DMFCO Asset Management

Dutch housing and mortgage market

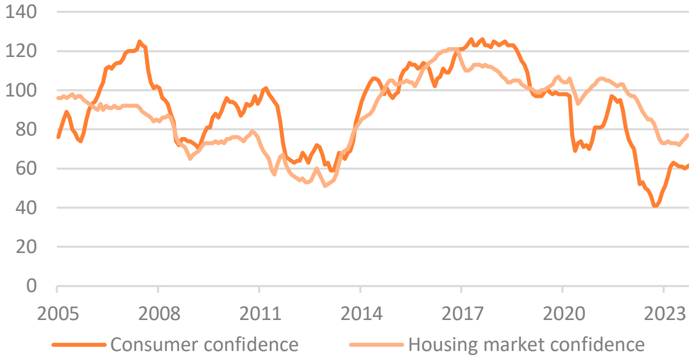
Q3 2023

DASHBOARD DUTCH HOUSING AND MORTGAGE MARKET Q3 2023

Economic indicators

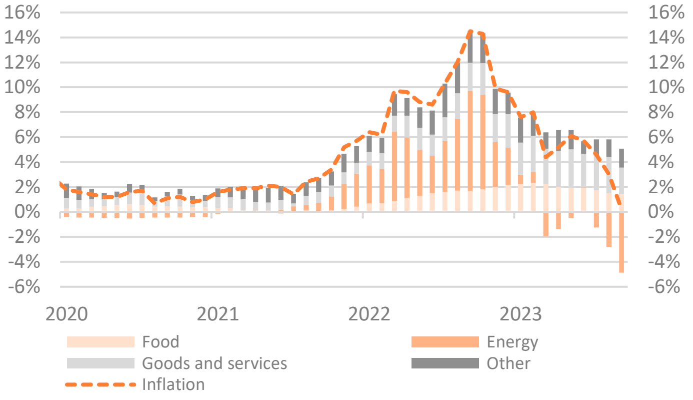
Confidence indicators

Source: CBS & VEH



Annual inflation rate

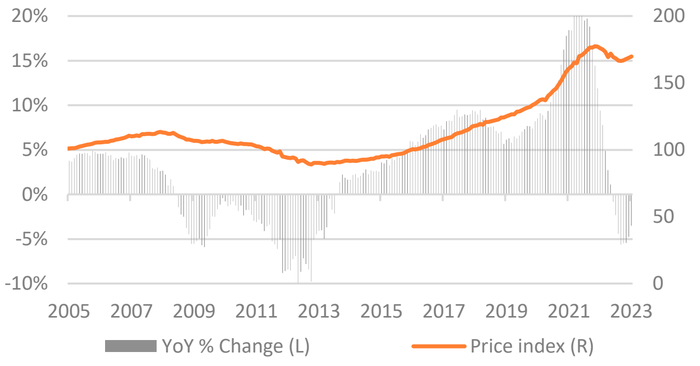
Source: CBS



Dutch Housing market

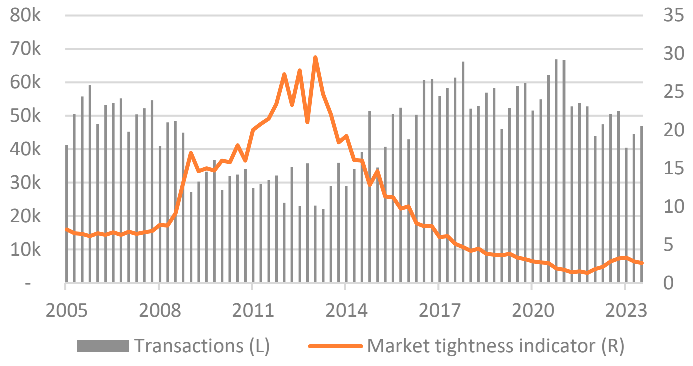
Price development

Source: Land Registry / CBS



Transactions and tightness

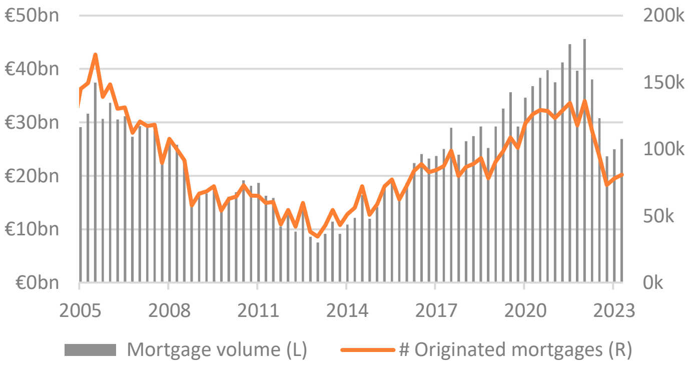
Source: Land Registry / CBS



Dutch Mortgage market

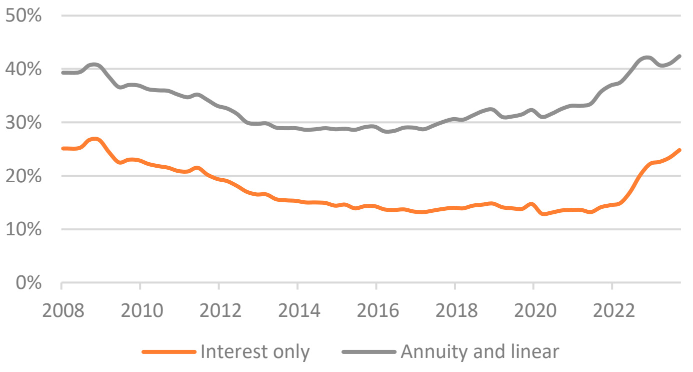
Market volume

Source: Land Registry / DMFCO



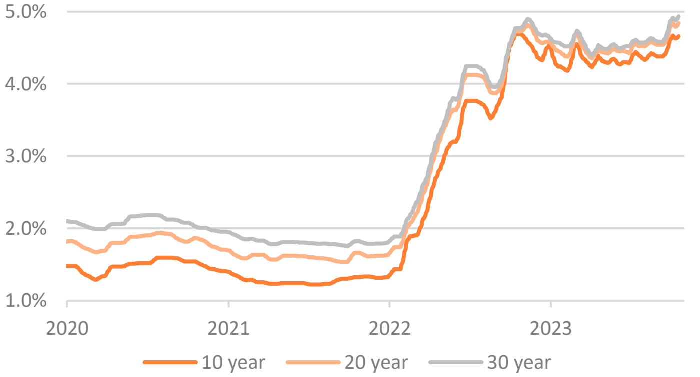
Net income spent on net housing

Source: Calcasa



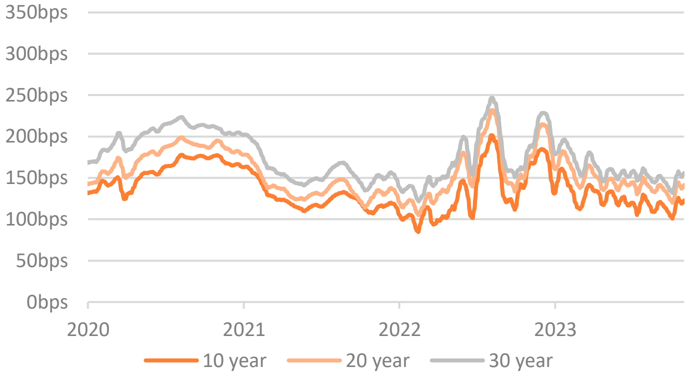
Mortgage rates

Source: DMFCO, end of October



Mortgage spreads

Source: DMFCO, end of October



Please see annex I for an overview of all key indicators

The European Central Bank (ECB) remained hawkish and stated that policy rates will remain 'higher for longer' as inflation persists. Consequently, the ECB raised its policy rate for the eleventh consecutive time in September (4.00%). Meanwhile, weaker economic conditions and financial market volatility become more and more decisive.

After a sharp decline in both mortgage applications and housing transactions, and a sudden drop in house prices at the beginning of the year, the conditions in the housing and mortgage market are slowly but steadily improving. This is reflected in the increasing number of mortgage applications, housing transactions and rising house prices. It appears that the market has established a 'new equilibrium' with volumes lower than in 2020-2022, but very much in line with pre-2020 levels.

Main developments

The economic environment is still challenging with inflationary pressure, higher interest rates, and negative economic growth. However, there are also a number of positive notes as the unemployment rate in the Netherlands remains extremely low, wages have increased significantly, and bankruptcies are below their long term average.

The decline in inflation is generally considered positive for consumers, although it is primarily driven by lower energy prices compared to last year. The consumer price index (CPI), and in particular cost of food, continues to rise. Higher prices for everyday products continue to play a major role in consumers' lives and thus affect their sentiment.

Not only consumers, financial markets are affected too. As financial markets expect higher inflationary levels to persist and the likelihood that the ECB will not lower its policy rates is apparent, not only short term rates are expected to remain higher for longer but also long term rates.

The housing market is slowly improving as the number of transactions increased to 47,000 (+5.5% QoQ). Even though the number of transactions is increasing, the housing shortage in the Netherlands is increasingly becoming a problem. Moreover, this problem is expected to exacerbate due to the limited inflow of new construction which affects the supply side of the housing market. The limited inflow is mainly due to rising construction costs and higher interest rates, which make newly built houses relatively expensive compared to the existing housing stock. In Q3 2023, only 29,000 houses were available for sale according to the Dutch Association of Real Estate Brokers (NVM).

Concerns about newbuild supply not only stem from the slowing pace of construction, but also from the large backlog of granted permits. In the past 12 months (up to August), only 57,000 permits have been granted, and this number is declining.

The downward trend in house prices is slowly reversing as wages have risen significantly, interest rates have remained more or less stable, and the housing shortage is putting upward pressure on house prices. In Q3 2023, house prices still fell on an annual basis (-4.6% YoY), however, on a quarterly basis, house prices are already showing an increase (+1.2%). The same trend is seen in nominal house prices, which rose on average from €407,000 in Q2 2023 to €418,000 in Q3 2023 (+2.7%).

The number of mortgage applications remained relatively stable at a level of 93,000 in Q3 2023. The same holds for mortgage volumes, which increased slightly. The porting option continues to be attractive for borrowers. Data of Q3 2023 shows that porters represent 26% of the new market volume (including mortgage increases) during last quarter.

As the energy efficiency of a property is becoming more and more decisive in the affordability of a house, the Dutch regulator will make adjustments to the lending criteria for mortgages. As of 2024, borrowers have to possibility, when taking out a new mortgage, to borrow up to €50,000 for a more sustainable house. For borrowers, who take out a new mortgage or want to increase their existing mortgage, there will be the possibility to apply for a construction depot for energy saving measures up to €20,000. The rationale behind the new regulation is that households with an energy-efficient house will spend less on energy costs, resulting in a higher income.

Economic indicators

The Dutch economy contracted for the third consecutive quarter as the economic environment remains challenging. However, a low unemployment rate, wage increases and low bankruptcies are expected to keep the economy resilient to further economic downturns.

Economics

In Q3 2023, the Dutch economy fell by 0.2% QoQ (-0.6% YoY), following prior contractions in the first and second quarters of 0.5% and 0.4%, respectively. The most recent contraction is mainly due to a deterioration of exports of goods and services, lower investments and declining household consumption. According to the Dutch Central Bank (DNB), the Dutch economy has entered a situation of stagflation, where economic slowdown is accompanied by high inflation.

According to preliminary figures from the European Union's statistical office (Eurostat), the economies of the twenty countries that share the euro also shrank in Q3 2023 (-0.1% QoQ and +0.1% YoY). The contraction of the economy of the Eurozone is not surprising as industrial output data, the manufacturing purchasing managers index (PMI), and sentiment indicators have been rather detrimental. Weak external demand, consumer caution and high interest rates continue to depress economic activity.

The European survey of corporate purchasing managers reaffirmed a negative view of the financial outlook and expected production levels. They also noted that weak demand for products and services is making it difficult to pass on higher energy prices and increased wages to consumers.

With the eleventh consecutive interest rate hike in September[1], the policymakers' response to curb inflation has remained steadfast. As considerable time has passed since the first rate hike, the effect of the so-called transition mechanism has become increasingly visible with weaker economic conditions in the Eurozone.

This is also one of the conclusions of the Bank Lending Survey. According to this survey, banks in the euro area are tightening their lending standards, while demand for business loans and mortgages is declining. For the Netherlands in particular, this is a cause for concern, as Dutch SMEs are finding it increasingly difficult to obtain financing.

Inflation

Dutch inflation has followed a remarkable path over the past 2 years. While inflation was only 2.7% in September 2021, it rose significantly to 14.5% in September 2022 (driven by higher energy prices), to fall back to 0.2% in September 2023[2].

As mentioned in the previous Quarterly Update (LINK), the Dutch Central Bureau of Statistics (CBS) has changed its method to measure the level of inflation in the Netherlands. Instead of including the prices of new energy contracts in their calculations and thereby overstating actual inflation (old method), they changed their method and included the prices of long term energy contracts to provide a more accurate view (new method).

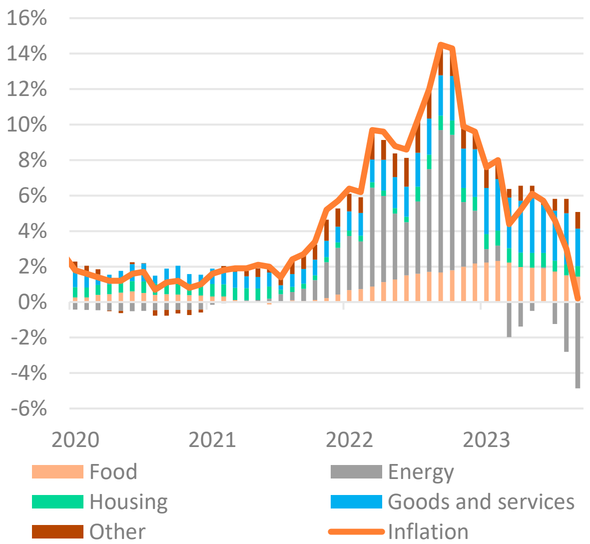


Figure 1: Inflation in the Netherlands, end of September 2023 (Source: CBS)

[1] The European Central Bank kept its policy rate at 4.00% in October.

[2] In October, inflation in the Netherlands was even negative with -0.4% YoY.

While the new method is indeed more accurate, the most recent inflation figures based on the new method are now compared with the overstated figures from the old method to determine the most recent level of inflation, resulting in a distorted inflation figure.

Therefore, it is important to note that the 0.2% figure is not a realistic estimate of the actual level of inflation. This is evident when looking at inflation excluding energy, which was still 5.1% in September. The same can be observed when looking at inflation rates for other categories like food and beverages (+9.3% YoY). Therefore, consumers are still suffering from high inflation, which is also reflected in consumption figures.

Sentiment indicators

Overall consumer confidence[3] remained stable at 61 at the end of Q3 2023 (+0-points QoQ) but improved on an annual basis (+20-points YoY). The overall level is based on economic sentiment, the propensity to buy, the economic and financial situation of households and whether it is a favorable time to make major purchases. In line with the stable trend in Q3 2023, the underlying indicators remain roughly the same as in the previous months.

Confidence in the housing market[3] appears to be recovering slightly, as the indicator rose to 77 at the end of Q3 2023 (+5-points QoQ and -5-points YoY). While the sentiment improved, it is still negative. Affordability remains the most important measure of accessibility and thanks to the stabilization of mortgage rates, combined with lower house prices and significant wage increases, affordability stabilized and did not deteriorated further. Moreover, expectations of future wage increases, and interest rate developments are expected to have a positive effect on affordability for the coming year.

Labor market

The Dutch labor market remains tight with an overall unemployment rate of 3.6% in Q3 2023 (+0.1% QoQ and -0.1% YoY). The strong performance and robustness of the Dutch labor market remain extremely important for the Dutch economy as it provides consumers with a high degree of job security and income.

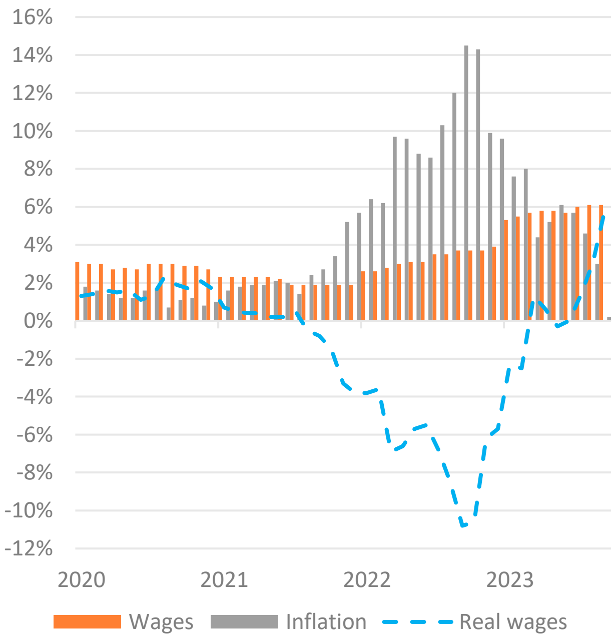


Figure 2: Real wage development, end of September 2023 (Source: CBS)

According to the CBS, wage settlements increased by 6.1% YoY in Q3 2023. Data from the Dutch Employers' Association (AWVN)[4] shows that in September 2023, wage settlements were slightly lower than previous months at 7.2% YoY (7.4% YoY in August). Nevertheless, wage settlements again exceeded inflation.

Despite generous increases in recent months, employers are increasingly concerned that employees will demand new wage increases as inflation remains high and the labor market continues to be exceptionally tight. This fear is fueled by FNV's (largest Dutch labor union) announcement that it will demand full price compensation for its members again.

[3] The indicators range between 0 (negative) and 200 (positive). A value of 100 represents neutral.

[4] The AWVN wage figure indicates the expected wage increases, over the next 12 months, for employees covered by the applicable collective agreement. The CBS collective agreement figures, computed periodically, reflect the implementation of collective agreements.

Retailers, for example, are already struggling with rising labor, energy, and procurement costs, as well as declining demand. Navigating these financial challenges has therefore become difficult for this sector. In addition, more and more companies are experiencing financial problems due to the repayment of support arrangements and deferred taxes from the Covid-19 period. While this government scheme kept companies (artificially) afloat during the covid period, it is now causing financial problems for some of them.

Housing market

The housing market is slowly improving as the number of transactions increases and the downward trend in house prices is slowly reversing. The housing shortage, however, hampers the outlook for future housing transactions.

Transaction volume and housing supply

The number of transactions increased for the second consecutive quarter (5.5% QoQ in Q3 2023). The rising number of transactions is attributed to a recovery in sentiment and future financial expectations, such as further wage increases. Nevertheless, on an annual basis, the number of transactions still fell by almost 7%. On a 12-month rolling basis, the market declined slightly with 183,000 transactions in Q3 2023 compared to 187,000 in Q2 2023 and 195,000 in Q3 2022.

While the increasing number of transactions is a positive sign, concerns are increasing about the lack of supply of newbuilt properties to the market. These concerns primarily stem from the slowdown of the construction of new houses. It is unlikely that the current housing shortage can be resolved in the foreseeable future, especially now the government has collapsed and the near future will be characterized by associated (political) uncertainty.

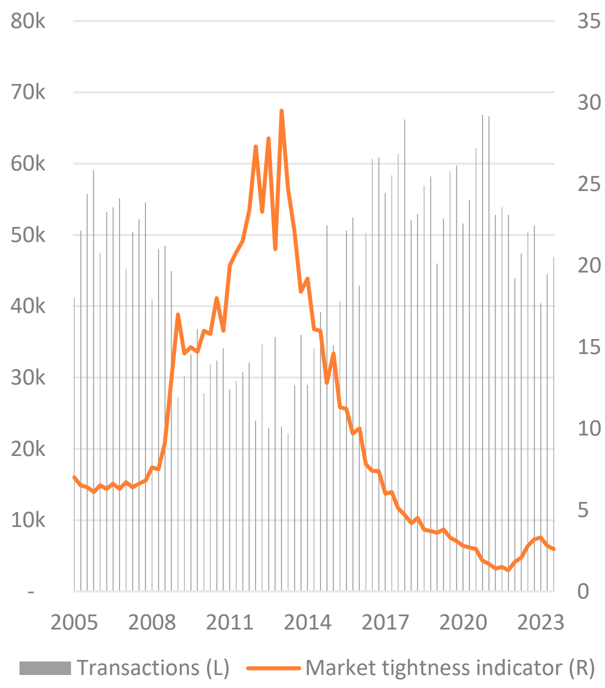


Figure 3: Number of transactions and market tightness, end of September 2023 (Source: CBS & Land Registry)

If the number of transactions is divided into existing and new construction, the problem with newly built properties becomes even more apparent. While the number of existing house transactions improved, the number of transactions for new houses fell sharply, according to the CBS. This is driven primarily by higher interest rates, making it more difficult for buyers to purchase a newly built house, which are typically more expensive. At the same time, developers have difficulties lowering their prices as construction costs increased.

The limited inflow of new construction also affects the supply side of the housing market. According to the Dutch Association of Estate Agents (NVM), the number of houses for sale fell to 29,000 in Q3 2023 (-2%) after several quarters of growth. The decline in supply is only limited, as vacant rental properties are increasingly being sold instead of rented now that the government has made it less financially attractive for private owners to rent out their houses.

With housing supply decreasing, the average time to sell a house has reduced, and viewings are becoming busier. As a result, the percentage of transactions that involve outbidding increased to 45% this quarter (approx. 30% in Q1 2023) according to the NVM.

The current state of supply and demand dynamics is reflected in the market tightness indicator. This indicator measures the ratio of the current number of houses for sale (supply) to the number of transactions (demand). The ratio fell to 2.6 (-0.2 points QoQ) in Q3 2023, indicating that prospective buyers have an average of 2.6 houses on offer to choose from. The reason for the sharp decline in Q3 2023 is that the number of transactions increased more than the number of houses for sale.

New construction and housing shortage

As the end of the year approaches, more can be said about the expected number of granted permits and the number of newly built houses in 2023. So far, only 36,000 permits for new houses have been granted in 2023 (of which 6,700 in Q3 2023). If this trend continues, a total of almost 54,000 permits will be granted in 2023.

A similar trend applies to newly built houses. So far 53,000 new houses have been built in 2023 (of which 19,000 in Q3 2023). This indicates that an estimated total of 71,000 new houses will be built in 2023. Since it typically takes 2-3 years for permits to be converted into newly built houses, it is assumed that the number of newly built houses will decline even further.

Both the number of granted permits and the number of newly built houses are well below the government's target of 100,000 annually. This downward trend in both the number of permits issued and the number of new homes built is a reason for concern. Where newly built houses could solve the short term housing shortage for some people, permits are especially important for long term planning, thereby ensuring housing for people in the future. As both numbers are lacking, it is plausible to expect that the housing shortage will not diminish in the coming years.

House prices

In September, house prices fell by 3.5% YoY for the eighth consecutive month. While house prices continued to fall, the rate of decline is slowing each month and is expected to turn into an increase in the coming months. Reasons for this are the significant increase in wages, improving sentiment and increased pressure on supply.

While house prices are still falling on an annual basis, there are signs of improvement when looking at monthly and quarterly house price movements. On a monthly basis, house prices have been rising for four months, most recently in September by 0.6%. On a quarterly basis, the same applies, as house prices increased by 1.2% in Q3 2023 compared to Q2 2023.

Looking at the nominal value of houses, the trend is more evident. In Q3 2023, the average nominal house price was €418,000 compared to €407,000 in Q2 2023. The reason for the continued annual decline in house prices, rather than an increase, is because house prices peaked at €443,000 in Q3 2022.

Another interesting point regarding house prices is the development of the nominal house price for newly built houses. With a nominal house price of €495,000 in Q2 2023 (compared to €407,000 in Q2 2023 for existing houses), newly built houses are much more expensive. Moreover, the price difference between new and existing houses is diverging.

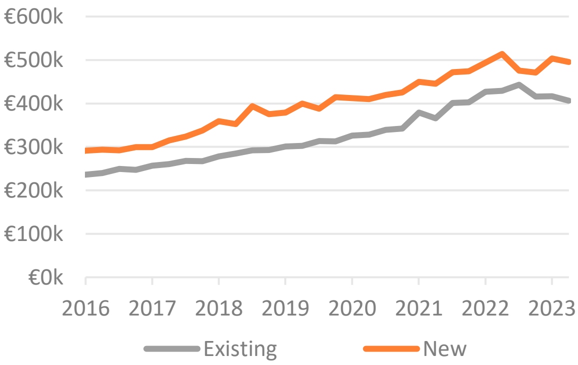


Figure 4: Nominal house prices, end of June 2023 (Source: CBS & Land Registry)

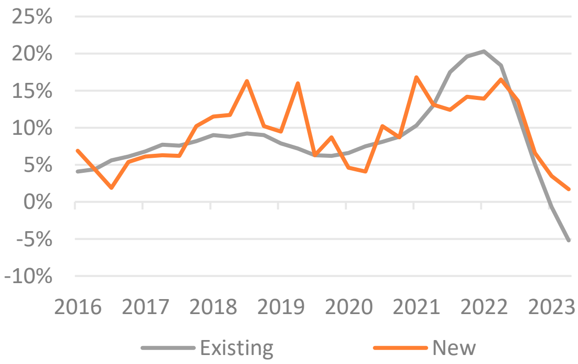


Figure 5: Annual house prices development, end of June 2023 (Source: CBS & Land Registry)

The energy consumption of houses is becoming increasingly important for consumers. For some time now, houses with lower energy labels have experienced greater price declines than houses with better energy labels. This trend might be further strengthened when the energy efficiency of a house is incorporated into the mortgage lending standards next year (see Adjustment of regulation on sustainability

Mortgage market

A new status quo has emerged in the mortgage market with i) mortgage applications at levels of 2018-2019, ii) a stable distribution of different fixed-rate periods and loan-to-values and iii) a market share of porters of 25%.

Mortgage applications

Mortgage applications remained relatively stable in Q3 2023 (-0.3% QoQ). Compared to the most recent drop in Q4 2022 when only 85,000 mortgage applications were registered, this is an increase of 8.9%. In line with the deterioration of the newbuild market, the number of applications for newly built houses fell sharply, from around 3,900 applications per month in 2021 to an average of 2,000 applications per month in 2023. HDN expects that if the number of newly built houses does not pick up sufficiently in the coming years, the turnover within the existing owner-occupied housing stock will be lower.

The market shares of the various fixed-rate periods and loan-to-value categories are stabilising. Over the past quarters, 70% of the newly originated mortgages had a fixed rate period of 10 years or less, while 30% had a fixed rate period of 20 years or more. In the case of loan-to-value categories, the market share of NHG loans is still the largest at almost 40%.

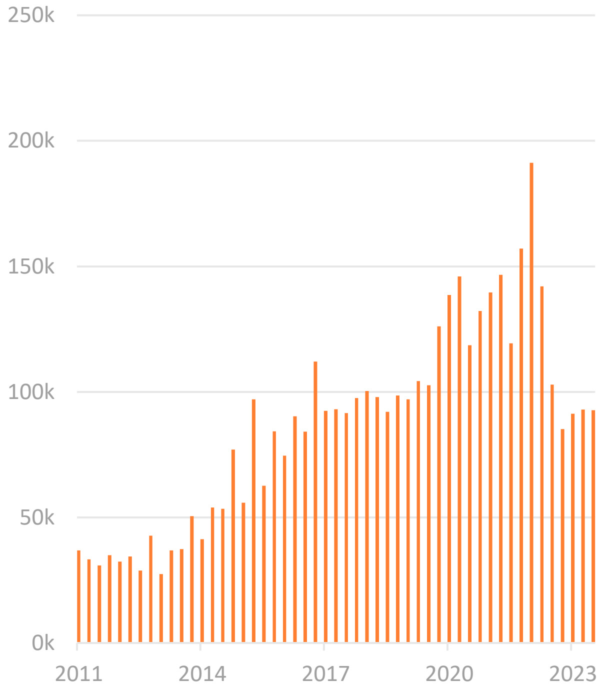


Figure 6: Mortgage applications, end of September 2023 (Source: Land Registry)

The NHG loan category is expected to grow further, as from 2024 the eligibility for the Dutch mortgage guarantee scheme is increased to €435,000 (€461,100 in the case of energy saving measures), allowing more borrowers to take out an NHG mortgage.

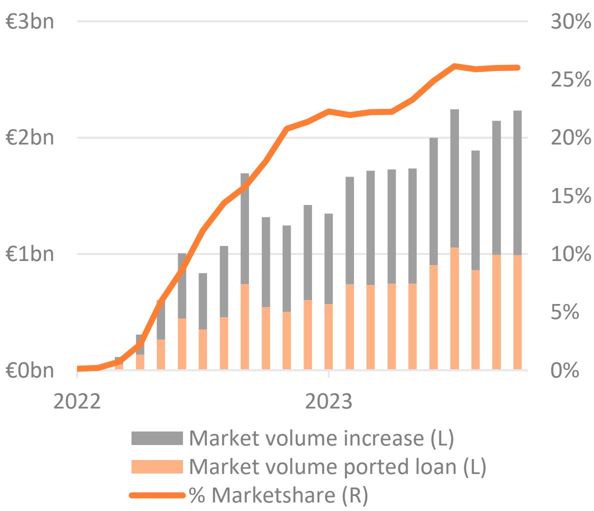


Figure 7: Applications related to porters, end of September 2023 (Source: Land Registry)

The porting option remains attractive for existing borrowers as current mortgage rates remain relatively high. Besides moving houses, porters also tend to increase their mortgage. Taking in account this increase, porters make up for 26% of market application volume. A consequence of porters, however, is that they distort the overall market picture because porters stay with their current mortgage lender and do not enter the market at all, making them unavailable to other lenders.

Number of originated mortgages and market volume

The slight increase in the number of mortgage applications is reflected in increasing market volume. In Q3 2023, the number of originated mortgages increased to 81,000 (+3.8% QoQ and -29% YoY) and mortgage volume increased to 27 billion euros (+7.8% QoQ and -29% YoY).

Comparing the current market volume with historical volumes, the volumes are in line with 2017 - 2018. In this context the record volumes of the past years (2020-2022) appear exceptionally high and uncommon in the Dutch mortgage market. Current volumes suggest a reversion to a more regular market condition and a healthier equilibrium.

Mortgage interest rates and spreads

In line with market expectations, the ECB raised its policy rates again, taking the key rate to 4.0% in Q3 2023[5]. However, one specific phrase in the ECB's statement did resonate with the market.

The ECB stated that policy rates would remain 'higher for longer', indicating that persistent (core) inflation will force the ECB to maintain its restrictive monetary policy, reducing the likelihood of a rate cut in the near future. Following the statement, market interest rates rose to levels not seen in years and yields on both short- and long-term bonds increased. With policymakers signaling the possibility of higher interest rates for a longer period, market participants are starting to believe that policymakers are indeed more concerned with reducing inflation than with the state of the economy.

Uncertainty and the likelihood of a further economic downturn, especially now that the ECB has stated that policy rates will remain higher for longer, led to volatility in the swap rates. As a result, interest rates increased by more than 20 basis points during this quarter. Spreads on Dutch mortgages remained on the lower end due to volatile swap rates and increased competition.

It is also interesting to note that the difference in interest rates between a 10-year, 20-year and 30-year Dutch mortgage is narrowing. As can be seen in the graphs below, the difference in all three cases has narrowed considerably in recent years. The reason for this development is the inverted and flattened swap curve (in the last year).

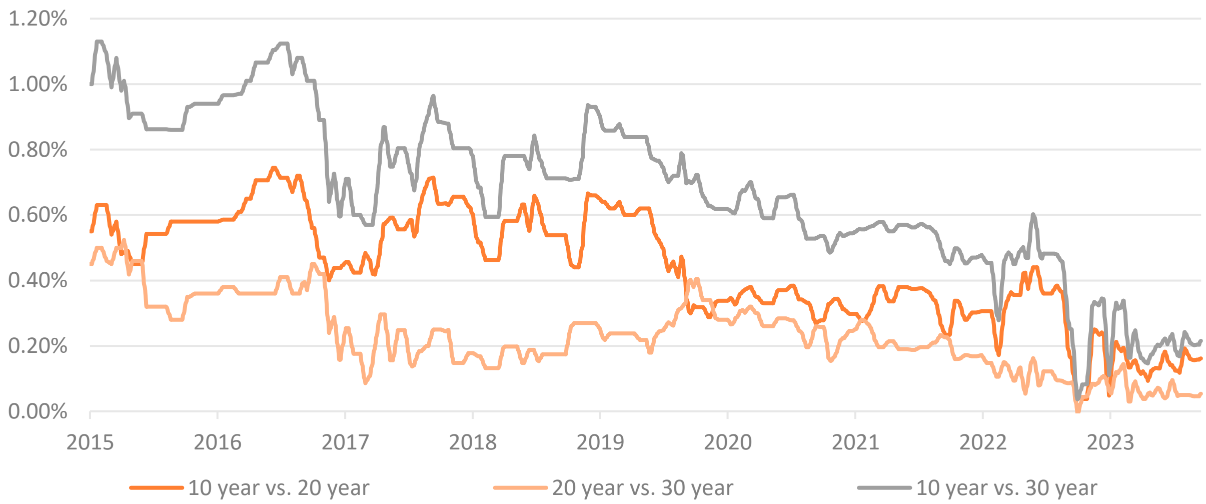


Figure 8: Difference between the 10-, 20- and 30 years mortgage rate (10-day moving average), end of September 2023 (Source: DMFCO)

[5] The European Central Bank kept its policy rate at 4.00% in October.

Adjustment of regulation on sustainability

The Dutch regulator will make the borrowing capacity dependent on the energy label of the underlying property as of 2024[6]. The following points related to sustainability will be incorporated into the regulations for the purpose of mortgage lending as of January 2024.

<u>With regards to taking out a mortgage, the following will apply:</u>
The energy efficiency of a house will be taken into account when calculating the borrowing capacity of the borrower. This means that for the same income, it will be possible to borrow more for a more sustainable house. This could be as much as €50.000 (depending on the energy label). The rationale behind this change is that households with an energy-efficient property have less energy costs, resulting in a higher disposable income. The extra borrowing capacity enables a broader spectrum of potential buyers to acquire sustainable newly built houses.

Energy label	Additional borrowing capacity[7]
A++++ (with energy performance assurance of min. 10 years)	€50,000
A++++ (without energy performance guarantee)	€40,000
A+++	€30,000
A+, AA++	€20,000
A & B	€10,000
C & D	€5,000
E, F & G	€0

<u>With regards to taking out a mortgage or increasing an existing mortgage, the following will apply:</u>
Depending on the energy label of the house (prior to the renovation), house owners can borrow up to a pre-specified amount to invest in energy-saving measures to make the house more sustainable. For example, owners of houses with energy label E or worse can borrow up to €20,000 with a construction depot for energy-saving measures.

Energy label (prior to the renovation)	Additional borrowing capacity[7]
A++++ (with energy performance assurance of min. 10 years)	€0
A++++ (without energy performance guarantee)	€0
A+, AA++ & A+++	€10,000
A & B	€10,000
C & D	€15,000
E, F & G	€20,000
No label	€10,000

Although, it is important that borrowers can opt for a more sustainable house and houseowners with a poorly insulated house should be able to improve the energy efficiency of their house. This regulation will potentially put a greater pressure on the price differences between energy-efficient and energy-inefficient houses.

6 Tijdelijke regeling hypothecair krediet (LINK).
7 Note: the tables are complementary.

Mortgage performance

The Dutch mortgage market continues to perform very well, with stable, low levels of losses and arrears. This downward trend is also noted by the Dutch National Credit Register (BKR).

To provide a projection of losses for the upcoming year in the Dutch mortgage market, public mortgage loan data (European Data Warehouse) is used as input for stress tests in Moody's Portfolio Analyser. The stress tests are based on 4 macro scenarios as described below.

In all scenarios losses are expected to remain very low:

1. **The baseline scenario (S0)** assumes that Russia's invasion of Ukraine does not expand beyond Ukraine and Israel's declaration of war against Hamas does not escalate into a broader regional conflict. Furthermore, high interest rates, negative sentiment, weak manufacturing orders, and a disappointing reopening in China will provide headwinds to growth over the coming quarters. The labour market is expected to remain tight and headline inflation will not fall to the ECB's 2% target before late 2024. Rate cuts are therefore expected to start in the spring of 2024.

2. **The stronger near-term growth scenario (S1)** assumes that the Russia-Ukraine war ends much faster than anticipated as pandemic fears subside. This results in a boost in aggregate demand and expansion of aggregate supply. On the demand side, these positive developments relieve recession concerns, causing an uptick in consumer and business sentiment. On the supply side, improved energy security, a total removal of supply bottlenecks, and efficiency gains driven by EU funding usher in a period of rapid productivity growth. The strong economy eases political tensions, which supports effective reforms and investment.

3. **The Protracted Slump scenario (S4)** assumes that the global economy fails to pick up and sentiment plummets in the euro zone. The risk that the war in Ukraine will escalate to the point where NATO is forced to enter the conflict becomes acute and heightened geopolitical tensions between the U.S. and China lead to significant barriers to shipping. Domestic political risks in the euro zone rise rapidly as populist parties seek to take advantage of disenchanted voters. This severe increase in geopolitical risk, along with a complete lack of confidence in the economy, leads to a sharp selloff in financial markets. Finally, there is a resurgence of COVID-19 with the emergence of a strain that evades vaccines. While it does not lead to widespread lockdowns, social distancing, and associated large drops in economic activity, it does add to negative sentiment and contributes to a decline in consumption. As a result, the economy enters a severe and sharp recession.

Compared to previous updates, the analysis has been extended with another horizon (1 year) and 3 scenario vintages. This is included to provide a more comprehensive view of market developments throughout the year.

		Expected loss (in bps)			Annualised probability of default (in bps)		
Horizon	Scenario vintage	S0	S1	S4	S0	S1	S4
1Y	2022-10	0.23	0.22	0.35	2.63	2.59	2.83
	2023-07	0.23	0.23	0.26	2.63	2.61	2.69
	2023-10	0.23	0.23	0.25	2.62	2.61	2.65
Lifetime	2022-10	1.87	1.85	2.33	15.71	15.43	18.22
	2023-07	1.76	1.73	2.30	14.81	14.45	18.06
	2023-10	1.77	1.73	2.21	14.87	14.53	17.49

It is important to note that the 1Y and Lifetime horizons represent the expected impact of each scenario on the mortgage portfolio over the next year and until the portfolio matures, respectively.

In addition, the scenario vintages are the scenarios as assumed by Moody's at the indicated time and are therefore based on the relevant economic dynamics at that time.

Therefore, it can be concluded that:

- In general, the impact of economic developments over the past year has not led to significant changes in either the expected loss or the probability of default of the mortgage portfolio.
- On a one-year horizon, the mortgage portfolio became more robust as the expected loss and PD decreased in the S4 scenario. This is due to the improved economic outlook over the horizon while the portfolio remains the same. The same is true for the lifetime horizon (in the case of S0 and S1).
- For the lifetime horizon case of S4, it is difficult to analyse the impact because there is a lot of uncertainty in the market. Therefore, the expected loss and the probability of default are higher for the S4 scenario. For the latest projection, the S4 scenario is more severe in the long run.

Annex I: Key indicators

Indicator	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q-o-Q	Y-o-Y
Consumer confidence	41	48	61	61	61	**0-points**	**+20-points**
Housing market confidence	83	73	73	72	77	**+5-points**	**-6-points**
General unemployment	3.7%	3.6%	3.6%	3.5%	3.6%	**0.10%**	**-0.10%**
Inflation	14.5%	9.6%	4.4%	5.7%	0.2%	**-5.50%**	**-14.30%**
Mortgage applications	102,918	85,182	91,341	92,999	92,744	**-0.3%**	**-9.9%**
Mortgage volume (in billions)	€38.05	€30.81	€23.63	€24.96	€26.90	**7.8%**	**-29.3%**
Number of originated mortgages	113,680	94,482	73,178	77,864	80,820	**3.8%**	**-28.9%**
House price index (2005=100)	188.6	184.1	181.2	177.8	180.0	**1.2%**	**-4.6%**
Average purchase price	€443,042	€415,546	€416,786	€406,547	€417,656	**2.7%**	**-5.7%**
Transactions	50,453	51,345	40,437	44,500	46,948	**5.5%**	**-6.9%**
ECB refinancing rate	1.25%	2.00%	3.00%	3.50%	4.00%	**0.50%**	**2.75%**
10-year Dutch Government bond rate	2.44%	2.82%	2.65%	2.74%	3.19%	**0.45%**	**0.75%**
10-year German Government bond rate	2.23%	2.51%	2.31%	2.39%	2.84%	**0.45%**	**0.61%**
10 years mortgage interest rate	4.49%	4.58%	4.27%	4.26%	4.49%	**0.23%**	**0.00%**
20 years mortgage interest rate	4.54%	4.60%	4.37%	4.42%	4.66%	**0.24%**	**0.12%**
30 years mortgage interest rate	4.53%	4.69%	4.43%	4.52%	4.73%	**0.21%**	**0.20%**
10 years mortgage spread	146	137	130	113	106	**-7**	**-40**
20 years mortgage spread	158	152	147	140	126	**-14**	**-32**
30 years mortgage spread	167	168	160	157	138	**-19**	**-29**

Indicator definitions

Indicator	Source	Definition
Unemployment	CBS	The number of people who are between 15 and 75 years old who are not in work but are actively searching for paid work and are directly available to work
Housing market confidence	VEH	A measure of confidence in the Dutch owner-occupied housing market or willingness to purchase a house
Consumer confidence	CBS	Percentage points of the total answers to the questions on the economic situation, the financial situation and whether now is the right time to make large purchases
GDP	CBS	The size of an economy by taking the sum of final uses of goods and services (final consumption/gross capital formation) plus exports and minus imports
House prices	CBS /Kadaster	All sales transactions recorded by Kadaster as well as the municipal valuation of all houses in the Netherlands
Housing shortage	ABF research	The difference between the outstanding demand for housing (demand side) and the available supply
Market share	Kadaster	The market shares of different lenders are determined, based on mortgage registrations provided by Kadaster
Transactions	Kadaster	Number of house sales registered by the Kadaster and conducted by a notary
Market tightness indicator	NVM	An approximation of the number of options that potential buyers have in the housing market. The NVM covers approximately 75% of the market
Mortgage volume	Kadaster	The total annual mortgage turnover together with the total number of mortgages provided annually
Market share	Kadaster	The market shares of different lenders are determined, based on mortgage registrations provided by Kadaster
Newly built properties	CBS	Number of new constructions added to the existing stock, from the Key Register of Addresses and Buildings
granted permits	CBS	Number of granted building permits as documented in the Housing Act
Affordability	Calcasa	The percentage of the net monthly income spent on net housing costs
Mortgage spreads	DMFCO	The difference between the mortgage interest rate and the interest rate on a 7-year swap

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