

The Estonian Economy

Is the housing market overheating?

- ▶ Although housing affordability in Estonia has improved, compared with the peak of the last real estate boom, it has stayed at the same level for the past four years.
- ▶ Households' confidence in purchasing or building a home has improved in recent years.
- ▶ Households are more responsible in lending than ten years ago, and their risks are lower than in the last boom period.

Last year, prices of apartments in Estonia exceeded the peak of the 2007 real estate boom. However, compared with the peak of the last real estate boom, housing affordability in Estonia has improved. Ten years ago, the average net wage growth could not keep up with the average apartment price growth, which was more than twice as rapid as the growth of the average net wage making the purchase of real estate for consumers less affordable. Currently, the overall situation on the housing market is more favourable for homebuyers and their risks are lower than ten years ago. Households' confidence in purchasing or building a home has improved in recent years, and we expect that demand for housing should remain high, at least in the near future.

Economist:

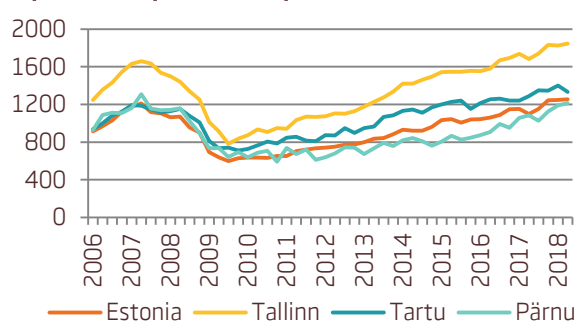
Marianna Rõbinskaja, marianna.robinskaja@swedbank.ee, +372 888 7925

Are we reaching the peak of a new real estate boom?

Last year, prices of apartments in Estonia exceeded the peak of the 2007 real estate boom. In the second quarter of this year, the apartment price per square meter was 11% higher in Tallinn and 12% higher in Tartu than in 2007, whereas prices in Pärnu are still 7% below the last peak.

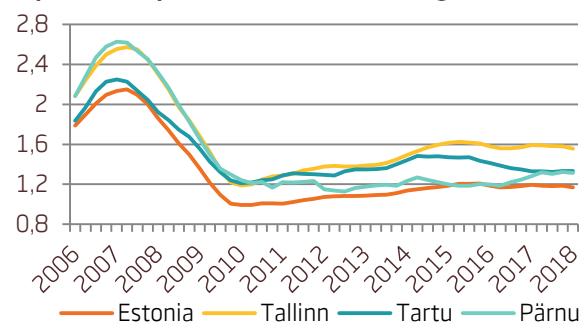
Recently, there have been many discussions about whether we are standing on the threshold of a new real estate boom. Opinions vary and reflect only the general mood on the real estate market, which is currently more cautious than the highly optimistic mood of ten years ago. Although prices are higher than at the peak of the last real estate boom, the overall situation on the housing market is more favourable for homebuyers and their risks are lower than ten years ago. Drawing a parallel only between current and 2007 price levels is inappropriate, therefore, to understand the current situation, one should take into account various economic indicators.

Apartment price, EUR per m²



Source: Estonian Land Board

Apartment price relative to net wage



Source: Estonian Land Board, Statistics Estonia

Are prices of apartments already too high?

In the last three years, the average growth rate of apartment prices in Estonia has been around 8% (although 14% was reached in the second quarter of 2018); during the last boom, this growth rate was five times more rapid. Ten years ago, the average net wage growth could not keep up with the average apartment price growth, which was more than twice as rapid as the growth of the average net wage making the purchase of real estate for consumers less affordable. Today, the situation for homebuyers is more favourable than ten years ago – the tight labour market has been driving up wages, and thus, in recent years, the growth of the average net wage has been at a similar pace to that of the average apartment price.

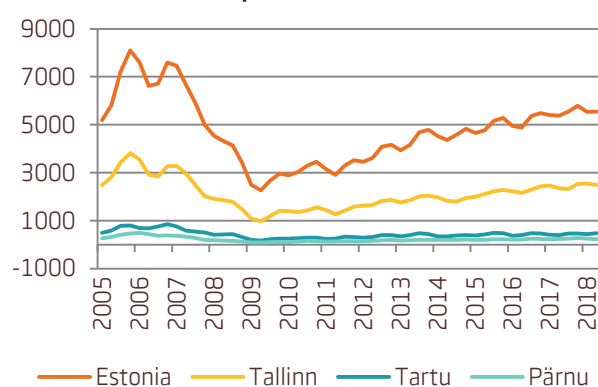
Compared with the peak of the last real estate boom, housing affordability in Estonia has improved. In 2006 and 2007, on average, 2.5 times the monthly salary was needed to buy one square meter of an apartment in Tallinn; meanwhile, in Tartu and Pärnu this average was 2.1 and 2.5, respectively. Currently, this average is about 1.6 in Tallinn and 1.3 in Tartu and Pärnu. However, in the last four years, there have not been any significant changes in the affordability of housing. A similar path can also be seen in Riga and Vilnius, where the affordability of real estate has improved compared with the last boom period. The relative price of an apartment, among the three capitals of the Baltic countries, is highest in Vilnius, where on average 1.9 times the monthly salary is needed to buy one square meter of an apartment; and it is lowest in Riga, where this average is only 1.2.

Households' risks are lower than in the period of the last real estate boom

Activity growth on the real estate market is strong. However, the transaction count is currently still below the peak of the last boom (in the second quarter of 2018, the transaction count was around 5,850 apartments, while in the fourth quarter of 2006 it was almost 8,200). Households' confidence in purchasing or building a home has improved in recent years, and we expect that demand for housing should remain high, at least in the near future. In the long run, the deteriorating demographic situation should have an impact on demand. The majority of homebuyers are in their twenties and thirties, and this cohort is one of the largest among the different age groups. In ten years, however, this age group will be significantly smaller. Currently, there are almost 191,000 people in the age group of 25–34-year-olds, but in ten years according to Statistics Estonia this number is expected to decline by one-third.

One of the reasons for the high confidence of households is the favourable situation in the labour market for employees and the growing real purchasing power. In the last two years, the average gross wage has grown by almost 15%, and the employment rate is historically high (68,2% in the second quarter of 2018), as well as one of the highest in the European Union. According to the wealth effect theory, when households' assets grow in value, the households feel wealthier and more confident, and as a result they spend more. But, despite the theory, private consumption in Estonia is slowing, although it is still strong. Households' disposable income is higher than their consumption expenditure, which has enabled them to

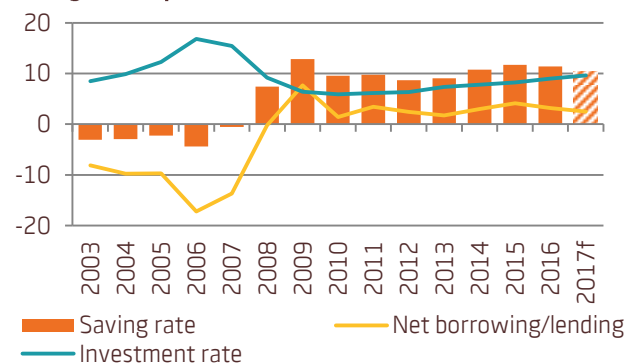
Transactions with apartments



Source: Estonian Land Board

Estonian households' financial indicators

% of gross disposable income



Source: Estonian Land Board & Swedbank

grow their savings, although the distribution of savings is uneven. The growth of the stock of households' deposits has accelerated and is currently on the highest level in ten years. The households' saving rate is close to the EU average and according to the preliminary estimations, is the highest in the Baltics. Adding households' investments to their savings puts households' budgets in a slight surplus (i.e., net lending), whereas, during the previous boom, the balance was negative (net borrowing). In recent years, the growth of households' loan portfolio has been below the growth of deposits, while, during the last boom, the growth of housing loans was two times higher than the growth of deposits. Thus, thanks to the higher savings, households are better protected against potential risks. The strong financial situation of households has been supporting demand for housing, which, in turn, has been pushing up prices for dwellings. In the second quarter of 2018, the growth of the average apartment price in Estonia was the highest in three years, reaching 14%.

On the other hand, the low-interest-rate environment has also been supportive of households buying homes, as housing interest rates have been around 2.3-2.4% over the last few years and reached 2.5% this year. In 2006 and 2007, interest rates on housing were on average 4.9%. The six-month Euribor, which is most widely used in mortgage loan agreements as a base interest rate, has been negative since the end of 2015. We expect the ECB to start raising interest rates in the third quarter of next year. Although, market interest rates are expected to move upwards soon, they will remain quite low. Thus, the favourable interest rate environment will continue to encourage borrowing.

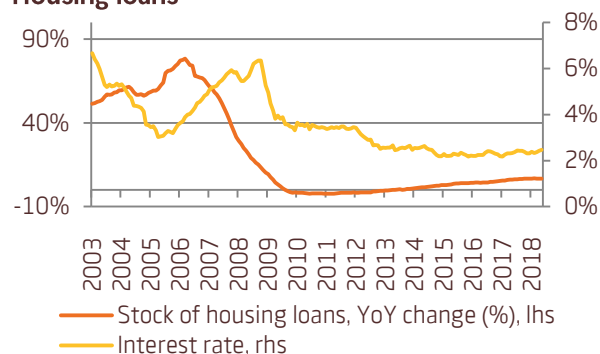
The rapid increase in the real purchasing power of households and low interest rates have contributed to the growth of the loan portfolio. Despite the high demand for housing in recent years, the growth in mortgage lending has been moderate, reaching on average 6% in two recent years. To compare, during the last peak, the growth of the stock of housing loans was on average 60% – ten times more rapid growth than now. The share of own funds in transactions has been at a rather high level in recent years, reaching about 44%, while, ten years ago almost every transaction was made with a mortgage loan.

Households are more responsible in lending than ten years ago, and their risks are lower than during the last boom period. In 2007, the share of overdue loans of over 60 days in the loan portfolio was around 0.4%; this share rose to 7.1% in the years of the crisis and is currently at 0.6%. Although, the share was slightly smaller in 2007 than it is now, the main difference is that since the crisis this ratio has been constantly declining; in 2007, however, the ratio was on an upward trend. Supervisory and financial institutions are taking seriously the reduction of risks related to the real estate market and financing, in order to help keep the risks for borrowers low in case of unexpected economic shocks, and to control the growth of the loan portfolio and, therefore, demand and price growth on the real estate market.

Is this the best time for construction companies?

Activity in the construction sector is at the highest level in recent years –nearly 8,000 building permits for dwellings were issued, and almost 6,000 new dwellings were built last year. Nearly half of all the building permits and use permits for dwellings are being issued in Tallinn. The strong construction activity is also

Housing loans



Source: Bank Estonia

The stock of households' deposits



Source: Bank Estonia

reflected in the rapid growth of loans to real estate and construction companies (in the first half of this year, the growth in turnover of long-term loans for real estate and construction companies was more than 60%). This activity on the real estate market is supported by the high level of confidence of households. In the first quarter of this year, the stock of new apartments in Tallinn reached its highest level in recent years – more than 3,400 apartments; this is at present enough to cover higher demand. The share of newly built dwellings in total transactions has been growing for four quarters in a row, which, together with higher demand, is also driving up the average price of a dwelling.

The growth of issued building permits in 2017 was 30%; however, this was still not as high as during the previous real estate boom, when growth reached 120% in 2002 and almost 180% in 2004. Last year's economic growth was mostly supported by the construction sector, but, unlike during the previous boom, the contribution of public sector investments was higher than that of the private sector. Due to the higher number of building permits issued last year, there were also 30% more dwellings built in the first half of this year than at the same time a year ago; this means that, although supply has increased, it is still in a good balance with the higher demand. Construction companies' risks are higher as input costs of construction are growing. Rising labour and building materials costs, together with the fulfilment of demand, are expected to lower the number of new construction projects. Already in the first half of this year, the number of issued building permits for dwellings was 16% lower than at the same time last year; however, the contribution of the construction sector to economic growth should remain strong.

Swedbank Research's disclaimer

What our research is based on

Swedbank Macro Research, a unit within Large Corporates & Institutions, bases the research on a variety of aspects and analysis.

For example: A fundamental assessment of the cyclical and structural economic, current or expected market sentiment, expected or actual changes in credit rating, and internal or external circumstances affecting the pricing of selected FX and fixed income instruments.

Based on the type of investment recommendation, the time horizon can range from short-term up to 12 months.

Recommendation structure

Recommendations in FX and fixed income instruments are done both in the cash market and in derivatives.

Recommendations can be expressed in absolute terms, for example attractive price, yield or volatility levels. They can also be expressed in relative terms, for example long positions versus short positions.

Regarding the cash market, our recommendations include an entry level and our recommendation updates include profit and often, but not necessarily, exit levels. Regarding recommendations in derivative instruments, our recommendation include suggested entry cost, strike level and maturity.

In FX, we will only use options as directional bets and volatility bets with the restriction that we will not sell options on a net basis, i.e. we will only recommend positions that have a fixed maximum loss

Analyst's certification

The analyst(s) responsible for the content of this report hereby confirm that notwithstanding the existence of any such potential conflicts of interest referred to herein, the views expressed in this report accurately reflect their personal views about the securities covered. The analyst(s) further confirm not to have been, nor are or will be, receiving direct or indirect compensation in exchange for expressing any of the views or the specific recommendation contained in the report.

Issuer, distribution & recipients

This report by Macro Research, a unit within Swedbank Research that belongs to Large Corporates & Institutions, is issued by the Swedbank Large Corporates & Institutions business area within Swedbank AB (publ) ("Swedbank"). Swedbank is under the supervision of the Swedish Financial Supervisory Authority (Finansinspektionen).

In no instance is this report altered by the distributor before distribution.

In Finland this report is distributed by Swedbank's branch in Helsinki, which is under the supervision of the Finnish Financial Supervisory Authority (Finanssivalvonta).

In Norway this report is distributed by Swedbank's branch in Oslo, which is under the supervision of the Financial Supervisory Authority of Norway (Finanstilsynet).

In Estonia this report is distributed by Swedbank AS, which is under the supervision of the Estonian Financial Supervisory Authority (Finantsinspektsioon).

In Lithuania this report is distributed by "Swedbank" AB, which is under the supervision of the Central Bank of the Republic of Lithuania (Lietuvos bankas).

In Latvia this report is distributed by Swedbank AS, which is under the supervision of The Financial and Capital Market Commission (Finanšu un kapitāla tirgus komisija).

This document is being distributed in the United States by Swedbank AB (publ) and in certain instances by Swedbank Securities U.S. LLC ("Swedbank LLC"), a U.S. registered broker dealer, only to major U.S. institutional investors, as defined under Rule 15a-6 promulgated under the US Securities Exchange Act of 1934, as amended, and as interpreted by the staff of the US Securities and Exchange Commission. This investment research is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research and are not a major U.S. institutional investor, you are instructed not to read, rely on or reproduce the contents hereof, and to destroy this research or return it to Swedbank AB (publ) or to Swedbank LLC. Analyst(s) preparing this report are employees of Swedbank AB (publ) who are resident outside the United States and are not associated persons or employees of any US registered broker-dealer. Therefore the analyst(s) are not subject to Rule 2711 of the Financial Industry Regulatory Authority (FINRA) or to Regulation AC adopted by the U.S. Securities and Exchange Commission (SEC) which among other things, restrict communications with a subject company, public appearances and personal trading in securities by a research analyst.

Any major U.S. Institutional investor receiving the report, who wishes to obtain further information or wishing to effect transactions in any securities referred to herein, should do so by contacting a representative of Swedbank LLC. Swedbank LLC is a U.S. broker-dealer registered with the Securities and Exchange Commission and a member of Financial Industry Regulatory Authority and the Securities Investor Protection Corporation. Its address is One Penn Plaza, 15th Fl., New York, NY 10119 and its telephone number is 212-906-0820. For important U.S. disclaimer, please see reference:

<http://www.swedbanksecuritiesus.com/disclaimer/index.htm>

In the United Kingdom this communication is for distribution only to and directed only at "relevant persons". This communication must not be acted on – or relied on – by persons who are not "relevant persons". Any investment or investment activity to which this document relates is available only to "relevant persons" and will be engaged in only with "relevant persons". By "relevant persons" we mean persons who:

- ▶ Have professional experience in matters relating to investments falling within Article 19(5) of the Financial Promotions Order.
- ▶ Are persons falling within Article 49(2)(a) to (d) of the Financial Promotion Order ("high net worth companies, unincorporated associations etc").
- ▶ Are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) – in connection with the issue or sale of any securities – may otherwise lawfully be communicated or caused to be communicated.

Limitation of liability

All information, including statements of fact, contained in this research report has been obtained and compiled in good faith from sources believed to be reliable. However, no representation or warranty, express or implied, is made by Swedbank with respect to the completeness or accuracy of its contents, and it is not to be relied upon as authoritative and should not be taken in substitution for the exercise of reasoned, independent judgment by you.

Be aware that investments in capital markets – such as those described in this document – carry economic risks and that statements regarding future assessments comprise an element of uncertainty. You are responsible for such risks alone and we recommend that you supplement your Decision-making with that material which is assessed to be necessary, including (but not limited to) knowledge of the financial instruments in question and the prevailing requirements as regards trading in financial instruments.

Opinions contained in the report represent the analyst's present opinion only and may be subject to change. In the event that the analyst's opinion should change or a new analyst with a different opinion becomes responsible for our coverage of the company, we shall endeavor (but do not undertake) to disseminate any such change, within the constraints of any regulations, applicable laws, internal procedures within Swedbank, or other circumstances.

If you are in doubt as to the meaning of the recommendation structure used by Swedbank in its research, please refer to "Recommendation structure".

Swedbank is not advising nor soliciting any action based upon this report. If you are not a client of ours, you are not entitled to this research report. This report is not, and should not be construed as, an offer to sell or as a solicitation of an offer to buy any securities.

To the extent permitted by applicable law, no liability whatsoever is accepted by Swedbank for any direct or consequential loss arising from the use of this report.

Conflicts of interest

In Swedbank Research, a unit within LC&I, internal guidelines are implemented in order to ensure the integrity and independence of the research analysts.

For example:

- ▶ Research reports are independent and based solely on publicly available information.
- ▶ The analysts are not permitted, in general, to have any holdings or any positions (long or short, direct or via derivatives) in such Financial Instruments that they recommend in their investment analysis.
- ▶ The remuneration of staff within the Swedbank Research department may include discretionary awards based on the firm's total earnings, including investment banking income. However, no such staff shall receive remuneration based upon specific investment banking transactions.

Planned updates

An investment recommendation is normally updated twice a month.

Reproduction & dissemination

This material may not be reproduced without permission from Swedbank Research, a unit within Large Corporates & Institutions. This report is not intended for physical or legal persons who are citizens of, or have domicile in, a country in which dissemination is not permitted according to applicable legislation or other Decisions.

Produced by Swedbank Research, a unit within Large Corporates & Institutions, Stockholm.

Address

Swedbank LC&I, Swedbank AB (publ), SE-105 34 Stockholm.
Visiting address: Malmkillnadsgatan 23, 111 57 Stockholm.