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Is home ownership still affordable in Belgium ?

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NationalBank
OF BELGIUM
Eurosystem

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Introduction

Residential property prices have risen significantly in Belgium for many decades without any major downward correction. The recent acceleration of dwelling price growth despite the economic downturn and the very recent uptick in mortgage rates have revived concerns about a deterioration in housing affordability. This issue has gained momentum not only in the media and among the population, but also at policy level. The National Bank has been invited to speak on the topic in federal and regional parliaments on several occasions in recent years.

Housing affordability is an important issue for Belgian households. They place a high value on buying and owning their own home. This is very often a life goal for many of them who, in addition, save their income for this purpose, especially younger households[1]. More than 70 % are home owners, regardless of whether or not they have an outstanding mortgage. This is above the average of the euro area countries. However, home ownership among the poorest households has fallen dramatically in less than two decades, reaching barely 37 % in 2021.

Housing affordability is a broad concept with many dimensions. In this article, we will focus on the affordability of home ownership in Belgium, i.e. the ability of Belgian households to purchase their own home. We are also interested in single home ownership, as opposed to owning several dwellings, notably for the purpose of renting them out. Buy-to-let activities have in fact gained in importance in recent years against the backdrop of the persistently low-yield environment, but do not necessarily point to an improvement in housing affordability for the vast majority of households.

Housing affordability depends on many elements. It is obviously sensitive to changes in prices as well as to movements in personal income and wealth. Other factors also play a role. In particular, if we are interested in financial affordability – which is defined here as the ability of households to take out a mortgage and to repay it in order to acquire their own home – it is necessary to take into account developments in interest rates, credit standards (including loan-to-value ratios and loan maturity) but also transaction costs. As acquiring a dwelling is likely to be more challenging for younger people with lower incomes, we will pay particular attention to the situation of 20-34 year olds.

The structure of the article is as follows. First, the developments over time in residential property prices – both in Belgium and in the euro area – will be analysed and a number of elements underlying these developments will be discussed. In the second chapter, the issue of housing affordability will be addressed in the light of the factors that affect it, and in particular the ability of households to take out and repay a mortgage loan. The article concludes with an overview of the inequalities in terms of home ownership.

1 According to the HFCS survey, saving for the purpose of acquiring one’s own home is the main reason for saving among 18-34 year olds.

1. Rising residential property prices: stylised facts and explanations

The movement in residential property prices is obviously of prime importance for addressing the issue of affordability of home ownership. In particular, the successive price increases over the last years have led to fears of exacerbation of the difficulties of accessing housing. What about the increase in dwelling prices in Belgium over the last half century? What are the recent developments? Are the trends and developments similar throughout Europe? Which are the most expensive Belgian regions? This chapter aims to answer these questions.

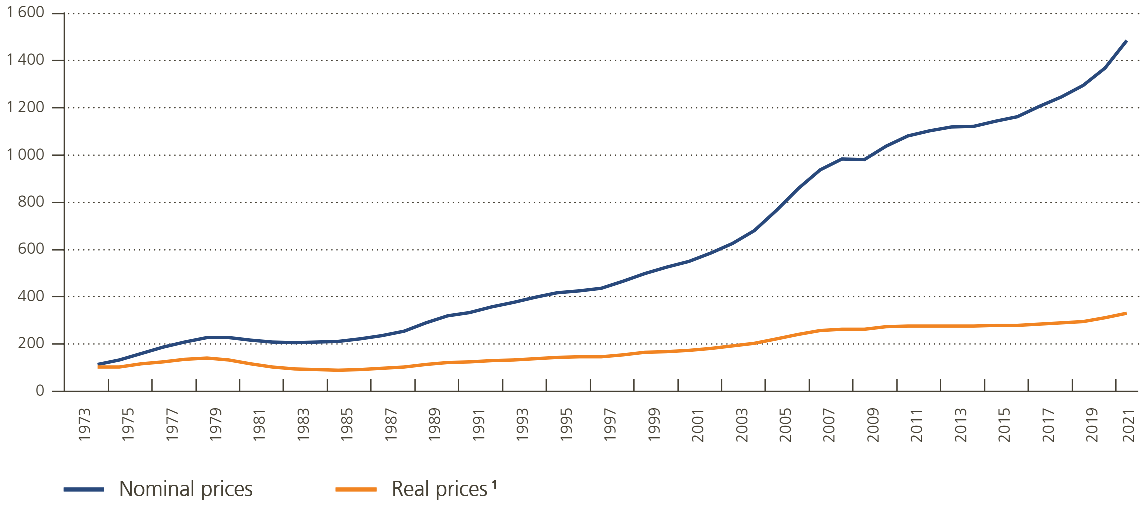
1.1 In Belgium: an (almost) steady and generalised increase

Residential property prices have risen steadily in Belgium over the past decades. Since reliable statistics have been available, i.e. since 1973, dwelling prices have shown a clear upward trend. Generally speaking, only two periods can be identified in which prices have fallen. The first was during the recession of the early 1980s, when prices fell by around 10 % over a five-year period. Taking into account the high inflation at the time, mainly due to the oil price shock, property prices plunged by over 38 % in real terms. The second episode of falling prices was much shorter and caused by the economic and financial crisis of 2008 and 2009. During three quarters, between the fourth quarter of 2008 and the second of 2009, residential property prices fell by 3.3 %, though in real terms the decline was only 1.8 %.

Chart 1

A clear upward trend in residential property prices in Belgium since the 1970s

(indices, 1973 = 100)



Source: NBB.
1 Deflated by the private consumption deflator.

Those downturns, however, are minimal compared with the increases recorded earlier, between these two periods and later. In particular, the most significant increases occurred in the 1970s, the second half of the 1980s and the first decade of the present century. Recently, despite the crisis caused by the coronavirus pandemic, dwelling price growth has increased again, reaching 16.4 % in nominal terms between the fourth quarter of 2019 and the end of 2021, i.e. as much as in the previous five years! In total, between 1973 and 2021, prices increased by a factor of 15. Even taking into account inflation, they still tripled.

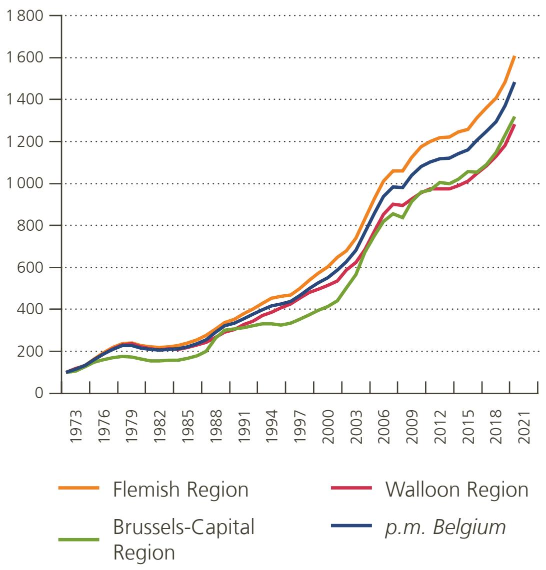
Dwelling prices are also clearly on the rise in all three regions of the country. In general, the pattern of rising property prices has been relatively similar between the regions. However, the total increase in prices since 1973 has been more pronounced in Flanders, while price movements in the Brussels Region have differed somewhat from those in the other two regions, especially up to the first decade of the century. The recent acceleration in property price growth is also visible in all three regions and is similar in size: between 2019Q4 and 2021Q4, prices rose by 16.7 % in the Brussels-Capital Region, 16.3 % in the Flemish Region and 14.1 % in the Walloon Region.

The breakdown of prices according to dwelling category is somewhat more heterogeneous. Two and three-fronted houses, that have seen their share in transactions decline since 1973 in favour of flats, have recorded more rapid price increases than apartments and, above all, detached houses. This surely reflects the large price increase in cities versus surrounding municipalities since the 2000s, insofar as city dwellings are often terraced houses (Reusens et al, 2022). In the period between 2019Q4 and 2021Q4, however, detached houses saw the strongest price growth (21.8 %), followed closely by apartments (18.3 %) and two or three-fronted houses (12.3 %).

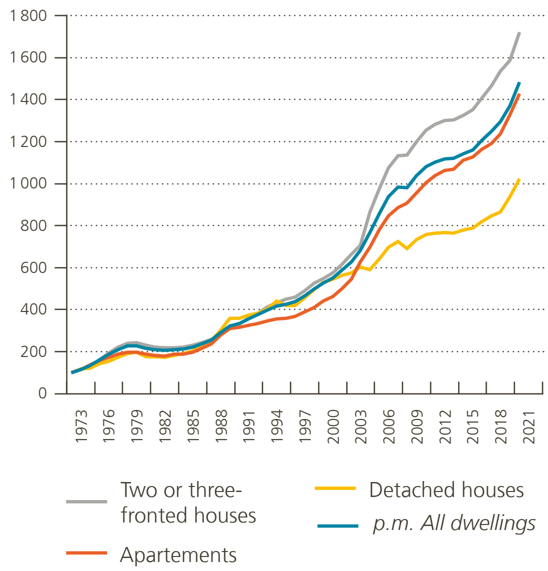
Chart 2

Price developments are similar in the three regions but somewhat more heterogeneous across dwelling types

Residential property prices per region
(indices, 1973 = 100)



Residential property prices per dwelling type
(indices, 1973 = 100)



Source: NBB.

1.2 In Europe: more marked cyclical swings in some countries

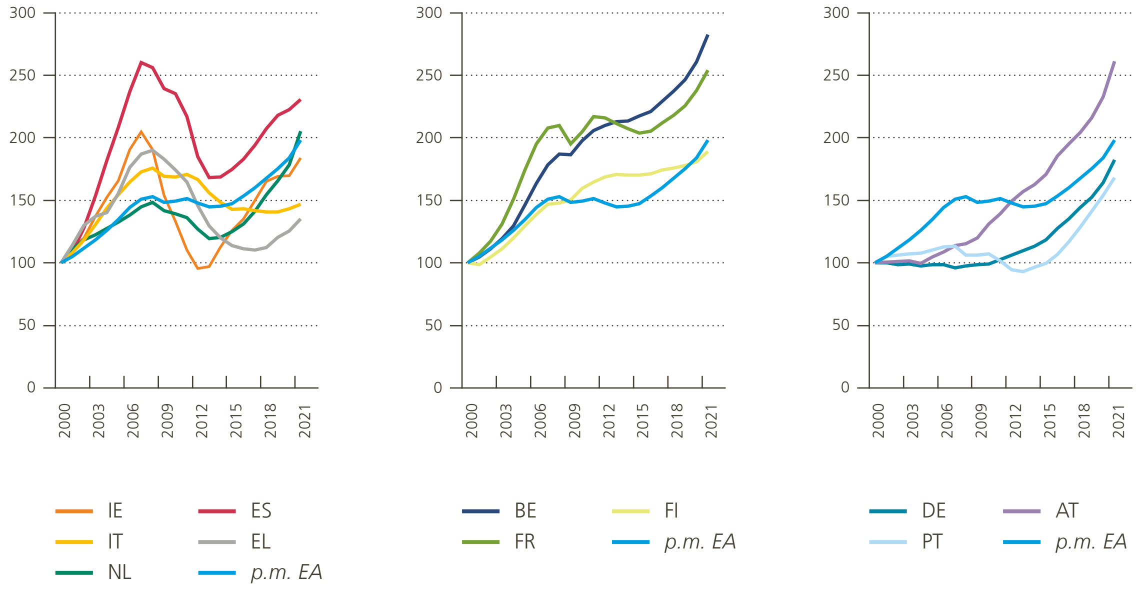
After a particularly long, marked and synchronised upward phase between 1990 and 2007 (Baugnet *et al.*, 2011), European dwelling price cycles varied greatly from one to another in the context of the economic and financial crisis of 2008-2009 and the following years. Indeed, it is possible to distinguish three groups of countries according to the changes in property prices around this key point in time:

- The first group, consisting mainly of countries rather on the periphery of the euro area, with the notable exception of the Netherlands, experienced steep and persistent reductions in residential property prices after previous sharp increases.
- The second, which includes Belgium, did not show a real downward correction at this juncture.
- The last group is characterised by a rather atypical profile insofar as dwelling prices increased continuously over many years after varying periods of stabilisation or slight decline.

Chart 3

After a marked desynchronisation around the GFC, dwelling price rises are widespread within the euro area

(indices 2000 = 100)



Sources: OECD, NBB.

The recent acceleration in residential property prices is not unique to Belgium. The sustained rise in fact applies in general to the whole of the euro area where, on average, prices increased by 15.5 % between 2019Q4 and 2021Q4. Although the increase is particularly sharp in Belgium over this period (16.4 %), it remains lower than the growth in dwelling prices in many other euro area countries, in particular Luxembourg (30.8 %), Germany (21.9 %), the Netherlands (29.1 %), etc. However, price growth is less pronounced in Spain (8 %) and Italy (5.7 %).

1.3 Residential property prices in levels

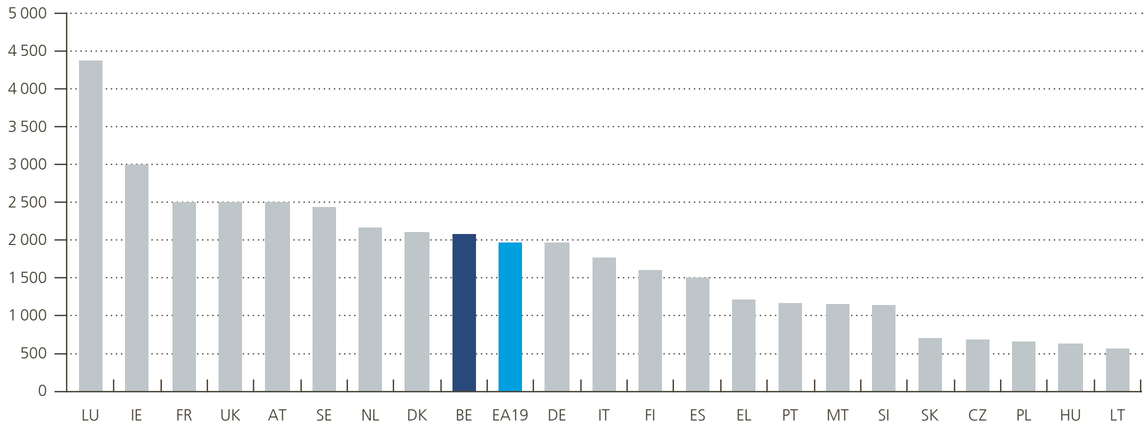
When looking at housing affordability, it is not specifically the movement in prices over time that is relevant. It is also important to consider the price *level*, i.e. how much a buyer pays for a dwelling.

In Belgium, property prices vary significantly from one municipality to another. In 2021, the average price in the cheapest 10 % municipality was estimated at € 149 000, while the average was over € 381 000 in the most

Chart 4

Belgium is not particularly expensive and ranks just above the euro area average

(residential property price level estimates in 2016, €/m²)



Source: Bricongne et al (2019).

expensive 10 % [1]. However, it is important to take account of dwelling characteristics when comparing price levels across municipalities. Reusens *et al.* (2022) attribute these differences to the average quality [2] of the houses and, above all, to the 'municipality location value'. The latter is strongly correlated with the share of highly skilled young inhabitants. Dwelling prices are thus particularly high in the Brussels-Capital Region and in the peripheral municipalities. In general, the north of the country is more expensive than the municipalities in the southern area, with the exception of the border zone in the extreme south, which benefits from proximity to the Luxembourg labour market. In addition, property prices along the old industrial axes, namely between Mons and Liège and between Geraardsbergen and Aalst, are on average lower due to the inferior quality of dwellings.

If we compare the average prices per square metre estimated by the European Commission, properties in Belgium do not appear particularly expensive. They are slightly more expensive than the average for the euro area (€ 2 080 versus € 1 967 in 2021) but below the average for neighbouring countries, in particular Luxembourg (€ 4 371), France (€ 2 504) and the Netherlands (€ 2 164). To some extent, the differences between countries reflect differences in per capita income (Bricongne *et al.*, 2019). However, Belgian houses are on average much larger so that Belgium is more expensive when comparing average house prices (Bergamini, 2020).

1.4 What can explain movements in dwelling prices over time?

Dwelling prices fluctuate over time against a given economic background. They are not entirely endogenous and are partly attributable to a number of factors. These may vary in time and space.

Lower interest rates have been one of the main factors supporting European real estate markets (Baugnet *et al.*, 2011). All other things being equal, a reduction in mortgage rates means that, for a given amount

1 The average prices are obtained on the basis of the dwelling price statistics published by Statbel. The raw data are aggregated taking into account the share of the different dwelling categories in the housing stock of each municipality. Note that these average prices differ from those of Reusens *et al.* (2022), who shows the average municipality prices of houses and does hence not include apartment prices

2 Quality should be interpreted in a broad sense as the value of the characteristics of the houses sold (energy performance, living area, size of the garden, age, dwelling type).

borrowed, the borrower's repayment burden decreases. For instance, a reduction from 4 % to 2 % decreases the repayment burden by about 20 %. Correspondingly, for the same repayment burden, the amount that can be borrowed increases. As a result, the price that a household can potentially offer to purchase a property has increased over time. In Belgium, mortgage rates have fallen sharply over the previous decades, from about 14 % in the early 1980s to about 1.5 % in 2021. The movement has been more marked since the 2008-2009 economic and financial crisis, against the backdrop of the ECB's accommodating monetary policy. However, very recently, mortgage interest rates have rebounded, reaching about 1.7 % in April 2022. That should have a dampening effect on dwelling prices.

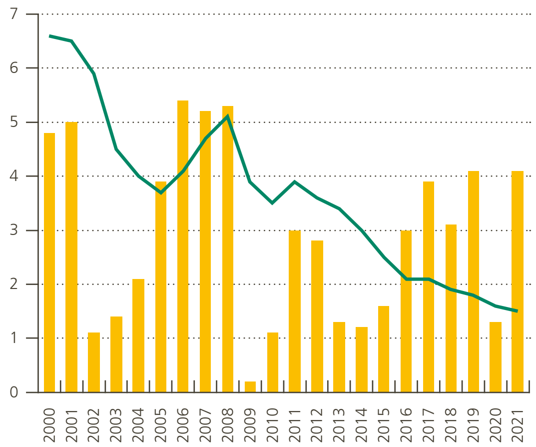
In addition to the direct impact of the interest rate cuts mentioned above, indirect effects may arise from the persistence of a general low yield environment. Yet, until very recently, rates and yields have remained low. In this context, real estate investment has been boosted as real estate assets have become increasingly attractive to yield-seeking investors compared to more traditional financial investments. This, together with the reduction in interest rates, has been a significant factor supporting the property market throughout the euro area.

Rising incomes are another important supporting factor. Between the mid-1990s and 2007, most of the advanced economies experienced a period of so-called great moderation, during which the average real growth rate of GDP increased, and its volatility decreased compared to the period before. Households raised their income expectations and lowered their perception of economic uncertainty, which led to a rise in their permanent income (Baugnet *et al*, 2011). In Belgium, household disposable income has increased continuously, in particular since the beginning of the current century. The stability of this growth over time is certainly a factor supporting, and thus stabilising, the real estate market, preventing or limiting any reversal of the trend in residential property prices.

Chart 5

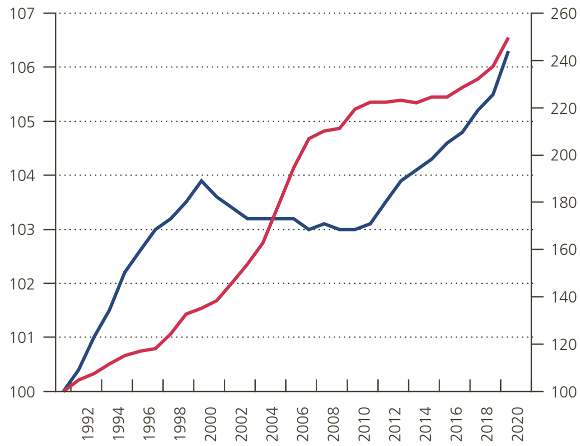
Driven by rising incomes and low interest rates, dwelling price growth in Belgium has been tempered by expansion of the relative housing supply in recent years

Households' incomes and morgage interest rates
(% changes compared to previous year, unless otherwise stated)



Households' net disposable income
Average weighted mortgage interest rates (in %)

Relative housing supply and dwelling prices
(indices 1991 = 100)



Number of dwellings per household
Real dwelling prices [1] (right-hand scale)

Sources: NAI, Statbel, NBB and own calculations.
1 Deflated by the private consumption deflator.

Demography has been another common factor behind the pattern of property prices in most European countries. In Belgium, any demographic pressures were relatively limited during the final decades of the last century, especially compared to the situation in some countries such as Spain or Ireland, for example. Since the beginning of the 2000s, however, population growth has been particularly strong in Belgium compared with the rest of the euro area. In addition, due to the gradual reduction in the average size of families, the number of households has grown faster than the number of inhabitants, leading to rising demand, and hence an increase in property prices.

The impact of demographics on house prices nevertheless depends on the speed with which the supply can be adjusted to these changes (Manceaux, 2011). If construction activity does not produce an adequate response, that will increase the pressure on house prices. The housing stock in Belgium has been continuously expanding since the early 1990s. However, if we relate it to the number of households, in order to calculate an indicator of relative supply, we can see that the dwelling stock has not necessarily adapted to demographic pressures (chart 5). This was particularly the case during the first decade of the 2000s when the relative supply decreased, indicating that the number of dwellings was rising more slowly than the number of households. However, during this period, real property prices rose particularly strongly. Since then, supply has adapted, reducing the pressure on dwelling prices and curbing their real growth. However, the stronger increase in relative supply in recent years, due in particular to the rise in residential investment in the context of the low interest rates mentioned above, has not led to a further slowdown in property price growth. On the contrary, as mentioned in the previous section, prices have risen strongly. This suggests that the recent increase is mainly due to demand factors and not supply factors, but it also implies that if supply had not increased in this way, the rise in dwelling prices might have been even more pronounced.

Taxation can also influence property prices. In Belgium, the deductibility of mortgage loans, more commonly known as the housing bonus, was significantly strengthened in 2005. However, this enhanced tax advantage was capitalised into dwelling prices (Hoebeeck & Inghelbrecht, 2017). Subsequently, the housing bonus was reformed several times, resulting in successive reductions in the tax advantage. In particular, in the Flemish Region, which accounts for almost 65 % of real estate activity in Belgium, after an initial reform in 2015 which almost halved the tax advantage, the housing bonus was abolished in January 2020. Although the growth of property prices has not slowed down, this has certainly tempered their progression somewhat. Together with the increase in (relative) supply on the housing market, this can partly explain the rather more moderate rise in dwelling prices in Belgium compared to the situation in many other euro area countries.

2. Affordability of home ownership

Housing affordability is a broad issue that encompasses many dimensions. In this article we focus on the extent to which a household can acquire its own home, i.e. the affordability of home ownership. In order to measure such a concept and any changes over time, several approaches can be considered. These differ essentially in the factors that are taken into account. In general, they are based on the comparison of dwelling prices and household incomes. In order to refine the calculation, various additional factors can also be included in the analysis, such as interest rates, mortgage conditions, and transaction costs.

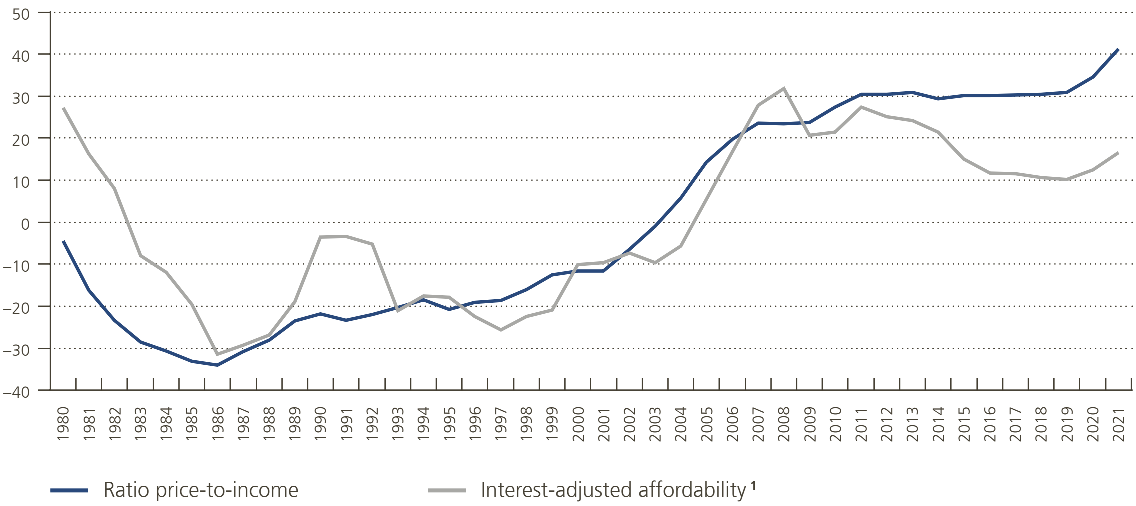
2.1 The classical approach: the price-to-income ratio and the interest-adjusted affordability index

The most straightforward way to analyse housing affordability is to compare dwelling prices to incomes. This is the idea behind the price-to-income indicator, which is presented as the ratio between dwelling prices and the disposable income of households. Its advantage lies mainly in the simplicity of its implementation and interpretation. An increase indicates a deterioration in affordability, while a decrease points to an improvement in the situation for households.

According to this indicator, housing affordability has deteriorated significantly from 2019 onwards due to the surge in property prices, while income growth, although positive over the same period, struggled to keep up. However, incomes will pick up shortly in 2022-2023 due to high inflation and indexation mechanisms. Prior to this, the indicator had remained fairly stable since 2010, indicating that prices had risen in tandem with households' incomes. Over the long run, there is a clear upward trend in the indicator, with the value exceeding its long-term average since 2003. The deviation of the indicator from this average reached 41 % in 2021.

Chart 6

Home ownership affordability has deteriorated since 2019 due to strong rises in dwelling prices



Sources: OECD, NBB.

1 This measure is based on the technical assumption that a mortgage loan has an average maturity of 20 years and a loan-to-value ratio equivalent to 80 % of the property value.

However, this approach suffers from certain limitations (Warisse, 2017). In particular, the results are very sensitive to the choice of the period considered in order to define the long-term average. Furthermore, the price-to-income ratio is likely to be affected by movements in interest rates, other features of mortgage contracts and taxation over time. Hence, changes in this simple indicator should be interpreted with caution.

One particular variable that should be taken into account is mortgage interest rates. The purchase of a property is usually financed by borrowing, so such an analysis should take account of access to mortgage credit and, especially, the repayment burden faced by a homeowner. This is done by calculating the repayment burden – principal repayment and interest – of a mortgage loan taken out to finance the acquisition of a property, valued at the average market price, at the average disposable income of households. According to this indicator, and contrary to the previous one, home affordability has improved overall since the economic and financial crisis of 2008-2009, mostly due to the decrease in mortgage interest rates. Nevertheless, despite the persistence of historically low interest rates, the strong growth in property prices has worsened the situation of households somewhat from around 2019 onwards. In 2021, the indicator pointed to a deviation of 16.5 % from its long-term average. This is therefore better than during the Great Financial Crisis (GFC), when affordability deteriorated to its worst level in almost thirty years: in 2008, it was estimated that, on average, 32 % of disposable income had to be spent on mortgage repayments. However, it should also be stressed that, at that time, households could benefit from the tax-deductibility of their mortgages through the aforementioned housing bonus, easing their repayment burden. This tax advantage has now been abolished in most regions of the country. Moreover, the recent increase in mortgage interest rates (from 1.46 % end-2021 to 1.64 % in April 2022 on average according to MIR surveys, and the anecdotal information which points to a continuation of this trend up to the summer) could cause a further deterioration in home ownership. However, this could also be partially offset by the impact of high inflation on household incomes via wage indexation mechanisms. The overall impact will depend on future trends in mortgage rates and inflation.

2.2 Housing affordability through the lens of the debt service of a mortgage loan

The developments in the mortgage repayment burden therefore point to a more nuanced picture of affordability than the simple ratio of dwelling prices to household income.

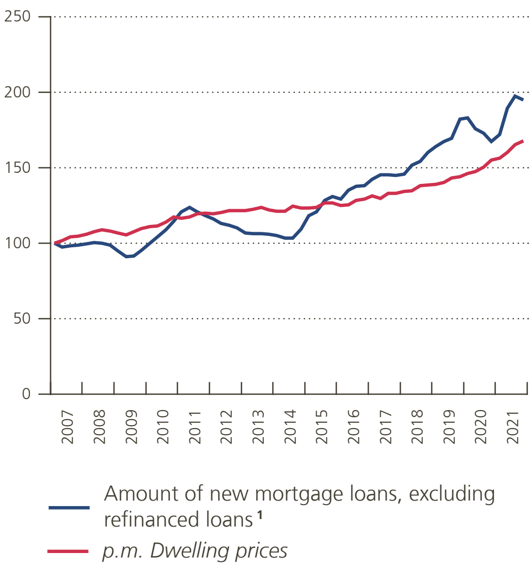
It should be stressed that there has been a clear increase in the volume of new mortgages, particularly from 2015 onwards. This is not only due to the increase in the number of loans granted but also to the rise in the average size of loans, which is itself linked to the growth in property prices (chart 7). Indeed, the average amount borrowed rose[1] from € 130 000 in 2006 to € 186 000 in 2021, i.e. an increase of 44 %. This is, however, less than the 55 % rise in the average dwelling price over the same period. Price growth noticeably outpaced the rise in the average amount borrowed between 2007 and 2014 and very recently, from 2019.

1 Excluding loans up to € 50 000.

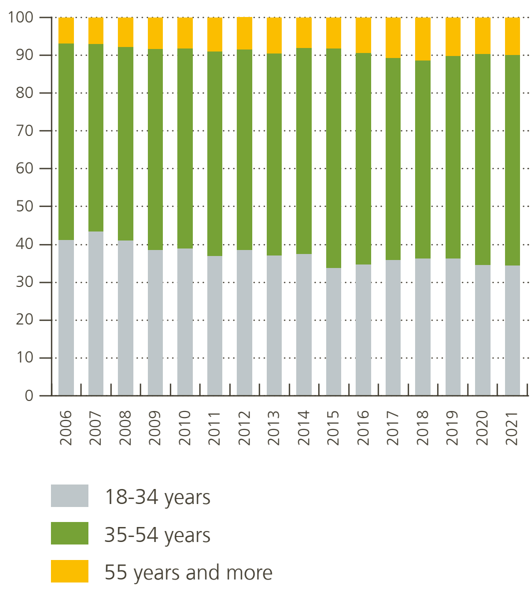
Chart 7

Mortgage lending has increased while the share of young borrowers has fallen slightly during the last 15 years

New mortgage loans and dwelling prices
(indices, 2006 Q1 = 100)



Breakdown of the number of mortgage loans according to the age of the borrower
(percentages of total loans granted)



Source: NBB.
1 In the Central Individual Credit Register, existing loans that are refinanced are recorded as new contracts. Since 2017, lenders have had to indicate whether a new loan is an existing contract that has been refinanced. Before that, the amount of refinanced loans was based on an approximation calculated by comparing data from different sources.

When looking at the age of borrowers, we observe a slight decrease in the share of young borrowers, i.e. those aged under 35, in the volume of new loans. This share fell from 41 % in 2006 to 35 % in 2021, in favour of older borrowers and more particularly 35-54 year olds, whose share was up from 52 % to 56 %. Still, young borrowers remain well represented on the mortgage market. Moreover, as the volume of new loans was high in 2021, the number of loans granted to young borrowers reached a historical peak (NBB, 2022a).

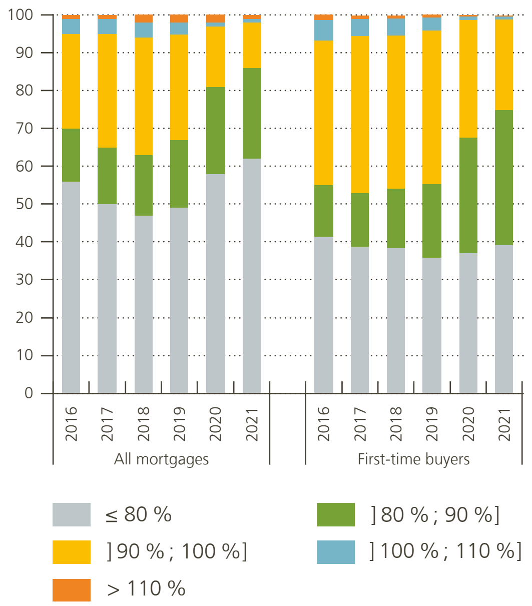
The proportion of new mortgages with high loan-to-value (LTV) ratios has remained significant until recently. While loans exceeding the value of the property acquired (LTV > 100 %) have become progressively rarer, the share of loans with a LTV greater than 80 % has indeed risen, particularly between 2014 and 2018, when they represented more than half (53 %) of total new production. In order to reverse this negative trend and guide the market towards more sustainable LTV ratios, the NBB has issued prudential expectations. Those expectations are a set of reference thresholds for LTV ratios, together with tolerance margins that define the share of new mortgage loans permitted to exceed these thresholds [1]. This has led to an improvement in LTV ratios in new mortgage production since 2019, as the share of loans with a LTV higher than 80 % decreased to 38 % in 2021. The NBB prudential expectations allow more flexibility for first-time buyers, who are more usually younger borrowers, so that the proportion of mortgages with a higher LTV remained larger for this borrower subsegment in 2021 (61 %). However, new production for first-time buyers has also been characterised by a decrease in LTV ratios since 2019.

1 For more information on the NBB prudential expectations, please refer to NBB (2022).

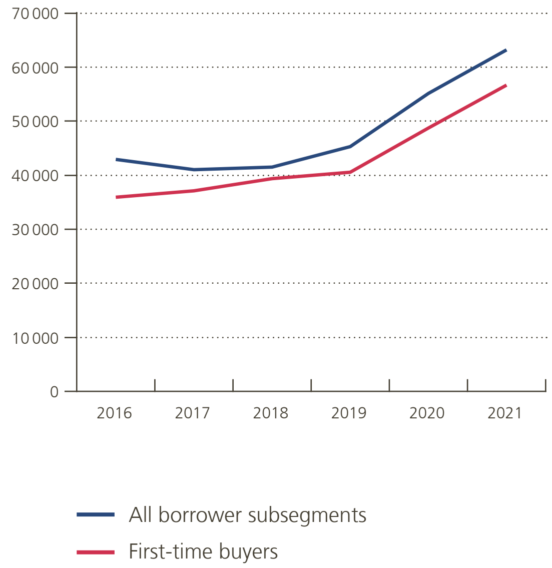
Chart 8

Rising property prices led to a strong increase in the down payment made by young borrowers

Loan-to-value ratios at origination [1]
(percentages of total loans granted during a particular vintage)



Estimated down payment on a mortgage loan [2]
(in €)



Sources: NBB and own calculations.
1 The data include refinanced loans recorded as new contracts (such refinanced loans may artificially improve the credit standards of new mortgage loans, as a proportion of the loan has already been repaid).
2 Estimated on the basis of the average dwelling price in Belgium and average LTV ratios.

Combining these figures with the average residential property price in Belgium, it appears that the estimated average personal contribution has significantly increased since 2019, especially for first-time buyers. If we also take account of transaction costs[1], our estimations point to a rise from about € 36 000 in 2016 to € 57 000 in 2021. This means that even if (younger) households still have access to the mortgage market, the aforementioned strong price increases mean that access to home ownership requires a much larger upfront personal input. In addition, the sharp rise in property prices may force young people without significant assets to take out loans with higher repayment costs, or to buy lower quality or less well-located housing, or to turn to the rental market.

By making a few assumptions, it is possible to produce a series of estimates of the mortgage repayment burden. In the remainder of this chapter, we assume that the repayment burden takes the form of a constant annuity with a fixed interest rate corresponding to the weighted average rate of the MIR surveys. The case analysed is that of a couple where both members work full time and are paid at the average wage for full-time employment in Belgium. Debt service is expressed as a percentage of after-tax labour income (differentiated by age). As affordability is an issue that particularly concerns younger prospective buyers, special attention will be paid to this target group.

Firstly, if we estimate the repayment burden corresponding to the average amounts borrowed from financial institutions by all borrowers, we observe a decrease between 2007 and 2011, from 18 % to 12.5 % (chart 8, left-hand panel). This decrease is mainly due to a downward trend in the average amounts borrowed, in parallel with a decline in the share of young borrowers in the volume of new loans (chart 7), as well as an overall reduction in interest rates during this period. Subsequently, after an increase in 2012 and a stabilisation in 2013 at around 14.5 %, the average repayment burden gradually decreased again to reach 12.5 % in 2016. Since then, it has risen slightly before stabilising at just over 14 % in 2021.

Although the level of the repayment burden for first-time buyers is naturally higher than the average for all borrowers (as their incomes are typically lower), the trends are very similar. However, there is a more pronounced increase in 2020, so that the repayment burden reaches about 19.5 % in 2021.

In total, the repayment of a mortgage, whether for all borrowers or first-time buyers, remains on average below 20 %, which is a level that is typically considered as healthy. However, this is the situation for a couple with both members working full time and earning the average wage. If we consider a less favourable case, the theoretical repayment burden is in fact higher. For example, if both members of the household are paid three-quarters of the average income, the burden in 2021 rises to 19 % for all borrowers and 26 % for first-time buyers. The situation is even more unfavourable for a household with only one income (e.g. single person households, single-parent families, etc.).

In addition, the above results are based on the average amount of all loans. The same amount is higher if we exclude loans of up to € 50 000, as these are probably not representative of most households that have to borrow to finance the bulk of their home purchase. In that case, the repayment burden increases again, from 14 % to 18 % for the year 2021[2].

Moreover, the average amounts borrowed are calculated by deducting the actual borrowers' personal contributions. If we consider the repayment burden for a loan with a loan-to-value ratio equal to 100 % of the average dwelling price in Belgium, including transaction costs, the proportion of income devoted to its repayment is significantly higher (chart 8, right-hand panel). For a couple with both members earning the average wage in Belgium and working full time, the debt service burden is about 20 percentage points higher over the period 2006 to 2021 compared to the first estimate that only took account of the average borrowings (chart 8, left-hand panel). The theoretical repayment burden would thus amount to 31.5 % in 2021, almost twice as high

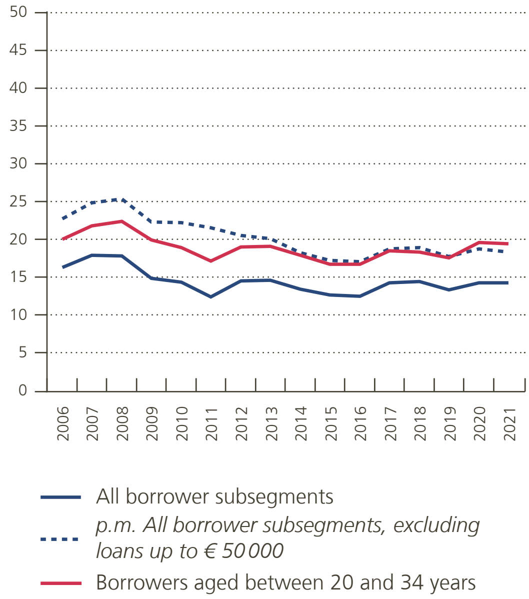
1 Transaction costs cover registration fees, mortgage and conveyancing fees, notary fees, including VAT. For registration fees, we use the main rate in the three regions. The regional fees are then averaged according to the share of the regions in real estate transactions in order to compute a national average.

2 The current statistics do not allow us to exclude loans up to € 50 000 from the total volume for young borrowers.

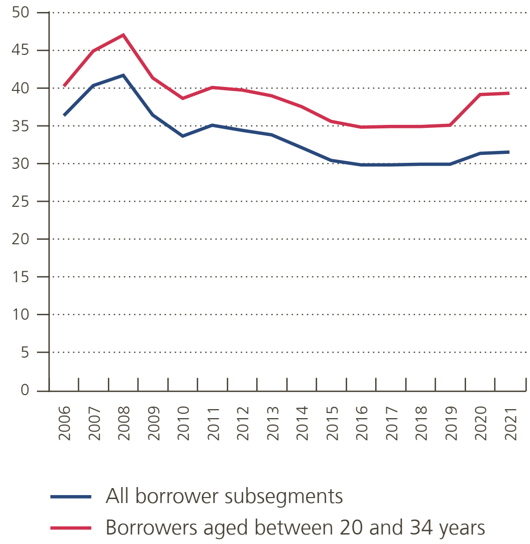
Chart 9

The debt service burden of a mortgage loan has recently increased, especially for young borrowers

Estimated debt service burden of a mortgage loan valued at the average borrowed amounts, by age of borrowers [1]
(in % of incomes)



Estimated debt service burden of a mortgage loan valued at the total purchase cost, by age of borrowers [1, 2]
(in % of incomes)



Sources: NBB and own calculations.
1 Estimation made assuming a maturity of 20 years and the case of a couple working full time and being paid at the average wage in Belgium.
2 The total purchase cost refers to the price of the dwelling including the transaction costs.

as previously estimated. Similarly, the repayment burden for a couple earning the average wage for workers aged between 20 and 34 is on average 20 percentage points higher between 2006 and 2021.

This suggests that if borrowers, especially younger ones, cannot finance the purchase of their home sufficiently from their own funds, the proportion of their income that they have to spend on mortgage repayments becomes very high. This is especially true as the above estimates are averages for the country as a whole. However, as mentioned in the first section of this article, some municipalities are significantly more expensive than the national average. In particular, some large urban centres have much higher average dwelling prices. This is the case in cities such as Brussels, Ghent, Leuven and Bruges. Home ownership in these cities is even more difficult, especially for young borrowers, whose salaries are on average lower. If we again consider the case of a young couple needing to borrow the full value of a residential property (including transaction costs), the related repayment burden [1] reaches very high levels in 2021: 51.5 % in Brussels, 46.6 % in Ghent, 46.5 % in Leuven and 43.9 % in Bruges. In contrast, cities such as Charleroi, Mons and Liège are on average less expensive and remain much more accessible to workers earning the average Belgian wage, with debt service costs fluctuating between 19 % and 26 % in 2021.

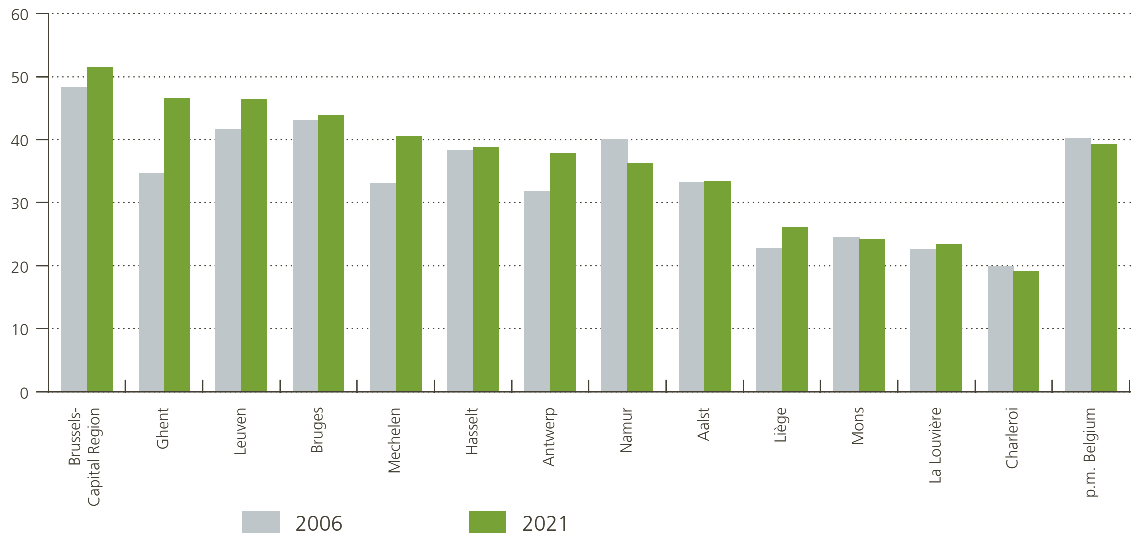
Moreover, while the repayment burden for young borrowers remained relatively constant overall in Belgium between 2006 and 2021, it rose sharply in certain Flemish cities, particularly in Ghent (+12.1 pp),

1 These results are expressed as a percentage of the Belgian wage by age group. Wages are thus not differentiated by city or region. There are obviously discrepancies in terms of wages between cities. They are higher on average in Brussels and Flanders than in Wallonia. However, the aim here is to take into account the possibility for households to move to the region/city of their choice, whatever their initial location. In addition, there is an endogeneity issue between wages and property prices, as the levels of both generally move in tandem.

Chart 10

The mortgage debt service for young borrowers[1] without a personal contribution has worsened over time in Brussels and in many Flemish cities

(in percentages of incomes)



Sources: NBB and own calculations.

1 Estimated debt service burden of a mortgage loan valued at the total purchase cost in the case of borrowers aged between 20 and 34 years, working full time and being paid the average wage in Belgium. Estimates assume a loan maturity of 20 years and a LTV of 100 % (including transaction costs).

Mechelen (+7.5 pp), Antwerp (+6 pp) Leuven (+4.9 pp), and to a lesser extent in the Brussels-Capital Region (+3.2 pp). This may also point to an increase in sales in the low-cost municipalities in 2021 compared to 2006.

Comparisons between cities reveal variations in the real estate market, and more specifically its structure. For example, there are proportionally more flats in Brussels than in Charleroi. Also, housing is certainly more spacious, on average, in a city like Namur than in the capital. However, this is the reality that households face when deciding where to buy a home. Moreover, these characteristics can also fluctuate over time. Although the structure of the housing stock remained relatively unchanged between 2006 and 2021, the quality of the dwellings has improved over time, as Reusens *et al.* (2022) demonstrate. They showed that this is mostly due to the improved energy performance of the houses sold, and to a lesser extent the larger floor area, the share of detached dwellings and garden size. Part of the price increase in Belgium over the last decade (around 7 %) is therefore due to the improvement in the energy performance of housing.

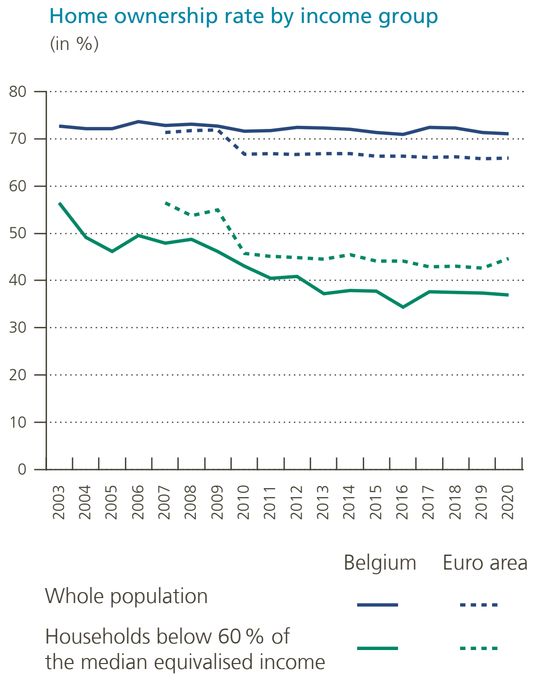
2.3 Home ownership affordability and inequalities

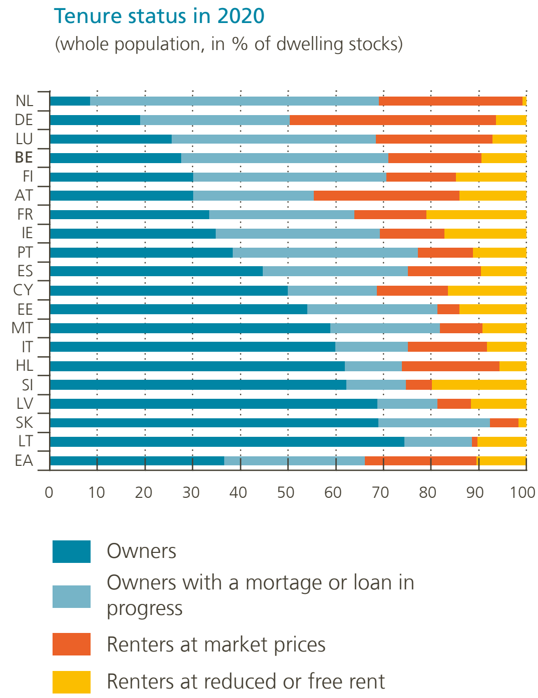
Households' wealth is composed of both their financial wealth and the property assets that they own. In both respects, Belgian households are at the top of the European ranking. In 2021 the financial assets (excluding debts) of households in Belgium rose by 3.1 % and almost € 46 billion between January and September, climbing to more than € 1 500 billion, while property assets increased by 8.5 % over the same period of time (NBB, 2022b). As real estate assets are the main driving force behind households' wealth in Belgium, divergences in home ownership among the population can potentially lead to inequalities.

In Belgium, the home ownership rate over the past two decades has remained relatively constant, although a slight downward trend has been observed. According to the SILC surveys, it dipped from 72.7 % in 2003 to

Chart 11

While the home ownership rate in Belgium is relatively stable over time, it has decreased in the case of the poorest households





Sources: Eurostat (SILC survey).

71.1 % in 2020. The result for Belgium is still above the average for the euro area but below the higher score in many eastern and southern European countries.

However, the trend in the home ownership rate for low-income earners is different of that for the remaining population. Households earning less than 60 % of the median equivalised income [1] are proportionally less likely to be home owners, but more importantly, they are now less likely to own their home than before. In 2003, an estimated 56.4 % of these households owned their home. This proportion fell by almost 20 percentage points to just 36.9 % in 2020. In contrast, it is lower than the average for the euro area (44.7 %), although here, too, there is a downward trend over time.

Increasingly unequal home ownership combined with the sharp rise in property prices over the past decades has resulted in increasing inequality in real estate among Belgians (Van Gompel, 2022). Using data for the Flemish Region, Winters (2015) shows that home ownership rates for the first and last income quintiles were similar in 1976, lying within a range of 60 % to 70 %. In 2013, the range was significantly larger, at just under 40 percentage points, as the home ownership rate declined to 45.3 % for the first income quintile whereas it reached 83.4 % for the fifth income quintile.

1 The households' equivalised disposable income is defined as the total income (including housing allowances) after tax and other deductions that is available for spending or saving, divided by the number of household members converted into equalised adults (Elfayoum *et al.*, 2021). It thus controls for the differences in a household's size and composition. The poverty threshold is generally set at 60 % of median equivalised disposable income.

Van Gompel (2022) also warns that discrepancies in home ownership between young and older households could become more acute in the near future, as survey data pointed to a decline in the intention to buy or build a home in the youngest age category (less than 30 years old) during the COVID-19 pandemic, whereas it increased significantly in the older age categories. This tends to show that young people are finding it relatively more difficult to purchase their own property.

Conclusion

Residential property prices have risen almost continuously in Belgium over the past decades. Only two episodes of decline have been recorded, but the price falls have been much more limited than the previous and subsequent increases. This price increase was general in that it concerned all regions of the country and the different categories of dwellings. Moreover, property price growth has accelerated again recently despite the COVID-19 pandemic and the economic downturn. This clear rise can also be observed in almost the whole of the euro area.

These developments have fuelled the debate on housing affordability. This is a broad concept that encompasses many dimensions. This article focuses on the affordability of home ownership. It obviously depends on the change in property prices on the one hand and household incomes on the other hand, but the approach can be refined to take into account developments on the mortgage market, which is of prime importance as the majority of potential buyers take out a loan to finance their purchase.

The volume of new loans has steadily increased, especially since 2015, while the share of young borrowers is down slightly. However, the loan-to-value ratio, i.e. the ratio of the amount of the loan to the value of the dwelling, has declined, in particular due to the National Bank of Belgium's prudential expectations. For first-time buyers, however, greater flexibility is allowed. Given the significant increase in property prices over the same period, this has led to an increase in the down payment needed to finance the purchase of a property. Even if (younger) households still have access to the mortgage market, they have to make a more significant financial effort to take out a loan than previously. In addition, this may force young people without significant assets to take out loans with higher repayment costs, or to buy lower quality or less well-located housing, or to turn to the rental market.

The estimated average mortgage repayment burden for a full-time working couple has also risen slightly in recent years, but overall remains at levels that can be considered healthy. However, the proportion of household income that has to be spent on mortgage repayments is much higher in less favourable financial situations, as in the case of single-income households, those who earn less than the average income, or those without sufficient own funds. Furthermore, the average repayment burden may take up much larger shares of income in some major urban centres, including Brussels, Ghent, Leuven and Bruges. If there is no upfront personal input, the mortgage debt service for an average home represents 40 % to 50 % in these locations.

Becoming a home owner is not only the fulfilment of a life goal for many households, it also has implications in terms of household wealth. In Belgium, a major part of the wealth held by households is in the form of real estate assets. Moreover, their value has risen over time, outpacing that of financial assets. If one group of the population suffers a decline in affordability, this also has consequences for the distribution of wealth. In this connection it should be stressed that the home ownership rate of the lowest income households has decreased significantly over time: from 57 % to 37 % between 2003 and 2021. Furthermore, inequality is increasing as the rate of home ownership for the financially better-off households has risen over the same period.

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Conventional signs

%	per cent
e.g.	*exempli gratia* (for example)
i.e.	*id est* (that is)
p.m.	pro memoria
p.p.	percentage point

List of abbreviations

Countries or regions

AT	Austria
BE	Belgium
CY	Cyprus
DE	Germany
EE	Estonia
ES	Spain
FI	Finland
FR	France
HL	Greece
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxemburg
MT	Malta
NL	Netherlands
PT	Portugal
SI	Slovenia
SK	Slovakia
EA	Euro Area

Abbreviations

COVID-19	Coronavirus disease-19
ECB	European Central Bank
EPC	Energy Performance Certificate
Eurostat	European Statistical Office
EU-SILC	European Union Statistics on Income and Living Conditions
GFC	Great Financial Crisis
LTV	Loan-to-value
MIR	Monetary financial institutions Interest Rate
NBB	National Bank of Belgium

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