The Nordic Economic Policy Review (NEPR) is an annual publication presenting some of the latest and cutting-edge research into selected topics of economic policy.

This year’s edition dives into the Nordic housing markets, examining some of the key policy mechanisms behind the rapidly rising housing prices, as well as the impacts on social welfare and social and ethnic segregation. The theme is selected by the NEPR steering group, which consists of representatives from the Nordic Ministries of Finance, Nordregio, and the NEPR editor.

This publication provides a short summary of the five NEPR 2021 articles, which seek to answer the following questions:

- **André Anundsen**: What is the prevalence of house price bubbles in the Nordics?
- **Erlend Eide Bø**: Do buy-to-let investments lead to higher housing prices?
- **Mats Bergman and Sten Nyberg**: What explains the large increase in the relative cost of construction?
- **Niku Määttänen**: How can housing taxation improve social welfare?
- **Essi Eerola**: How do Nordic housing policies affect affordability and integration?

The 2021 issue is edited by Harry Flam, Professor Emeritus at IIES, the Institute for International Economic Studies at Stockholm University, and Peter Englund, Professor Emeritus at the Department of Finance at Stockholm School of Economics (SSE).

**Anundsen: What is the prevalence of housing bubbles in the Nordics?**

In his article titled ‘House price bubbles in Nordic countries?’, André Anundsen analyses the price development in the Nordic housing markets in the past decades. The main question Anundsen seeks to answer is if there have been signs of systematic overvaluation in the Nordic housing markets between 2000 and 2019.

As in most industrialised countries, house prices in the Nordics have grown substantially since the 1990s, although with a drop in the aftermath of the 2008 global financial crisis. During the last 20 years, real house prices have grown by 109 per cent in Norway and 147 per cent in Sweden. The price development has been more moderate in Finland and Denmark, where prices have increased by 27 per cent and 49 per cent, respectively.
Comparison of fundamental and real house prices

Anundsen calculates the fundamental house prices in the period and compares them to the actual house prices in the Nordic countries. This provides an idea of whether house prices are undervalued or overvalued in comparison to the prices predicted by the economic fundamentals: disposable income, housing stock and interest rate.

The results indicate that by the end of 2019, house prices were undervalued by 9 per cent in Denmark and 3 per cent in Finland, while prices in Norway were overvalued by 9 per cent. Sweden is the only Nordic country where house prices have been systematically overvalued since 2014, although the gap between actual and fundamental house prices has remained relatively small. By the end of 2019, Swedish house prices were overvalued by 7 per cent, according to the analysis.

Few examples of explosive price development

Anundsen tests for house price bubbles by applying a methodology suggested by Phillip et al. in 2015 to identify explosive price development. The only market in which Anundsen finds signs of a bubble is the Danish market in the period leading up to the global financial crisis in 2008. In 2007, the estimated overvaluation of the actual house prices in Denmark was 57 per cent, compared to 17 per cent in Norway, 13 per cent in Finland, and only 4 per cent in Sweden.

Anundsen also explores the prevalence of house price bubbles in Helsinki, Oslo and Stockholm. House prices have grown substantially more in the capitals than elsewhere in the countries, but while there were some signs of explosive price development in Stockholm and Oslo, these were only short-lived. Anundsen, therefore, concludes that there were no price bubbles in the three capitals between 2010 and 2019.

Figure 1a. Actual versus fundamental house prices, Norway.
Figure 1b. Actual versus fundamental house prices, Sweden.

Figure 1c. Actual versus fundamental house prices, Finland.
Figure 1d. Actual versus fundamental house prices, Denmark.

![Graph showing actual versus fundamental house prices in Denmark from 2000 to 2018. The graph compares actual house prices with fundamental house prices, with a clear peak around 2008.]

Figure 2. Test for bubbles.

![Graph showing test for bubbles across Norway, Sweden, Finland, Denmark, and a line indicating no bubble. The graph indicates no evident bubbles from 2000 to 2018.]

- Orange line: Actual Denmark
- Yellow line: Fundamental Denmark
- Dark blue line: Norway
- Red line: Sweden
- Blue line: Finland
- Yellow line: Denmark
- Black line: No bubble
Figure 3. Test for bubbles in the capitals.

Bø: Do buy-to-let investments contribute to higher housing prices?

Urbanisation and rising housing prices in the Nordic capital cities have led to concerns about the affordability of housing and unsustainable mortgage levels. In *Buy-to-let housing investors in the Nordic countries*, Erlend Eide Bø examines if investments in rental housing for profit contribute to higher prices.

Rents are clearly less volatile than house prices

Housing prices grew rapidly in all five Nordic capital cities before the financial crisis. After a drop in prices in the late 00s, this trend continued in 2010-2019, with the exception of Helsinki, which has seen little growth in real house prices since 2010. During the same period, rents have generally grown slowly and steadily, although with rapid growth in Oslo 2006-2009 and Reykjavík 2014-2019.

Bø divides the rental market into commercial: for profit (buy-to-let) rental housing, whether owned by private persons or corporations; and non-commercial: municipal, subsidised or non-profit rental housing. All five cities have sizeable private rental sectors, whereas the market is organised differently in each country. Rent setting is mostly unregulated in Finland, Iceland and Norway, while rental prices in Sweden are decided through collective rent bargaining. Denmark stands out by having a large non-profit rental sector.
Buy-to-let investors amplify price increases

Bø applies his buy-to-let model to simulate the impact of buy-to-let investors on housing prices in Helsinki and Oslo, where rents are set freely, and in Stockholm, where the rental market is strictly regulated. For Stockholm, Bø uses a modified version of the model that fits the more regulated market.

The model is based on a scenario in which rents are determined by the demand and supply of rental housing and where investors are driven by total rental returns rather than just expected capital gains. High population inflow increases demand in rental and buyer markets alike. The increased rental demand is likely to attract more investors, which further increases buyer demand and thereby also housing prices.

Bø’s research suggests that buy-to-let investors have, in fact, contributed to the rising house prices in the Nordic capital cities. However, he also concludes that high population growth creates price pressures independently of the presence of buy-to-let investors.

Comparing the housing market in the cities with and without the presence of buy-to-let indicates that the housing price effect without buy-to-let is only around 60 per cent of the effect in a market where such investment takes place. This suggests that price increases could be reduced substantially by regulating rents and restricting buy-to-let investment.

Figure 4. Simulated housing prices, with and without buy-to-let.
Bergman and Nyberg: What explains the large increase in construction costs?

In *Housing prices, construction costs and competition in the construction sector – a Swedish perspective*, Mats Bergman and Sten Nyberg examine the rising house prices in relation to the development of land and construction costs. In particular, they discuss how scarcity of land for development affects housing prices and construction costs.

**Land price accounts for one-third of total cost increase**

During the last 25 years, house prices and construction costs have increased more in Sweden than in its neighbouring countries. In a Nordic comparison, Sweden has the least new housing per capita, the lowest ratio of new housing to population growth and the lowest investments in housing relative to GDP since 2000. Rent-regulated rental housing accounts for approximately one-third of all housing, which, according to the article, may contribute to more capital-intensive construction.

Since the 1990’s, land prices in Sweden have increased considerably for cooperative apartments and single-family homes, but less for rental apartments. However, while real land prices have more than quadrupled since the late 1990s, this can only explain about one-third of the rise in the cost of new housing.

**Weak competitive pressure in the construction sector**

In the same period, the cost of building materials in Sweden has increased by almost 60 per cent more than average consumer prices. This is extraordinary, as most comparable countries have seen an increase of around 10 per cent. Labour costs in Sweden have also risen considerably, or by almost 50 per cent relative to consumer prices.

Construction costs in Denmark and Sweden have increased by around 50 per cent, compared to 10-20 per cent elsewhere. From a Swedish perspective, some of the possible reasons mentioned in the article are capacity constraints, strict regulatory standards and municipal restrictions that might raise construction costs.

The authors also highlight the lack of competition in some segments of the Swedish construction sector, such as the wholesale market for professional builders. Pricing practices are characterised by inflated gross list prices, combined with steep, often volume-related rebates, which mainly benefit the larger players on the market. The high list prices justify higher rents, while the large discounts reduce market transparency and create entry barriers for smaller wholesalers, thus weakening competition.

Finally, Bergman and Nygren point to the low number of bids in public procurement of municipal apartment buildings as a contributing factor. In 2015-2018, the average number of bids was just under 3.5, and in about 40 per cent of the procurements, only one or two bids were submitted. In some cases, this could lead to elevated construction prices.
Figure 5. Land costs.

Figure 6. Building materials price index.
Määttänen: How can housing taxation improve social welfare?

In *Housing taxation in the Nordics: efficiency and equity*, Finnish economist Niku Määttänen looks into the tax treatment of owner-occupied housing, rental housing and capital income in the Nordics. According to the paper, owner-occupied housing enjoys a tax-favoured status relative to rental housing and many other forms of wealth in the Nordics.

**Owner-occupied housing vs rental housing**

Määttänen compares the financial benefits of owning or renting a house and investing in financial assets or rental housing. According to his calculations, the low or non-taxation of imputed rent is an essential factor of the additional tax benefit for owner-occupied housing. Imputed rent is an estimate of the rental value of an owner-occupied house – the amount that a household saves in rent by owning its own home.

Another fundamental reason is that capital gains from owner-occupied principal residences are exempt from tax in most Nordic countries. However, taxing these capital gains is problematic as it may create lock-in effects, inducing households to stay in their house, even if their housing needs have changed, and reducing the mobility of labour.

In addition, mortgage interests are deductible from taxes in most Nordic countries, but according to Määttänen, this should not be considered a fundamental tax advantage of owner-occupied housing. While eliminating this deductibility would partially even out the tax treatment between owner-occupied and rental housing, it would also make debt-financed owner-housing more expensive relative to equity-financed owner-occupied housing.

To ensure a more symmetric tax treatment, Määttänen, therefore, advocates a more fundamental tax reform that would impose a tax on the imputed rent while allowing homeowners to deduct mortgage interest payments from the tax.

**Advantages over financial assets and business capital investment**

Leaving the imputed rent untaxed also favours accumulating wealth in housing over financial assets and investments in business capital. A revenue-neutral tax reform that reduces the current asymmetry by increasing the tax burden on housing capital and lowering the tax burden on business capital should increase business capital investment. This would benefit not only investors and stock owners but also workers and their households due to increased labour productivity and higher wages.

Finally, Määttänen addresses the growing household indebtedness related to the historically low interest rates and high house prices, as well as the role of property taxes, which are relatively low in the Nordic countries. Here, Määttänen suggests that gradually raising property taxes, based mainly on land values, could help reducing household indebtedness and stabilise house prices in the Nordics.
Eerola: How do Nordic housing policies affect affordability and integration?

In *Low-income housing policies, affordability and integration*, Essi Eerola examines how Nordic housing policies deal with the issue of affordability and analyses the effects of housing policies on social and ethnic segregation.

**Housing benefits or social housing?**

Urbanisation poses significant challenges for social sustainability, as higher land and housing prices reduce affordability and are likely to increase segregation. Eerola reviews Nordic low-income housing policies, concentrating on *affordability, access and residential segregation*, distinguishing between tenant-based programmes, such as housing benefits, and place-based programmes like social housing.

Both these categories constitute a transfer to recipient households, either in the form of cash subsidies or rent savings. They also impose costs to taxpayers, either directly through housing allowances or through foregone income and subsidies to social housing. Under certain conditions, both may subsidise housing in a manner that increases housing demand and leads to higher rents.

Comparing the two, Eerola describes housing allowances as more transparent and flexible, especially when demand is increasing. One of the benefits of social housing programmes is that they can be designed specifically to reduce residential segregation. Moreover, they are better suited to meet the needs of those excluded from the private rental market.
Emphasis on ownership in all Nordic countries

In all Nordic countries, a majority of households own their own home, and for the most part, the rest live in rental housing. However, the share of owner households has declined slightly in recent years, especially among younger households, as has the share of non-profit rental housing. These trends underline the need for a well-functioning private rental market in order to guarantee affordable housing.

A closer look at the situation in Finland shows that tenure is strongly driven by income. Most Finnish households in the lowest income decile are renters, while nine out of ten households in the highest income decile are owner-occupiers. Despite a long tradition of social mixing policies and low-income inequality, there are indications of increased ethnic and income segregation in Finnish urban areas.

Increased emphasis on housing supply

One of Eerola’s main conclusions addresses the predicament of using social housing programmes to support low-income and vulnerable households but still avoid creating neighbourhoods with a high concentration of disadvantaged households. Eerola argues that true and sustainable affordability is more likely to come in the form of increased housing supply than subsidised demand. The main reason is that increased supply will serve to lower the overall cost of housing in the Nordics.

Table 1. Owner-occupied housing and non-profit rental housing in Nordic countries.

<table>
<thead>
<tr>
<th></th>
<th>Share of home owner households, percent</th>
<th>Non-profit dwellings, as percent of overall housing stock</th>
</tr>
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<tbody>
<tr>
<td>Denmark</td>
<td>57</td>
<td>53</td>
</tr>
<tr>
<td>Finland</td>
<td>68</td>
<td>65</td>
</tr>
<tr>
<td>Sweden</td>
<td>56</td>
<td>63</td>
</tr>
<tr>
<td>Norway</td>
<td>77</td>
<td>73</td>
</tr>
<tr>
<td>Iceland</td>
<td>75</td>
<td>73</td>
</tr>
</tbody>
</table>

Table 2. Housing allowance (HA) in Nordic countries.

<table>
<thead>
<tr>
<th></th>
<th>Share of households receiving HA by income quintile</th>
<th>HA spending as percent of GDP</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Bottom 2nd 3rd 4th Top</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>57.3 21.3 8.5 4.4 2.9 0.9</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>40.8 39.4 10.1 2.9 1.5 0.7</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>38.3 9.1 3.7 1.4 0.7 0.3</td>
<td></td>
</tr>
<tr>
<td>Iceland</td>
<td>39.4 35.8 29.2 24 9.3 0.2</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>14 2.1 0.3 0.3 0.1 0.1</td>
<td></td>
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