# ACHMEA MORTGAGES

## Quarterly Update Q2 2024

achmea
Mortgages

# Table of contents



COVER PHOTO: Oostenburg, Amsterdam

# 1. Summary Q2 2024

## Highlights

- In the second quarter of this year, swap rates increased, with the exception of maturities of 1 year or less.
- In line with the higher swap rates across most maturities, mortgage rates increased in the second quarter.
- The mortgage principal increased to €268,000 (Q1 2024: €256,000).
- Average mortgage amount was €252,000 (Q1 2024: €255,000).
- Numbers of foreclosures decreased slightly to 20 (Q1 2024: 22).

## Company profile

Achmea Mortgages is the mortgage asset manager within Achmea, holding an AIFMD license. With a history of over 60 years, Achmea Mortgages has been managing assets for institutional investors. By the end of 2023, Achmea Mortgages manages over €29 billion in Dutch mortgages on behalf of more than 50 pension funds and other institutional investors under the brand names Centraal Beheer Leefhypotheek, Syntrus Achmea Hypotheken, and Attens Hypotheken. We do this jointly with Achmea Bank and Centraal Beheer, enabling homeowners' needs for carefree living, across all our brands and products.

## Update

In the second quarter of this year, swap rates increased, with the exception of maturities of 1 year or less. Rates for maturities of four years and longer rose by an average of around 20 basis points.

In line with the higher swap rates across most maturities, mortgage rates increased in the second quarter. This occurred across nearly all fixed-rate periods, with an average increase of ten to fifteen basis points depending on the fixed-rate period and risk category. Mortgage rates thus followed the increase in the underlying swap rates. As is often the case, this occurred with some delay and not proportionally across all fixed-rate periods. Hence, credit spreads continued to decrease in the second quarter.

According to Mortgage Data Network (HDN) 120,000 mortgage loan applications were registered in the second quarter, which is a slight increase compared to the first quarter of 2024. Mortgage applications increased with 30% in Q2 2024 compared to the Q2 2023. This is in line with a recovery in the housing market and therefore an expected higher turnover for 2024 in the housing market.

## Outlook

- Higher turnover in the mortgage market is expected for 2024 in line with increased activity in the housing market.
- House prices continued to rise in the 2nd quarter. As mortgage rates have stabilized and wages have increased substantially, the affordability has improved. Given the positive outlook for the economy, low unemployment rate and limited supply of new constructions, a further rise in house prices is expected going forward.
- The economy seems to have stabilized in 2024, however, unemployment is expected to remain low and thus resulting in limited credit risk in 2024.

# 2. Mortgage Market Update

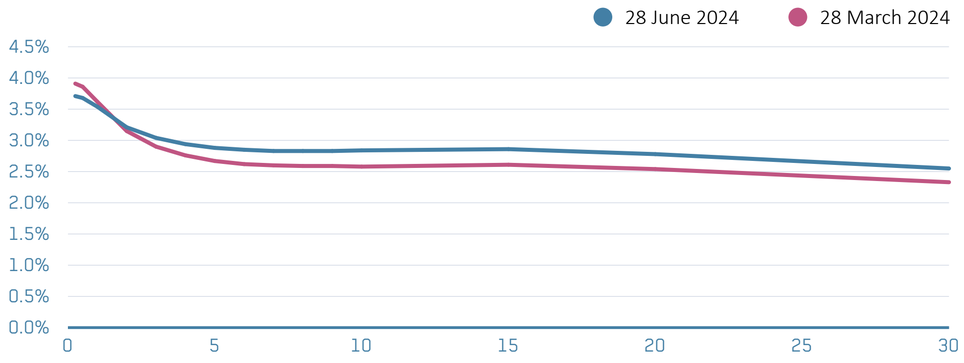
## INTEREST-RATE MARKET

In the second quarter of this year, swap rates increased, with the exception of maturities of 1 year or less. Rates for maturities of four years and longer rose by an average of around 20 basis points. This led to a steepening of the yield curve, although the majority of the curve remains inverted. Only the segment between 10 and 15 years shows a slight upward trend of a few basis points. Ultimately, the rate for 30 years remains the lowest point on the curve.

In June, the ECB implemented its first interest rate cut since the rate increases in 2022 and 2023 as a result of the energy crisis and associated inflation peaks. The deposit rate was reduced from 4% to 3.75% which thus explains the decrease in very short-term maturity interest rates.

**EURO SWAP CURVE**

Source: Achmea Mortgages




With this move, the ECB clearly signalled that inflation is structurally lower than last year and the need for restrictive rate policy is diminishing. Given that the ECB had already clearly communicated this signal, the rate cut came as no surprise to financial markets.

At the same time, the ECB's target of around 2% inflation has not yet been achieved. The preliminary figure for June stood at 2.5%, which was actually a tenth of a percent higher than that of the previous quarter. Additionally, European core inflation, which excludes volatile food and energy prices, remained unchanged compared to the previous quarter. The preliminary figure for June was 2.9% (source: Eurostat).

The ECB cited this stagnant decline in inflation as one of the reasons to temper expectations of further interest rate cuts in the near future. This is one of the reasons why longer-term interest rates actually rose during the quarter. Another factor was nervousness in financial markets due to the outcome of the European elections, prompting President Macron to call for new French elections.

### Mortgage rates and margins

In line with the higher swap rates across most maturities, mortgage rates increased in the second quarter. This occurred across nearly all fixed-rate periods, with an average increase of ten to fifteen basis points depending on the fixed-rate period and risk category. Even the one-year fixed-rate mortgage saw a slight average increase of several basis points, despite the decline in swap rates for that term.

The average rate (based on the top 10 providers) for a 10-year fixed-rate mortgage with NHG (National Mortgage Guarantee) rose by seven basis points, from 3.69% to 3.76%. Similarly, the average rate (based on the top 10 providers) for a 30-year fixed-rate mortgage with an LtV of 100% increased by fifteen basis points, from 4.21% to 4.36%.

Mortgage rates thus followed the increase in the underlying swap rates. As is often the case, this occurred with some delay and not proportionally across all fixed-rate periods. In this instance, mortgage rates rose slightly less than the underlying swap rates. Consequently, margins continued to decrease. This decline, similar to the margin decrease observed in the first quarter, is a delayed reaction to the significantly increased margins in the fourth quarter of 2023.

The margin on a 10-year fixed-rate NHG mortgage decreased from 112 basis points to 96 basis points in the second quarter. The margin on a 30-year fixed-rate LtV 100% mortgage decreased from 170 basis points to 163 basis points.

Following a further decline in the second quarter, margins are now more aligned with the average of recent years. We anticipate that margins may continue to decrease slightly in the coming months. Mortgage rates will move up or down in line with swap rates, but the difference will diminish.

## Number and distribution of mortgage loan requests

According to Mortgage Data Network (HDN) 120,000 mortgage loan applications were registered in the second quarter, which is a slight increase compared to the first quarter of 2024.

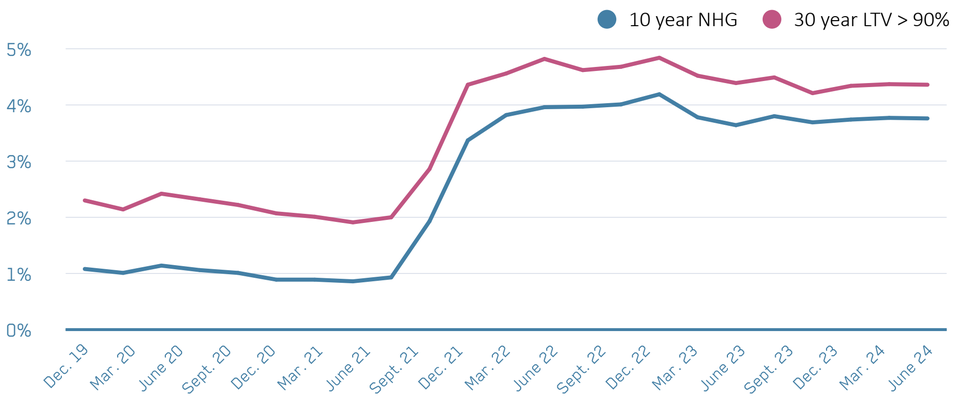
Within the total number of mortgage loan applications, about 75,000 can be assigned to the buyer's market (starter and trade-uppers). Almost 30% of these requests are from mortgagees who use the portability option of their mortgage loan. In the non-buyer's market (refinances and other) there were 45,000 requests. Compared to the same quarter a year earlier the proportion of refinances has increased with 33% to 8,000 requests.

## Development of mortgage loan principal (requests)

The average mortgage loan principal, the amount that the mortgagee wishes to finance, for buyers is €361,000 in the second quarter of 2024, which is an increase of 4% compared to the first quarter. The value of the underlying house that is to be mortgaged in the buyers' market also increased to €487,000 in the second quarter. This is an increase of more than 4% compared to the first quarter. This growing market value of houses in the buyers' market can be attributed to rising wages combined with stabilizing mortgage rates and a tight housing market.

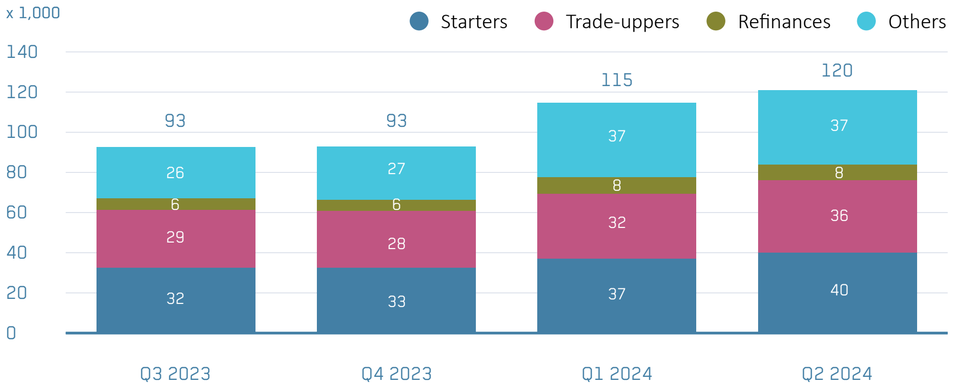
### MORTGAGES RATES

Source: Achmea Mortgages




### DISTRIBUTION OF MORTGAGES TYPES

Source: HDN, Syntrus Achmea adaptation (2024)



The average loan principal of non-buyers also increased to €113,000. The total mortgage loan principal, averaged at around €268,000 in the second quarter of 2024. This is an increase of 5% compared to the first quarter (€253,000). This change is mainly due to the shift in the distribution of mortgage loan types (see previous paragraph).

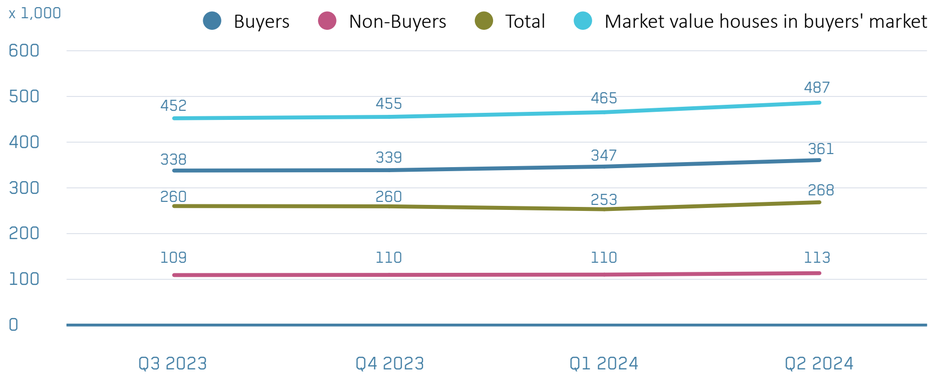
## Market size of granted mortgage loans

HDN figures show that around €21.0 billion in mortgage loans were granted this quarter (Q1 2024: €18.0 billion). The average mortgage principal of the granted mortgages was €252,000 (Q1 2024: €255,000). This principal amount follows the average mortgage loan principal of an application (previous paragraph) due to a lead time of several month between the application and the passing of a mortgage loan.

## Number of foreclosure sales and unemployment rate

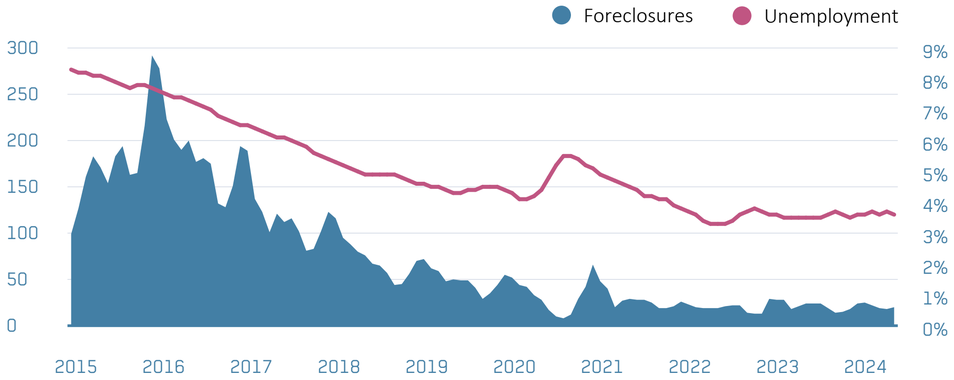
At the end of May, the number of foreclosure sales, based on a 3-month moving average, decreased slightly to 20 per month[1] (February 2024: 22). From a historical perspective, this number remains very low. The unemployment rate also remains low with an average of 3.6% (source: CBS). This limits the chance of a foreclosure, because mortgagees are better able to meet their obligations.

**MORTGAGE LOAN PRINCIPAL AND MARKET VALUE HOUSES**




Source: HDN, Syntrus Achmea adaptation (2024)

**NUMBER OF FORECLOSURE AUCTIONS** (3 MONTH MOVING AVERAGE)




Source: CBC and Dutch Land Registry with Syntrus Achmea edit (2024)

[1] Land Registry foreclosure sales figures are one month behind.

# 3. Housing Market Update

## HOUSE PRICES CONTINUE THEIR UPWARD TRAJECTORY IN THE 2ND QUARTER

House prices increased by 7.2 percent in the second quarter of 2024 compared to the first quarter. Only once before in 29 years has such a high increase occurred. Compared to a year earlier, prices rose by 13.6 percent. This is evident from figures from the Dutch Association of Realtors (NVM). The number of transactions increased by 18 percent compared to the first quarter, as did the supply, which increased by 25 percent. There are seasonal influences here: In general more homes are put up for sale in the spring months. The shortage indicator remained stable: a potential home buyer still has a choice of 2.4 homes. A year ago this was still 2.7.

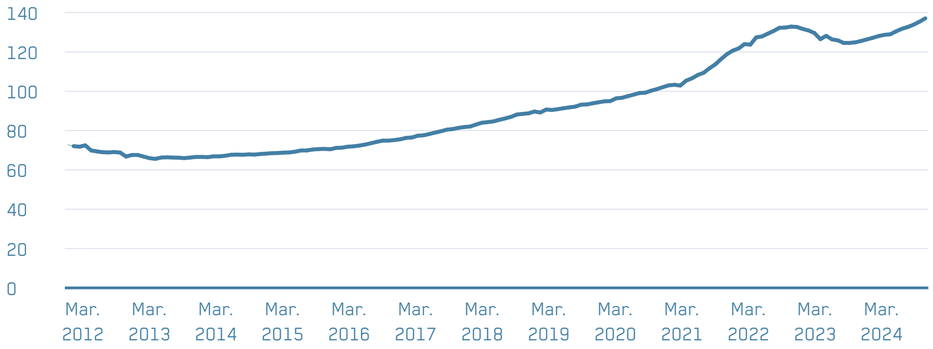
The NVM figures are based on the average transaction price and provide a rough, but current indication of house price developments. The price index for existing owner-occupied homes (PBK) from Statistics Netherlands and the Land Registry provides a more accurate but delayed indication. The 2nd quarter of 2024 shows an increase of 3.3% compared to the previous quarter (Q1 2024). Compared to a year earlier, prices rose by 9.8%.

The Eigen Huis market indicator, which shows consumer confidence in the housing market, has shown an upward trend since 2023. In June it rose further to 90 points, the highest level since July 2022 (100 is 'neutral' on a scale of 0 to 200).

After house prices bottomed in May 2023, house prices have now increased 10.0% cumulatively at the end of Q2 2024. The index is now 3.2% above the previous peak of July 2022 at an all-time high at the end of Q2 2024.

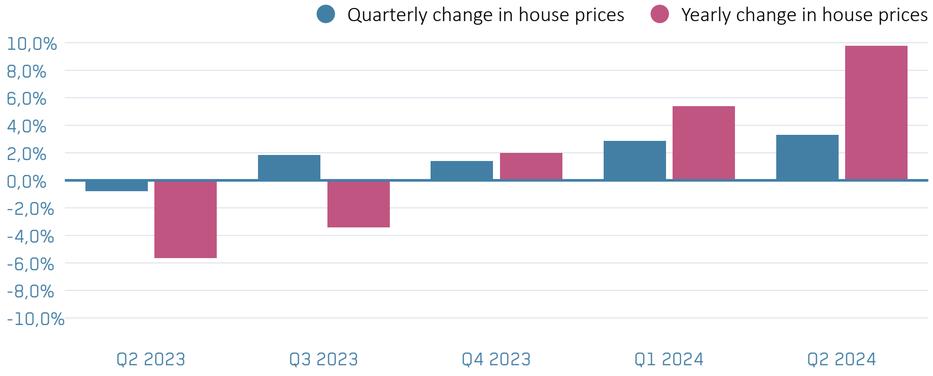
HOME PRICE INDEX

Source: CBS, Achmea Mortgages




HOUSE PRICE CHANGE

Source: CBS, Achmea Mortgages

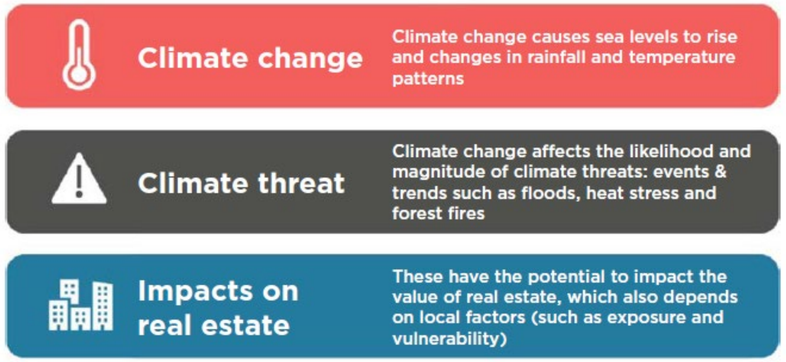


# 4. Climate Risks in Mortgage Portfolios

## INTRODUCTION TO THE CLIMATE SCAN

In 2021, the first climate scan of Achmea Dutch Residential Mortgage Fund portfolio was conducted in collaboration with CAS (Climate Adaptation Services). CAS specializes in combining knowledge about climate change with communication and visualization techniques. They achieve this by publishing climate maps, which can detail potential risks at the level of postal code and house number.

The scan, similar to the one conducted in 2021, was performed to identify the potential impact of climate changes on the portfolio. The following framework was used to define climate risks:




## Climate Scan Overview

### Introduction

The findings presented in this climate risk assessment are estimates based on scientific research. It is important to note that these estimates do not correspond to exact financial damage figures. The purpose of this scan is to assess potential risks, which can then be used for the development of mitigation strategies and inform our clients. The initial step is gaining insight, followed by exploring possible mitigating actions. The results presented are for the mortgage portfolio of the Achmea Dutch Residential Mortgage Fund.

This report covers four climate-related risks:

1. Heat Stress
2. Water logging
3. Drought
4. Flooding

## Risk Assessment Methodology

For each category, risk assessments are made by combining general data from the national climate atlas with specific (address-level) data of the over 56,000 properties within the Fund's mortgage portfolio.

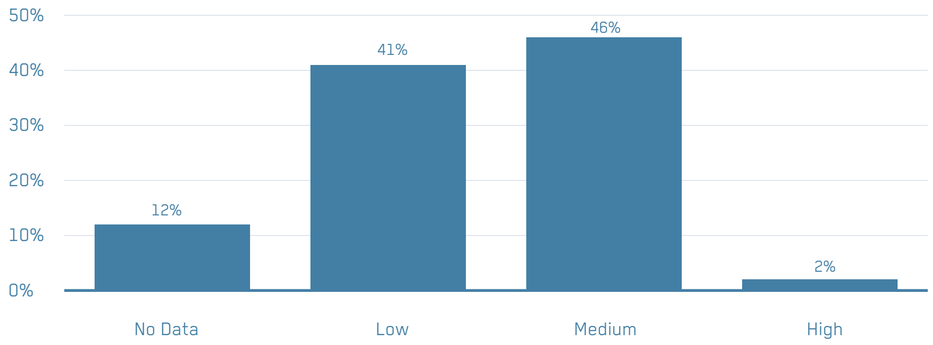
# HEAT STRESS

Heat stress primarily occurs in urban areas with high building density, where materials like concrete tend to retain heat. This phenomenon, known as the urban heat island effect, increases the demand for cooling. High outdoor temperatures, depending on building design, can cause heat stress for occupants, potentially leading to symptoms such as fatigue, difficulty concentrating, and headaches. Severe cases can result in dehydration, overheating, and even fatalities. For instance, during the heatwave in July 2019, nearly 400 more deaths than usual occurred in one week. The urban heat island effect exposes residents who remain in these areas around the clock to increased heat.

To calculate a climate risk score, it is necessary to analyze both area and building characteristics. Area analysis might include the extent of surface paving, while building characteristics could involve window orientation, room layout, and insulation levels. The susceptibility to heat stress particularly emphasizes building features. However, specific building attributes are not included in this analysis due to lack of data.

The chart below displays the heat stress outcomes for the portfolio.

### PORTFOLIO EXPOSURE TO HEAT STRESS: TOTAL PORTFOLIO




## Clarification

### Tropical Nights and Health Risks

Tropical nights, where temperatures do not fall below 20°C, are generally considered an indicator of health risks. In the modeling for this analysis, the urban heat island effect has been taken into account. The map used to predict heat stress risks is based on temperature measurements from Rotterdam, extrapolated to the rest of the Netherlands. Consequently, the map primarily indicates the frequency of hot nights in urban areas.

The low percentage (2%) of properties classified as 'high risk' for heat stress in the portfolio is primarily due to the majority of properties being located outside the four major cities in the Netherlands.

### MEANING OF LABELS

| | Environment score | Description |
|---|---|---|
| Heat stress from warm nights | None | No data |
| | Low | <2 weeks (<14 nights above 20°C) |
| | Medium | 2-3 weeks (14-21 nights above 20°C) |
| | High | >3 weeks (>21 nights above 20°C) |

### Comments

The above table proposes a classification for the environmental score related to heat. It is challenging for the researchers to precisely define the boundaries between low, medium, and high risk. For the time being, these thresholds are based on expert judgment. Ongoing research may lead to further refinement of this classification in the future. The specific value for the number of hot nights or the environmental score at a particular location can be determined based on an address point.

This value may warrant further investigation into the effects for specific areas of concern. Whether or not heat stress ultimately occurs depends on local vulnerability. For instance, areas with many well-insulated new buildings and a higher population of elderly residents are more susceptible.

## FLOODING

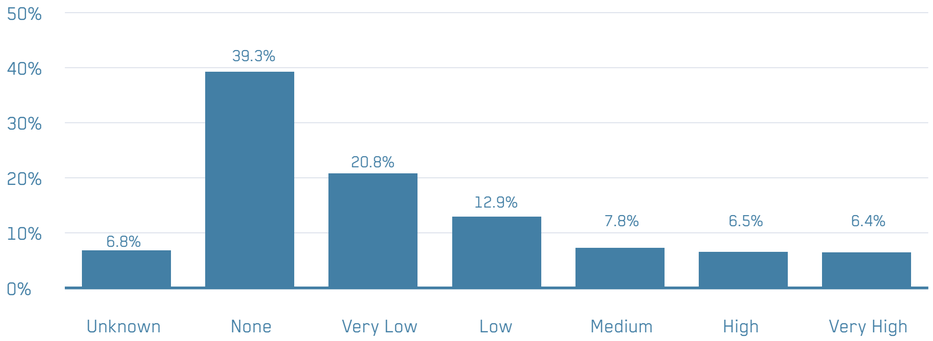
### Flooding: Short-term precipitation (70 mm in less than 2 hours)

Flooding caused by heavy rainfall, sometimes accompanied by thunderstorms, hail, and wind gusts, occurs throughout the Netherlands. This type of flooding can result in damage to homes, buildings, and greenhouses, as well as issues such as flooded or damp basements and mold growth. It can also lead to wood rot or disruptions in electrical supply. According to the KNMI'14 scenarios, the amount and intensity of extreme precipitation are increasing in the winter, as well as the intensity of summer rain showers. Hail and thunderstorms are also becoming more severe. The latest KNMI model simulations indicate that the most intense rain showers, with precipitation exceeding 50 mm per hour, are intensifying the most (STOWA, 2019). This means that heavier rainfall is occurring more frequently within shorter periods, leading to a higher risk of flooding.

We can identify three types of flooding:
- Flooding due to short-term heavy precipitation (more common in the summer)
- Flooding due to prolonged precipitation (usually in the winter)
- Groundwater flooding

The environmental score for flooding is assessed using various data layers:
- Water depth during intense rainfall - 70 mm/2 hours (1:100-year event)
- Groundwater flooding, based on an index
- Soil subsidence due to elevation changes from 2020-2050
- Projected risk of groundwater flooding in 2050 (High)
- Average Highest Groundwater Level based on current insights

**EXPOSURE: WATER NUISANCE FROM SHORT-TERM HEAVY RAIN SHOWERS**
(MORE COMMON IN SUMMER)




**WATER NUISANCE FROM SHORT-TERM HEAVY RAIN SHOWERS**

| Environment score | Description |
|---|---|
| None | No data |
| Very Low | ≤ 10 cm water depth |
| Low | > 10-15 cm water depth |
| Medium | > 15-20 cm water depth |
| High | > 20-30 cm water depth |
| Very High | > 30 cm water depth |
| Unknown | Construction year > 2012 |

**Explanation**

- Approximately 12.9% of the portfolio is susceptible to flooding from short-term intense rainfall, with water depths exceeding 20 cm in these risk categories.
- If these risks materialize, there is a possibility that the sewer system may become overwhelmed, leading to water entering residential properties.
- The vast majority of the portfolio faces no or minimal risk of flooding.
- Water depth maps were recorded between 2007 and 2012. Buildings constructed after 2012 do not have this information and are labeled as 'Unknown.'
- Damage can vary widely, from none to extensive. While such damage is often insurable, it can involve significant personal distress.

## Flooding Due to Prolonged Rainfall

Prolonged rainfall can lead to flooding by filling up the drainage system, causing rainwater to accumulate in puddles on land. This can result in streams and rivers overflowing. Damage from prolonged rainfall is generally insurable. However, damage from rivers or inland waters overflowing due to failures or breaches of primary flood defenses is not covered.

## Graph of Damage from Groundwater Flooding

The graph on the right illustrates damage resulting from groundwater flooding.

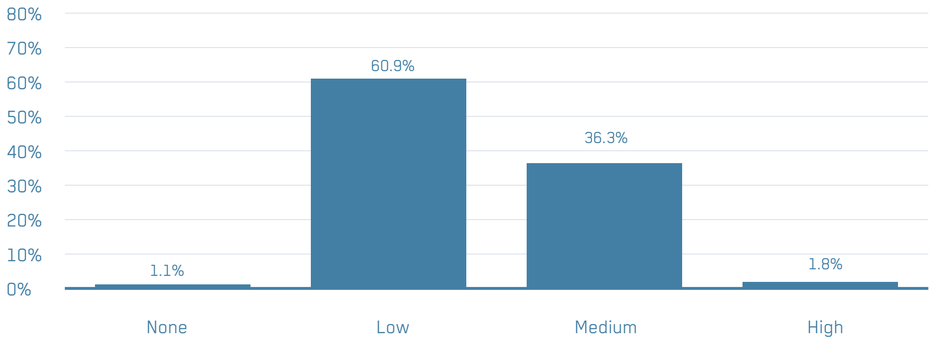
## Environmental Scoring for Groundwater Flooding

The environmental score displayed here is determined using three maps. The sum of the scores from these three maps yields the total groundwater flooding score shown in the graph. The maps used are:

- Groundwater Flooding Development
- Average Highest Current Groundwater Level
- Soil Subsidence Due to Elevation Changes

Each of these maps provides an index score of either 0 or 1. If all three maps for an area have an index score of 1, the total index score becomes 3, which is represented as high in the graph.
The table on the right shows index scores and their corresponding environmental scores.

**EXPOSURE: GROUNDWATER NUISANCE**




**GROUNDWATER FLOODING**

| Index Score (Sum of 3 Maps) | Environmental Score |
|---|---|
| 3 | High |
| 2 | Medium |
| 1 | Low |
| 0 | None |

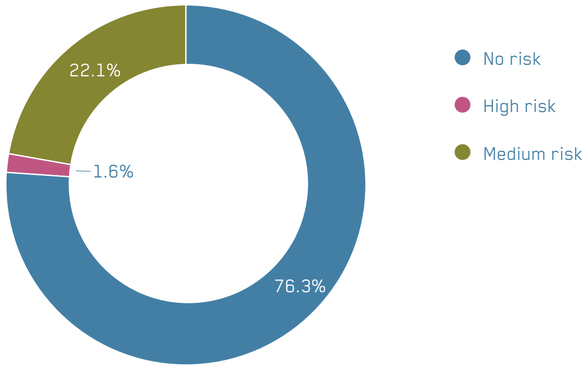
# DROUGHT

Drought impacts buildings in several ways. Extended periods of dryness increase the risk of events such as wildfires. Drought can also cause uneven subsidence of the soil, known as differential settlement. This refers to variations in texture, structure, water content, and load, leading to different degrees of soil compaction during dry periods, which can cause cracking in buildings. Additionally, prolonged low groundwater levels can damage wooden pile foundations of buildings, as the pile heads may rot when exposed to oxygen due to low groundwater levels. This results in damage to buildings, foundations, sewer systems, access roads, and green spaces. The environmental score for drought is determined using three data layers:

## 1. Wildfire Sensitivity

The number of wildfires in the Netherlands is increasing, especially in the spring. While human activity is the primary cause of wildfires, prolonged drought increases the risk of ignition. Predicting the intensity and duration of a wildfire with a recurrence interval is complex. Therefore, a sensitivity map has been developed to indicate the likelihood of wildfire occurrences. This map is based on data related to flammable materials, climate-specific, and location-specific characteristics.

RISK OF WILDFIRE




The sensitivity map covers nature and agricultural areas throughout the Netherlands. Agriculture is included due to the occurrence of fires in these areas. Large urban areas and water bodies are not included.

### Explanation

Based on a specific address point, the precise risk value for that location can be determined. The designation ‘No Data’ means that there is no wildfire risk data available for that location from the model. These areas are assigned the value ‘None’ for the environmental score due to insufficient data to assign a risk score.

The vast majority of the portfolio faces no risk of wildfires. Only a small portion of the portfolio is located in areas where there is a potential wildfire risk.

## 2. Pile Rot Risk

It is estimated that between 750,000 and 1,000,000 buildings in the Netherlands have wooden pile foundations or foundations on steel in areas with clayey and peaty subsoil. These buildings are susceptible to drought. The costs for substantial repair work or a new foundation can reach up to €120,000 per building. Since around 1975, many buildings on weak subsoil have been constructed on concrete pile foundations, which are much less susceptible to damage. However, the foundation of a building or block of buildings may consist of multiple foundation types. The potential issues depend not only on the type of foundation but also on the construction quality, and variations in soil composition and groundwater levels at the building scale.

The piling rot risk map provides an indication of the risk of piling rot at the neighborhood level up to 2050, considering significant climate change. It is based on two underlying maps: the percentage of wooden piles and the vulnerability. The vulnerability map gives a relative indication of the likelihood of problems: if a building in the area is on a wooden pile foundation, there is a risk of damage.
An index is calculated based on these maps.

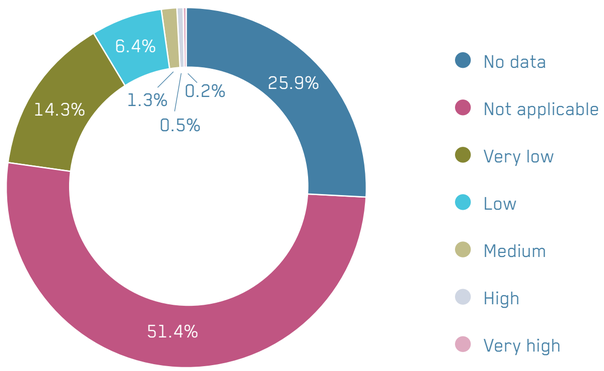
The summary is as follows:

## Piling Rot Risk Map Structure

The piling rot risk map provides an indication of the risk of piling rot at the neighborhood level. It is constructed from two underlying maps: the percentage of wooden piles and vulnerability. A high-risk score can have multiple causes. It may indicate that a relatively high number of buildings on wooden piles are located in a neighborhood with a low to average expected damage level in 2050. Alternatively, it could mean that although the percentage of buildings on wooden piles is low, those buildings might still have a high average damage potential. High average damage receives a greater weight in the risk assessment due to disproportionately increasing repair costs. National data usage introduces a high degree of uncertainty in the results.

Therefore, the piling rot risk map primarily serves as a warning tool. In cases of high or very high risk, a local assessment of the foundation type and the local soil and groundwater conditions is necessary.

POTENTIAL SUSCEPTIBILITY TO PILING ROT




**Explanation**

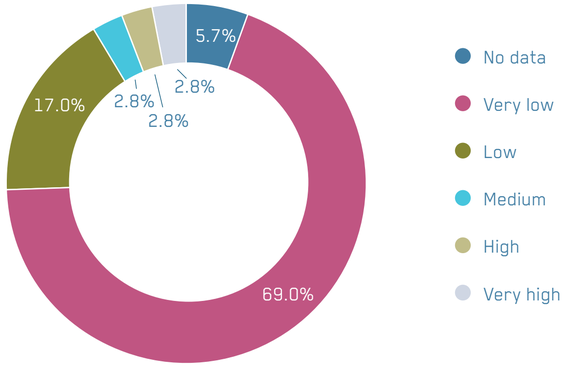
Approximately 2.1% of the portfolio may be susceptible to piling rot based on these maps. However, this does not indicate the actual risk. To determine the actual presence of piling rot, a local excavation would be required to conclusively assess the condition.

## Risk of Differential Settlement

Buildings constructed before 1975 with shallow foundations (‘on steel’) on subsoil containing peat or clay are prone to differential settlement. This means they may settle unevenly due to subsidence or shrink-swell behavior (the alternation of soil shrinking and swelling under a building). Increased drought due to climate change can exacerbate this effect. Additionally, these buildings, as they settle with the soil, can be vulnerable to groundwater flooding. Buildings with shallow foundations constructed after 1975 are less susceptible to differential settlement due to advancements in construction methods. Vulnerability to groundwater flooding is not included in this analysis, and there is insufficient information on damage caused by shrink-swell behavior to incorporate it effectively. As with piling rot, whether problems arise depends not only on the foundation type but also on the construction quality and variations in soil composition and groundwater levels.

The differential settlement risk map provides an indication of the risk of differential settlement at the neighborhood level for buildings with shallow foundations up to 2050, considering significant climate change. This risk assessment is based on two underlying maps: the percentage of shallow foundations and vulnerability. Vulnerability indicates the relative expected damage in 2050. An index is calculated based on these maps.

**POTENTIAL SUSCEPTIBILITY TO DIFFERENTIAL SETTLEMENT**




**Explanation**

The differential settlement risk map provides an indication of the risk of differential settlement for buildings with shallow foundations due to soil subsidence up to 2050, under significant climate change. The map is constructed from two underlying maps: the percentage of buildings with shallow foundations and vulnerability. The vulnerability map shows the average damage level for buildings with shallow foundations in each neighborhood by 2050, considering significant climate change.

A high risk score can result from several factors:

- High Percentage of Shallow Foundations: There may be a relatively high number of buildings with shallow foundations in an area with a low to average expected damage level.
- High Expected Damage: A low percentage of buildings with shallow foundations might still be associated with high expected damage in 2050.
- Combination of Factors: Both of the above factors or a combination of them may contribute to a high risk score.

Due to the reliance on soil subsidence projections, not all areas are included in the analysis, such as South Limburg. In regions where shrink-swell behavior of clay soils may cause damage, such as the river areas, the maps may have higher uncertainty.

Approximately 7% of the buildings in the portfolio are at risk of differential settlement. The vast majority of the portfolio is less or not susceptible to differential settlement.

## FLOODING

Climate change is causing sea levels to rise. In the 20th century, sea levels rose by about 20 centimeters, and this trend is expected to continue, possibly at an accelerated rate. Between 2006 and 2018, the sea level rise along the Dutch coast was 3.7 mm per year.

If greenhouse gas emissions are not reduced, sea levels off the Dutch coast could rise by up to 1.20 meters by 2100 compared to the beginning of the century. If parts of the ice sheets become unstable, this could increase to 2 meters. River discharge is also expected to rise due to climate change. Recent studies and climate scenarios indicate that the discharge of the Rhine in winter is increasing, primarily due to increased precipitation and higher temperatures, which reduce the amount of water retained as snow. The discharge in the Meuse basin could also increase. Flooding can have significant consequences, including damage to buildings.
The extent of the damage depends on the depth of flooding, the speed at which an area floods, and the duration of the flooding.

To prevent an increase in flooding risk in the Netherlands, the protection level of dikes is regularly reviewed. The environmental score for flooding is determined based on two data layers.
The selection of these layers and their classification are based on conservative assumptions, in line with national policy. The failure probability is relatively high due to conservative estimates based on the principles used for standardizing and assessing flood defenses. While there are data available that provide a more suitable basis for investment decisions, these are not yet publicly accessible. There is an ambition to make these data publicly available in the future.

The analysis is based on two data layers:

- Maximum Water Depth Map for Overstroomik.nl (2021)
- Location-Specific Flood Risk 2050 20cm

These layers utilize a risk matrix framework, which distinguishes between the probability and consequences of flooding events, aiming to differentiate events with varying probabilities and impacts.

## Example of a Water Risk Profile

Based on Overstroomik.nl, a water risk profile can be created at the address level. An example of the water risk profile for a random address is provided on the right.

These water risk profiles are created for the entire portfolio and are combined with location-specific flood risk data. The profiles indicate the maximum water depth, and together with the flood risk data, they provide a comprehensive assessment of flood risk.

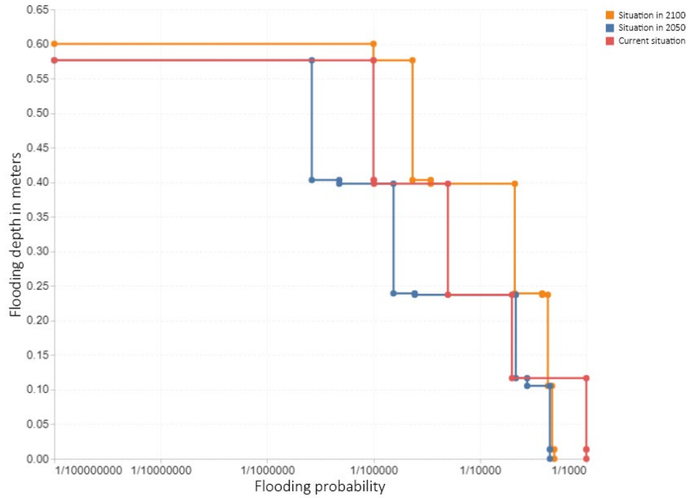
## Flood Risk Assessment for the Portfolio

The flood risk for the portfolio is presented based on the previous descriptions. This assessment combines the maximum water depth profiles with location-specific flood risk information to evaluate the overall flood risk.

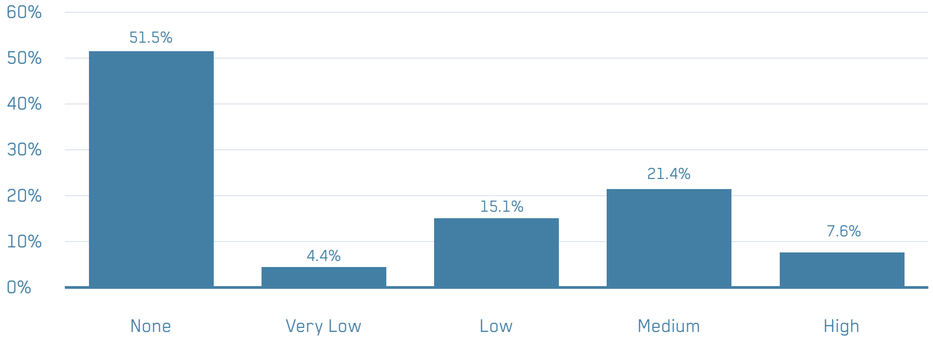
### SITE-SPECIFIC FLOODING PROBABILITY OF MORE THAN 20 CM IN 2050

| Environment score | Description |
|---|---|
| None | No data |
| Very low | >1/3,000 per year |
| Low | between 1/300 – 1/3,000 |
| Medium | between 1/30 – 1/300 per year |
| High | >1/30 per year |

### WATER RISK PROFILE FOR A RANDOM ADDRESS




### WATER DEPTH IN RELATION TO SITE-SPECIFIC FLOODING PROBABILITY

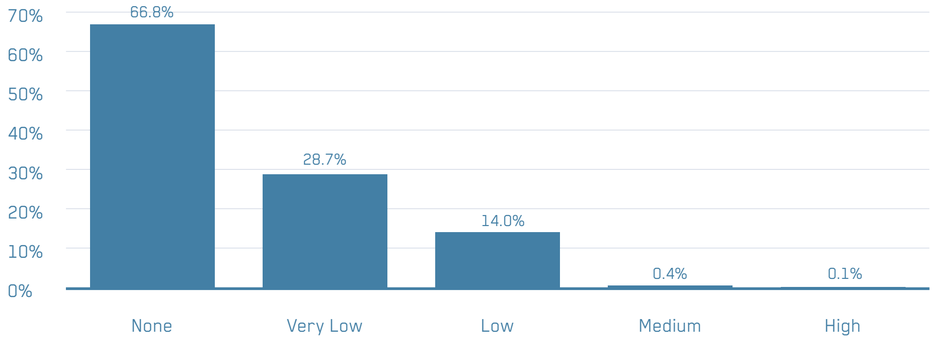


## Combining Flood Risk Data

To assess flood risk, both data layers must be combined. This is accomplished using a flood risk matrix, which integrates the two data layers: flood probability and maximum water depth.

The flood risk matrix below demonstrates that, even in scenarios with high local flood probability and high maximum water depth —conditions under which the greatest impact is anticipated— the overall flood risk is virtually negligible.

### SITE-SPECIFIC FLOODING PROBABILITY




## Flood Risk Matrix

The matrix combines flood probability and maximum water depth to evaluate the overall flood risk. Despite high values for both parameters, the assessment indicates that the risk of flooding is minimal.

### FLOODING RISK MATRIX

| Maximum water depth | Site-specific flooding probability | | | | |
|---|---|---|---|---|---|
| | None | High | Medium | Low | Very low |
| None | 51.3% | 0.0% | 0.0% | 0.0% | 0.1% |
| High | 0.1% | 0.0% | 3.6% | 0.2% | 3.7% |
| Medium | 0.3% | 0.0% | 7.2% | 0.1% | 13.8% |
| Low | 0.8% | 0.0% | 3.2% | 0.1% | 11.0% |
| Very low | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% |

## CONCLUSION

The climate scan analysis provides insight into the risks that may impact the mortgage portfolio and the extent to which it might be affected. However, there is significant uncertainty in estimating these risks. Consequently, the climate scan is intended only to offer a general understanding of potential risks.

For instance, if a dike were to fail tomorrow, it would undoubtedly have a substantial impact on the portfolio due to such an event. The economic consequences for the affected region would also be considerable. This makes it very challenging, if not impossible, to quantify the potential losses in the portfolio from such an event.

# 5. Mortgage Market in Numbers

| Indicator | Q2 2023 | Q3 2023 | Q4 2023 | Q1 2024 | Q2 2024 |
|---|---|---|---|---|---|
| General unemployment[2] | 3.5% | 3.6% | 3.5% | 3.6% | 3.6% |
| Inflation[2] | 5.7% | 0.2% | 1.2% | 3.1% | 3.2% |
| Number of originated mortgages[3] | 77,864 | 80,82 | 90,62 | 78,605 | 91,058 |
| Mortgage applications[3] | 92,999 | 92,744 | 92,779 | 115 | 120,228 |
| Foreclosures[1] | 73 | 43 | 72 | 56 | 60 |
| Price index (2020=100)[1] | 124.9 | 127.2 | 129.0 | 132.7 | 137.1 |
| Energy label known[3] | 57.2% | 58.3% | 58.6% | 87.6% | 90.3% |
| Energy savings measures[3] | 14.7% | 13.5% | 14.1% | 16.8% | 16.1% |

Source: [1]Kadaster, [2]CBS, [3]HDN

# Contact details - Investment Management Mortgages Team

## Fund Management


**Ido Esman**
Senior Manager
M +31 (0)6 12 17 37 39
E ido.esman@achmea.nl

**Rajesh Sukdeo**
Portfolio Manager
M +31 (0)6 22 02 15 56
E rajesh.sukdeo@achmea.nl

**Saskia Duits**
Portfolio Manager
M +31 (0)6 22 14 24 34
E saskia.duits@achmea.nl

**Egbert Buitink**
Portfolio Manager
M +31 (0)6 16 04 39 82
E egbert.buitink@achmea.nl

**Robert-Jan Reitsma**
Portfolio Manager
M +31 (0)6 54 75 65 47
E Robert-Jan.Reitsma@achmea.nl

**Abdel el Amrani**
Portfolio Manager
M +31 (0)6 51 85 95 80
E abdel.el.Amrani@achmea.nl


For further information www.achmeamortgages.nl



achmea
Mortgages