DMFCO Asset Management

Dutch housing and mortgage market

Q4 2023

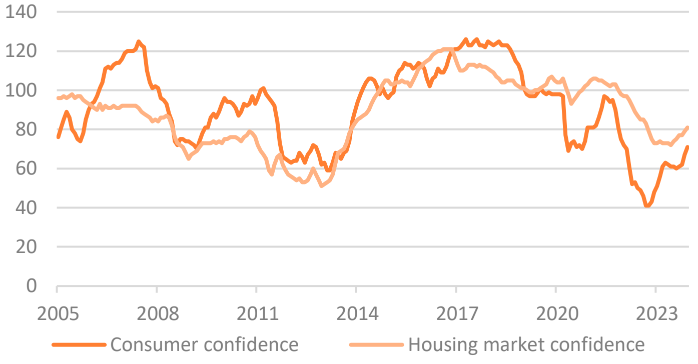
DMFCO
Asset Management

DASHBOARD DUTCH HOUSING AND MORTGAGE MARKET Q4 2023

Economic indicators

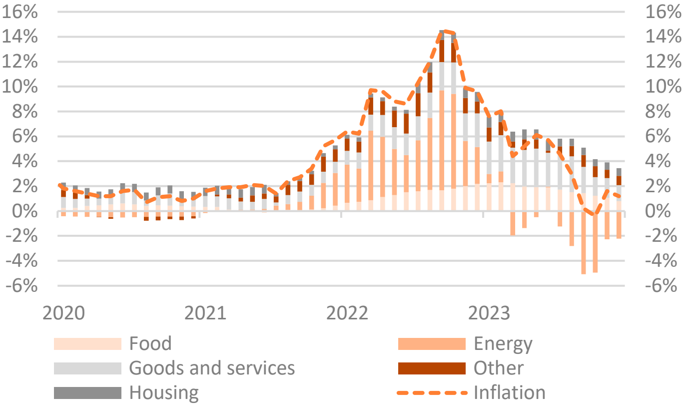
Confidence indicators (100 = neutral)

Source: CBS & VEH



Annual inflation rate

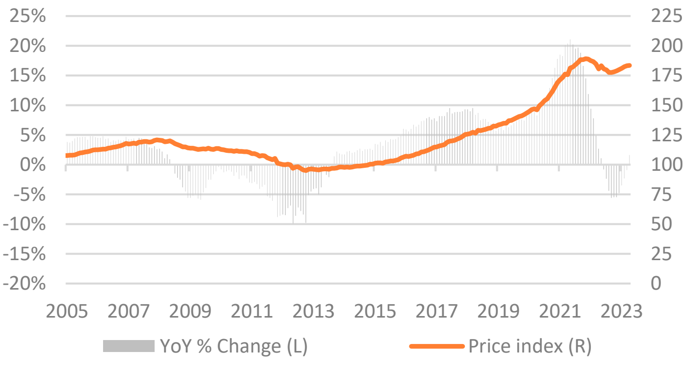
Source: CBS



Dutch Housing market

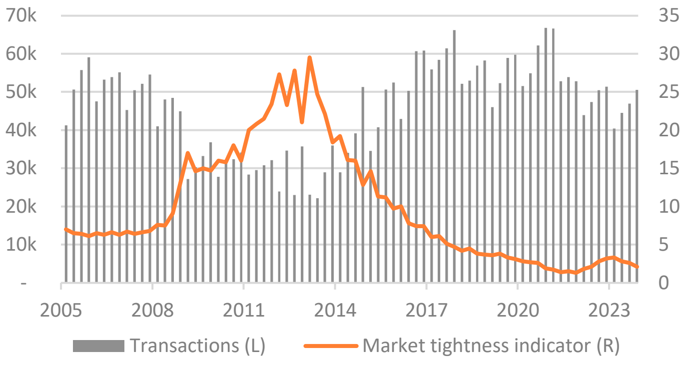
Price development (2015 = 100)

Source: Land Registry & CBS



Transactions and tightness

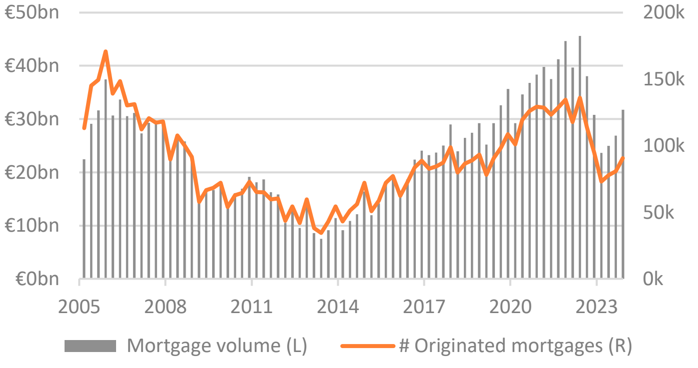
Source: Land Registry / CBS & NVM



Dutch Mortgage market

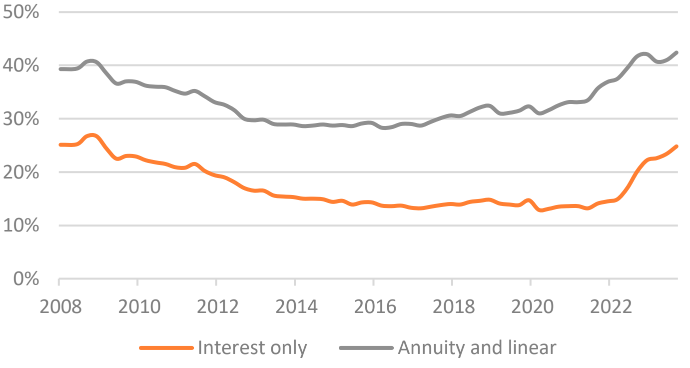
Market volume

Source: Land Registry & CBS



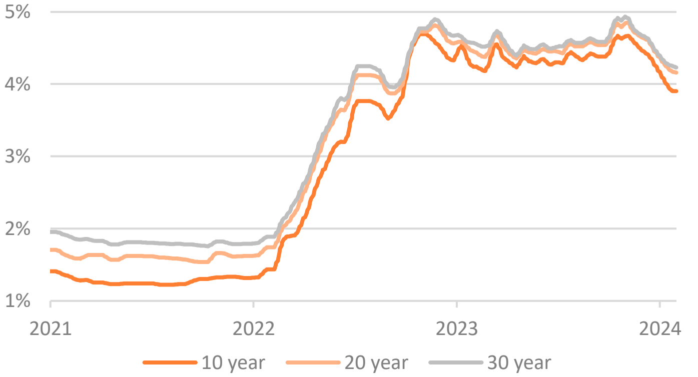
Net income spent on net housing

Source: Calcasa



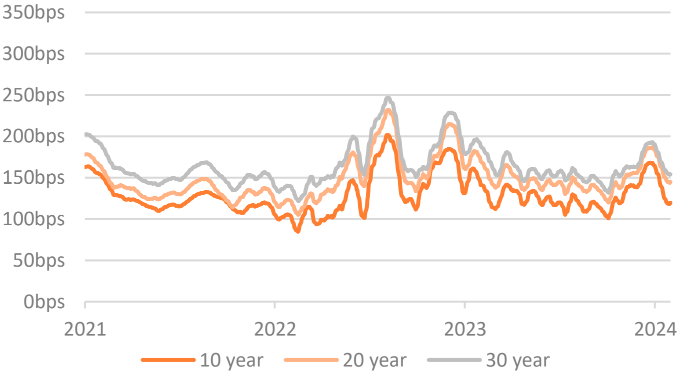
Mortgage rates

Source: DMFCO, end of Jan-2024



Mortgage spreads

Source: DMFCO, end of Jan-2024



Please see annex I for an overview of all key indicators

The European Central Bank's (ECB) restrictive monetary policy continues to affect economic conditions in the Netherlands, particularly in terms of trade and investments. Despite the weaker economic conditions, underlying indicators such as the unemployment rate, the number of bankruptcies and household spending remain exceptionally strong.

Conditions in the housing and mortgage markets improved as wages rose and mortgage rates have come down after a period of stability. As a result, the number of mortgage applications and housing transactions has increased. The increased demand is putting more pressure on available supply, allowing house prices to rise.

Main developments

The Dutch economy improved slightly in 2023 (+0.1% YoY). The modest growth is attributed to a strong recovery in household consumption, which is the result of the tight labour market and the relatively low number of bankruptcies. This provides consumers with a high degree of job security and income, as the tight labour market forces employers to offer higher wages to employees to avoid a loss of purchasing power due to inflation.

Inflation in the Netherlands fell sharply in the course of 2023, reaching 3.8%. The sharp decrease was largely driven by lower energy prices. Other (more persistent) sources of inflation, such as labour costs and food, are therefore no longer overshadowed by energy prices as drivers for inflation.

In 2023, wages increased by 6.1% YoY. This is the highest annual increase in more than forty years and almost twice as high as in 2022. Even though nominal wages increased significantly, inflation-adjusted real wage growth was negative in 2023. Only in the last quarter real wage growth was positive for households with 2.9%. Although wage growth is positive for households, the ECB is concerned about wage developments and their potential impact on inflation (the so-called wage-price spiral). The ECB has stated that wage growth will be the most important driver for a potential rate cut in 2024.

In the housing market, demand increased resulting in more than 51,000 transactions (+7.6% YoY) in Q4 2023, driven by the improved position of buyers and increased housing affordability due to higher wages and lower mortgage rates. On an annual basis, the number of transactions still fell by almost 5.5% from 193,000 (2022) to 182,000 transactions (2023), the lowest level since 2015.

Increased demand has put additional pressure on an already tight supply (25,000 houses for sale). The tight supply is, among others, the result of a limited inflow of newly built properties. The mismatch between supply and demand has put upward pressure on house prices, which rose for the first time in a year (+1.6% YoY in December).

The improved position of buyers is also evident in the mortgage market. Homeowners and (potential) buyers applied for more mortgages (92,000) than in the same period last year (85,000). On an annual basis, however, the number of mortgage applications has fallen significantly, by almost 30%. In absolute terms, the number of mortgage applications fell from 521,000 (2022) to 368,000 (2023).

Mortgage volume fell from the peak years of 2022 and 2021, with 163- and 154 billion euro respectively, to 107 billion euro last year (-30% YoY). Although significantly lower than in previous years, mortgage volume still reached historically high levels, similar volume to those in 2018.

First-time buyers experienced a relatively good year, as they benefited from the government's tightened rules for private investors in the housing market, the increased price ceiling for the transfer tax exemption, and the higher price limit for the National Mortgage Guarantee (NHG). The same goes for people who move house, as they are often able to transfer the favourable mortgage rate of their current mortgage (porting) to their new property. This accounted for an average of 25% of the total volume of applications in 2023.

Despite the uncertain macroeconomic environment, spreads on Dutch mortgages improved by 60 bps in Q4 2023. The asset class continued to perform very well, with stable, low levels of losses and arrears.

Economic indicators

The conditions in the Dutch economy remain uncertain. Albeit with low unemployment rates and a limited number of bankruptcies, the impact on households is rather limited. Higher wages and declining inflation continue to support households' financial stability and level of consumption.

Economics

In Q4 2023, the Dutch economy improved slightly by 0.3% QoQ (-0.5% YoY). On an annual basis, the Dutch economy grew by only 0.1% in 2023, which is significantly lower than in the previous years. The lower growth of economic activity in 2023 was due to higher inflation, a deterioration in exports and lower investments. In contrast to the lower economic growth, household consumption remains relatively high.

The slowdown in trade is a concern as the Dutch economy is heavily dependent on exports. The Netherlands is therefore vulnerable to the decline in economic activity which important trading partners such as Germany, France, and the UK, are currently experiencing . In addition, rising tensions in the Middle East and increasing trade barriers are further pressuring world trade, which was already shrinking.

After its eleventh consecutive rate hike, the ECB decided to pause and further assess the impact on European economies. Although inflation in Europe fell sharply last year, the ECB stated that it was too early to cut its key interest rates, especially as wages are expected to rise in the first half of 2024. This could potentially push up inflation again.

Nonetheless, there are many experts who believe it is likely that the ECB will lower its key rates in 2024. This view is also visible in the financial markets, where current futures pricing suggests that the ECB (and the Fed) will ease later this year. Although it is still uncertain whether the ECB will lower its key interest rates, expectations are already having an impact. As a result of these expectations, the risk free interest rates indeed fell at the end of 2023, thereby improving funding conditions of mortgages for retail clients rapidly as mortgage interest rates decline too.

Inflation

Dutch inflation fell sharply over the course of 2023. With an average of 3.8%, inflation was significantly lower than in 2022 (10%). In the fourth quarter, inflation even reached a negative value with -0.4% in October, meaning there was deflation. Inflation remained low in November and December, at 1.6% and 1.2% respectively. Core inflation, which excludes volatile energy and food prices, also fell more than expected (to 3.1-3.4%[1]).

The strong decline in inflation was mainly due to lower energy prices (with an impact of -2.2%). However, base effects, which occur when prices are compared with those of a year ago, are also important. This was for example the case in October, when there was deflation.

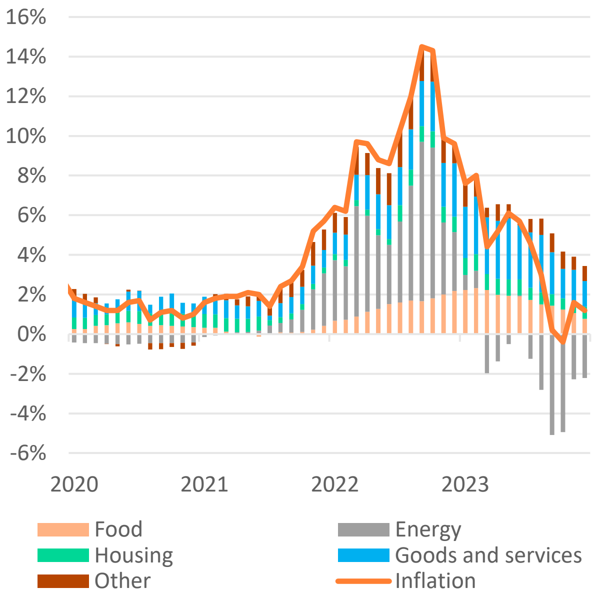


Figure 1: Inflation in the Netherlands, end of December 2023 (Source: CBS)

[1] In the absence of a specific definition, the CBS special aggregates SA20 and SA21 are used by CBS to obtain an indicative measure of core inflation.

As energy prices (and therefore inflation) peaked in October 2022, the year-on-year comparison of inflation levels in October 2023 became misleading. This was because energy prices were much lower in 2023 than in 2022. Deflation in October 2022 was therefore more a theoretical measure, than an actual decline in the general price level of goods and services.

Another reason for the remarkably rapid decline in inflation is the new methodology of CBS to calculate household energy costs. Since June 2023, the costs are based on actual paid bills rather than the price of new energy contracts. Had this method been used earlier, inflation would have been lower in 2022 and higher in 2023[2]. Therefore, the calculated level of inflation deviates from the level households experience.

The Dutch Central Bank (DNB) and the Netherlands Bureau for Economic Policy Analysis (CPB) forecast a continued slowdown in inflation, with levels of close to 3% and close to 4% respectively in 2024. If the actual level of inflation turns out to be in line with the forecasts of the DNB and CPB, it is assumed that the ECB will continue to pursue its restrictive monetary policy.

Sentiment indicators

Overall consumer confidence[3] improved to 71 at the end of Q4 2023 (+10 points QoQ). On a yearly basis, overall consumer confidence improved significantly by +23 points. The overall score is based on economic sentiment, the propensity to buy, the economic and financial situation of households and whether it is a favourable time to make major purchases. Although the overall confidence score is still negative, consumers were less negative on all measures and even positive about their financial situation for next year. This is also reflected in the increasing level of household consumption.

Confidence in the housing market[3] is recovering slightly, as the indicator rose to 81 at the end of Q4 2023 (+4-points QoQ). On a yearly basis, confidence in the housing market improved significantly with +8-points. The improvement in sentiment is the result of lower mortgage rates and a significant increase in wages, both improving borrowers' affordability.

Labour market

The Dutch labour market continues to fluctuate around an overall unemployment rate of 3.5% in Q4 2023 (-0.1% QoQ and -0.1% YoY). The strong performance and robustness of the Dutch labour market remains extremely important for the Dutch economy as it provides consumers with a high degree of job security and income.

According to the CBS, wages increased by 6.9% YoY in Q4 2023. For two years in a row, wage growth has been higher each consecutive quarter. Over 2023, wages rose by 6.1% YoY on average, resulting in the largest annual increase in more than forty years and almost twice the percentage of 2022 (3.1%). Although last year was the largest increase in wages in more than 40 years, real wage growth was negative (-2.1%), making it the second year in a row that wages grew less than prices (a decrease of 6% in 2022).

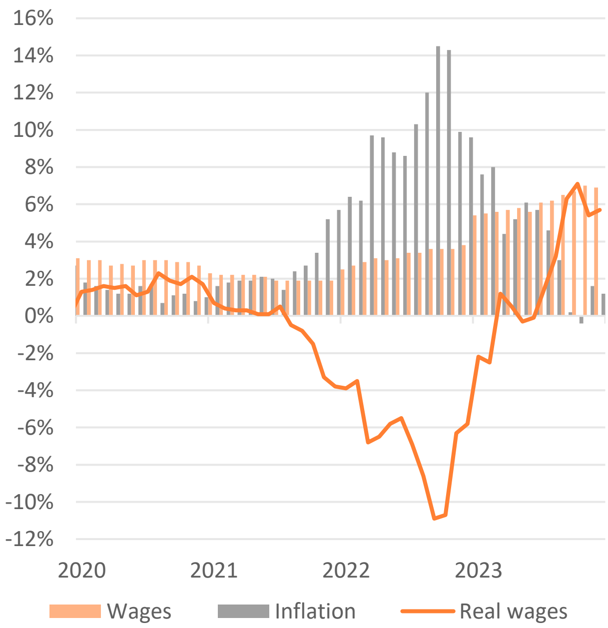


Figure 2: Real wage development, end of December 2023 (Source: CBS)

2 According to Rabobank estimates, the ‘alternative’ inflation should be 7.6% and 9.3% respectively.

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

In Q4 2023, the decline in purchasing power ended as real wage growth was positive (2.9%). Moreover, wage negotiations in the coming quarters are expected to continue to focus on compensating for high inflation, which should have a positive impact on household purchasing power. This is also reflected in the high wage increase (7.3% in 2023) measured by the Dutch Employers' Confederation (AWVN). The AWVN's data typically shows the expected wage increases for employees in the next 12 months.

A well-functioning labour market is strongly related to the number of bankruptcies and the general economic conditions. The current weak macroeconomic environment has already led to an increase in the number of bankruptcies. However, this is largely a catch-up effect from COVID-19. Many already unhealthy (and often smaller) companies that have been kept alive with government support are going bankrupt as they have to repay the support and deferred taxes. Although, the increase in bankruptcies is relatively large (49% YoY), the number of bankruptcies is still limited in historical terms.

Housing market

After a brief period of cooling down, the Dutch housing market is at risk of overheating again. Affordability has improved and demand is rising. Increased demand has put additional pressure on the already tight supply of homes for sale, thereby pushing up house prices.

Transaction volume and housing supply

On an annual basis, the number of transactions fell by almost 5.5% from 193,000 in 2022 to 182,000 transactions in 2023. The number of housing transactions in 2023 is the lowest since 2015.

In contrast to the decline in the number of transactions on an annual basis, the number of transactions has risen for the third consecutive quarter (7.6% QoQ in Q4 2023), albeit at a lower level than before. The rising number of transactions in recent quarters can be attributed to the stronger position of buyers and the improved affordability of houses as a result of rising wages and mortgage rates, which have come down after a period of stability.

The number of transactions for newly built houses is still very limited. This is because new homes are more likely to be in the higher price range, making them less affordable, especially at a time when mortgage interest rates are relatively high.

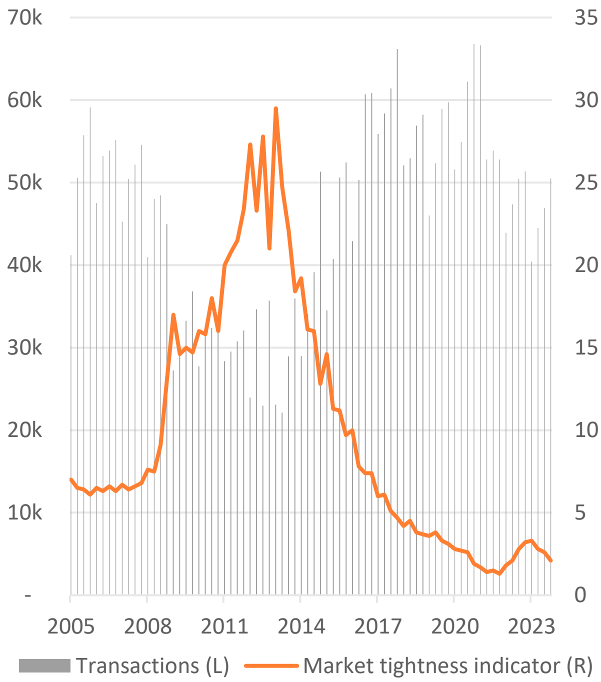


Figure 3: Number of transactions and market tightness, end of December 2023 (Source: CBS / Land Registry & NVM)

Measured over the first three quarters of 2023, only 10,463 newly built houses were sold, making it the tenth consecutive quarter that fewer newly built houses were sold and the lowest number since 2015.

The increased interest among buyers is reflected in a more competitive market. While the number of transactions is improving on a quarterly basis (still lower than in previous years), the supply side of the housing market is deteriorating due to the limited inflow of new homes. According to the Dutch Association of Estate Agents (NVM), the number of houses for sale fell to 25,000 in Q4 2023. Compared to the end of 2022, when there were 35,000 homes for sale, the number has fallen by more than 25%. Although this is not as low as two years ago (just under 20,000 houses for sale), the trend clearly indicates that the market will face more supply side stress. In practice the effect of the tighter housing market manifests itself through potential buyers taking less time to consider buying a home and a higher willingness to overbid on the asking price.

The above supply and demand dynamics are also visible in the market tightness indicator. This indicator measures the ratio of the current number of houses for sale (supply) to the number of transactions recorded (demand). The ratio fell to 2.1 (-0.5 points QoQ) in Q4 2023, indicating that prospective buyers have an average of 2.1 houses on offer to choose from.

New construction and housing shortage

The limited inflow of newly built houses is the result of a continued decline in the number of granted building permits. This is in line with last year's trend, where the number of granted permits fell from 75,800 in 2021 to 64,500 in 2022 and 56,000 in 2023 (of which 15,800 in Q4 2023).

The limited number of permits granted is partly reflected in the number of newly built houses. In 2023, 73,000 houses were added to the housing stock, compared with 74,560 in 2022. Although the decline is small, it is well below the Dutch government's plans to build up to 100,000 houses per year. As the number of building permits granted has continued to fall, it is expected that the number of newly built houses will also fall in the coming years.

The limited number of new houses means that more households will struggle to find suitable housing, thereby limiting the number of transactions. The lack of permits for new houses is also evident when looking at the decline in the number of mortgage applications for new construction last year (from 22,000 in 2022 to 14,900 in 2023).

Unfortunately, the number of new homes built is expected to fall further in the coming years. This is because relatively high mortgage interest rates, a structural shortage of building land, legal delays, and other additional problems such as environmental hurdles will not be resolved in the short term.

House prices

On average, house prices fell by 2.8% in 2023. This was the first time in a decade that house prices went down over a full year. The downward trend in Dutch house prices, however, has reversed in the past months. After rising on a monthly and quarterly basis, house prices rose in December by 1.6% compared to the same period last year. This was the first annual increase in ten months.

The Dutch Association of Real Estate Brokers (NVM) already reported a stronger increase in house prices (5.3% YoY in December). As the NVM typically registers a transaction two to three months before the Land Registry, the figures are often used as an indicator for the Land Registry's future estimates.

A further increase in house prices is likely, especially as this situation of lower mortgage interest rates, higher wages and lack of supply is expected to continue in 2024, thereby causing an upward pressure on house prices.

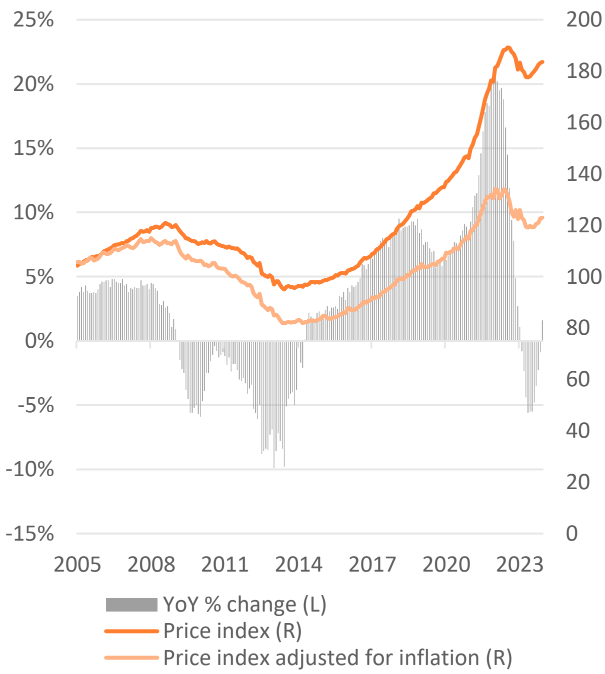


Figure 4: Development of the house price index, end of December 2023 (Source: CBS & Land Registry)

Another incentive for higher house prices could come from new regulations from the Dutch government. As of January, I) single households will be able to borrow an additional fixed amount of €16,000 and II) the maximum lending standards will be eased for some households, especially when buying a new energy-efficient house. In the case of a new energy-efficient house, households will be able to borrow up to tens of thousands of euros more. This new regulation, which focuses on the transition of the housing stock to more energy-efficient houses, could lead to a divergence in prices for different houses depending on the label.

Mortgage market

The mortgage market turned as borrowers benefited from lower mortgage interest rates and higher wages. The strong comeback in the last quarter is not enough to make up for the sharp decline in both applications and volumes in previous quarters, but it does offer a promising outlook for next year.

Mortgage applications

Supported by falling mortgage rates in the last quarter of 2023, homeowners and (potential) buyers applied for more mortgages (92,000) than in the same period last year (85,000). This is the first increase in mortgage applications since early 2022.

The significant rise in mortgage applications in Q4 2023 does not reflect the trend of the entire year. Mortgage applications fell by nearly 30% in 2023, due to high mortgage interest rates that homebuyers faced for much of the year. In absolute terms, the number of applications fell from 521,000 mortgages in 2022 to 368,000 in 2023.

The sharp decline was mainly the result of a strong reduction of refinance driven mortgage origination due to higher mortgage interest rates. The decline in mortgage origination driven by first or second time buyers was somewhat more moderate with only 8% YoY.

For first-time buyers, 2023 was a relatively good year. They benefitted from stricter regulations for buy-to-let investors, the increased price ceiling for the transfer tax exemption (from €450,000 to €510,000) and the higher price limit for the NHG[4] (from €405,000 to €435,000). These factors are also expected to continue to drive activity from first-time buyers on the housing and mortgage market in 2024. With the higher limits, a large part of the housing stock can be financed on favourable terms, increasing the likelihood that first-time buyers will be able to find a suitable home.

The porting option remained highly attractive in 2023 and stabilised at a market share of 25% of the total application volume. The continued attractiveness of the porting option means that a quarter of the application volume is not accessible to other lenders, as porters remain with their current mortgage lender and do not enter the market at all.

Number of originated mortgages and market volume

In Q4 2023, the number of mortgages originated increased to 81,000 (+3.8% QoQ and -29% YoY). Mortgage volume increased to 27 billion euro (+7.8% QoQ and -29% YoY). The strong performance of Q4 2023 is mainly due to a final sprint in December as mortgage rates fell, resulting in the most productive month of 2023. On a yearly basis, mortgage volume in December was more than 10% higher than in December 2022.

The origination volumes of last quarter were not enough to cover the reduction in the number of originated mortgages and mortgage volume in the rest of 2023.

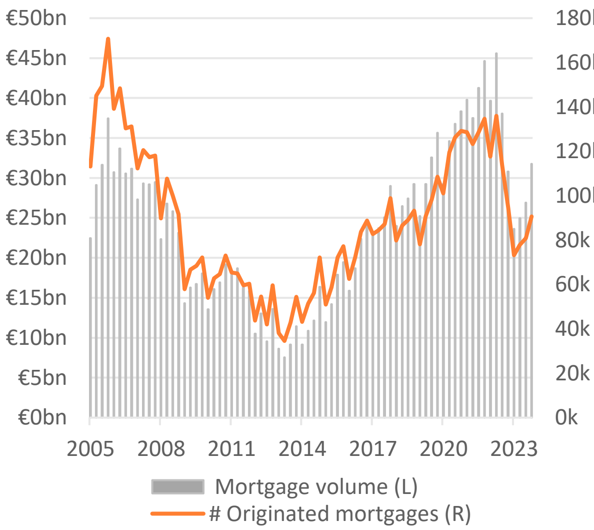


Figure 5: Mortgage volume and number of originated mortgages, end of December 2023 (Source: Land Registry)

[4] Please find the explanation on NHG on their website: NHG

With more than 322,000 mortgages registered at the Land Registry in 2023, the number was almost 30% lower than in 2022. Hence it was the lowest number of originated mortgages since 2016.

The same trend is visible in the volume of mortgages. Mortgage volume fell from the peak years of 2022 and 2021, with 163 and 154 billion euro respectively, to 107 billion euro last year (-30% YoY). While this represents a significant decline, 107 billion euro is still historically high and comparable to the market volume in 2018. An important factor to consider is that as house prices have risen, fewer mortgages are needed for a higher volume.

Mortgage interest rates and spreads

The ECB has held its key interest rate at 4% since September 2023, ending the upward trend. Although the ECB continues to pursue a restrictive monetary policy, financial markets are already speculating on rate cuts as inflation has fallen. Futures pricing at the end of December suggests that the ECB (and the Fed) will cut rates this year.

The optimism in the financial markets about key interest rate cuts in 2024 is already having an effect on market interest rates. While Dutch government bond rates peaked at 3.3% in the first week of October, they fell to 2.2% in the last week of December. This sharp decline was also reflected in lower mortgage rates, thereby improving mortgage affordability for borrowers.

Whether the ECB will cut its key rates is unknown and depends mainly on wage developments over the next six months. In addition to the development of wages, there are a number of other unknown factors, such as global political elections (50 countries and half the world's population will be voting this year) and the ongoing conflicts in Ukraine and the Middle East.

Mortgage spreads benefited from the decline in mortgage rates. While the average spread on a 10-year mortgage (including NHG mortgages) was 104 bps at the beginning of October, it rose to 166 bps at the end of December. A similar increase (of approximately 60 bps) can be seen in the average 20- and 30-year mortgage spreads.

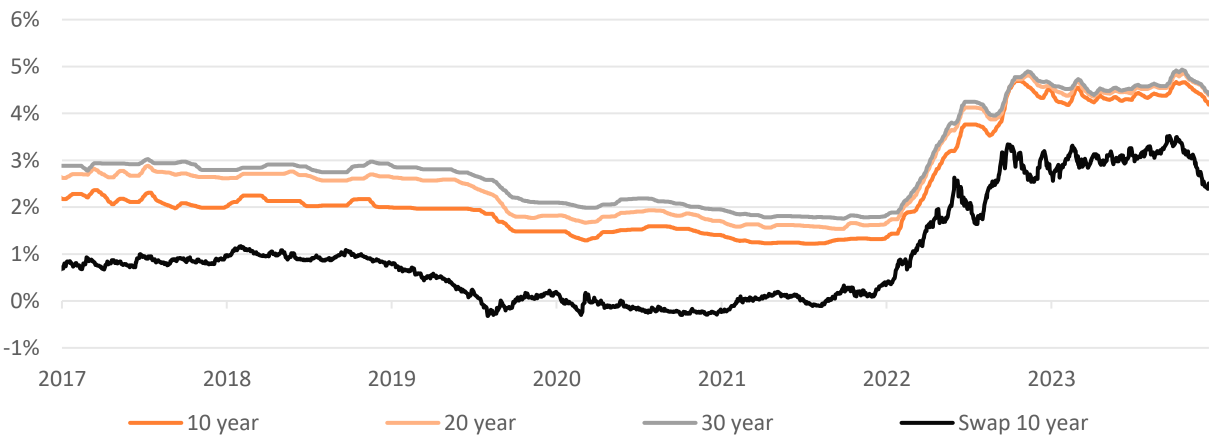


Figure 6: Interest rates on 10-, 20- and 30 years mortgages compared to the 10 years swap rate (10-day moving average), end of December 2023 (Source: DMFCO)

Mortgage performance

The Dutch mortgage market continues to perform very well, with stable, low levels of losses and arrears. The Dutch National Credit Register (BKR) also noted a downward trend in their latest report on payment arrears on mortgages.

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 different scenarios as described below.

In all scenarios losses are expected to remain exceptionally 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, higher 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 summer of 2024.

2. **The stronger near-term growth scenario (S1)** assumes that the Russia-Ukraine war ends much faster than anticipated while pandemic fears subside at the same time. 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. As a result, the economy enters a severe and sharp recession.

		Expected loss (in bps)			Annualised probability of default (in bps)		
Horizon	**Vintage**	**S0**	**S1**	**S4**	**S0**	**S1**	**S4**
1Y	2022-10	0.13	0.12	0.19	1.98	1.94	2.12
	2023-07	0.14	0.13	0.17	2.00	1.97	2.08
	2023-10	0.14	0.13	0.15	2.00	1.98	2.03
Lifetime	2022-10	1.59	1.57	1.76	13.56	13.30	14.43
	2023-07	1.61	1.56	1.93	13.75	13.26	15.75
	2023-10	1.61	1.56	1.89	13.69	13.22	15.54

Please 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.

For Q4 2023 can be concluded that:

- The performance of Dutch residential mortgages have improved compared to Q3 2023. The reason for this is most likely the improved position of borrowers due to rising wages and continued tightness of the labour market.
- 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	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q-o-Q	Y-o-Y
Consumer confidence	48	61	61	61	71	**10-points**	**+23-points**
Housing market confidence	73	73	72	77	81	**+4-points**	**+8-points**
General unemployment	3.6%	3.6%	3.5%	3.6%	3.50%	**-0.10%**	**-0.10%**
Inflation	9.6%	4.4%	5.7%	0.2%	1.20%	**1.00%**	**-8.40%**
Mortgage applications	85,182	91,341	92,999	92,744	91,358	**-1.50%**	**7.30%**
Mortgage volume (in billions)	€30.81	€23.63	€24.96	€26.90	€31.75	**18%**	**3.10%**
Number of originated mortgages	94,482	73,178	77,864	80,820	90,620	**12.10%**	**-4.10%**
House price index (2015=100)	184.1	181.2	177.8	180.0	183.0	**1.70%**	**-0.60%**
Average purchase price	€415,546	€416,786	€406,547	€417,656	€422,712	**1.20%**	**1.70%**
Transactions	51,345	40,437	44,500	46,948	50,518	**7.60%**	**-1.60%**
ECB refinancing rate	2.00%	3.00%	3.50%	4.00%	4.00%	**0.00%**	**2.00%**
Swap rate	3.20%	2.98%	3.01%	3.41%	2.51%	**-0.90%**	**-0.69%**
10-year Dutch Government bond rate	2.82%	2.65%	2.74%	3.19%	2.32%	**-0.87%**	**-0.50%**
10-year German Government bond rate	2.51%	2.31%	2.39%	2.84%	2.03%	**-0.81%**	**-0.48%**
10-years mortgage interest rate	4.58%	4.27%	4.26%	4.49%	4.08%	**-0.41%**	**-0.50%**
20-years mortgage interest rate	4.60%	4.37%	4.42%	4.66%	4.31%	**-0.35%**	**-0.29%**
30-years mortgage interest rate	4.69%	4.43%	4.52%	4.73%	4.33%	**-0.40%**	**-0.36%**
10-years mortgage spread	137	130	113	106	156	**50**	**19**
20-years mortgage spread	152	147	140	126	177	**51**	**25**
30-years mortgage spread	168	160	157	138	183	**45**	**15**

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	Data (seasonally adjusted)on Dutch consumers' sentiment and expectations regarding general economic developments and their own financial situation. At a value of 100, the share of pessimists equals the share of optimists.
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
Transactions	Kadaster	Number of house sales registered and conducted by a notary
Market tightness indicator	NVM	An approximation of the number of houses for sale per potential buyer 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 based on mortgage registrations
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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