first-time visitors with relatives and friends / in a free camping location (gap of 9 percentage points). Repeat visitors also accounted for a larger share of those who stayed overnight in personal or employer's housing (a difference of 5 percentage points).

In the case of shorter stays (up to 3 nights on average), both first-time and repeat visitors preferred to use hotels, guesthouses, spas and other similar paid accommodation. Visitors on longer trips (5 and more nights on average) preferred to stay in flats, rooms, and houses booked through Airbnb.com and other such channels, and in free accommodation. The difference could be explained by the fact that private persons offering accommodation through Airbnb.com and other websites often do it with considerably cheaper prices than hotels and other similar accommodation establishments, which is why those staying here longer choose this type of accommodation more often.

Using tour packages

In this article, a tour package means a set of services, which consists of at least two services (e.g. transportation to the destination and accommodation) that the client purchases for a single price from a travel agency, intermediary service provider, through a non-profit association, etc. Compared to repeat visitors, first-time visitors used package tour services more for travelling (21% and 33%, respectively). The popularity of tour packages was more common among repeat visitors compared to first-time visitors both in the case of same-day and overnight visits – differences of 25 and 4 percentage points, respectively (Figure 8). An explanation for the popularity of tour packages among first-time visitors could be that they do not have prior experience of Estonia as a destination. Therefore, a package tour might seem easier and more convenient in terms of planning, as several travel services are booked at once (e.g. accommodation, transport, tours, travel planning, etc.). First-time visitors used package tour service primarily for same-day trips in Estonia, which could be connected e.g. to using tour or guide services or tours of several countries with the night spent in some other country. The latter is also often more popular among first-time visitors. Repeat visitors, on the other hand, might be more knowledgeable thanks to prior experience, and book travel services more often independently and depending on their own preferences. In addition, the purpose of the trip is a factor for using tour packages (Figure 3). As shown previously, the share of shopping trips and visiting relatives and friends was larger for repeat visitors, and package tour services are usually not used for these trips.

Figure 8. Use of tour packages by first-time and repeat visitors on overnight and same-day trips, July–August and November–December 2017



Expenditures on trip

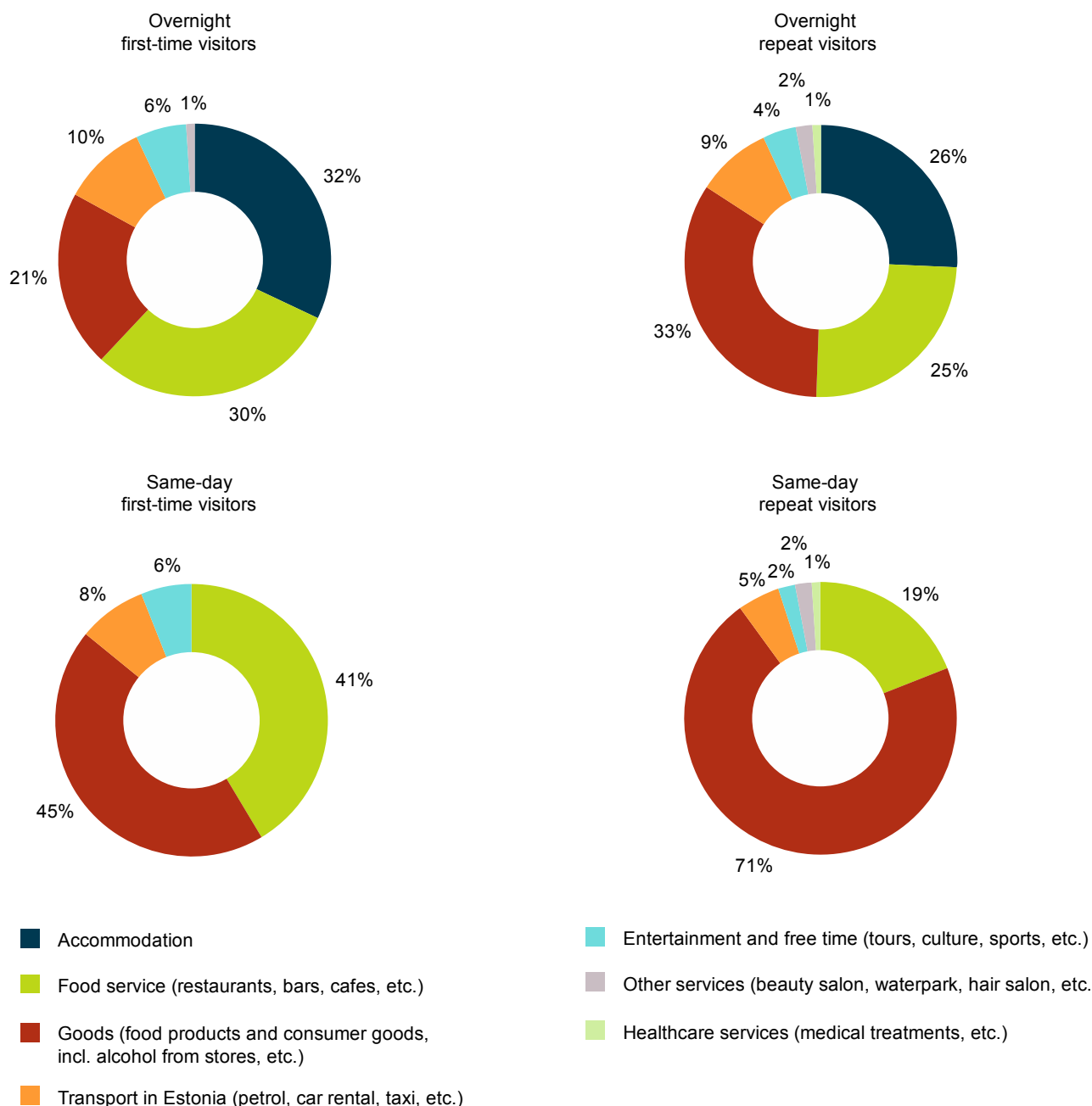
Expenses occur on any trip. While visiting Estonia, 90% of both first-time and repeat visitors spent money.

In order to get a more detailed overview of the expenditures of foreign visitors, first-time and repeat tourists who stayed overnight and who stayed for a day are studied separately here. First-time visitors who stayed overnight in Estonia spent the largest shares on accommodation, food service (excl. food products and beverages bought in a store) and goods. Overnight repeat visitors, however, spent the most on goods, followed by accommodation and food service (Figure 9). Expenses on entertainment and free time and other services had smaller shares in both groups. Compared to repeat visitors, first-time visitors staying overnight spent more on accommodation and food service (differences of 6 and 5 percentage points, respectively). Repeat visitors, however, had greater expenses on goods (a difference of 12 percentage points).

The ranking of expenses did not differ for first-time and repeat tourists staying for a day. Expenditures on goods accounted for the largest share, followed by food service, transportation and entertainment and free time. As was the case with overnight visitors, also among same-day visitors, repeat tourists spent significantly more on goods compared to first-time visitors (a difference of 26 percentage points). First-time visitors staying for a day, however, spent a significantly larger share on food service (a gap of 22 percentage points).

The greater difference of expenditure on goods for both groups could be associated with the trip purposes of repeat visitors. The share of people coming on a shopping trip was larger for repeat visitors (Figure 3). Often, repeat visitors have been to Estonia several times and, therefore, might be less interested in culture, the environment and attractions, as they have become acquainted with these already on previous visits. They dedicate more time on buying goods and enjoying services and treatments. The 6-percentage-point difference in expenditure on accommodation services could be linked to overnight repeat visitors using free accommodation more often (e.g. staying with friends, in owned housing or other free accommodation).

Figure 9. Expenditures of overnight and same-day first-time and repeat visitors by type of expense, July–August and November–December 2017

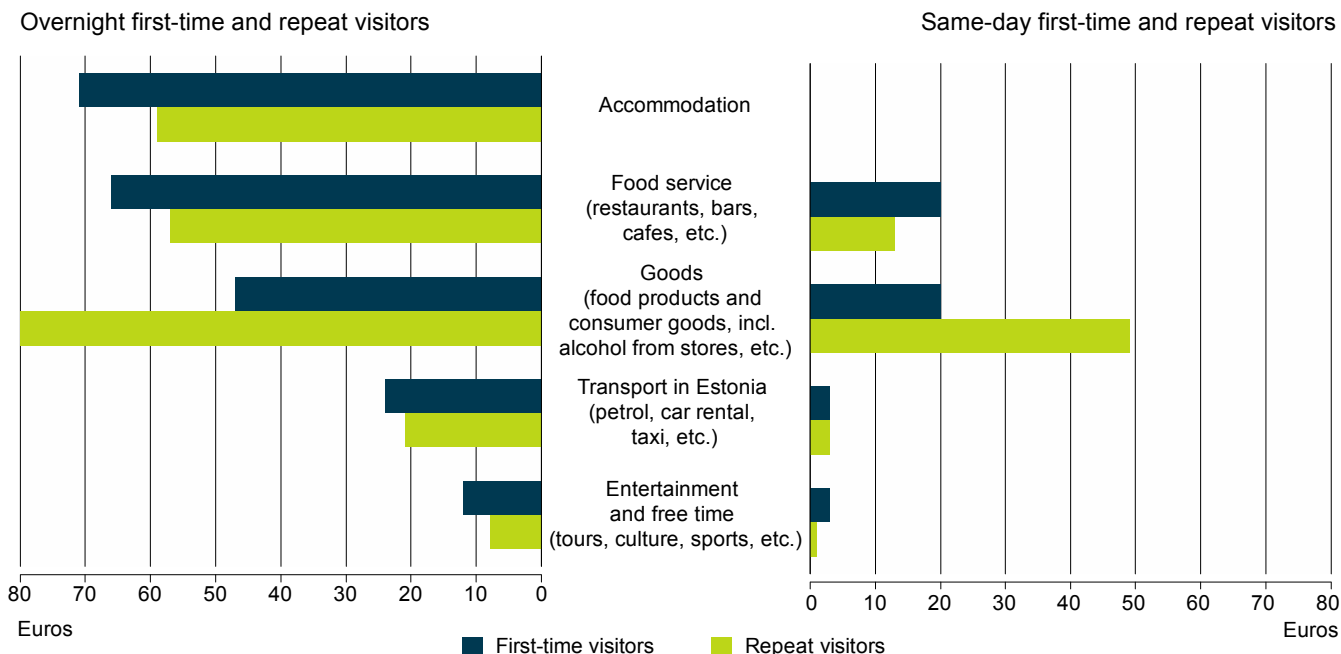


The total trip expenditures^a were quite similar for first-time and repeat visitors staying overnight: they spent on average 255 and 248 euros per person, respectively. The average expenditures of same-day first-time and repeat visitors differed more, 43 and 64 euros were spent per trip, respectively.

When comparing the expenditures of overnight and same-day first-time and repeat visitors by type of expenditure, it can be seen from Figure 10 that in almost all expense categories, the expenses of first-time visitors were larger. The only difference occurs in the category of goods, where both overnight and same-day repeat visitors spend more than first-time visitors – 29 and 33 euros more per person, respectively. As previously mentioned, the share of shopping trips was larger for repeat visitors. Therefore, repeat visitors spend more time on their trip in stores and shopping centres and accordingly spend more money on goods. The differences in other expense categories might be associated with price sensitivity of repeat visitors. They have greater knowledge of various services and products (e.g. food service, transport, accommodation, manufactured goods, etc.) and prices, and therefore, they know more how to choose cheaper services, food service establishments, accommodation, transportation, etc.

^a Incl. pre-trip expenses, excl. transportation outside Estonia and services included in a tour package.

Figure 10. Same-day and overnight first-time and repeat visitors' total sum of expenditures^a per person, by type of expense, July–August and November–December 2017



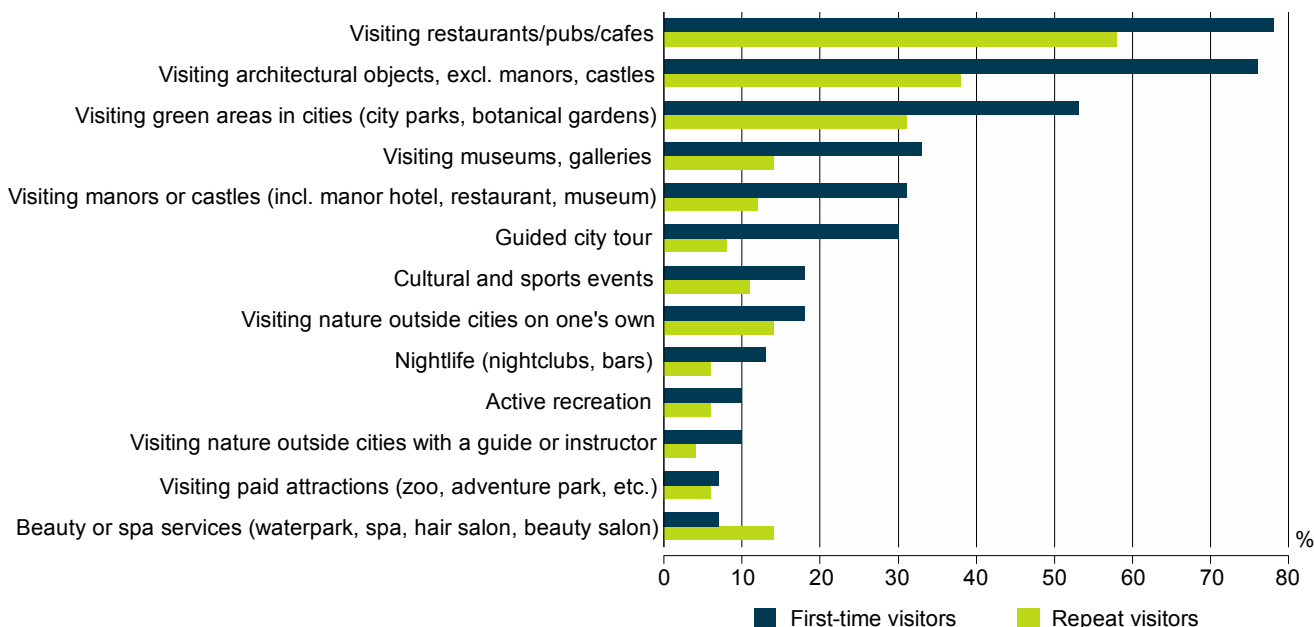
^a Incl. those who did not spend at all. Expenditures do not include transportation expenses outside Estonia and, in the case of visitors using tour packages, the sums paid for services included in the tour package, as expenses occurred only in Estonia cannot be identified in the cost of the tour package.

Activities and how they met expectations

In this part, the activities of foreign visitors are studied that help to understand the purpose of the trip. A total of 13 activities were studied, Figure shows their more detailed breakdown.

Both for first-time and repeat visitors, the three most popular activities were visiting food service establishments, architectural objects and green areas in cities.

Figure 11. Activities of first-time and repeat visitors on trip to Estonia, July–August and November–December 2017



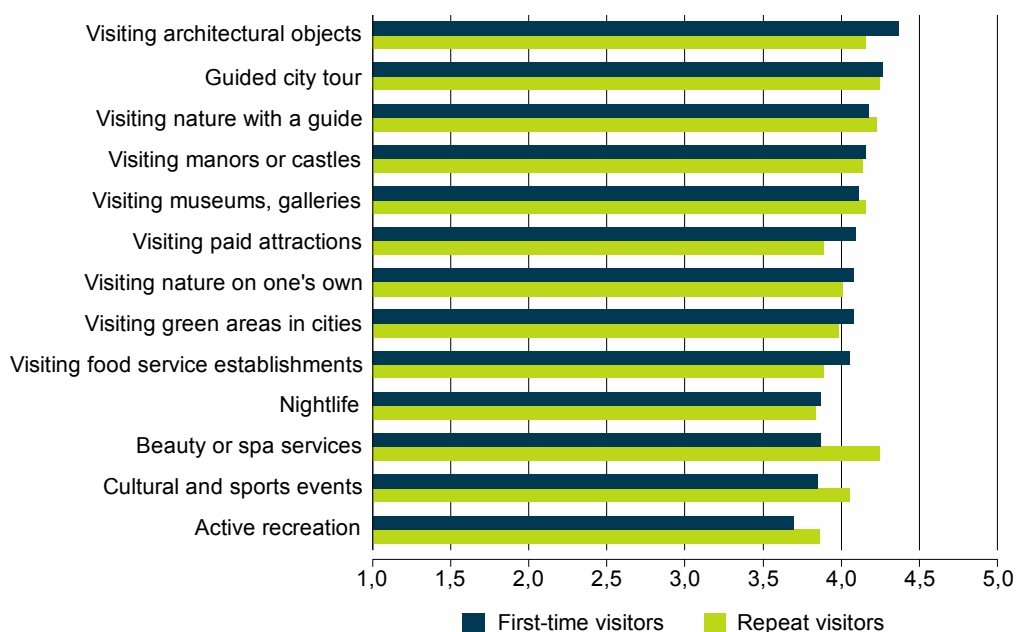
In almost all studied activities (except for beauty or spa treatments), the share of participants was higher for first-time visitors. This indicates that repeat visitors come to Estonia for more specific reasons, whereas first-time visitors come with the desire to discover Estonia, and therefore, participate in a larger variety of activities with the goal to get to know the destination.

Around a third of first-time visitors visited a gallery, museum, manor or castle and participated in a guided city tour. In the case of these activities, the share of repeat visitors was in the range 8–14%. Among first-time visitors, the less popular activities were using beauty and spa services and visiting paid attractions, such as the zoo and adventure park. In contrast, the less popular activities for repeat visitors were guided nature trips, active recreation (excl. participating in sports events), visiting nightclubs and bars as well as visiting paid attractions.

Satisfaction with the time spent at the destination is a requirement and main factor for going back to the destination. In the questionnaire, satisfaction was rated on a five-point scale, where 1 meant that the activity was much worse than expected and 5 meant that it was much better than expected. Therefore, the closer the visitors' satisfaction ratings were to 5, the more satisfied they were with the specific activity.

Here, it should be noted that an important factor in rating is the respondent's prior experience in their home country or some other country. It is visible for all studied activities that the average satisfaction rating of foreign visitors is at least 3.7 (Figure 12). It shows that visitors thought that the surveyed activities were as expected or better. This, in turn, indicates that foreign visitors were generally happy with their experiences in Estonia.

Figure 12. First-time and repeat visitors' average rating of satisfaction with activities, July–August and November–December 2017



First-time visitors rated visiting architectural objects the highest (4.37) and repeat visitors gave the highest rating to using beauty or spa services (4.25). Both groups also gave high ratings to guided city or nature tours, which indicates tour guides' good work introducing Estonia. The greatest difference appeared in the use of beauty or spa services: whereas satisfaction rating among first-time visitors was one of the three lowest (3.87), among repeat visitors it received the highest rating (4.25). The reason could be that repeat visitors are more informed about quality and well-known services, while first-time visitors lack information for making choices. First-time visitors were compared to repeat visitors more satisfied with visiting architectural objects, paid attractions and food service establishments (difference of 0.2 points).

The lowest ratings by first-time visitors were given to active recreation, cultural and sports events, beauty/spa services and nightlife. Repeat visitors, on the other hand, gave the lowest ratings to nightlife, active recreation, visiting paid attractions and food service establishments.

Summary

The article was an analysis of the behaviour patterns of first-time and repeat visitors based on the data of the 2017 Foreign Visitors Survey. The survey lasted for ten weeks: in the summer from 17 July to 13 August and in the winter from 1 November to 17 December. The data were collected from foreign visitors during the pre-determined time periods mainly in the form of face-to-face interviews. Most of the interview locations were border crossing points on Estonia's northern, eastern and southern border. A total of around 9,500 foreign visitors were interviewed. The collected data were expanded to their total population. Because of high seasonality of tourism, the data cannot be used to make generalisations about the whole year, but apply to just the survey period.

Of the foreign visitors who visited Estonia during the survey period, 21% were first-time visitors and 79% were repeat visitors. Most repeat visitors (91%) came from the countries closest to Estonia: Finland, Latvia, Lithuania, Sweden and Russia. The group of first-time visitors was more diverse and the breakdown by country more even. Just 34% of first-time visitors came from the previously mentioned countries. First-time visitors were primarily aged 25–44, while repeat visitors were in the age group 35–54. The share (up to 34) of younger people was larger among first-time visitors.

Overnight visitors (71%) dominated among first-time visitors. Among repeat visitors, overnight and same-day visitors were divided almost equally (49% and 51%, respectively). The majority of both first-time and repeat visitors spent 1–2 nights in Estonia, but repeat visitors had more short visits (one night) and longer-than-average stays (longer than a week). On same-day visits, first-time visitors spent more time in Estonia – 84% of first-time visitors and 58% of repeat visitors spent over 3 hours in Estonia.

Most first-time visitors (78%) came to Estonia for holiday. Second and third in importance with equal shares (8%) were business and transit trips. Repeat visitors also came mostly for holiday (47%), shopping trips ranked second (23%) and transit trips third (11%). Visiting relatives and friends ranked fourth for both groups: 3% of first-time visitors and 8% of repeat visitors came for this purpose. Business trips had the same share in the case of repeat visitors.

Approximately two-thirds (66%) of first-time visitors visited some other country besides Estonia, while repeat visitors tended to visit only Estonia (just 27% visited some other country besides Estonia).

The most popular destination among first-time and repeat visitors was Tallinn. The stays of repeat visitors were less Tallinn-centred: 68% of repeat visitors and 95% of first-time visitors visited Tallinn. The popular destinations among first-time visitors were also Pärnu (10%) and Tartu (6%), among repeat visitors Valga (12%) and Pärnu (11%).

The most preferred accommodations were hotels, guesthouses and other similar accommodation establishments: these were chosen on average by 8 out of ten first-time and 7 out of ten repeat visitors. Using accommodation booked through Airbnb.com and free accommodation was more common among visitors who stayed in Estonia for a longer time (at least 5 nights). First-time visitors used tour package services more often.

During the trip to Estonia, first-time visitors who did not stay overnight spent on average 43 euros, whereas such repeat visitors spent on average 64 euros per person. First-time visitors staying overnight spent on average 255 and repeat visitors 248 euros. Both overnight and same-day repeat visitors and same-day first-time visitors spend the most on goods, while overnight first-time visitors had the largest expenditure on accommodation.

Based on the activities studied, it was evident that compared to repeat visitors, first-time visitors participated in more activities and were more active. The most popular activities on a trip to Estonia were the same for both groups: visiting food service establishments, visiting architectural objects and visiting green areas in cities.

This article is the first comprehensive study of first-time and repeat foreign visitors based on the survey of foreign visitors. It appeared that the two groups of visitors differ in their share (21% were first-time and 79% were repeat visitors) as well as for most observed indicators. Therefore, in the future, there should be more attention paid to them in tourism surveys and planning. In this study, repeat visitors were observed as one group, irrespective of whether they had been to Estonia once or ten times. In the future, a focus of study could be repeat visitors coming to Estonia with different frequency. In addition, it would be useful to know the length of the period during which these repeat visits took place – whether it was the last five, ten or twenty years. The indicators could also be analysed by the country of residence and it could be studied how satisfied were visitors with the whole trip and whether the destination would be recommended to relatives and friends. This information would allow a much more detailed profile of repeat visitors.

Methodology

For the article, the data of the Foreign Visitors Survey commissioned by Enterprise Estonia and conducted in 2017 by Statistics Estonia were used. It is a sample survey that was used to collect data from non-residents (foreign visitors) who were at least 15 years old and were leaving Estonia. There were two survey periods: in the summer from 17 July to 13 August and in the winter from 1 November to 17 December. A total of 9,541 foreign visitors were interviewed, 39% of them in the summer and 61% in the winter. Because of high seasonality of tourism, the data cannot be used to make generalisations about the whole year, but apply to the survey period.

The sampling had to ensure that different days of the week and times of day were covered. This ensured that all types of visitors were covered by the survey (to prevent underestimation of the number of some types of visitors). The method for choosing respondents varied from location to location. The following methods were used: counting; choosing respondents by sampling interval, surveying all passengers in passenger cars with a foreign licence plate or non-random sampling where at the border crossing point, the interviewer made contact with persons of his/her choice with the purpose to interview non-residents.

In most cases, an interview was conducted. In the case of language problems, the respondent was asked to fill in a questionnaire. The questionnaires were available in 12 languages: Estonian, Russian, English, Finnish, Swedish, German, French, Italian, Spanish, Latvian, Chinese and Japanese.

If the selected respondent was under 15 years of age, the interview was conducted with the parent or an adult guardian. Before filling out the questionnaire, the interviewer confirmed that the respondent was a non-resident who intended to leave Estonia on the day of the survey. The questionnaire was not filled out if the respondent was a non-resident but did not intend to leave Estonia on the day of the survey. An exception was Science Centre AHHA in Tartu, where all non-residents were asked for an e-mail address and requested to fill in a web questionnaire sent to the e-mail address after leaving Estonia.

The reason for this exception was that most of the respondents had not finished their trip to Estonia by the time of the interview. Even when Science Centre AHHA in Tartu was their planned last stop in Estonia, there could have still been unplanned stops and additional expenses that would not have been reflected in answers given at the time. In 2017, the web questionnaire was filled in by 1.5% of the respondents.

The interviews took place at the northern, eastern and southern borders of Estonia. Most of the interview locations were at border crossing points, but for better coverage of visitors coming across the Latvian border, interviews were conducted also at Tallinn bus station and Science Centre AHHA in Tartu. In 2017, the survey locations were:

- Old City Harbour (AS Tallinna Sadam), Terminal A;
- Old City Harbour (AS Tallinna Sadam), Terminal B;
- Old City Harbour (AS Tallinna Sadam), Terminal D;
- Tallinn Airport;
- Tallinn bus station;
- Tallinn train station;
- Narva city, border crossing point (Narva road);
- Koidula border crossing point;
- Luhamäe border crossing point;
- Tartu city, Science Centre AHHA;
- Former Ikla border crossing point;
- Valga city, former border crossing point (Valga-Uulu road);
- Valga city, state border (Riia street);
- Valga city (car parks of shopping centres, petrol stations).

As the survey took place in all of the most important points through which foreign visitors left Estonia, Statistics Estonia estimates that the flows of foreign visitors not covered by the survey were quite small.

For analysing the survey results, the results were expanded to the population of foreign visitors by calculating weights. Both data collected during the survey as well as the following external data sources were used: number of ship passengers at Old City Harbour, number of air passengers at Tallinn Airport, passenger data for international trains departing from Tallinn, timetable for international bus service from Tallinn bus station, monthly statistics of the Police and Border Guard Board on border crossings at Estonian border crossing points, traffic counter data collected near the survey locations and visitor statistics of Science Centre AHHA.

To analyse first-time and repeat visitors for the article, the sample of the Foreign Visitors Survey was narrowed. Persons who had previously lived in Estonia and foreign visitors who had stayed in Estonia for over six months were left out of the survey. The aim was that the sample would cover as many foreign visitors coming to Estonia for tourism as possible.

Sources

- Gitelson, R. J., & Crompton, J. L. (1984). Insights into the Repeat Vacation Phenomenon. *Annals of Tourism Research*, 11(2), 199–217.
- Lau, L. S., & McKercher, B. (2004). Exploration versus Consumption: A Comparison of First-time and Repeat Tourists. *Journal of Travel Research*, 42(3), 279–285.
- Li, X., Cheng, C., Kim, H., & Petrick, J. F. (2008). A Systematic Comparison of First-time and Repeat Visitors via a Two-phase Online Survey. *Tourism Management*, 29, 278–293.
- Oppermann, M. (1997). First-time and Repeat Visitors to New Zealand. *Tourism Management*, 18(3), 177–181.
- Oppermann, M. (1998). Destination Thresholds Potential and the Law of Repeat Visitation. *Journal of Travel Research*, 37(2), 131–137.
- Oppermann, M. (2000). Tourism Destination Loyalty. *Journal of Travel Research*, 39(1), 78–85.
- Reid, L. J., & S. D. Reid. (1993). Communicating Tourism Supplier Services: Building Repeat Visitor Relationships. *Journal of Travel & Tourism Marketing*, 2 (2/3), 3–20.
- Wahid, S. D. M., Aliman, N. K., Hashim, S. M., & Harudin, S. (2016). First-time and Repeat Visitors to Langkawi Island, Malaysia. *Science Direct: Procedia Economics and Finance*, 35, 622–31.

ABOUT FOREIGN TRADE STATISTICS OF ESTONIAN AREAS IN 2017

Evelin Puura, Mirgit Silla

The article provides a short overview of the exports and imports of goods and services in counties in 2017 and shows the number of enterprises with such transactions.

The areas observed in the article are counties that existed until October 2017 (incl.), with one exception: Tallinn city is considered separately from Harju county. Tallinn and Harju county combined constitute over 50% of Estonia's foreign trade in both goods and services, while many important goods and services are different in Tallinn and Harju county. As in recent years there have not been any major changes in either goods or services, the overview focuses on one year. Foreign trade statistics were broken down by county based on the legal addresses of economic units with foreign trade transactions. Counties were identified based on legal addresses also when the economic units were active in several areas or the foreign trade activities did not take place in the county of the legal address. Maps 1 and 2 in the article show for each county and Tallinn the commodity chapters which account for up to 5% of foreign trade in the area. Commodity chapters with less than a 5% share were summed under "Other" on the map. Maps 3 and 4 show the three largest groups of services for each county and Tallinn. The rest of the service groups or the main confidential groups were summed on the maps under "Total of other services". The foreign trade goods dataset was processed and compiled in Statistics Estonia, while the data of services were collected and processed by Eesti Pank (central bank of Estonia) and additional information (counties) was added in Statistics Estonia.

Foreign trade in goods by area

In 2017, there were nearly 16,200 economic units exporting goods and 27,400 importing goods in Estonia. 41% of the economic units exporting goods and 44% of the importing units were registered in Tallinn. The city was followed by Harju county where 12% of both exporting and importing units were located. Tartu county with Tartu city ranked third, with 8% of the exporting and 10% of the importing economic units registered there. In other counties, the share of registered exporting and importing economic units was 5% or less.

In 2017, the exports of goods from Estonia amounted to 12.9 billion euros and imports to Estonia to 14.7 billion euros at current prices. By monetary value, the share of Tallinn accounted for 42% of the goods exported from Estonia and 58% of the goods imported to Estonia, followed by Harju county with both 18% of exports and imports. Tartu county ranked third with 8% of the exports and 6% of the imports (Table 1).

Table 1. Breakdown of the monetary value of exports and imports of goods by area, 2017

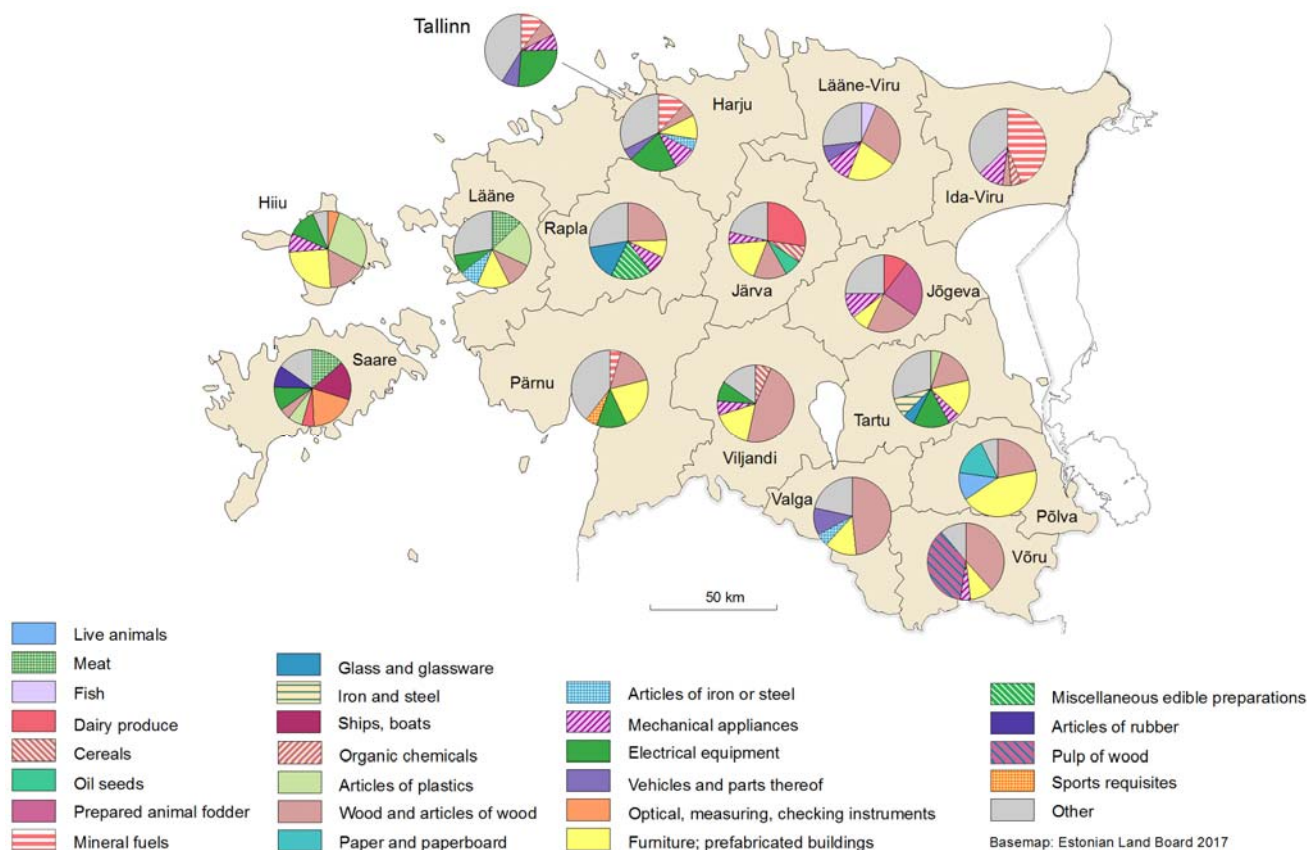
Area	Share, %	
	Exports	Imports
Tallinn city	42.2	58.1
Harju county	17.6	18.3
Tartu county	8.1	5.7
Ida-Viru county	6.5	3.4
County unspecified ^a	6.4	5.0
Pärnu county	4.7	2.6
Lääne-Viru county	3.2	1.4
Viljandi county	2.6	1.2
Rapla county	1.7	0.8
Saare county	1.3	0.7
Valga county	1.3	0.7
Järva county	1.1	0.6
Võru county	1.1	0.4
Jõgeva county	0.9	0.4
Hiiu county	0.5	0.3
Lääne county	0.4	0.3
Põlva county	0.4	0.1

^a Foreign enterprises that do not have a contact address in Estonia. See the methodology part for more details.

The biggest export commodity was electrical equipment (17% of Estonia's total exports), followed by wood and articles of wood (11%) and mineral products (fuel and electricity) (10%). Of the largest commodity chapters exported from Estonia, the export of electrical equipment was among the three biggest commodity chapters in terms of value in eight areas (Tallinn city and Harju, Tartu, Pärnu, Saare, Hiiu, Lääne and Viljandi counties); however, it had the largest share only in Tallinn and Harju county (Map 1). The second-ranking commodity chapter of wood and articles of wood was important in all the observed areas, whereas it had the highest share in Viljandi, Valga and Võru counties. The exports of mineral products, which ranked third, was significant in only four areas (Ida-Viru, Harju and Pärnu counties and Tallinn city), but it was the most important commodity chapter in Ida-Viru county. In Estonia's exports of goods, furniture and prefabricated wooden buildings also play a

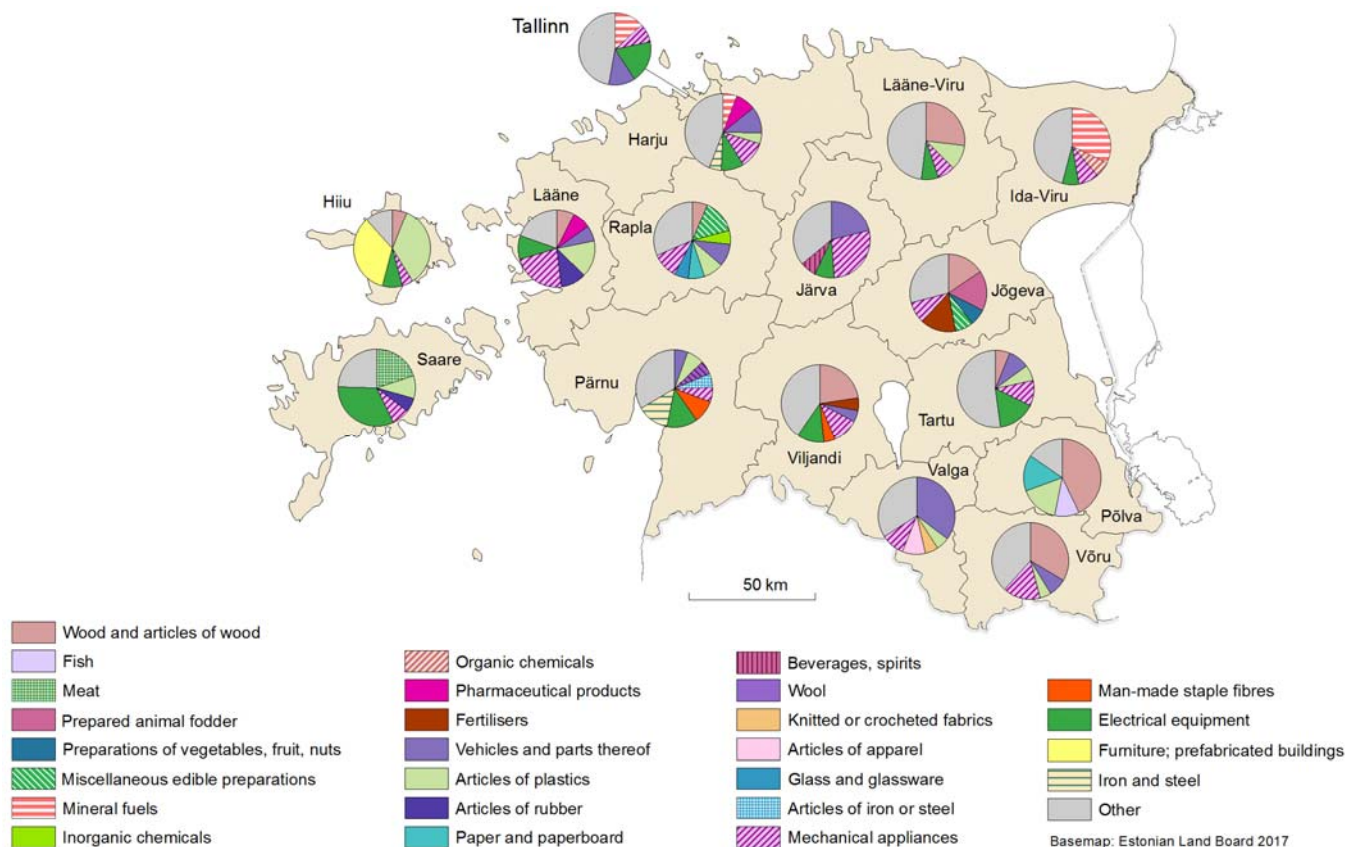
major role, as these are important export commodities in 13 of the observed areas, excl. Ida-Viru county, Saare county and Tallinn.

Map 1. Exports of goods in counties by main commodity chapter, 2017



In 2017, the main commodity imported to Estonia was electrical equipment (15% of Estonia's total imports), followed by transport equipment (13%), mechanical appliances (10%) and mineral products (fuel) (10%). The import of electrical equipment was important in 11 areas, excl. Põlva, Valga, Võru, Jõgeva and Rapla counties (Map 2). The import of transport equipment (vehicles and parts thereof) was significant in 10 of the observed areas (Valga, Järva, Harju, Rapla, Lääne, Tartu, Võru, Pärnu and Järva counties and Tallinn city). Mechanical appliances had a significant share in imports in 15 areas, excl. Põlva county. The import of mineral products was important for only three areas (Ida-Viru county, Harju county and Tallinn).

Map 2. Imports of goods in counties by main commodity chapter, 2017



Foreign trade in services by area

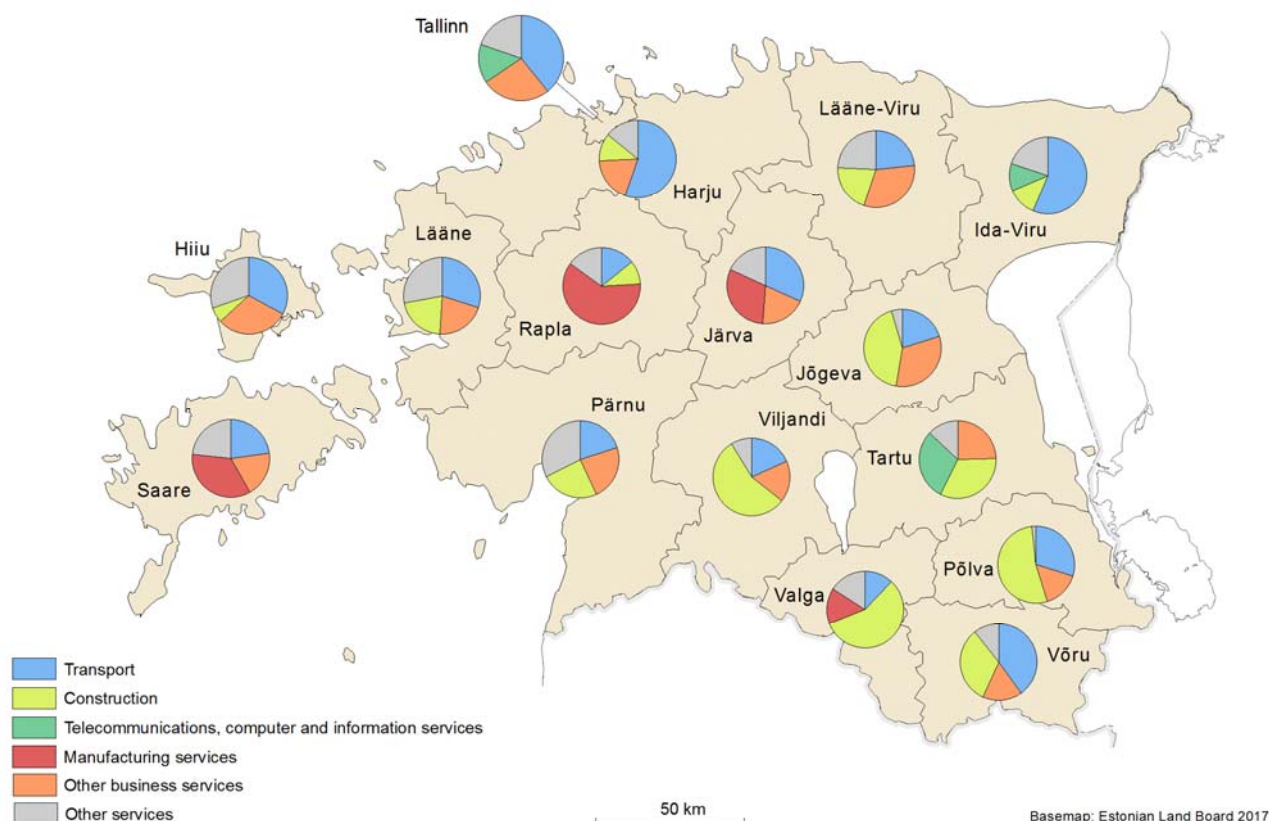
According to Eesti Pank, service exports from Estonia amounted to 6.1 billion euros and imports to Estonia to 4.2 billion euros at current prices. In the case of service exports and imports, a cross-border transaction does not have to occur, as is the case with goods. The exports and imports of services are transactions between residents and non-residents. For example, a citizen of a foreign country visits a hair salon in Estonia or an Estonian transport company provides a service to a foreign company outside Estonia. In Statistics Estonia, the data of services are linked to administrative units of the legal addresses of economic units. In 2017, the economic units operating in Tallinn exported over 58% and imported nearly 50% of services in terms of monetary value. Similarly to trade in goods, in the exports and imports of services, Tallinn is followed by Harju county with 8% of the exports and 5% of the imports of services. Tartu county with Tartu city exported approximately 5% and imported around 4% of services. In other counties, the share of service exports and imports was under 2%. Economic units registered in Hiiu county exported and imported services the least.

Table 2. Breakdown of the monetary value of exports and imports of services by area, 2017

Area	Share, %	
	Exports	Imports
Tallinn city	58.6	49.3
County unspecified ^a	22.4	38.0
Harju county	7.7	5.0
Tartu county	4.9	3.9
Pärnu county	1.6	0.8
Ida-Viru county	1.4	0.9
Lääne-Viru county	0.6	0.6
Rapla county	0.5	0.1
Valga county	0.5	0.6
Saare county	0.4	0.1
Viljandi county	0.4	0.2
Järva county	0.3	0.1
Lääne county	0.2	0.1
Võru county	0.2	0.1
Hiiu county	0.1	0.0
Jõgeva county	0.1	0.1
Põlva county	0.1	0.1
Tartu county	4.9	3.9

^a The administrative unit cannot be identified or there is no information on the contact address of the enterprise. See the methodology part for more details.

Transport services were exported the most (30% of the total export of services), followed by travel services^a (24%) and other business services (19%). The more important export services in counties were transport, construction and other business services. While the exports of transport services was among the three most important ones in 15 areas, the exports of other business services and construction services were significant for 13 areas. In five counties (Rapla, Järva, Valga, Saare and Hiiu county^b), the exports of manufacturing services were of great importance, and in three areas (Tallinn city, Tartu county and Ida-Viru county), telecommunications, computer and information services played a major role.

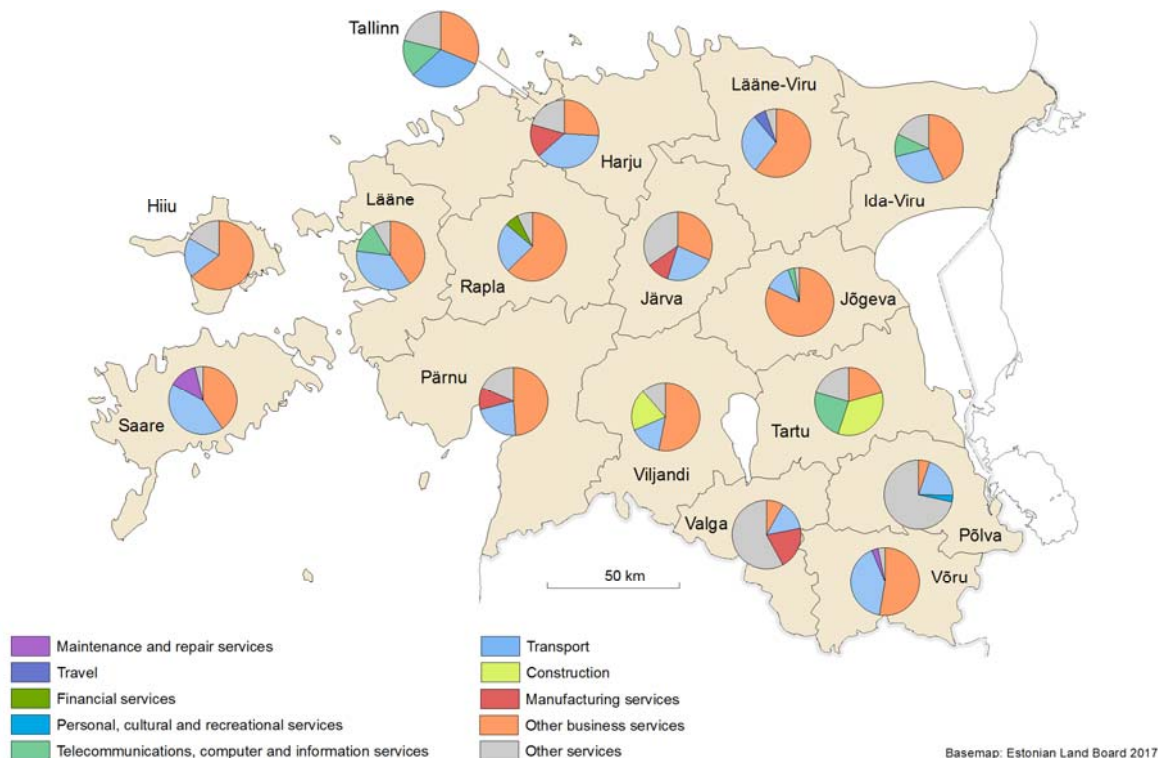
Map 3. Exports of services in counties by main types of service, 2017

^a Travel services are not shown on the map, because for 90% of exports and 87% of imports of travel services a county cannot be identified.

^b Confidential data, shown on the map under "Other services".

In 2017, transport services were imported the most to Estonia, followed by travel services^a and other business services. In counties, transport and other business services played the most important role. The imports of other business services were important in all the areas. The imports of transport services were important in 15 areas. For five counties, the significant service imports were construction services (Järva^b, Põlva^b, Tartu, Valga^b and Viljandi counties), manufacturing services (Harju, Hiiu^b, Järva, Pärnu and Valga counties) and telecommunications, computer and information services (Tallinn, Jõgeva, Lääne, Tartu and Ida-Viru counties).

Map 4. Imports of services in counties by main types of service, 2017



In conclusion, it can be said that most economic units with foreign trade transactions are registered in Tallinn city, Harju county and Tartu county. However, all areas across Estonia contribute to Estonia's main exports and imports of goods and services.

Definitions and methodology

Foreign trade in goods

Exports of goods – exportation of goods produced in Estonia, exportation of goods imported from a foreign country (re-exports), temporary exportation of goods for the purpose of processing abroad, re-exportation of goods after processing in Estonia and supplies of foreign water and air craft stores. Exports exclude transit and services.

Imports of goods – imports of goods into Estonia for domestic consumption and for resale to a foreign country, imports for processing in Estonia with obligation of re-export and re-import after processing outside Estonia. Imports exclude transit and services.

Economic units – units with foreign trade transactions: enterprises (incl. companies, sole proprietors) and non-profit units (non-profit associations, foundations, government institutions, local government institutions, public law units). Also includes units with foreign registry codes.

To determine the number of economic units, data collected by the Intrastat report and customs and VAT declarations are used. Enterprises that were below the statistical threshold or did not submit a report are added based on their turnover declaration submitted to the Tax and Customs Board. Private persons who have submitted customs declarations about exports or imports are not taken into account.

The foreign trade data of foreign companies with foreign trade transactions in Estonia but without a contact address in Estonia have been classified under "County unspecified". If a foreign company has a known subsidiary or a specific trade partner in Estonia, its foreign trade turnover is linked to a settlement unit through the location of the subsidiary or trade partner.

^a Travel services are not shown on the map, because for 90% of exports and 87% of imports of travel services a county cannot be identified.

^a Confidential data, shown on the map under "Other services".

The data of foreign trade statistics also include estimations to compensate for the part not covered by Intrastat and data losses from non-response. Turnover declarations of the Tax and Customs Board are used for the estimations. The administrative unit of the estimated data is determined based on the legal address of the enterprise.

So-called passive confidentiality is applied to the data of foreign trade in goods, i.e. as a rule, the collected data are public and are withheld only if the concerned data provider requests it and there is reason to believe that the data are indirectly identifiable.

Foreign trade in services

Exports of services – the cost of services sold by residents of Estonia to non-residents

Imports of services – the cost of services purchased by residents of Estonia from non-residents

The statistics are based on the data of foreign trade transactions in services collected and processed by Eesti Pank. Statistics Estonia linked these to the administrative units where the legal addresses of the economic units are located. If the administrative unit cannot be identified (e.g. in the case of aggregated data, pension funds, tourists, private persons or non-residents) or there is no information about the contact address of the enterprise, the data are classified under “County unspecified”.

In statistics of foreign trade in services, the data are confidential if the aggregated data are based on less than three economic units. On the sector diagrams of administrative units, confidential data are added to the data of other services under “Other services”.

MAIN INDICATORS, 2013–2018

Main indicators by year and quarter, 2013–2018

Period	Average monthly gross wages and salaries, euros ^a	Change of average monthly gross wages and salaries on same period of previous year, % ^a	Average monthly old-age pension, euros ^b	Employed ^c thousands	Unemployed ^c
2013	949	7.0	327.4	621.3	58.7
2014	1,005	5.9	345.1	624.8	49.6
2015	1,065	6.0	365.6	640.9	42.3
2016	1,146	7.6	386.0	644.6	46.7
2017	1,221	6.5	405.4	658.6	40.3
2013					
1st quarter	900	6.3	315.9	610.1	67.5
2nd quarter	976	8.5	331.3	632.1	55.0
3rd quarter	930	8.8	331.4	627.1	53.3
4th quarter	986	7.6	331.0	616.1	58.9
2014					
1st quarter	966	7.3	330.9	605.8	56.6
2nd quarter	1,023	4.8	349.9	629.5	47.7
3rd quarter	977	5.0	350.0	633.7	51.3
4th quarter	1,039	5.3	349.6	630.3	42.7
2015					
1st quarter	1,010	4.5	349.5	623.1	44.2
2nd quarter	1,082	5.8	371.3	640.1	44.4
3rd quarter	1,045	6.9	370.9	661.0	36.5
4th quarter	1,105	6.4	370.7	639.4	43.9
2016					
1st quarter	1,091	8.1	370.6	630.0	43.6
2nd quarter	1,163	7.6	391.4	657.0	45.3
3rd quarter	1,119	7.1	390.2	653.3	52.9
4th quarter	1,182	7.0	390.3	638.2	45.1
2017					
1st quarter	1,153	5.7	390.7	646.8	38.4
2nd quarter	1,242	6.8	409.9	653.5	49.0
3rd quarter	1,201	7.4	409.1	666.6	36.5
4th quarter	1,271	7.5	409.3	667.4	37.2
2018					
1st quarter	1,242	7.7	417.4	650.5	47.4
2nd quarter	1,321	6.4	449.9	666.6	35.8

^a Since 1999, the average monthly gross wages and salaries do not include health insurance benefits.

^b Data of the Social Insurance Board.

^c Population aged 15–74.

Main indicators by year and quarter, 2013–2018

Labour force participation rate ^a	Employment rate ^a	Unemployment rate ^a	Consumer price index	Producer price index of industrial output	Period
%			change on same period of previous year, %		
68.0	62.1	8.6	2.8	4.1	2013
68.0	63.0	7.4	−0.1	−1.6	2014
69.4	65.2	6.2	−0.5	−2.0	2015
70.4	65.6	6.8	0.1	−0.7	2016
71.6	67.5	5.8	3.4	3.6	2017
2013					
67.7	61.0	10.0	3.5	4.6	1st quarter
68.7	63.2	8.0	3.4	4.7	2nd quarter
68.0	62.7	7.8	2.8	3.9	3rd quarter
67.5	61.6	8.7	1.5	3.3	4th quarter
2014					
66.8	61.1	8.5	0.6	−1.2	1st quarter
68.3	63.5	7.0	0.0	−2.0	2nd quarter
69.1	63.9	7.5	−0.6	−1.1	3rd quarter
67.9	63.6	6.3	−0.5	−2.0	4th quarter
2015					
67.8	63.3	6.6	−0.9	−1.6	1st quarter
69.6	65.1	6.5	0.0	−1.7	2nd quarter
70.9	67.2	5.2	−0.5	−2.7	3rd quarter
69.5	65.0	6.4	−0.5	−2.1	4th quarter
2016					
68.6	64.1	6.5	−0.4	−1.4	1st quarter
71.5	66.9	6.5	−0.7	−1.6	2nd quarter
71.9	66.5	7.5	0.4	−1.1	3rd quarter
69.6	65.0	6.6	1.3	1.5	4th quarter
2017					
70.2	66.3	5.6	3.0	2.8	1st quarter
72.0	66.9	7.0	3.1	3.7	2nd quarter
72.0	68.3	5.2	3.7	4.4	3rd quarter
72.2	68.4	5.3	3.8	3.2	4th quarter
2018					
71.4	66.6	6.8	3.1	3.0	1st quarter
71.9	68.2	5.1	3.3	2.3	2nd quarter

^a Population aged 15–74.

Main indicators by year and quarter, 2013–2018

Period	Volume index of industrial production ^a	Volume index of electricity production ^a	Export price index	Import price index	Construction price index	Construction volume index ^b
change on same period of previous year, %						
2013	4.1	10.9	–1.1	–1.6	5.2	–0.1
2014	3.9	–6.3	–2.6	–2.2	0.5	–2.1
2015	0.3	–16.6	–3.9	–3.8	0.5	–4.5
2016	3.4	18.3	–0.5	–2.3	–0.8	4.6
2017	7.7	13.2	5.5	4.5	1.5	17.7
2013						
1st quarter	3.8	21.7	–0.8	–0.1	5.6	0.8
2nd quarter	5.4	16.0	–0.9	–2.6	5.2	–0.4
3rd quarter	5.1	14.7	–1.2	–2.1	5.3	3.6
4th quarter	2.1	–4.7	–1.7	–1.5	4.7	–4.7
2014						
1st quarter	1.6	–19.2	–2.3	–2.4	2.3	–2.9
2nd quarter	2.6	–2.4	–2.2	–1.7	0.8	–3.5
3rd quarter	4.8	–7.0	–2.2	–1.1	–0.2	–7.4
4th quarter	6.7	2.7	–3.7	–3.6	–0.7	6.5
2015						
1st quarter	3.5	–0.3	–4.3	–4.7	0.1	–1.2
2nd quarter	1.3	–23.4	–3.3	–1.9	0.7	–4.2
3rd quarter	–1.2	–22.1	–4.5	–4.3	0.6	–2.7
4th quarter	–2.2	–20.5	–3.6	–4.2	0.7	–5.0
2016						
1st quarter	–1.4	–5.6	–3.0	–4.0	–0.7	5.3
2nd quarter	0.9	4.1	–2.4	–4.5	–1.3	6.3
3rd quarter	5.0	41.8	–0.1	–2.2	–0.7	2.4
4th quarter	9.0	32.9	3.6	1.7	–0.5	4.9
2017						
1st quarter	12.7	31.0	6.7	6.6	0.7	20.3
2nd quarter	10.9	42.0	5.7	4.3	1.5	17.5
3rd quarter	3.5	–13.1	5.3	3.7	1.7	17.6
4th quarter	4.3	–7.0	4.2	3.3	2.1	16.4
2018						
1st quarter	3.9	–1.9	2.1	1.6	1.8	21.1
2nd quarter	4.8	–13.3	2.0	3.1	2.0	20.0

^a Short-term statistics. The data for 2017 may be revised.

^b Construction activities in Estonia and in foreign countries. The data for 2017 may be revised.

In the case of volume index of industrial production and construction volume index, statistics according to the Estonian Classification of Economic Activities (EMTAK 2008, based on NACE Rev. 2).

Main indicators by year and quarter, 2013–2018

Agricultural output price index	Agricultural input price index	Gross domestic product (GDP) by chain-linking method ^a	Balance of current account as percentage of GDP, % ^b	Net sales of enterprises, million euros, current prices ^c	Period
change on same period of previous year, %					
6.7	3.0	1.9	0.5	50,357.2	2013
–5.7	–2.3	2.9	0.8	50,328.6	2014
–13.0	–0.8	1.9	1.8	49,065.8	2015
–2.5	–1.9	3.5	2.0	50,194.5	2016
21.9	1.5	4.9	3.2	54,973.5	2017
2013					
12.9	5.5	3.1	–0.6	12,054.1	1st quarter
27.4	4.8	1.0	0.9	12,733.1	2nd quarter
14.5	2.2	1.6	0.1	12,808.7	3rd quarter
–12.4	–0.4	2.1	1.6	12,761.3	4th quarter
2014					
4.0	–2.7	1.6	–3.2	11,798.0	1st quarter
–4.5	–2.8	2.8	1.3	12,869.6	2nd quarter
–10.0	–2.1	3.0	1.2	12,666.7	3rd quarter
–9.8	–1.4	4.1	3.5	12,994.3	4th quarter
2015					
–23.4	–1.1	1.8	–1.5	11,531.1	1st quarter
–18.6	–0.4	2.7	4.1	12,475.7	2nd quarter
–8.9	1.0	2.0	3.1	12,359.5	3rd quarter
–4.1	–0.7	1.1	1.4	12,699.5	4th quarter
2016					
–3.3	–1.0	3.8	–1.8	11,726.0	1st quarter
–7.7	–2.4	2.2	2.9	12,651.7	2nd quarter
–5.3	–2.3	3.5	5.1	12,619.2	3rd quarter
3.0	–1.8	4.4	1.4	13,197.6	4th quarter
2017					
21.6	0.1	4.9	1.9	12,686.9	1st quarter
28.5	1.3	5.8	2.2	13,969.9	2nd quarter
28.8	2.2	3.9	4.3	13,823.8	3rd quarter
14.1	2.4	4.8	4.1	14,492.9	4th quarter
2018					
0.1	–0.5	3.3	–1.4	13,701.3	1st quarter
–1.6	–0.8	3.7	1.8	15,326.8	2nd quarter

^a Reference year 2010. The data for 1st quarter 2014 - 1st quarter 2018 have been revised.

^b Data of Eesti Pank. The data for 1st quarter 2014 - 1st quarter 2018 have been revised.

^c Short-term statistics. Statistics according to the Estonian Classification of Economic Activities (EMTAK 2008, based on NACE Rev. 2).

Main indicators by year and quarter, 2013–2018

Period	Revenue of state budget ^a	Expenditure of state budget ^a	Surplus of state budget ^a	Exports ^b	Imports ^b	Balance of trade ^b
million euros, current prices						
2013	6,556.2	6,853.0	–296.9	12,288.2	13,902.5	–1,614.4
2014	6,677.5	6,488.4	189.1	12,006.0	13,788.1	–1,782.0
2015	6,792.7	7,157.3	–364.6	11,575.3	13,096.7	–1,521.4
2016	7,318.8	7,326.8	–8.0	11,892.0	13,521.7	–1,629.8
2017	9,309.4	9,242.1	67.2	12,861.0	14,733.7	–1,872.7
2013						
1st quarter	1,395.0	1,490.3	–95.3	3,098.1	3,405.8	–307.7
2nd quarter	1,862.9	1,593.7	269.2	3,173.3	3,611.9	–438.6
3rd quarter	1,697.3	1,763.3	–66.1	2,977.4	3,431.1	–453.7
4th quarter	1,601.0	2,005.7	–404.7	3,039.4	3,453.7	–414.3
2014						
1st quarter	1,565.0	1,506.8	58.2	2,837.8	3,276.0	–438.2
2nd quarter	1,730.4	1,537.0	193.4	3,005.3	3,492.8	–487.5
3rd quarter	1,591.6	1,546.6	45.0	3,042.7	3,470.4	–427.7
4th quarter	1,790.5	1,898.0	–107.5	3,120.3	3,549.0	–428.7
2015						
1st quarter	1,601.1	1,810.7	–209.6	2,832.7	3,187.3	–354.6
2nd quarter	1,739.1	1,692.6	46.5	2,990.6	3,339.9	–349.4
3rd quarter	1,676.3	1,709.8	–33.5	2,831.6	3,261.8	–430.3
4th quarter	1,776.2	1,944.2	–168.0	2,920.6	3,307.6	–387.2
2016						
1st quarter	1,850.6	1,874.8	–24.2	2,778.8	3,229.1	–450.5
2nd quarter	1,844.1	1,643.7	200.4	3,025.9	3,491.0	–465.0
3rd quarter	1,742.3	1,775.1	–32.8	3,017.8	3,319.5	–301.7
4th quarter	1,881.8	2,033.1	–151.3	3,069.5	3,482.2	–412.7
2017						
1st quarter	2,055.2	2,098.8	–43.6	3,090.0	3,742.3	–652.3
2nd quarter	2,328.8	2,287.7	41.1	3,259.5	3,711.1	–451.6
3rd quarter	2,191.1	2,173.6	17.5	3,162.0	3,519.4	–357.3
4th quarter	2,734.2	2,682.0	52.3	3,349.4	3,760.9	–411.5
2018						
1st quarter	2,212.2	2,306.9	–94.7	3,288.1	3,819.4	–531.4
2nd quarter	2,601.7	2,510.5	91.2	3,699.1	4,234.7	–535.5

^a Data of the Ministry of Finance. Since 2017, the accounting of state budget execution is accrual-based. Since 2017, the revenues and expenditures also include allocated tax revenues collected by the Tax and Customs Board. The data for the 1st quarter 2018 have been revised.

^b Data for the current year are revised monthly; data for the previous years are revised twice a year.

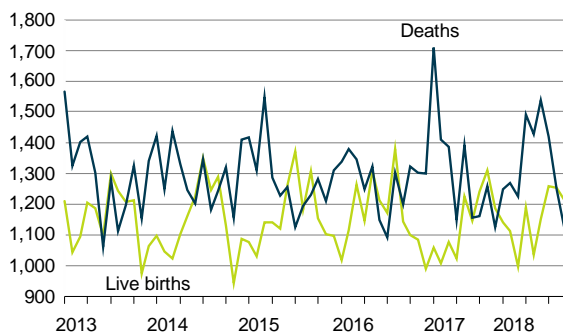
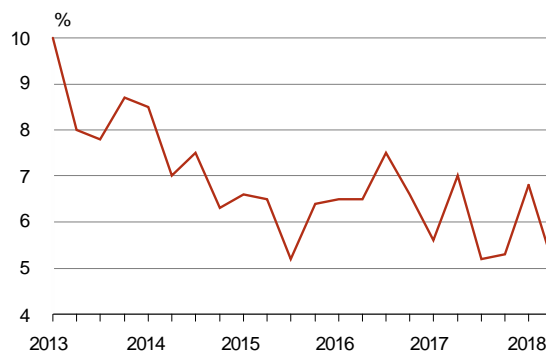
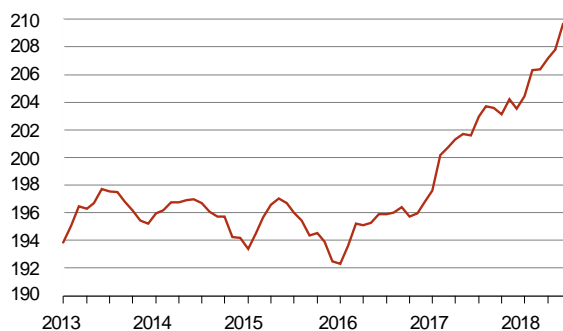
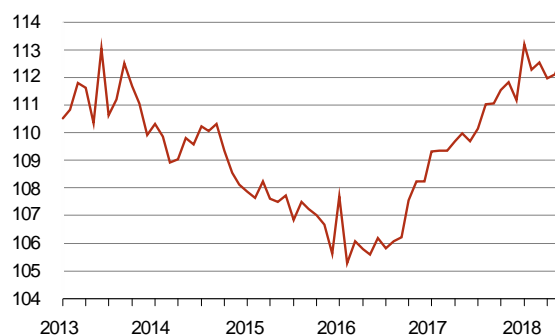
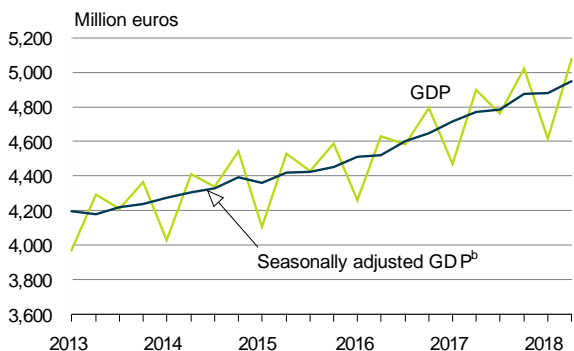
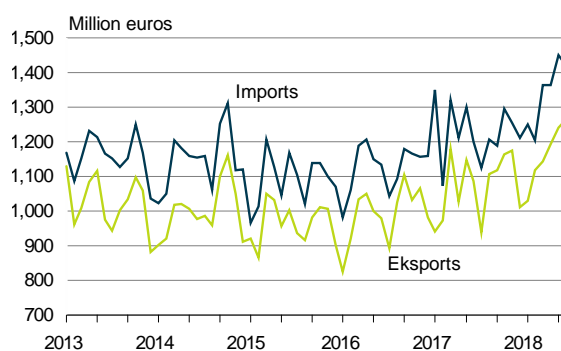
Main indicators by year and quarter, 2013–2018

Carriage of goods, thousand tonnes ^a	Carriage of passengers, thousands ^a	Retail sales volume index ^b	Production of meat (live weight) ^c	Production of milk ^c	Production of eggs ^c	Period
						change on same period of previous year, %
78,726	216,040.5	6	1.4	7.0	5.8	2013
75,141	211,015.1	7	1.2	4.3	5.0	2014
66,219	213,990.2	8	3.1	-2.7	2.5	2015
65,354	207,531.7	6	-4.3	0.0	-2.6	2016
56,434	208,259.8	3	-9.6	0.6	1.2	2017
2013						
21,040	55,234.3	5	3.3	2.8	-0.9	1st quarter
19,463	53,601.1	6	0.0	6.9	-2.7	2nd quarter
18,749	53,297.5	5	1.7	8.7	18.1	3rd quarter
19,474	53,907.6	6	0.6	9.7	9.9	4th quarter
2014						
19,220	54,844.4	6	5.3	10.1	18.1	1st quarter
17,376	52,806.9	6	0.0	4.7	2.6	2nd quarter
18,559	51,113.9	7	0.0	4.2	-6.7	3rd quarter
19,986	52,249.9	7	-0.3	-1.4	7.4	4th quarter
2015						
18,063	57,669.1	9	2.7	-4.6	-8.6	1st quarter
15,958	54,095.2	7	4.9	-4.2	0.8	2nd quarter
15,954	50,425.1	8	-0.3	-2.9	6.5	3rd quarter
16,245	51,800.7	8	5.1	0.9	11.9	4th quarter
2016						
16,177	52,968.6	7	-7.8	4.0	15.1	1st quarter
15,352	53,418.5	7	-0.7	2.9	5.0	2nd quarter
16,763	49,779.6	4	0.0	-2.3	-10.7	3rd quarter
17,062	51,365.0	5	-8.3	-4.4	-17.1	4th quarter
2017						
13,830	53,889.4	5	-15.5	-1.7	-9.9	1st quarter
12,741	53,478.9	4	-7.1	-1.4	-5.2	2nd quarter
13,786	50,457.4	3	-11.0	1.0	6.6	3rd quarter
16,076	50,434.1	1	-5.0	4.7	6.1	4th quarter
2018						
13,803	50,720.2	1	13.8	2.6	10.1	1st quarter
14,192	52,674.1	1	1.5	3.2	16.7	2nd quarter

^a Carriage data of Estonian transport enterprises. The data on carriage of goods for 2017 and 1st quarter 2018 have been revised.

^b Short-term statistics. The data for 2017 may be revised. Statistics according to the Estonian Classification of Economic Activities (EMTAK 2008, based on NACE Rev. 2).

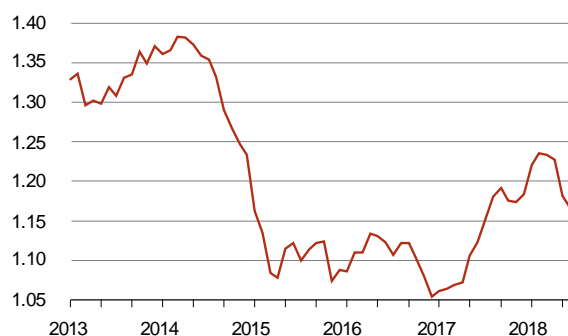
^c Preliminary data for 2017 and 2018.

Natural change of population

Unemployment rate of population aged 15–74

Consumer price index, 1997 = 100

Producer price index of industrial output, 2010 = 100

Gross domestic product at chain-linked volume (reference year 2010)^a

Foreign trade


^a Values calculated by chain-linked index of reference year (values at reference year are multiplied by chain-linked index of the calculated period). Reference year is a conditional year for calculating chain-linked data and starting point of the series of chain-linked indices. Chain-linked index is a cumulative index for chain-linking sequential periods and it expresses the growth rate of a component compared to the reference year.

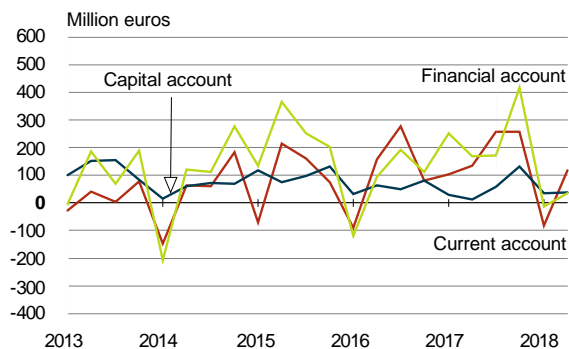
^b Seasonal adjustment of time series means identifying and eliminating regular within-a-year influences to highlight the underlying trends and short-run movements of economic processes. GDP is seasonally and working-day adjusted.

Average monthly exchange rate of the US dollar against the euro



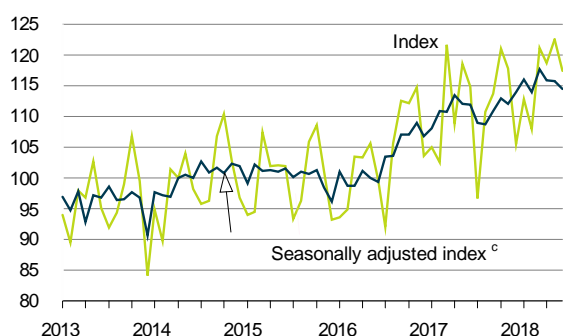
Source: European Central Bank

Balance of payments



Source: Eesti Pank

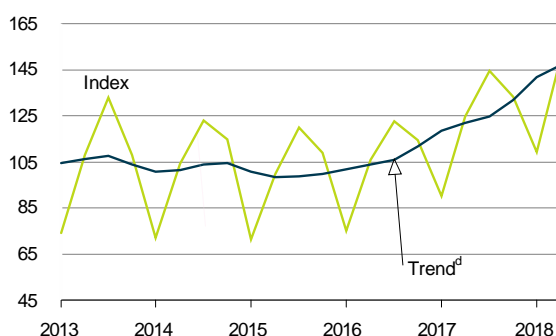
Volume index of industrial production, 2015 = 100^a



^a Statistics according to the Estonian Classification of Economic Activities (EMTAK 2008, based on NACE Rev. 2).

^c Seasonal adjustment of time series means identifying and eliminating regular within-a-year influences to highlight the underlying trends and short-run movements of economic processes.

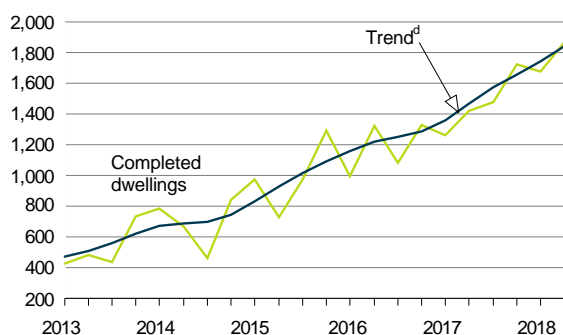
Construction volume index, 2015 = 100^b



^b Construction activities in Estonia and in foreign countries. Statistics according to the Estonian Classification of Economic Activities (EMTAK 2008, based on NACE Rev. 2).

^d Trend – the long-term general development of the time series.

Completed dwellings



^d Trend – the long-term general development of the time series.

Nights spent by accommodated persons

