DYNAMIC CREDIT

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Contents

Dutch Housing Market Update 2022 Q1

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Dynamic Credit originates and manages tailored portfolios of Dutch residential and consumer BTL mortgage loans for institutional investors in an easy, cost-efficient and transparent way. As always, we welcome the opportunity to discuss the housing market or investing in Dutch mortgages.

"The mortgage market has been defined by significant rate increases over this first quarter. Across the market, increases of almost 1.5%-point are observed year-to-date. Our quarterly report zooms in on these and other macro-economic developments that impact the asset class. In addition, we have updated our affordability index, cover the latest developments on the BTL market, energy poverty and the housing shortage. And finally, a case study on Dutch mortgages under solvency II regulation can be found in this update."

Jasper Koops,
Head of Portfolio Management

DYNAMIC

1. Executive Summary

Housing shortage: The Minister presented his plans for the housing market, including a plan to meet the target of 100,000 homes per year.

Affordability: due to increasing house prices and mortgage rates, the affordability index dropped to a level lower than 2008. However, adding interest-only loan parts make it more affordable.

Financing sustainability: A gradual introduction of a minimum energy label is a possible scenario. However, of all homeowners, 17% will not be able to finance much-needed sustainability measures.

Energy poverty: the percentage of Dutch mortgage holders with a negative income buffer has increased by an estimated 9 percentage points due to rising energy prices.

Case study solvency II: adding Dutch mortgages to an investment portfolio can have a positive impact on the Solvency II capital ratios, while improving return.

Consumer confidence: consumer confidence slid further in the first quarter of 2022, with high house prices and limited supply as the main reasons.

House prices: the Dutch House Price Index increased with 4.2% in 2022-Q1 and 20.3% YoY, surpassing the previous YoY record of 19.6% in 2021-Q4.

Property sales: the number of properties sold in 2021-Q4 was close to 44,000, a decrease of 34.1% YoY.

Refinancing segment: The number of offers in the refinancing segment increased by more than 75%, as interest rates started to increase sharply during the quarter.

NHG: NHG market share decreased in comparison to last year. In terms of mortgage loans balance, a market share of 15.6% is comprised of NHG. Loss declarations decreased by almost 90% to only three in 2021-Q4.

Interest rate developments: interest rates for owner-occupied and buy-to-let mortgages increased dramatically in 2022, with owner-occupied rates increasing by almost 1.50%-points.

Spread developments: spreads increased by on average 10 bps in 2022, as mortgage rates increased more than swap rates.

RMBS activity: for the first time, the volume of Dutch securitizations outstanding was lower than that of covered bonds.

BTL Purchase restrictions: rent increases in the private sector are capped at 3.3%, while rents in the regulated sector are still frozen.

Inflation: Prices in the eurozone were 7.5% higher compared to a year earlier.

Unemployment: The unemployment rate reached a new low, while the number of bankruptcies increases only slightly.

2. Dutch Housing Market Update

Housing shortage update

The housing shortage is the largest challenge the newly installed Minister of Housing and Spatial Planning Hugo de Jonge is facing, specifically for first-time buyers and the elderly. He aims to realize construction of 1 million new houses by 2030 and to take 1.5 million existing houses off the gas network to only rely on electricity for heating and cooking. This article will review the challenges to this ambition but also the Ministry's plans and progress to overcome them.

Challenges

The EIB (Economic Institute for Construction) has researched the different challenges, such as the labor force and production capacity. They conclude that there are some tensions in the short term, yet in the long-term ample personnel should be available taking into account the inflow of students and foreign workers and the outflow of retirees. The director of the EIB, Taco van Hoek, believes that the construction sector will not face a supply bottleneck[1]. Instead, he warns for land not being available timely and the capacity of the electrical grid, which needs to be reinforced to realize the energy transition.

Plans

The Minister has presented the National Housing and Construction Agenda[2], which summarizes plans for the housing market during his term and beyond. The agenda is split into six priorities for which the plans will be periodically released until summer. The plans for 'housing construction', and 'a home for everyone' (aimed at housing for vulnerable sections of the population) have been released at the moment of writing.

The 'housing construction' priority outlays the plans to reach the realization of 100,000 new homes per year, – normally this is roughly 80,000 per year – to reach the goal of adding 900,000 new homes to the housing stock by 2030. Moreover, two thirds of those homes should classify as affordable housing (to rent or purchase). The intention is to use four instruments to achieve these goals. Firstly, the Ministry wishes to agree on housing construction projects by making deals with the lower levels of government, housing cooperatives ("woningbouwcoöperaties"), and commercial parties. In the deals the parties agree on the location, quantity, affordability, and quality of the houses. Secondly, the Ministry wants to decrease the time between planning and realization through a variety of legal, financial, and administrative measures. Next, they want to aid local governments in the quick realization of new housing by (financially) supporting the development of land and infrastructure, and in stimulating projects that convert office and retail spaces to residential housing. Lastly, the government announced fifteen large-scale construction projects in regions with especially pronounced housing shortages.

The 'housing for everyone' priority focuses on vulnerable people within society. The program aims to form agreements with local governments to draw attention to the needs of people who need medical or social assistance, immigrants, and the homeless. Ideally, these people should be spread out geographically to ensure a livable environment. Lastly, a prevention program will be put in place to mitigate increasing homelessness.

1 FD - Bouwbedrijven kunnen hoge woningbouwambitie zeker aan
2 Ministerie van Binnenlandse Zaken - Nationale Woon- en Bouwagenda

Progress

Changes in the housing stock result from adding and removing houses. The most obvious processes are construction and demolition. However, alternative mutations exist such as transformation of commercial real estate to residential, splitting of one property into multiple, or vice versa. The ambition of 100,000 new homes per year only counts gross additions to supply. The minister hopes to achieve this number in 2024 by gradually increasing construction and transformations from the most recent 80,000 in 2020.

Figure 1 shows the change in the housing stock since 2015, as well as the ambitions for the next decade and the granted permits thus far. Note that the total additions in 2020 and before are higher than the 80,000 stated before, in that amount only newly constructed houses and transformations are counted. The 'other additions' in the chart also contain expansions not counted as transformations, for example splitting existing houses.

Based on the amount of building permits granted, the next two years could be tricky. Generally, two to three years are needed between granting the permit and finalization of construction. While 2021 showed the highest number of permits granted in this dataset, 2019 and 2020 had relatively low numbers due to the nitrogen crisis and the pandemic.

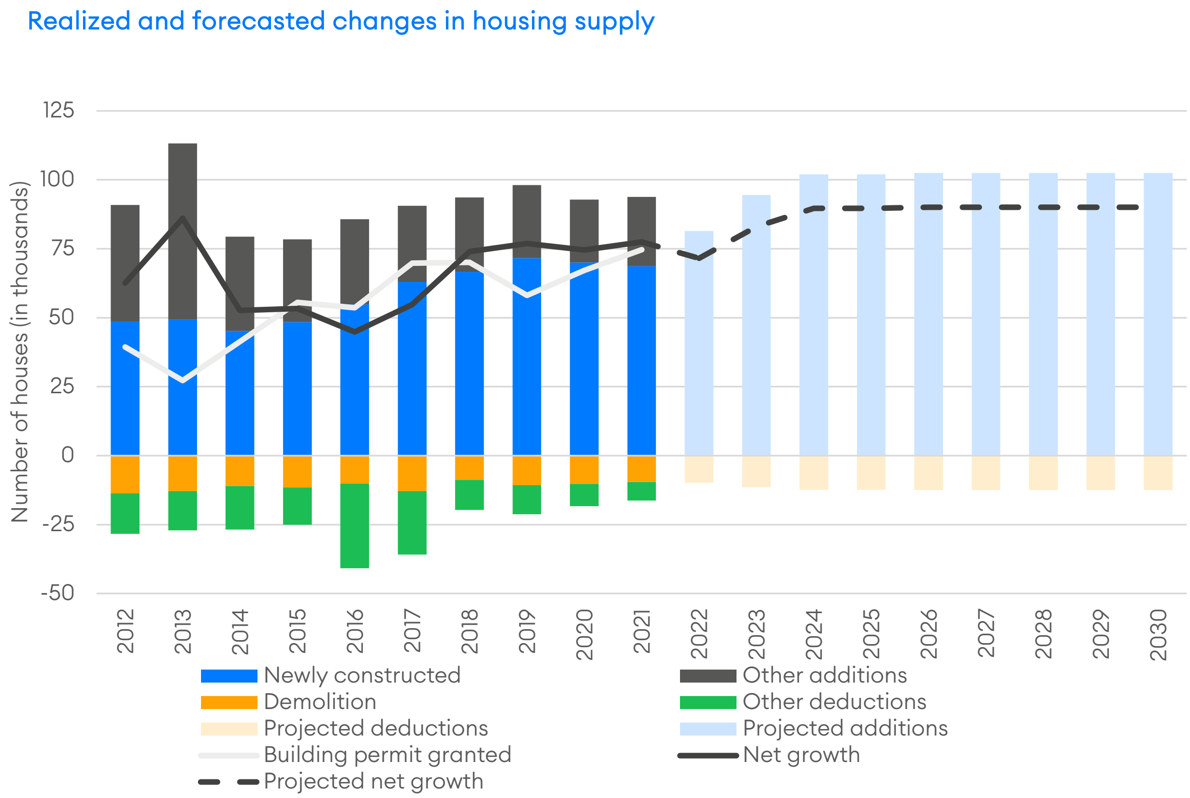


Figure 1: Realized and forecasted changes in the Dutch housing supply. Source: CBS, min BZK

Consumer confidence

Vereniging Eigen Huis ("VEH") measures consumer confidence in the Dutch housing market every month based on a questionnaire about interest rates, prices, and the general housing market. The indicator can take values ranging from 0 to 200, with 100 indicating a neutral value. Higher values indicate positive consumer sentiment and lower values indicate the contrary.

Figure 2 shows the historic course of the VEH indicator. After the dip in the second quarter of 2020, an upward trend was observed in the second half of 2020 that lasted till the beginning of 2021. This period of recovery was followed by a mild downward trend starting in the second quarter of 2021 lasting till the first quarter of 2022. According to VEH, this mild decline was primarily driven by less favorable buying conditions. In the final quarter of 2021, consumer confidence reached a value of 98. In the first quarter of 2022, consumer sentiment slid further ending at the current value of 95.

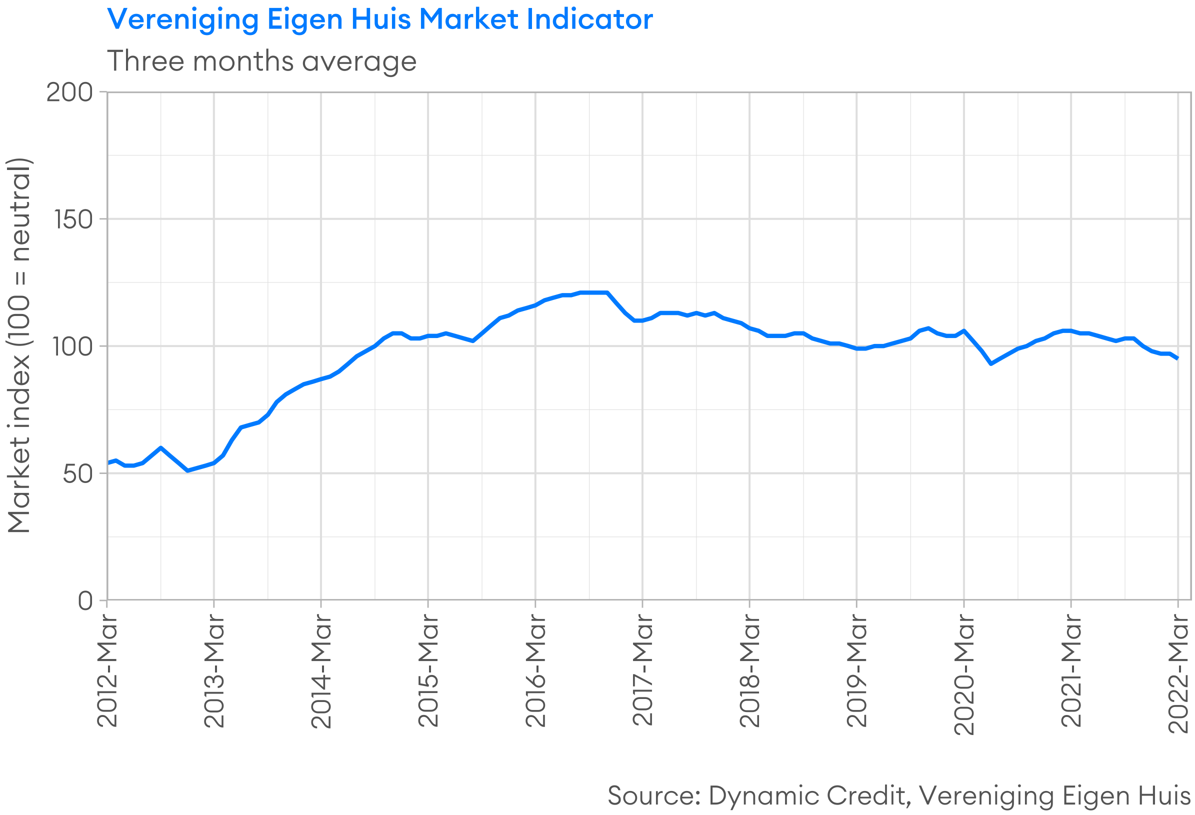


Figure 2: Vereniging Eigen Huis Market Indicator as of March 2022.

According to the 2021-Q4 publication of VEH[1] the primary causes for consumer pessimism were the expected mortgage rate developments and the limited housing supply. The former being that consumers expected mortgage rates to further increase, an expectation that ended up materializing as further discussed in detail in Section 3. Consumer pessimism persisted in 2022-Q1. According to VEH[2] 67% of the respondents deem current market conditions to be unfavorable for buying a house. The underlying factors for this sentiment did not change with respect to previous quarters, high housing prices and limited supply remain key consumer pessimism drivers. Although, according to VEH a growing number of respondents, currently 19%, mention rising mortgage rates as a limiting factor when it comes to the purchase of a house. In 2022, mortgage rates have increased by more than 100 bps on average (see Section 3).

1 TU Delft - VEH Marktindicator

2 VEH - Stijgende rente drukt consumentenvertrouwen

Similar to the VEH, Statistics Netherlands ("CBS") tracks consumer confidence based on views on topics such as the general economic climate and consumers' willingness to buy. CBS reports that consumer sentiment has dropped to an all-time low since it started measuring consumer confidence in 1986. Dutch consumers were particularly pessimistic about the general economic climate of both the past and future twelve months. Equally important is the willingness to buy, which also took a severe hit and correspondingly reached an all-time low at the end of 2022-Q1. Moreover, CBS states that an increasing number of consumers is confronted with the effect of inflation and expects inflation to persist or even accelerate in the coming twelve months[1]. Figure 3 shows the recent drop in total consumer confidence compared to the past fourteen years.

Figure 3: CBS total consumer confidence in the Netherlands as of April 2022.

1 CBS - Consumer confidence drops to lowest level ever in April

House prices and property sales

Every month CBS reports the Dutch House Price Index ("HPI"), an index that serves as a proxy for price developments of existing Dutch dwellings. In 2022-Q1, the HPI increased with 4.2% QoQ and 20.3% YoY, once more surpassing the previous YoY record of 19.6% in 2021- Q4. The number of properties transferred in 2022-Q1 was close to 44,000, which translates into a 16.8% decrease QoQ and a 34.1% decrease YoY. It must be noted that in the first quarter of 2021 the tax cut for first time buyers came into effect without purchase price cap, in the second quarter the cap of EUR 400,000 was introduced which led to a front-loading of transactions. Comparing these numbers to the numbers in the same period last year, where we observed an increase of 3.6% QoQ in HPI and a decrease of 0.3% QoQ in property sales as visualized in Figure 4 below.

For all provinces we observe double digit YoY decreases of property sales, similar to 2021-Q4. The largest decrease occurred in Utrecht, where the number of dwellings sold decreased by 38.6% YoY. The smallest decrease took place in Flevoland, which saw the number of properties sold decrease by 23.9% YoY.

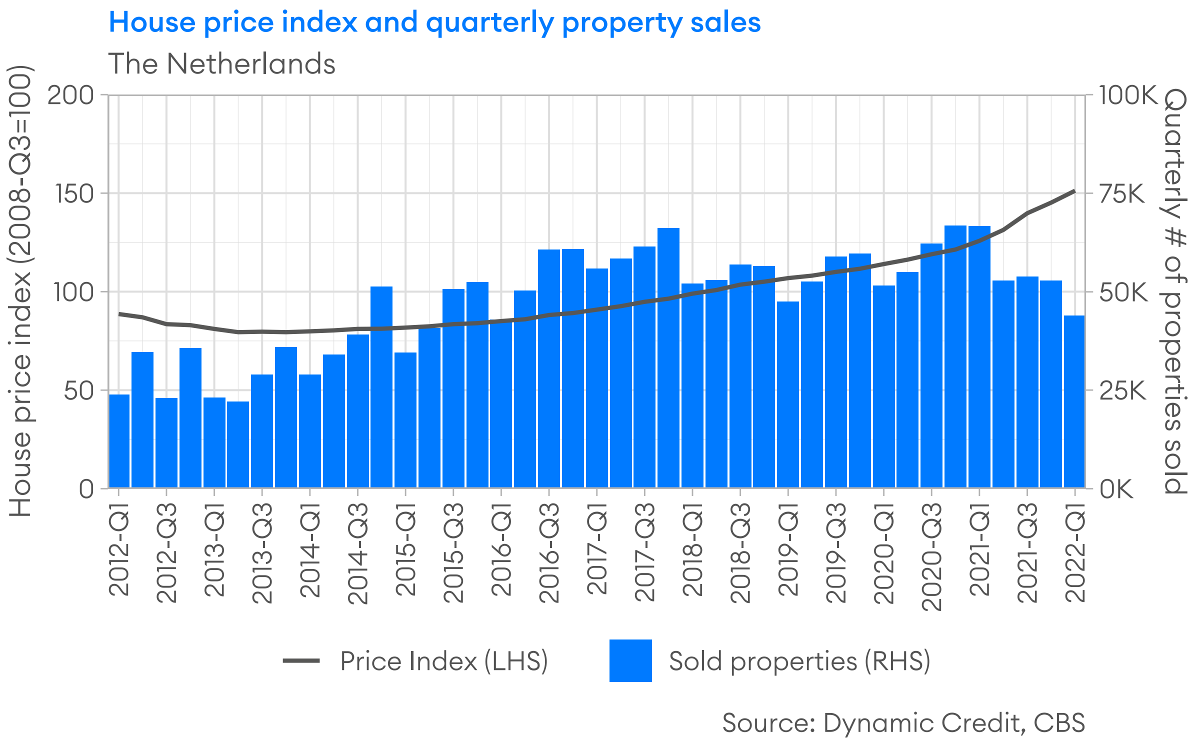


Figure 4: House Price Index of the Netherlands ("HPI") (2008-Q3 = 100) and monthly property sales. HPI until March 2022. Source: CBS, Dynamic Credit.

Purchase versus refinances

Hypotheken Data Netwerk ("HDN", a provider of infrastructure for mortgage loan requests) reported a total of 191,000 mortgage offers for 2022-Q1, an increase of 37.1% compared to 2021-Q4[1]. The number of offers for purchases totaled 72,000, which was approximately equal to the total number of offers for purchases in 2021-Q1. The number of offers for refinances increased to 119,000 which implies an increase of 75.4% YoY. HDN attributes this steep increase to the recent mortgage rate developments of 2022-Q1. These mortgage rate developments are discussed in detail in Section 3 of this document.

Area	Type	HPI (2008-Q3=100)	YoY Price %	QoQ Price %	Properties Sold in Quarter	QoQ Properties Sold %	YoY Properties Sold %
Nederland	Country	151.2	20.3	4.2	43,923	-16.8	-34.1
Amsterdam	Municipality	190.0	18.7	4.9	2,317	-10.3	-42.5
's-Gravenhage	Municipality	170.6	18.6	3.4	1,456	-19.8	-20.5
Rotterdam	Municipality	186.8	19.0	3.1	1,275	-34.0	-34.4
Utrecht	Municipality	192.1	21.3	3.8	996	-9.5	-37.6
Groningen	Province	154.1	23.8	5.2	1,317	-27.4	-27.2
Friesland	Province	143.6	22.8	4.5	1,644	-15.0	-29.1
Drenthe	Province	145.3	21.0	3.2	1,312	-18.0	-32.4
Overijssel	Province	143.5	18.1	3.8	2,700	-18.4	-34.2
Flevoland	Province	171.4	25.0	4.7	1,370	-11.7	-23.9
Gelderland	Province	146.4	23.5	4.9	4,977	-13.2	-35.5
Utrecht	Province	157.7	20.9	4.2	3,507	-13.3	-38.6
Noord-Holland	Province	166.4	20.7	4.1	7,477	-12.1	-37.8
Zuid-Holland	Province	155.5	18.9	3.5	9,114	-21.8	-31.4
Zeeland	Province	144.1	20.9	3.0	1,137	-18.3	-26.8
Noord-Brabant	Province	138.4	18.7	4.6	6,640	-16.4	-36.4
Limburg	Province	140.9	17.1	4.2	2,728	-17.8	-30.4

Table 1: House prices and number of property sales changes in Dutch provinces and major municipalities 2022-Q1 Source: CBS

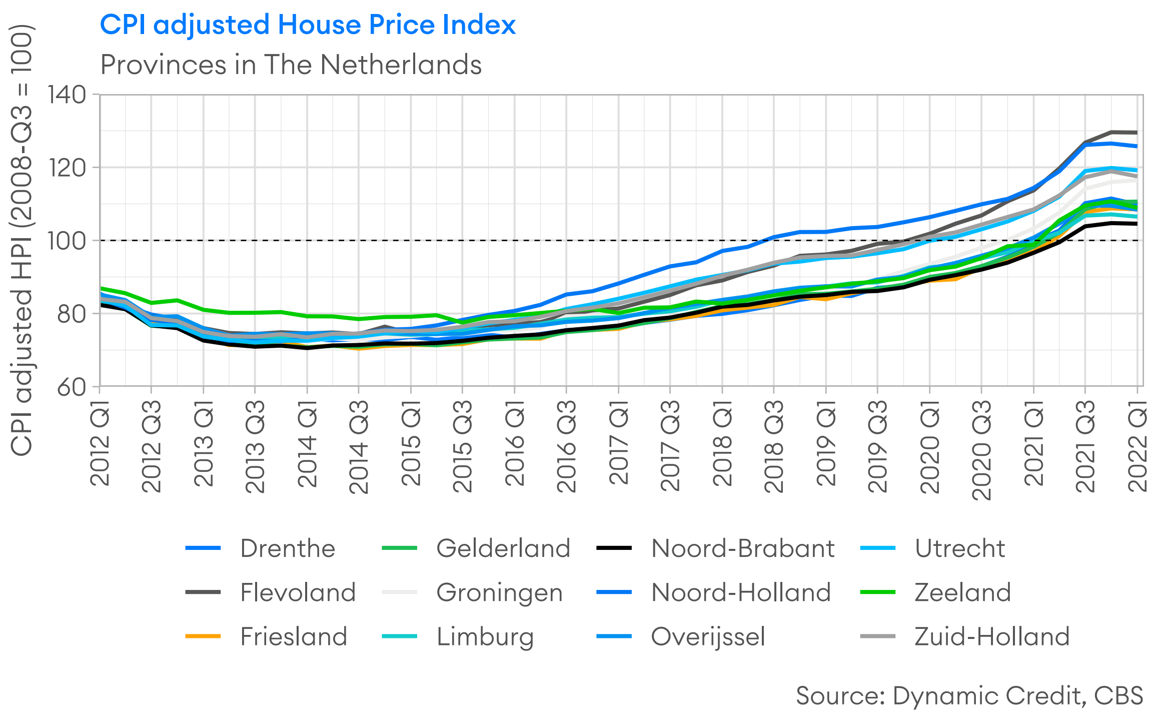
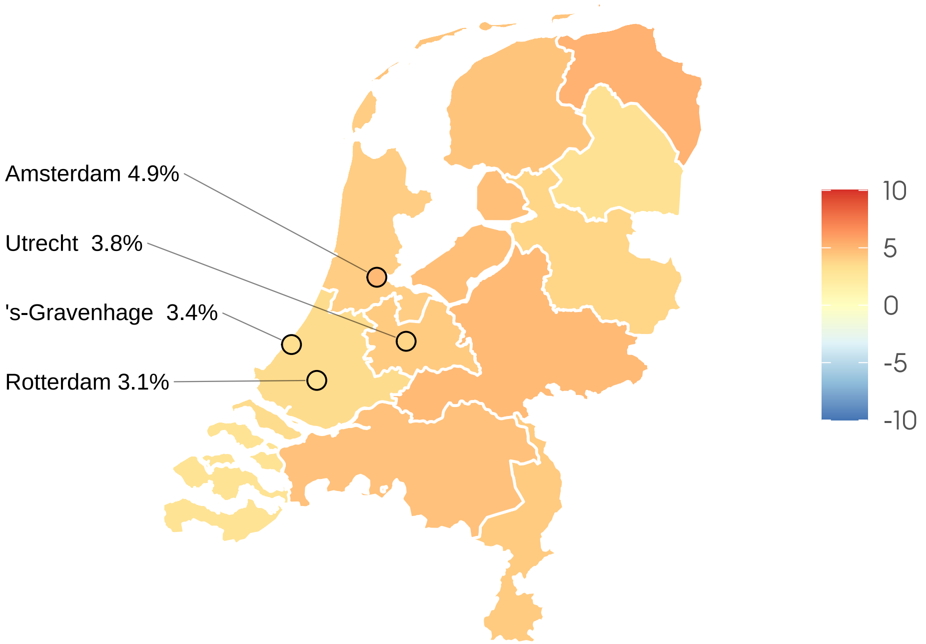


Figure 5: CPI Adjusted House price index per province in the Netherlands (2008-Q3=100). The data is indexed as of 2008-Q3 because this marks the pre-crisis high for the unadjusted House Price Index.

1 HDN - Kwartaaloverzicht 2022-Q1

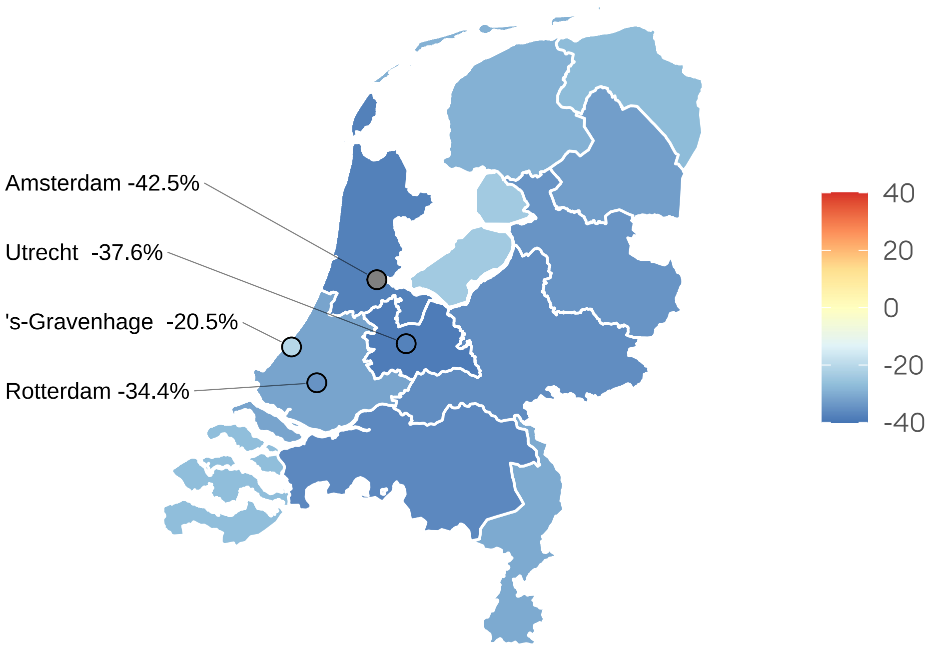
House Price Index QoQ change



Source: Dynamic Credit, CBS (2022 Q1)

Figure 6: Dutch House Price Index QoQ change in percentages. 2022-Q1.

Number of sold properties YoY change



Source: Dynamic Credit, CBS (2022 Q1)

Figure 7: Dutch House Price Index YoY change in percentages. 2022-Q1.

Expected house property sales developments

In our 2021-Q1 report we discussed several housing prices forecasts for the coming two years. In this section we revisit these forecasts and review the changes. Figure 5 shows housing market forecasts as made at different points in time. It is worth mentioning that the realized HPI has again exceeded all forecasts.

Rabobank predicted in 2021-Q4 that the house prices would increase by 12.4% and 3.2% in 2022 and 2023 respectively. With the recent macroeconomic developments of 2022-Q1 in mind, Rabobank increased its forecasts for 2022 and 2023 with 5% and 2% points respectively to a total of 17.3% in 2022 and 5.5% in 2023.[1] However, Rabobank does expect diminishing growth for the years to come, citing contractionary central bank interest rate policy and a slow-down in the general Dutch economy as key drivers. Comparatively, ING expects the housing prices to increase by 13.5% in 2022. However, ING does foresee more subdued house price increases in the subsequent years caused by increasing mortgage rates, lower investor demand and less positive sentiment in both the economy and housing market[2]. Lastly, ABN left its forecasts unchanged at 12.5% for 2022 and 5% in 2023.[3]

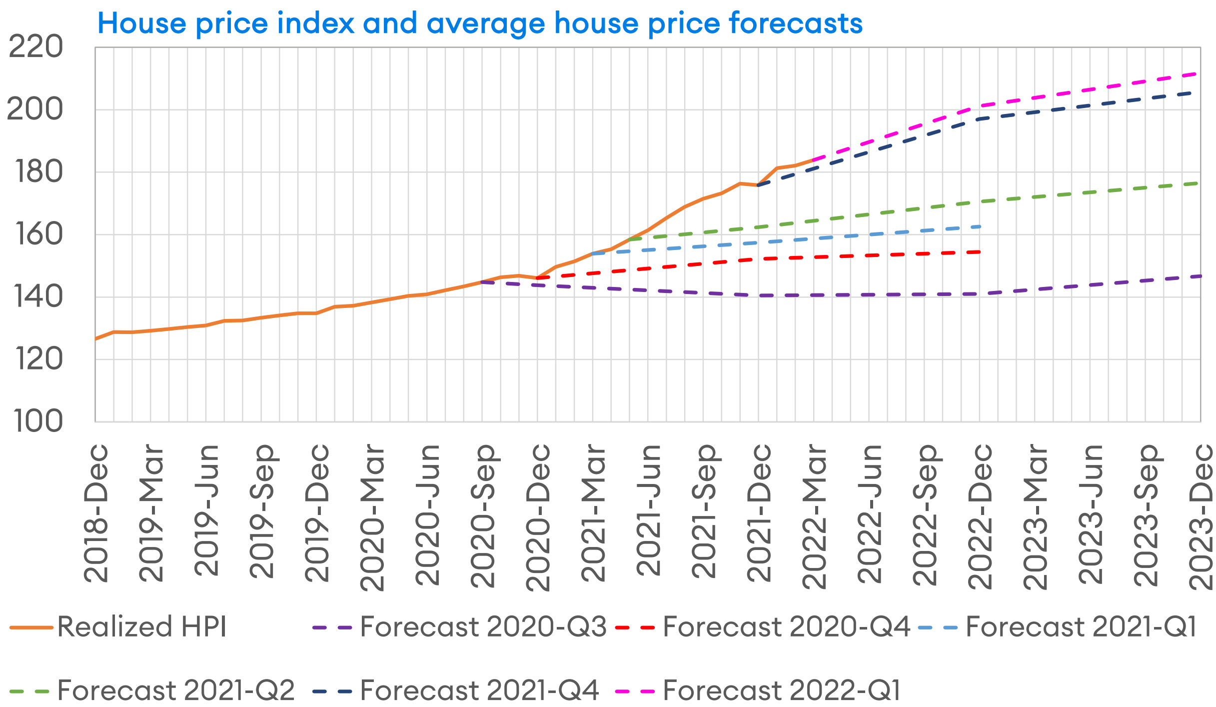


Figure 8: Realized house price index and average house price forecasts made at different points in time. Source: Dynamic Credit, CBS, Rabobank, DNB, ABN, ING.

1 Rabobank - Ondanks toegenomen onzekerheid nog geen verkoeling voor de huizenmarkt.
2 ING - Netherlands: house prices to rise more slowly in 2022
3 ABN AMRO - Woningmarktmonitor april 2022

NHG

Stichting Waarborgfonds Eigen Woningen ("WEW"), a central, privatized entity, has been responsible for the administration and granting of the Nationale Hypotheek Garantie ("NHG Guarantee"). The NHG Guarantee covers the outstanding principal, accrued unpaid interest and disposal costs of mortgage loans. Irrespective of scheduled repayments or prepayments made on a mortgage loan, the NHG Guarantee is reduced on a monthly basis by an amount which is equal to the principal repayment part of the monthly instalment as if such mortgage loan were to be repaid on a thirty-year annuity basis. Financial support from the Dutch government is formalized in a backstop agreement, under which the State is responsible for providing interest-free loans in case of need.

New NHG guarantees

Data from the HDN shows that over 2022-Q1, almost 40,000 NHG loans with a total balance of EUR 7.7 billion were offered through its network (8 billion in 2021-Q1). This corresponds to an NHG market share of 15.56% in terms of mortgage loans balance (22.25% in 2021-Q1).[1]

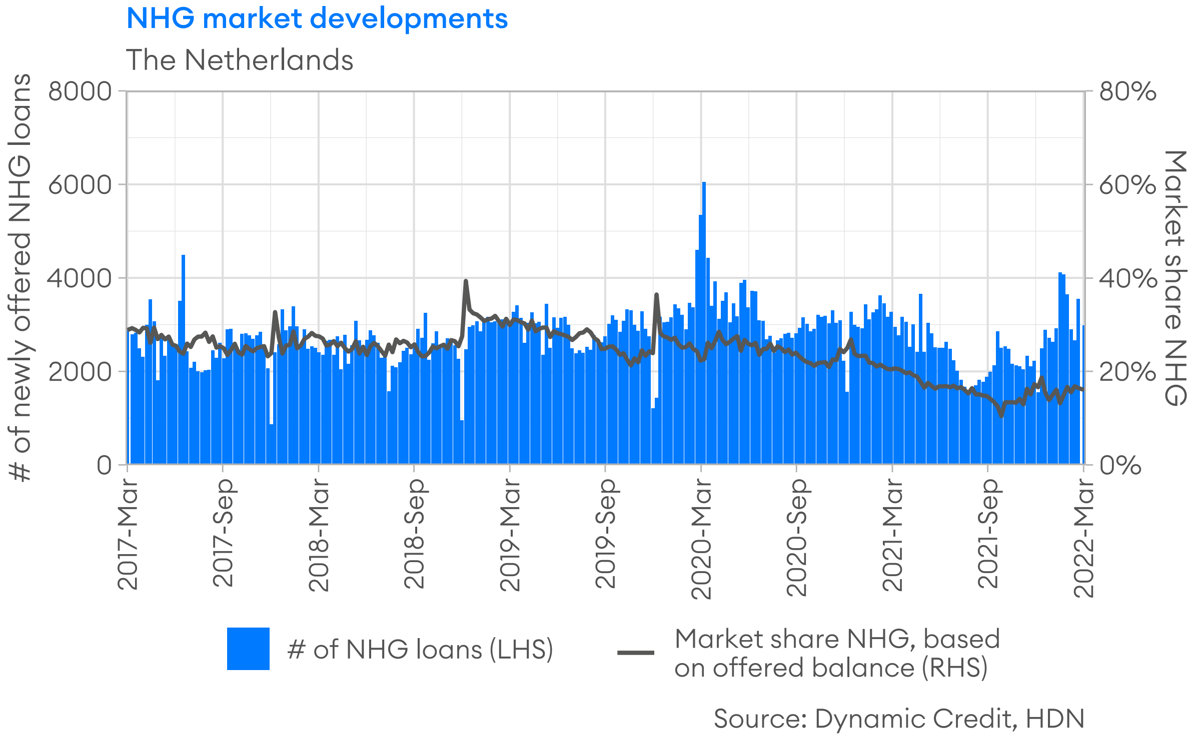


Figure 9 : Number of new NHG guarantees and market share of NHG loans as a percentage of total originated balance through time. The x-axis refers to year and month.

Loss declarations

The number of loss declarations submitted to WEW decreased by almost 90% from 27 in 2020-Q4 to only three in 2021-Q4. The low number of loss declarations submitted is attributed by WEW to increasing house prices and low unemployment rate. In that context, WEW wants to focus more on offering solutions outside of the general terms and conditions to ensure home preservation. This is visible in the numbers of requested exceptions. In the last two months of 2021 75 exception requests were received by WEW, while the total of exception requests over the last two years were a total of 162. The NHG pay-out ratio of processed declarations increased to 97.7% in 2021-Q4. In comparison, the NHG pay-out ratio was 94.3% in 2020-Q4. The average paid out loss declaration amounted to EUR 24,000 in 2021-Q4. This is considerably higher than the EUR 10,000 in 2020-Q4.

1 NHG - Kwartaalcijfers

'Duurhuur' pilot

WEW has started a so-called 'duurhuur' pilot for renters who have been paying high rents in the private sector for a considerable amount of time. Within the existing lending standards, these so-called 'duurhuurders' often have trouble finding a suitable mortgage. Their income is too high to qualify for social housing, but their income is too low to qualify for a mortgage loan. If renters can prove that they have been paying a high rent for at least three years without eating up savings or accumulating debt, they may apply for the pilot. Together with four mortgage lending partners, NHG will try to help them apply for a mortgage tailored to their situation.

Politically the pilot has been received relatively positively, although the idea faced scrutiny from economists. The latter indicate that the Dutch lending norms are already generous, and that by further stretching these the problem of too expensive housing costs would simply be moved from renters to buyers.

LTV reduction announcements and effects

The maximum loan-to-value ("LTV") ratio for consumer mortgage loans in the Netherlands is 100%, which is among the highest in Europe. A downward adjustment of this ratio in the near future is unlikely, despite the recommendation from the Dutch Central Bank ("DNB")[1] to lower it to 90%. The recently installed government has already indicated that it will not decrease the statutory maximum LTV in the coming four years. This is a politically understandable choice, as restriction measures would make it even more difficult for first-time buyers to enter the housing market. On the other hand, outstanding household credit remains high compared to other countries, which can make consumers more vulnerable. In this article we look at recent publications that have conducted research into the effects of (announcements of) LTV reductions.

Effect of announcement

A DNB working paper published in 2021[2] investigated the effect of announcements relating to LTV ratio restrictions on the mortgage market and households in 28 EU countries over the period 2000 to 2019. One of the results is that there is a strong negative relationship between the announcement and household credit, with the decline in household credit reaching its lowest point eight months after the LTV announcement. In addition although less pronounced, a relationship was observed between LTV announcements and decreasing house prices. This is intuitively sound, while LTV policies mainly focus on the maximum loan amount, it directly influences house price developments by reducing the maximum that households may borrow with some lag. The housing price response becomes more pronounced 4 quarters after the announcement, when credit has neared its maximum cumulative response. However, the lowest point is reached 16 quarters after the LTV announcement. This indicates that an LTV reduction has a delayed effect on house prices and that it only reaches its lowest point after a long period of time.

Effect on homeownership for first-time buyers

Another DNB study published in March 2022[3] investigates the impact of the introduction of LTV limit in the Netherlands on the likelihood of first-time buyers to becoming a homeowner. In 2012, an LTV limit was introduced in the Netherlands, lowering the average LTV ratio at origination for housing market entrants slightly from 93% in 2012 to 90% in 2018. In the same period, house prices increased by 27%. One of the findings of the study is that the introduction of the LTV limit in 2012 reduced the likelihood of becoming a first-time homeowner at any point in time with about 6%. However, this does not imply that a part of this group will never buy a house, but they have to deal with delays. In addition, they found that the average duration between an individual's 18th birthday and the time the individual became a homeowner increased since the introduction of the LTV limit. However, little evidence was found that the LTV limit was the main reason, which suggests that the increase in duration is mainly caused by other housing market developments. A potential explanation for the limited effect of the LTV reduction that is given in the paper is that the Debt-Service-to-Income limit binds first in most cases. In addition, it probably also plays a role that the decrease from 106% to 100% LTV took place in small steps spread over 7 years. Relatively larger decreases in a shorter time can lead to stronger effects.

In summary, it can be stated that reduction of the maximum statutory LTV has a negative effect on house prices, although the effect is limited and extends over a long horizon. In addition, LTV reduction decreases the opportunities for first-time buyers but for this group the effect of rising house prices seems to be more impactful.

1 DNB - Onze hoge hypotheekschulden – risico's en oplossingen
2 DNB working paper - Effects of LTV announcements in EU economies
3 DNB working paper - The effect of introducing a Loan-to-Value limit on home ownership

Energy poverty

Inflation is the hot topic in financial markets currently, especially energy inflation. Energy prices have seen large upwards pressure and have been very volatile. LoanClear[1], the advisory business within the Dynamic Credit Group, has published an article detailing the implications for Dutch mortgage borrowers.

For households, the effect of price increases is partly offset by tax benefits on the energy bill and an extra one-time compensation of 800 euro for households with the lowest income. Not all households are immediately affected, as about half of the market has energy contracts with rates fixed up to maximum 3 years. Nevertheless, Statistics Netherlands ("CBS")[2] expects households to face an 86% increase in energy costs in 2022 on average. This translates to an increase of monthly energy payments of about 110 euro on average.

LoanClear's analysis looks at the distribution of the monthly income buffer of Dutch mortgage holders before and after the energy price increase as seen in Figure 10. The tax compensation by the government is considered in the increased energy costs, although the analysis ignores the one-time compensation for households with the lowest income. After energy prices increases, 19% of the loans have a negative income buffer. This is a significant increase compared to the 10% before the energy price increases. This shows that energy inflation impacts households with a lower monthly income buffer harder. Categories with more than EUR 500 in monthly income buffer show much fewer shifts.

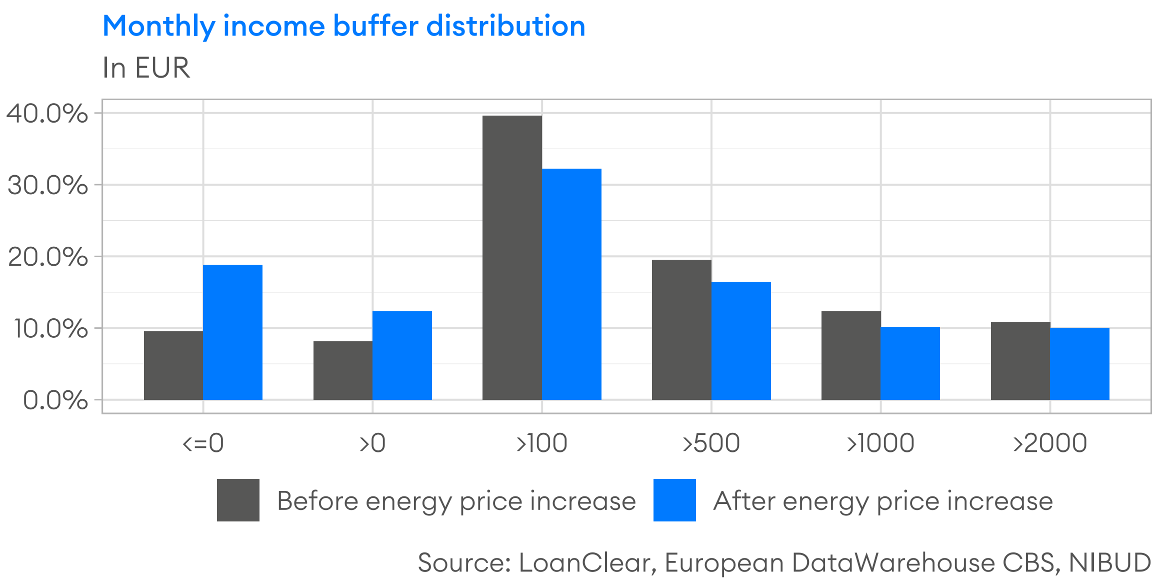


Figure 10: Distribution of loans over Monthly Income Buffer buckets. Source: LoanClear, European DataWarehouse, CBS, NIBUD

1 LoanClear - Increased energy prices: Implications for Dutch mortgage borrowers
2 CBS - Prijs van energie 86 procent hoger

An analysis by ABN Amro[1] finds that all income groups are facing higher energy costs. The type of energy contract is the biggest factor that determines whether someone will be affected by the rising costs. Lower income groups do not necessarily have more variable contracts, but they spend a much larger share of their income on energy. This means that energy inflation hits those groups harder. Energy companies questioned by the NOS[2] are also seeing increased arrears on their receivables. The increase does not necessarily come from a growth in clients with arrears, but an increase in the amounts owed. So far, the situation seems to affect people who were already experiencing payment problems. Nevertheless, if energy prices remain consistently elevated, the situation could worsen.

1 ABN - Energiekosten huishoudens een kleine groep betaalt fors meer, enkelen minder
2 NOS - Energiebedrijven zien vaker betalingsproblemen door hoge energieprijs

3. Owner-Occupied Mortgages

Mortgage rate developments

Mortgage rate developments were historically volatile in the beginning of 2022. Across all risk classes and fixed rate periods, the top six most competitive rates increased by 94 bps on average in 2022-Q1. After quarter-end, mortgage rates continued a sharp upward trend and increased by an additional 47 bps on average. Compared to the same period last year, mortgage rates are on average 94 bps higher. When examining QoQ changes, the most substantial increase occurred in the 20-year NHG class, where the average of the top six mortgage rates increased by 104 bps in 2022-Q1. Moreover, the largest YoY increase of 108bps occurred in the same risk class as the largest QoQ change. To put these changes in contrast, in the fourth quarter of 2021, the average QoQ and YoY changes were 6 bps and –14 bps respectively.

Staggering mortgage rate increases across all segments in 2022-Q1

The table below contains an overview of the interest rate developments.

Mortgage rate development for average of top 6 mortgage rates								
Fixed rate period	Risk class	2021-03-31	2021-12-31	2022-03-31	2022-04-22	QoQ	YoY	QtD
10-year	NHG	0.89%	0.92%	1.89%	2.40%	0.98%	1.01%	0.51%
	60% LTV (non-NHG)	1.03%	1.00%	1.92%	2.43%	0.92%	0.90%	0.51%
	80% LTV (non-NHG)	1.16%	1.11%	2.01%	2.50%	0.90%	0.85%	0.49%
	100% LTV (non-NHG)	1.43%	1.39%	2.29%	2.70%	0.90%	0.86%	0.41%
20-year	NHG	1.18%	1.22%	2.26%	2.75%	1.04%	1.08%	0.50%
	60% LTV (non-NHG)	1.35%	1.41%	2.41%	2.87%	0.99%	1.06%	0.47%
	80% LTV (non-NHG)	1.48%	1.53%	2.52%	2.93%	0.99%	1.05%	0.41%
	100% LTV (non-NHG)	1.78%	1.78%	2.72%	3.15%	0.94%	0.94%	0.43%
30-year	NHG	1.45%	1.41%	2.33%	2.82%	0.92%	0.88%	0.50%
	60% LTV (non-NHG)	1.63%	1.63%	2.55%	3.05%	0.92%	0.91%	0.51%
	80% LTV (non-NHG)	1.73%	1.73%	2.65%	3.13%	0.93%	0.92%	0.48%
	100% LTV (non-NHG)	2.04%	1.98%	2.83%	3.32%	0.84%	0.78%	0.49%

Table 3: Average top-6 mortgage rates (excluding action rates) for mortgage loans with different fixed rate periods for four risk classes. Source: Dynamic Credit, Hypotheekbond.

Spread developments[1]

Swap rates continued to put mortgage spreads under pressure as the former increased sharper than the mortgage rates in the same period. In 2022-Q1, mortgage rates increased slightly more resulting in positive QoQ changes. When looking at QoQ changes of 2022-Q1, the spreads increased by 8 bps on average. However, spreads still decreased by 18 bps on average YoY at the end of 2022-Q1. After quarter-end, average mortgage rates increased slightly more than the respective swap rates resulting in an average increase of 3 bps QtD. The average QoQ increase was most pronounced for the 20-year NHG risk class, where the spread increased by 19 bps.

Mortgage spreads decreased YoY, but expanded QoQ and QtD

For a full overview of the spread developments, see table 4 as displayed below. In addition, the information in table 4 may be interpreted as representative gross spread for newly originated Dutch residential mortgage loans over time.

Spread development for average of top 6 mortgage rates								
Fixed rate period	Risk class	2021-03-31	2021-12-31	2022-03-31	2022-04-22	QoQ	YoY	QtD
10-year	NHG	1.02%	0.75%	0.82%	0.92%	0.06%	-0.21%	0.10%
	60% LTV (non-NHG)	1.16%	0.84%	0.84%	0.95%	0.00%	-0.32%	0.11%
	80% LTV (non-NHG)	1.30%	0.95%	0.93%	1.03%	-0.02%	-0.37%	0.09%
	100% LTV (non-NHG)	1.58%	1.23%	1.22%	1.22%	-0.02%	-0.36%	0.01%
20-year	NHG	1.00%	0.82%	1.00%	1.04%	0.19%	0.00%	0.04%
	60% LTV (non-NHG)	1.18%	1.01%	1.15%	1.16%	0.14%	-0.02%	0.01%
	80% LTV (non-NHG)	1.31%	1.13%	1.27%	1.22%	0.14%	-0.04%	-0.05%
	100% LTV (non-NHG)	1.63%	1.39%	1.47%	1.45%	0.09%	-0.15%	-0.02%
30-year	NHG	1.20%	0.95%	1.05%	1.09%	0.11%	-0.15%	0.04%
	60% LTV (non-NHG)	1.39%	1.17%	1.28%	1.32%	0.10%	-0.12%	0.05%
	80% LTV (non-NHG)	1.50%	1.27%	1.38%	1.40%	0.11%	-0.11%	0.01%
	100% LTV (non-NHG)	1.82%	1.54%	1.56%	1.59%	0.02%	-0.26%	0.03%

Table 4: Spread of the average top-6 mortgage rates (excluding action rates) over duration matched swap rates for four risk classes. Source: Dynamic Credit, Hypotheekbond.

1 The EUSWxV3 swap is used, which uses quarterly resets and the floating leg is 3-month EURIBOR.

Affordability

Since the beginning of the year, mortgage rates have been increasing steeply (please refer to Section 3) following higher than expected inflation in the fourth quarter and subsequently through 2022-Q1. The increase in swap rates (see Section 3) has led to further increases in mortgage rates. While we have seen a very long period of minor rate changes, weekly changes of 20 to 30 bps are now very common. Increasing mortgage rates have a direct impact on affordability. For example, based on the statutory lending norms as set out in the Tijdelijke Regeling Hypothecair Krediet 2022, for a borrower that earns EUR 60,000 a rate increase from 1.5% to 2.5% leads to a DTI increase of 22% (from 20%) and the maximum loan is 4% lower.

The recent developments in house prices and interest rates justify an updated publication of our affordability index (as introduced in 2021-Q2). The affordability index shows the relative affordability of an average house in the Netherlands for a single borrower, falling under a collective labor agreement ("CAO"), with an income in the highest income tax bracket versus the base year (2008). The borrower is assumed to take out a 100% LTV mortgage loan for the purpose of calculating the debt service payments. Affordability is calculated by dividing the income growth index by the debt service payment index. An increase in the index means that income has increased relative to the debt service payments, resulting in more affordable housing.

The affordability index uses the following factors as inputs to the debt serviced and income calculations:

Changes debt service payments

House price

- Nominal house price index: The index bottomed out in 2013 after the previous peak in 2008. In March 2022 the index was 41.4% higher than in December 2008.

Interest rates

- Average interest rate (10 year fixed / 100% LTV): The average interest rate decreased from 5.49% in 2008 to 1.65% in June 2021, yet it increased to 2.34% in March 2022.

Fiscal treatment

- Marginal tax rate: Highest bracket decreased from 52% in 2008 to 49.5% in 2021.
- Taxable income from imputed rents ("eigenwoningforfait"): Has varied between 0.40% and 0.75% of the value under the Valuation of Immovable Property Act ("WOZ Waarde").
- Interest deductibility: Maximum deductibility of interest decreased from 49.5% in 2018 to 40% in 2022. Before 2018 this percentage was capped at the highest applicable marginal tax rate.
- Interest deductibility interest only: For interest paid on new loans up to 2013.

Changes income

- Average change of hourly wages falling under collective labor agreements. Around 4.5 million employees fall under such agreements.

Since 2008, the index has always been above its beginning value of 100 points, so housing has always been more affordable than in that year. In March 2022, the index has reached 94.5 points and affordability is now worse than 2008 for the first time. This specific example relates to the fully repaying case (100% annuity). Still, including 50% interest-only in the loan will improve affordability, as of March 2022, by almost 20 points to 114.8. However, for the interest-only scenario the index has also decreased below the 2008 level (118).

The drop in affordability is mainly driven by three factors: i) house price increases, ii) interest rate increases, and iii) reduction of deductible interest. The first factor has been having a negative effect on affordability since 2014 already. In 2021, the HPI increase has had a significant negative effect of -15% on the affordability index. For 2021, offsetting effects for income growth and interest rate declines were observed, for a total of –3%. For the first three months of 2022, the index has decreased by -9.8%. HPI increase amounts for roughly 40 percent of the index decline (-3.8%). Interestingly, for the first time since more than a decade, interest increases play a role in affordability deterioration (-4.3%); combined with the decrease of deductible interest from 43% to 40%, the interest component has a total effect of –6%.

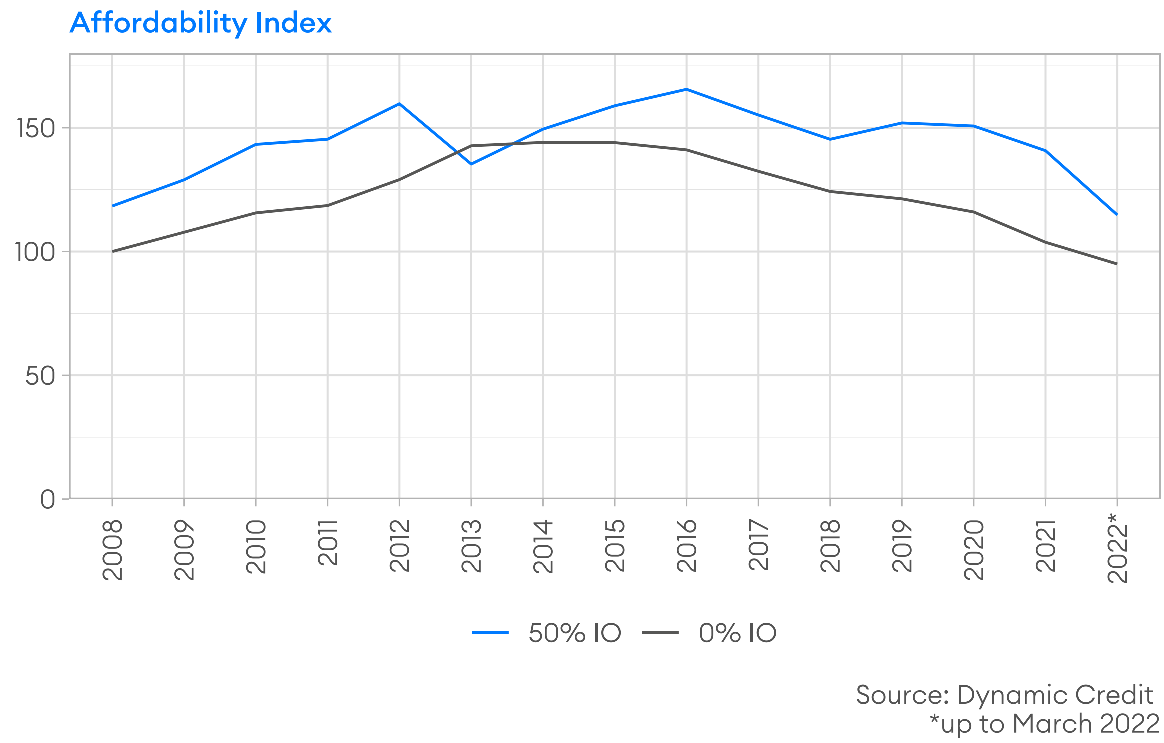


Figure 13: Affordability index based on the relation between income and net mortgage installments. Source: LoanClear.

All in all, it is clear that increasing rates and house prices have a detrimental effect on affordability. Add increasing inflation and building supply chain disruptions to that mix and it is clear that the distant future remains very uncertain. Adding an interest only part to a loan still improves affordability yet lenders apply a markup in more and more cases. The Dutch Authority for the Financial Markets ("AFM") has increased its focus on this type of loans to avoid difficult situations at maturity. We will continue to monitor the situation closely.

Our subsidiary LoanClear has formulated their own take on the affordability index and have published an analysis of the differences between starters and subsequent buyers. The article can be found here[1].

1 LoanClear - Dutch housing has never been as unaffordable for starters as it is today

Case Study: Dutch mortgages as risk-adjusted return enhancers

Not all asset classes are attractive for insurance companies. The Solvency II regulation is strict and the capital requirements can be stringent. Yet the capital treatment of Dutch mortgages is relatively lenient while Dutch mortgages have shown consistent outperformance versus alternatives such as covered bonds and government bonds. In this case study we investigate the impact on the risk/return profile and solvency capital requirement (SCR) for a typical insurance company using the standardized approach when allocating 10% to Dutch mortgages.

Solvency II: Counterparty Default Risk Module

For mortgage loans to be treated under the counterparty default risk module, they need to satisfy the criteria listed under Article 191[1]. The criteria state that the mortgage loans must be granted to natural persons or SMEs, the portfolio must consist of many loans with similar characteristics, each loan has a maximum exposure of EUR 1 million and several legal requirements have to be met.

For owner-occupied mortgages these criteria are generally met. In case of consumer buy-to-let loans, the following requirement deserves more attention as in certain cases rental income plays a role in the underwriting of the mortgage loan: “the repayment of the facility does not materially depend on any cash flow generated by the underlying property serving as collateral”.

Assuming that the criteria listed in Article 191 are met, the exposure classifies as type 2 exposure under the counterparty default risk module. Otherwise, the spread module needs to be applied instead. The SCR under the counterparty default risk module depends on the loan-to-value (LTV) of the mortgage loans as shown in Figure 12. Up to 60% LTV the SCR is 0. NHG does not yet qualify as a guarantee for the purpose of the SCR calculations. EIOPA (European Insurance and Occupational Pensions Authority) has proposed in consultation to the 2020 Solvency II review to adjust the criteria such that NHG would also qualify as a guarantee. The adjustments are subject to approval by the European Parliament and Council and could yet be modified as a result of the negotiations. Final passage into local law is not expected before 2024[2].

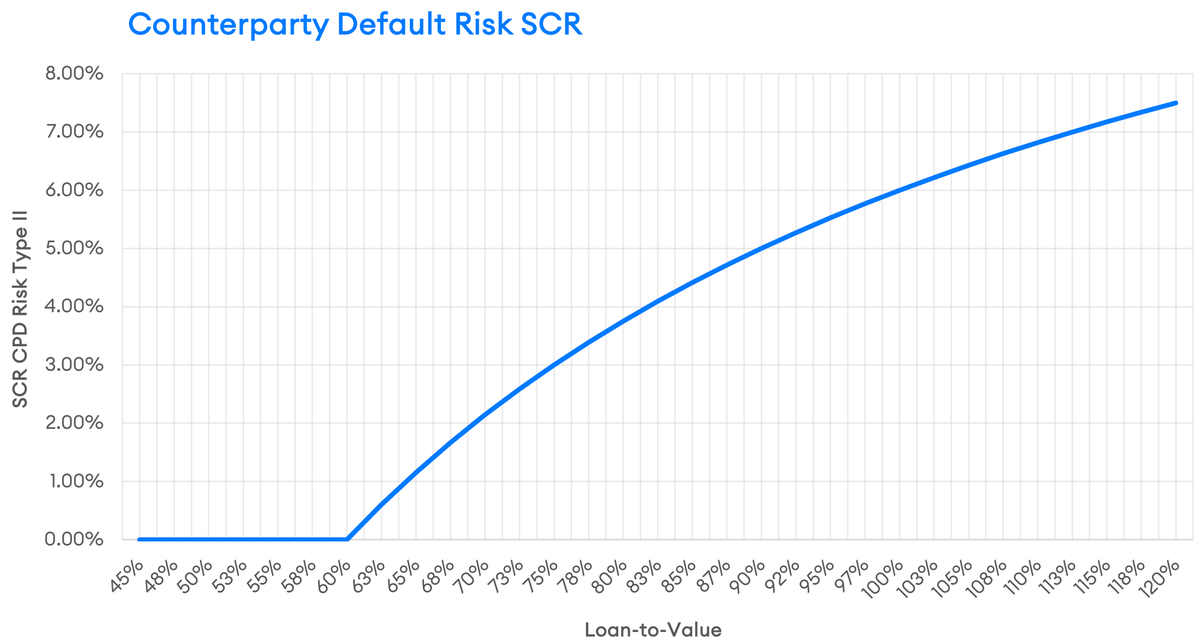


Figure 14: Source: Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)

1 Publications Office of the EU - Directive 2009/138/EC of the European Parliament
2 BNP Paribas Asset Management - Solvency II review Adjusting the dial, but no revolution March 2022

Solvency II: Interest Rate Risk Module

The other module that is relevant for the calculation of the SCR of Dutch mortgages is the interest rate risk module. The impact of the interest rate risk module on the SCR is determined by calculating the impact on the fair value of the mortgage loan portfolio by applying an upward and a downward shock to the risk-free curve, as shown in Figure 15.

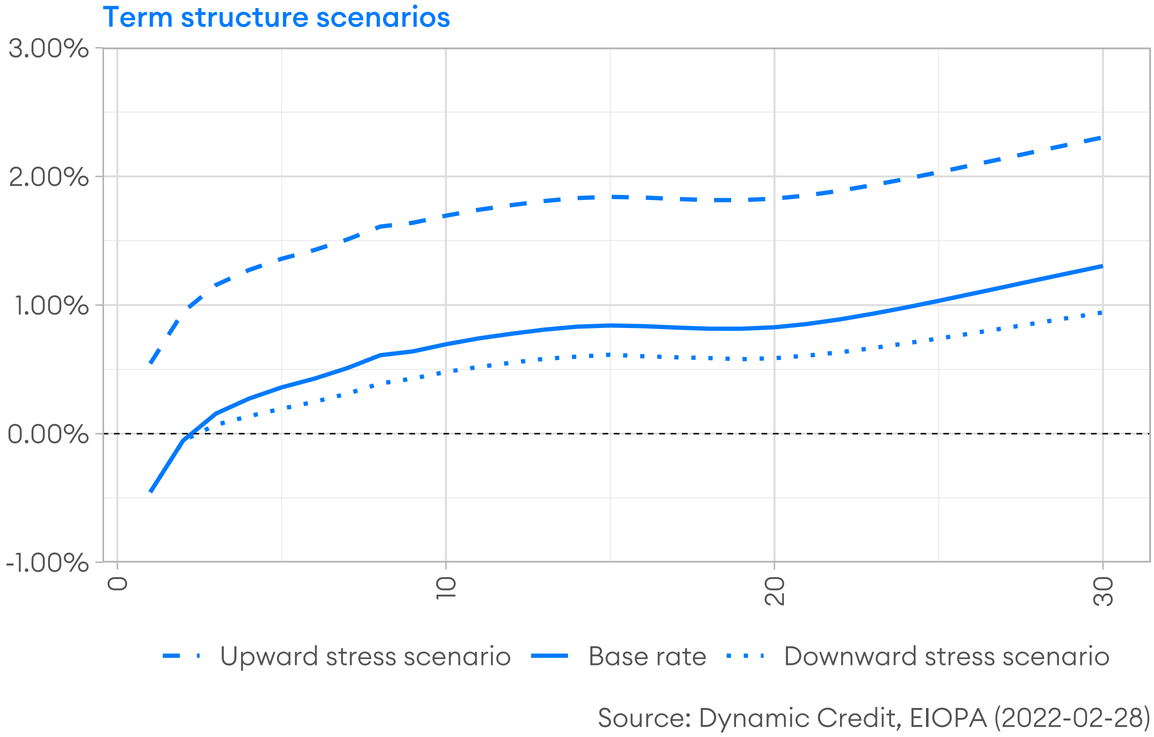


Figure 15: Base term structure and after the upward and down stress. Source: Dynamic Credit, EIOPA , per 28-02-2022

Also the interest rate risk module is currently under review. EIOPA and the European Commission propose to adjust the calculation of the upward and downward stress scenario's with the aim to bring this SCR module more in line with current market conditions. Part of this proposal is adding an absolute percentage shock to the relative shocks currently in place. An increase in SCR is expected for insurers with a duration mismatch[1].

Case Study

In this case study we use a typical asset allocation for an insurance company as the base case. Subsequently we add an allocation of 10% to Dutch mortgages with an LTV of 67% and 20 year fixed rate period, while reducing the allocation to other asset classes:

- Case 1: reduction in covered bonds and sovereign bonds
- Case 2: reduction in covered bonds, sovereign bonds and investment grade
- Case 3: reduction in covered bonds, sovereign bonds, investment grade and return-seeking assets.

1 BNP Paribas Asset Management - Solvency II review Adjusting the dial, but no revolution March 2022

	Base Case	Case 1	Case 2	Case 3
Bond EUR Covered	44,0%	-5,0%	-3,5%	-2,0%
Bond EUR Sovereign	20,0%	-5,0%	-3,5%	-2,0%
Bond EUR Investment Grade	13,0%		-3,0%	-3,0%
Bond EUR High Yield	4,0%			-1,0%
Bond EMD HC Sov Global	4,0%			-1,0%
Dutch Mortgages	0,0%	+10,0%	+10,0%	+10,0%
Equity Global Developed Countries	10,0%			-1,0%
Unlisted Equity Real Estate Pan-Europe	5,0%			

Table 5: Changes in asset allocation to include 10% of Dutch mortgages for each case. Source: BNP Paribas Asset Management

From an economic perspective, we observe that in all aforementioned cases the risk-adjusted return of the investment portfolio improves. In other words, Dutch mortgages let the insurance company increase the expected portfolio return by swapping low yielding assets for Dutch mortgages, while keeping the risk at similar levels (Case 1 and Case 2). Additionally, the base case expected return can be maintained while reducing the overall portfolio risk (Case 3).

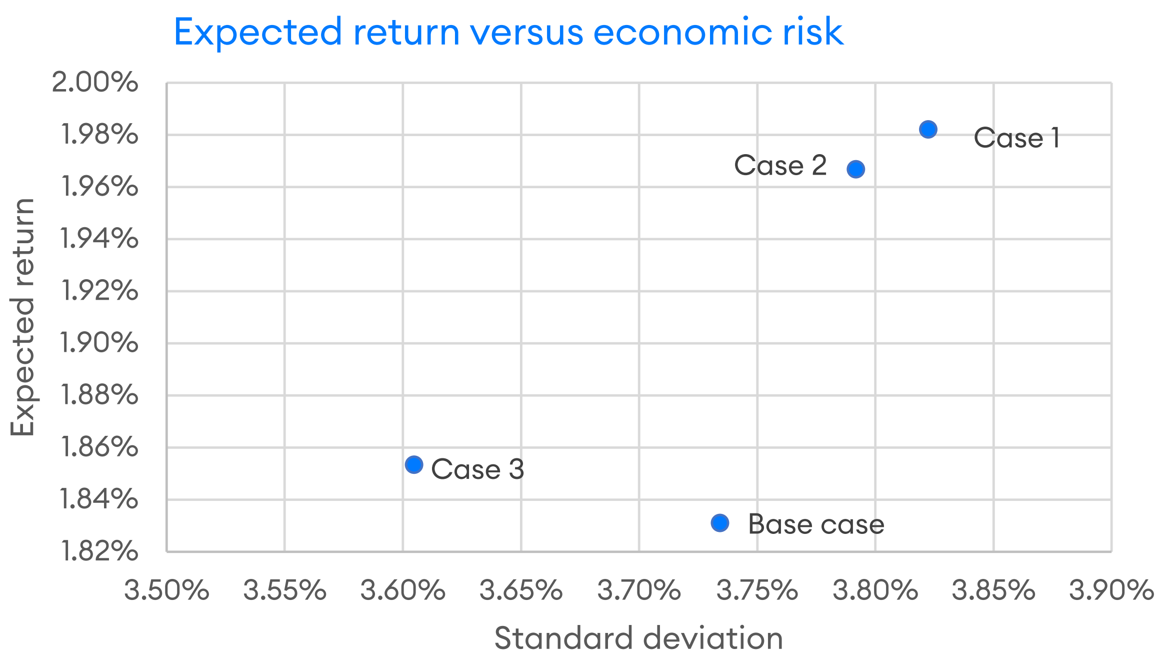


Figure 16: Impact on the expected return and standard deviation after allocation to Dutch mortgages of 10%. Source: BNPP AM

	Base case	Case 1	Case 2	Case 3
Expected return [ER]	1,8%	+0,2%	+0,2%	+0,1%
Standarddeviation [SD]	3,7%	+0,1%	+0,1%	-0,1%
Risk adjusted return [ER/SD]	49,0%	+2,9%	+2,9%	+2,4%

Table 6: Impact on the expected return and standard deviation after allocation to Dutch mortgages. Source: BNP Paribas Asset Management

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From an SCR perspective the outcomes are similar: an allocation to Dutch mortgages improves the SCR adjusted return of the insurance company in this case study and the insurance can choose to keep the SCR at a similar level or reduce the SCR.

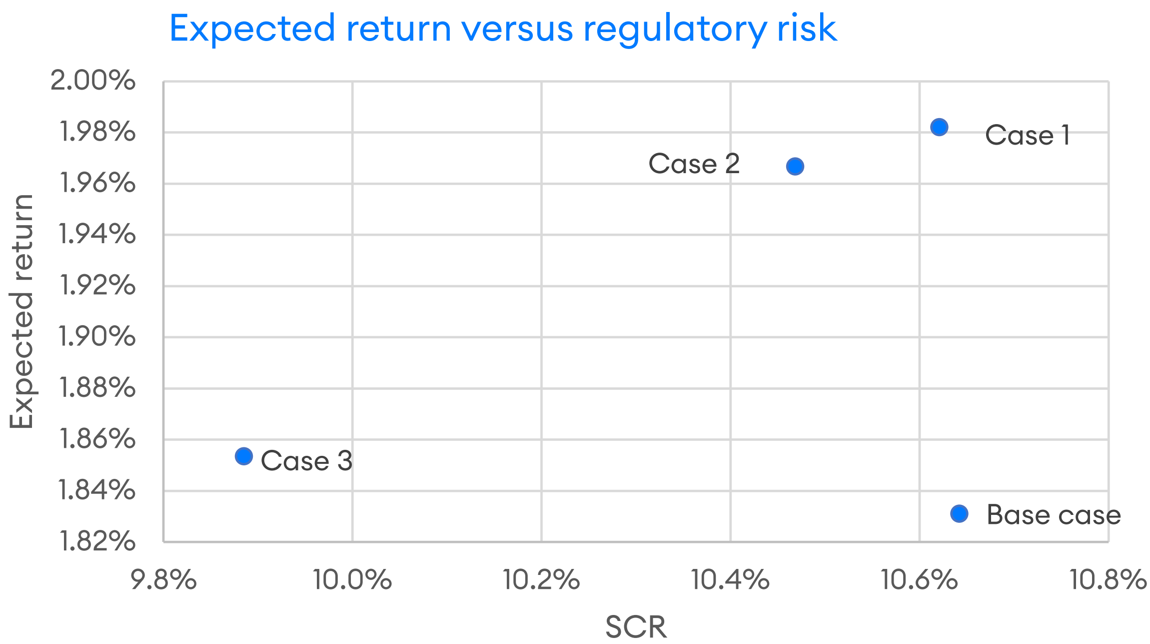


Figure 18: Impact on the expected return and SCR after allocation to Dutch mortgages of 10%. Source: BNP Paribas Asset Management

	Base case	Case 1	Case 2	Case 3
Expected return [ER]	1,8%	+0,2%	+0,2%	+0,1%
SCR - Market+Default [SCR]	10,6%	0,0%	-0,1%	-0,7%
SCR adjusted return [ER/SCR]	17,2%	+1,5%	+1,6%	+1,6%

Table 7: Impact on the expected return and SCR after allocation to Dutch mortgages. Source: BNP Paribas Asset Management

4. Funding Update

RMBS

Until April 2022, one RMBS deal and three BTL deals were distributed. The total distributed Dutch RMBS issuance in the first four months was around EUR 1.6 billion, which is less than the EUR 2.3 billion that was issued in the first months of 2021. The retained issuance in the first months of 2022 was only EUR 70 million. The spread of Dutch RMBS senior AAA paper increased compared to the end of 2021 by 6 bps to a total of 23 bps on the 15th of April. For the first time, the volume of Dutch securitizations outstanding was lower than that of covered bonds issued by banks, as shown by figures of the DNB[1]. The volume of Dutch securitizations has been declining since 2009, as other types of funding (like ECB's additional lending facilities and covered bonds) became cheaper and easier for banks. The volume of covered bonds has increased sharply in recent years.

For the first time, the volume of Dutch securitizations outstanding was lower than that of covered bonds.

The RMBS deal that took place in the first months of 2022 was Green Storm BV 2022-1 with Obvion as the seller. The deal is structured with the aim to be STS compliant. The size of the deal was EUR 532 million, with the greater part in class A notes. The remaining notes were class B and C, but those were retained. The spread at issuance of the class A notes was 75 bps. The class A notes were sold above par at 102.72 which led to a discount margin of 20 bps. The average seasoning of the loans was more than three years, with a loan-to-value ratio of 72.3% and 39.4% interest-only loans.

BTL

In January 2022, as already discussed in our previous quarterly report, the first BTL deal that was issued was Jubilee Place Series 3. The deal is sponsored by three Dutch lenders (Tulp Group, DMS/Nestr and Casarion). The Classes range from A to R, with issue spreads ranging from 85 bps for the AAA rated class to 550 bps for the lowest rated Ca/B- class. The class A notes were sold above par at 100.46. The pool was sized at EUR 314 million, with over a thousand loans. The seasoning of the pool is four months, the loan-to-value ratio is 72.5% and the percentage of interest-only loans is high with 53%.

In April 2022, two BTL deals were issued of which the first one was Dutch Property Finance BV 2022-1 with RNHB BV as the seller. Dutch Property Finance BV 2022-1 is the eighth issuance from its MBS program. The size of the deal was EUR 459 million consisting of granular Dutch mortgage loans secured on residential, mixed-use and commercial properties. The Classes range from A to F, with classes A to D being distributed. Issue spreads ranged from 75 bps for the AAA rated class to 450 bps for the unrated rated F class. The class A notes were sold below par at 99.71, which translates into an 85 bps spread, 30bps wider than the previous deal issued in September 2021. The seasoning of the pool is 0.7 years, the loan-to-value ratio is 65.5% and the percentage of interest-only loans is 29%.

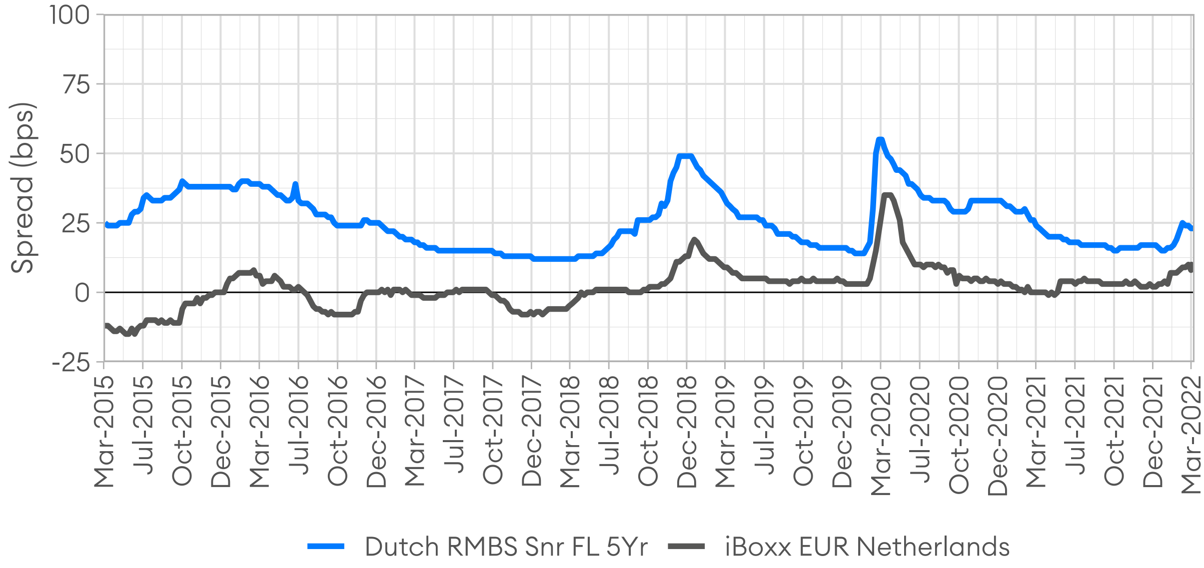
1 DNB - Value of outstanding Dutch securitisations below that of covered bonds for the first time

The third BTL deal is the Domi BV 2022-1 with Domivest BV as the seller. The deal is structured to be STS compliant. The size of the deal was EUR 343 million. The Classes range from A to Z, with only the class Z being retained. Issue spreads ranged from 85 bps for the AAA rated class to 690 bps for the Caa3/B- rated class E. The class A notes were sold at par. The seasoning of the pool is four months, the loan-to-value ratio is unknown 65.5% and the percentage of interest-only loans is high with 51%.

Covered Bonds

In the first months of 2022, over EUR 5.2 billion was issued. In comparison, this is approximately EUR 4 billion more than was issued in the first months of the previous year. The spread (iBoxx EUR Netherlands) increased during the quarter towards 8 bps on the 11th of April.

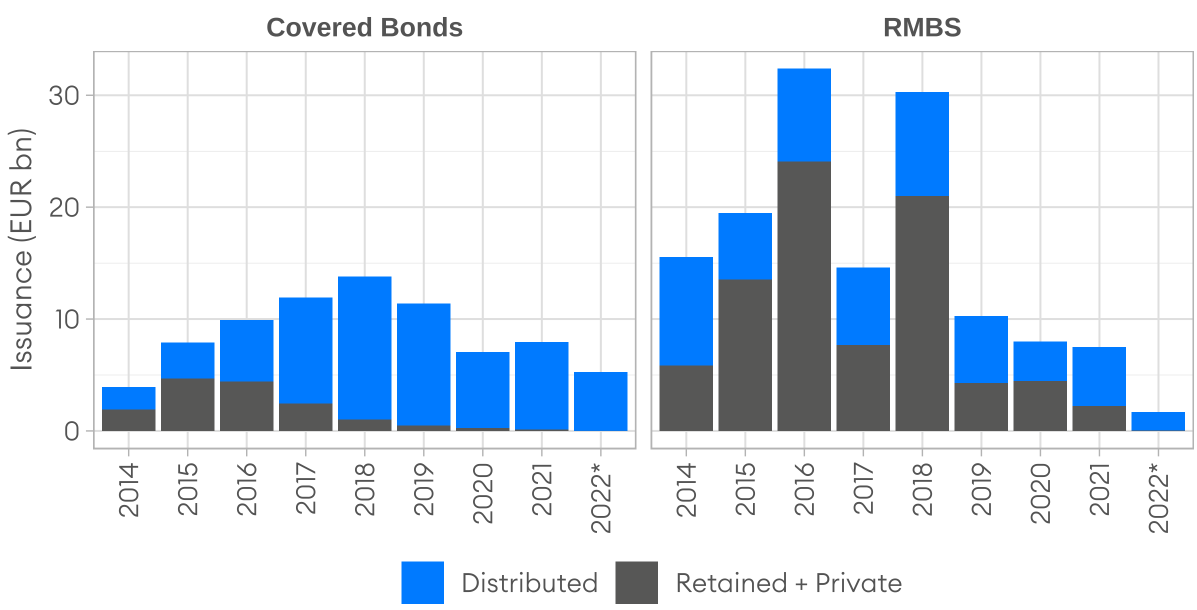
Mortgage funding spreads



Source: Dynamic Credit, JP Morgan

Figure 19: RMBS spread refers to indicative mid spread (DM) for representative generic RMBS bonds. iBoxx EUR Netherlands spread refers to spread versus mid swap rates. The data is as of 2022-Q1.

Mortgage funding issuance



* Data up to Q1
Source: Dynamic Credit, JP Morgan

Figure 20: Issuance of Dutch RMBS and covered bonds. The data is as of 2022-Q1.

Dutch RMBS market: Priced Dutch prime RMBS and BTL deals

Date	Issuer	Series	Seller	Class	Euro Amount	Life	FXFL	Spread	Benchmark	M	SP	F	DBR	Retained	Comments
14-Jan-22	Jubilee Place BV	3	Multiple Dutch Lenders (Tulp Group, DMS and Casarion)	A	287.69000	3.5	FL	85	3 Mo. Euribor	Aaa	AAA			N	BTL; EUR 314mm; 814 Obligors; WA CLTV 72.46%; WA Seasoning 3.99m; IO Loans 53.09%
				B	18.85000	5.0	FL	110	3 Mo. Euribor	Aa3	AA			N	
				C	10.66000	5.0	FL	160	3 Mo. Euribor	A2	A			N	
				D	7.38000	5.0	FL	200	3 Mo. Euribor	Baa3	BBB			N	
				E	3.28000	5.0	FL	210	3 Mo. Euribor	Ba3	BB+			N	
				X1	13.11000		FL	300	3 Mo. Euribor	B1	B-			N	
				X2	3.28000		FL	550	3 Mo. Euribor	Ca	B-			N	
				R	2.00000		FX							N	
6-Apr-22	Dutch Property Fin	2022-1	RNHB BV	A	366	3.00	FL	75	3 Mo. Euribor		AAA		AAA	N	BTL; EUR 450mm; WA CLTV 65.5%, WA Seasoning 0.7m, IO loans 28.5%; 1,130 Obligors;
				B	32	4.84	FL	135	3 Mo. Euribor		AA		AA	N	
				C	18	4.84	FL	185	3 Mo. Euribor		A+		A	N	
				D	21	4.84	FL	240	3 Mo. Euribor		BBB-		BBBL	N	
				E	14	4.84	FL	350	3 Mo. Euribor					Y	
				F	9	4.84	FL	450	3 Mo. Euribor					Y	
8-Apr-22	Green Storm BV	2022-1	Obvion	A	500	4.84	FL	75	3 Mo. Euribor		AAA	AAA		N	RMBS; EUR 526.3mm; WA CLTV 72.3%; WA Seasoning 40.5m; IO Loans 39.4%; Self Employed 9.7%;
				B	26	4.84	FX							Y	
				C	5	4.84	FX							Y	
14-Apr-22	Domi BV	2022-1	Domivest BV	A	299	3.21	FL	85	3 Mo. Euribor	Aaa	AAA			N	BTL; EUR 333.4mm; WA Seasoning 4.22m; IO Loans 51%; Obligors 1,079;
				B	13	5.04	FL	140	3 Mo. Euribor	Aa2	AA			N	
				C	8	5.04	FL	180	3 Mo. Euribor	A1	AA-			N	
				D	8	5.04	FL	240	3 Mo. Euribor	Baa2	BBB-			N	
				E	5	5.04	FL		3 Mo. Euribor	Caa3	B-			N	
				X	10		FL	660	3 Mo. Euribor	Caa2	B-			N	
				Z	-		FX							N	

Table 8: Priced Dutch RMBS en BTL Deals in 2022-Q1. Source: Dynamic Credit, JP Morgan

DYNAMIC

5. Buy-to-let Mortgages

New legislation and regulation

Until May 2024, rent increase in the private sector is capped at inflation + 1%. The reference inflation is determined as that of November of the preceding year. CBS reports inflation in November 2021 of 2.3%, hence the rent increase in 2022 is capped at 3.3%[1]. In the regulated rental sector, rents are still frozen until July of this year.

From May 2022 onwards, the property value (WOZ) will only account for 33% of the total points to determine the maximum regulated rental price (the total number of points determines the maximum rental price in case it remains below the regulated rent threshold)[2]. The purpose is to prevent a shrinking supply in the regulated sector in areas with a high housing shortage. The shortage causes upwards pressure on property values, pushing houses over the regulated rent threshold. The legislation could also cause certain properties currently in the private sector to fall under the regulated sector.

Supreme court ruling

On the 24th of December, the Supreme Court of the Netherlands has found that the manner in which wealth is taxed in the Netherlands is not in line with the European Convention on Human Rights[3]. According to the ruling, only the actual return on capital may be taxed. The ruling followed a procedure started by citizens who had most of their assets in savings and did not reach the fictitious return of 4% per annum due to the low interest rates.

The ruling forces compensation of a large group of taxpayers, who paid too much tax over the years 2017 to 2021. A decision needs to be made whether to compensate only the taxpayers who were part of the procedure or to cast a wider net. The expected costs thus range from EUR 2.4 billion to EUR 11.7 billion[4]. The deputy minister in charge of the Dutch Tax Administration recommends a sober initial compensation package, as he expects another ruling by the Supreme Court within six months which could have great impact on the size of the compensation package.

The ruling also means that the tax system needs to be reformed. For 2023 and 2024 temporary legislation will be put in place, depending on the chosen compensation option. From 2025, the goal is to have a system which will tax actual returns. Not only income from assets will be taxed, but also unrealized gains, such as the change in property value[5]. For landlords, this means that rental income minus expenses will be taxed.

Next to these Box 3 wealth tax reforms, the Cabinet is also looking at Box 2, which taxes income from substantial shareholding, and the corporate tax ratee. How the Cabinet plans to tax income in Box 2 remains unclear. The Dutch Financial Times ("Financiele Dagblad") reports that the corporate tax rates could be increased, the low rate to 16% (from 15%) and let the high rate of 25.8% apply to profits above EUR 200,000 instead of EUR 395,000.[6]

Rental Prices

Pararius (a broker for rental properties) reports that non-regulated rental prices (per square meter) have increased on average 6.7% YoY[7]. In most cases rental properties are furnished or semi-furnished and these categories have increased by 6.1% and 9.1% respectively.

1 Ministerie van Binnenlandse Zaken - Staatsblad 2021, 194
2 Ministerie van Binnenlandse Zaken - Maximering meetellen WOZ-waarde in huurprijsbepaling
3 Belastingdienst - Stand van zaken uitspraak Hoge Raad over Box 3
4 Accountancy van morgen - Binnen half jaar nieuwe uitspraak Hoge Raad over spaartaks
5 Ministerie van Financiën - Plan belasting over werkelijk rendement en opties voor rechtsherstel Box 3
6 FD - Rekening arrest vermogenstaks kan oplopen tot bijna €15 miljard
7 Pararius - Huurprijzen vrije sector verder gestegen

Rate and spread development

Dynamic Credit launched its consumer buy-to-let platform in the Netherlands in 2019. Besides the unique feature of offering borrowers an LTV of 90%, the product also sets itself apart by offering a 30-year fixed rate period.

In the first quarter of 2022, interest rates increased sharply. Inflation fears and the outbreak of the Ukraine war pushed swap rates up, which resulted in lenders rapidly increasing mortgage rates. On average, BTL mortgage rates were 54 bps higher at the end of the first quarter with especially the longer-dated maturities increasing the most. Despite this increase in mortgage rates, spread levels were much lower at the end of the first quarter. On average, spreads decreased by 27 bps, with the shorter maturities seeing even bigger drops.

The trend of increasing mortgage rates and decreasing spreads continued in April. On average, mortgage rates increased by an additional 15 bps, bringing the YTD difference to an increase of 69 bps. Spreads dropped by an additional 21 bps in April, which brings the total YTD drop in spreads to on average 48 bps.

Interest rates rose sharply, but spreads have fallen nevertheless

It should be noted that Dynamic Credit is the only active lender in the high LTV (>85%) segment.

Market rate and spread development for consumer buy-to-let rates									
		BTL rates				Spreads			
Fixed rate period	LTV	2021-12-31	2022-03-31	2022-04-22	QoQ	2021-12-31	2022-03-31	2022-04-22	QoQ
1-year	50%	2.10%	2.51%	2.66%	0.41%	2.55%	2.43%	2.36%	-0.12%
	60%	2.20%	2.65%	2.75%	0.45%	2.64%	2.57%	2.44%	-0.07%
	70%	2.23%	2.66%	2.78%	0.43%	2.67%	2.58%	2.48%	-0.09%
	80%	2.61%	2.95%	2.95%	0.34%	3.05%	2.87%	2.64%	-0.18%
	90%	3.30%	3.90%	3.90%	0.60%	3.75%	3.82%	3.60%	0.07%
5-year	50%	2.18%	2.67%	2.84%	0.49%	2.23%	1.77%	1.60%	-0.46%
	60%	2.28%	2.77%	2.93%	0.49%	2.33%	1.88%	1.69%	-0.45%
	70%	2.30%	2.80%	2.96%	0.50%	2.36%	1.90%	1.72%	-0.46%
	80%	2.81%	3.20%	3.39%	0.39%	2.87%	2.30%	2.15%	-0.57%
	90%	3.30%	3.90%	3.90%	0.60%	3.36%	3.01%	2.67%	-0.35%
10-year	50%	2.29%	2.90%	3.09%	0.61%	2.15%	1.83%	1.62%	-0.32%
	60%	2.38%	2.98%	3.20%	0.60%	2.24%	1.92%	1.73%	-0.32%
	70%	2.42%	3.02%	3.23%	0.60%	2.28%	1.95%	1.76%	-0.33%
	80%	2.91%	3.42%	3.59%	0.51%	2.77%	2.36%	2.13%	-0.41%
	90%	3.45%	4.05%	4.05%	0.60%	3.32%	3.00%	2.60%	-0.32%
20-year	50%	2.73%	3.39%	3.68%	0.66%	2.36%	2.15%	2.00%	-0.21%
	60%	2.83%	3.49%	3.81%	0.66%	2.46%	2.26%	2.13%	-0.20%
	70%	2.88%	3.54%	3.86%	0.66%	2.51%	2.31%	2.18%	-0.20%
	80%	3.22%	3.82%	4.04%	0.60%	2.86%	2.59%	2.36%	-0.27%
	90%	3.60%	4.25%	4.25%	0.65%	3.25%	3.03%	2.58%	-0.22%

Table 9: Interest rate and spread development for consumer buy-to-let rates in the Netherlands. Source: Dynamic Credit, Hypotheekbond.

6. News

The following sections provide an update on the (macro)economic environment.

Macroeconomic update

In the beginning of the first quarter, the economy was doing well due to the removal of social restrictions combined with fewer supply chain disruptions. However, the Russian invasion of Ukraine in February and the subsequent sanctions have led to higher energy and commodities prices, and more supply chain disruptions. This has a material impact on the economy, but the extent of the damage depends on how the conflict evolves. Extended inflation hurts consumer purchasing power and corporate investments. The sanctions and voluntary retreats from the Russian market also affect exports. The invasion is also a trigger for increased public spending to accommodate refugees, increase the defense budget, facilitate the energy transition, and compensate for lost consumer purchasing power. In the wake of rising inflation and the war, consumer confidence has hit an all-time low in the Netherlands as discussed in section 2 of this document. The ECB has revised their growth outlooks downwards, though it still expects the economy to grow. Real GDP is expected to increase by 3.7% in 2022[1].

Eurozone inflation increased to 7.50% in March 2022.

Headline inflation in the eurozone reached 7.5% in March 2022 and is projected to remain elevated over the coming quarters. The main driver is energy inflation, which reached 28.6% in that month. Food inflation was 4.4% in February due to high commodity and energy prices. Gas and electricity account for 90% of the costs of the processed food industry and are an important factor in fertilizer prices. The war in Ukraine not only directly impacts inflation, but also creates much uncertainty surrounding the peak and duration of this high-inflation period. The ECB expects inflation to normalize over time, as they expect a sharp decline in energy inflation. The futures curve of oil and gas follow a downward-sloping curve, despite several upward inflationary pressures, such as the reversal in 2023 of temporary fiscal measures to reduce energy prices and national climate change measures in 2023-24. The Central Bank expects HICP to decline from an average of 5.1% in 2022 to 2.1% in 2023 and 1.9% in 2024. Core inflation (which excludes the volatile energy and food prices) reached 3% in March. The gap between HICP inflation and Core inflation is expected to tighten as well. The ECB forecasts Core inflation to be 2.6% in 2022, 1.8% in 2023, and 1.9% in 2024[2].

Monetary Update[3]

During the first quarter, the ECB decided to extend the end date of net asset purchases. Initially intended to end in March, the Governing Council decided to postpone until the third quarter. However, given the current uncertainty, they retain flexibility and optionality in the conduct of monetary policy. The economic situation is very dependent on the development of the conflict, potential escalation, and the effect of new and existing sanctions.

Monthly net purchases under the APP will be EUR 40 billion in April, EUR 30 billion in May and EUR 20 billion in June. The Governing Council also intends to reinvest principal payments from APP securities beyond the date when it starts raising key interest rates.

The interest rates refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 0.00%, 0.25% and -0.50%. The expectation is that these rates will remain at their current levels until inflation reaches 2% at the end of the projection horizon. Any adjustments will take place sometime after ending net purchases under the APP and will be gradual.

1 ECB - Economic, financial and monetary developments
2 ECB - Fiscal outlook
3 ECB - Monetary policy decisions

Dutch GDP estimates and household consumption

In the fourth quarter of 2021 the Dutch gross domestic product increased by 0.9% QoQ (GDP is published with a 1.5-month lag by the CBS)[1], while the YoY increase was 6.2%. This growth is smaller than the previous two quarters as a result of the reinstated lockdown measures at the end of the year. Growth in Q4 was mainly driven by a rise in investments and an improvement of the trade balance. Household consumption also saw a high increase in February of 13.8% compared to a year earlier.[2] The high increase can be explained by lockdown measures, which were much stricter in February of 2021 than February of this year. Compared to February 2020 spending was 0.4% higher. The numbers are corrected for inflation. The provisional GDP growth of the year 2021 currently is 4.8%, meaning that the economy has fully recovered from the COVID-induced downturn of 2020.

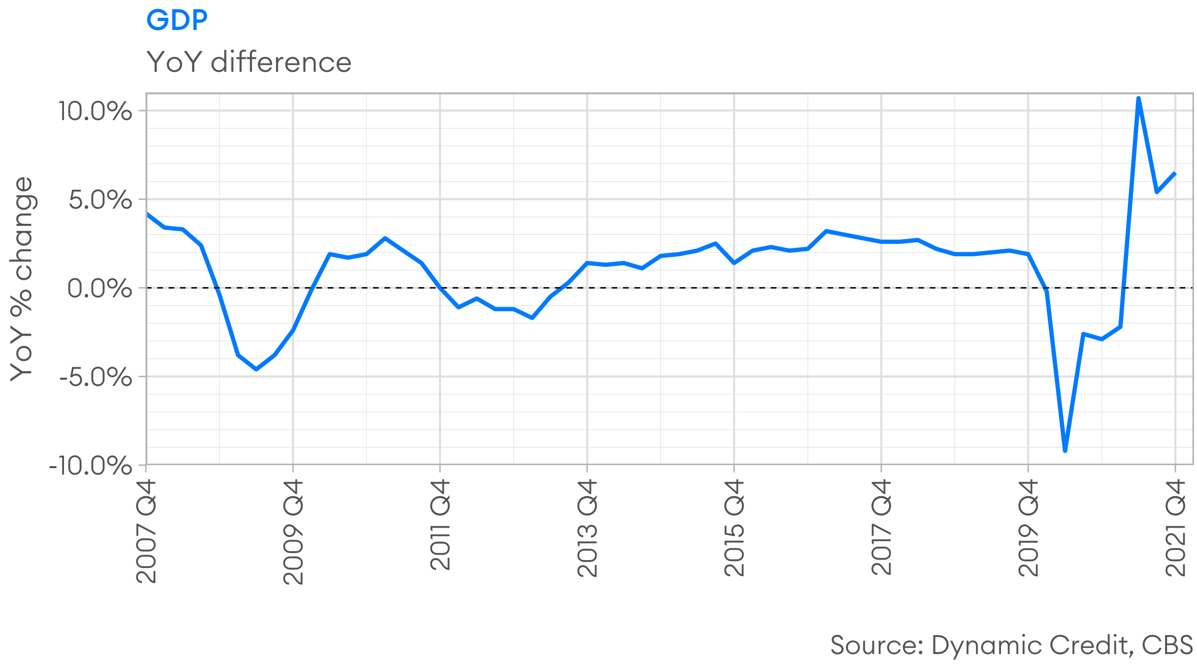


Figure 21: YoY GDP growth in The Netherlands as of 2021-Q4.

The first quarter of 2022 also showed a change in the trend of declining bankruptcies. In March, a total of 160 companies went bankrupt, a 22% YoY increase. In February, a 17% YoY increase was measured. January still saw a decline in bankruptcies compared to previous years. To put the numbers into context, 2018 and 2019 saw an average of 250 bankruptcies per month, putting the current liquidations well below average.[3]

However, the pandemic-related stimulus has ended since the end of the first quarter. Nevertheless, many companies still struggle with the consequences of the pandemic but will now no longer be able to defer their tax payments. Combined with high energy prices and a catch-up effect of deferred bankruptcies during the pandemic, we will likely see an increase in bankruptcies over the coming quarters.

1 CBS - Statline GDP, output and expenditures
2 CBS - Household consumption almost 14 percent up in February
3 NOS - Meer faillissementen nu coronasteun afloopt, 'een kantelpunt'

Unemployment[1]

Unemployment continued to decline the past quarter by 14,000 per month finishing at 327,000 in March 2022. This means the unemployment rate in the Netherlands is now 3.3%, the lowest rate since 2003. Meanwhile, the labor force grew by 37,000 per month to 9.5 million. A large part of this growth is a sharp increase of youth labor participation. Net labor participation among young people rose to 75.6% in March.

The largest decrease in unemployment occurred in the accommodation and food services sector and the agricultural sector. These saw a decline in unemployment benefits by 7.1% and 5.6% respectively. The decline in the accommodation and food services sector is explained by the restrictions that were lifted in February and March. Seasonal effects play a large role in the low unemployment in the agricultural sector.

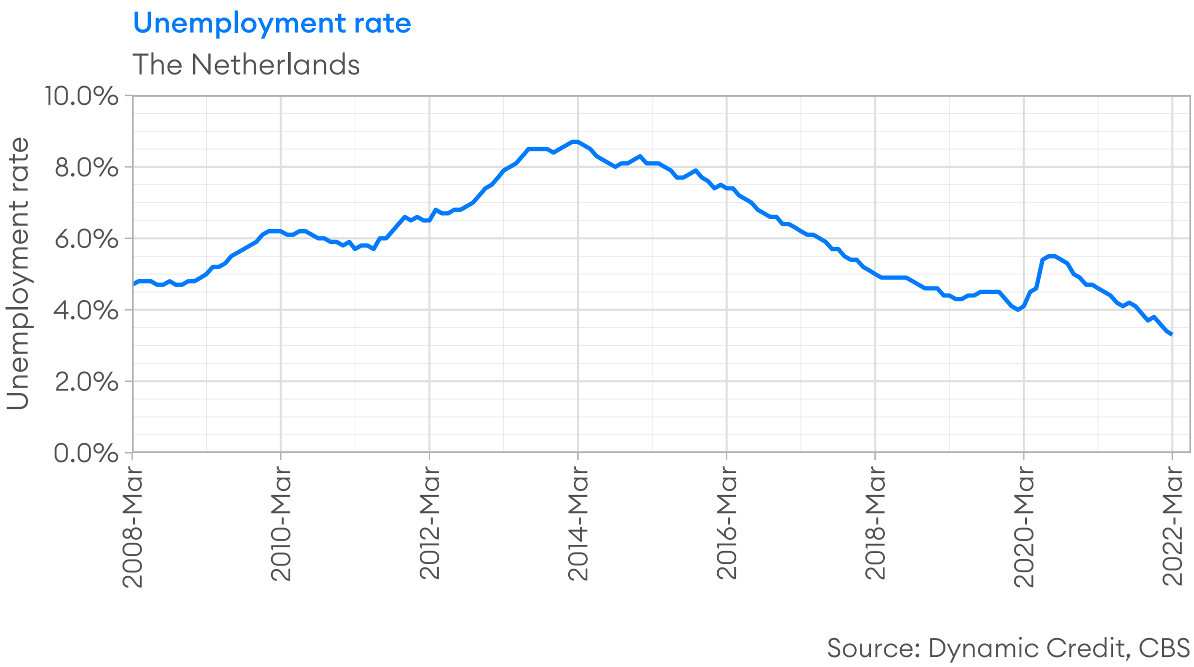


Figure 22: Unemployment rate in The Netherlands as of March 2022.

1 CBS - More employed and fever unemployed in March

AFM on special servicing

In 2021, the Dutch Authority for Financial Markets ("AFM") investigated existing processes relating to borrowers with (future) affordability issues or a residual debt. The investigation was conducted amongst six of the largest mortgage loan providers in the Netherlands. On 24 March 2022, the results were published[1]. The AFM concluded that additional attention was required from Dutch mortgage loan providers relating to the following five topics:

- **Preventive arrears management:** borrowers should know who to approach when they are confronted with (future) affordability issues and mortgage loan providers should actively recognize early warning signals which could lead to affordability issues and act upon them.
- **Measurement of effectiveness of provided solutions:** the offered solution to a borrower experiencing (future) affordability issues should be carefully considered and recorded. It should be frequently measured whether the provided solutions resulted in the expected outcome. This to measure effectiveness of the solutions and learn for future cases.
- **Poignant affordability issues:** clear policies and processes should allow employees to recognize borrowers with affordability issues in poignant situations and know how to respond adequately.
- **Management of residual debt:** mortgage loan providers should offer solutions that are fit for purpose, discussed and frequently assessed with the borrower.
- **Borrower communication:** communication with borrowers with (future) affordability issues should be compassionate and provide the borrowers with sufficient tools to solve these affordability issues.

To summarize, the specific recommendations reflect four main expectations of the AFM relating to the (special) servicing of mortgage loans.

- Be available and approachable for borrowers who worry about the affordability of their mortgage loan
- Actively recognize early warning signals potentially indicating (future) affordability issues and act upon these early warning signals
- Involve behavioral experts when setting up borrower communication
- Frequently test effectiveness of the offered solutions

1 AFM - Aandachtspunten voor aanbieders bij mogelijke betalingsproblemen hypotheek

7. Sustainability

Financing the way to sustainability

In 2020, the built environment in the Netherlands was responsible for 13% of greenhouse gas emissions[1]. To meet European targets, emissions must be reduced by 55% in 2030. In a calculation by the Netherlands Environmental Assessment Agency ("Planbureau voor de Leefomgeving") in 2021[2], reaching this target was still far out of sight. A proposal was made for the revision of the Energy Performance of Buildings Directive drawn up by the European Commission[3] in December 2021 to reflect higher social and climate ambitions. One of the proposals is the gradual introduction of a minimum energy label for homes to encourage renovation. Residential buildings should be renovated from G to at least F by 2030, and to at least E by 2033. That's why action is needed from homeowners and financing these sustainability measures will play an important role.

Of all homeowners in the Netherlands, 17% will not be able to finance the much-needed sustainability measures.

Bottlenecks

To finance the aforementioned renovation challenge, the DNB[4] concludes that two steps need to be taken. The first step is to apply insulation, and then subsequently quit using gas for heating and cooking. The required investment for an owner-occupied home is estimated to be EUR 24,000, although the amounts vary widely per type of home. The DNB states that a poor business case and the lack of the required financing could cause bottlenecks.

The inadequate business case for homeowners to make homes more sustainable is based on a study by the Netherlands Environmental Assessment Agency from 2020[5], in which they showed that sustainability projects for homeowners often do not lead to neutrality of housing costs and were often unprofitable. However, given the recent increases in energy prices, it is uncertain whether these findings still hold today. The lack of financing options for homeowners to take these measures is still an issue. This depends on the available savings and the borrowing capacity. To assess the feasibility, DNB estimated the required investment to be EUR 24,000 per home. After this, the savings balance was looked at and, if this amount was not sufficient, it was checked whether the remaining amount could be financed by a mortgage loan.

It appears that 50% of the homeowners have sufficient savings, with the percentage being higher for homeowners with higher incomes. About half of the group of people that have insufficient savings are able to finance the remaining amount through a mortgage loan. What remains, taking into account a small group for whom the possibility of financing is unknown, is a group of 21% of homeowners that do not have the financial possibility to make the house more sustainable. These owners also more often live in a home with high energy consumption. No less than 87% of this group lives in an energy label C or lower, while these houses only make up 71% of the housing stock. However, the above numbers do not yet include a number of measures that are already in place to stimulate sustainability. This includes broadening lending standards for sustainability and subsidies and incentive programs. Including this in the analysis, the percentage drops from 21% to 17%. However, the existing schemes mainly help the middle and higher incomes as shown in figure 23. The percentage of people from the 20% lowest incomes that can finance sustainability measures drops by only three percentage points to 28%.

1 CBS - Greenhouse gas emissions 8 percent down in 2020
2 Netherlands Environmental Assessment Agency - Climate and Energy Outlook 2021
3 European Commission – Proposal revision Energy Performance of Buildings Directive
4 DNB - Analyse Financiering verduurzaming woningmarkt
5 Netherlands Environmental Assessment Agency - Making owner-occupied homes more sustainable

Measures and opportunities

In order to achieve the 2030 targets, the DNB suggests that homeowners with sufficient financing options must be encouraged to take action, and additional policies must be formulated for homeowners without this option. For the first group, it is proposed to link energy taxes for households to the degree of pollution. For example, gas is currently less heavily taxed per tonne of CO2 compared to electricity. In addition, longer-term subsidies should give homeowners more certainty and it would help when they receive these commitments in advance instead of afterwards. For the group of homeowners without financing options additional measures will be required. This group cannot be defined precisely, which makes the task more difficult. However, what can be seen is that this group often resides in so-called focus or shrinkage areas. One possibility for the central government is to make agreements with specific regions on regional developments. Currently, the government is already making money available to support such regions.

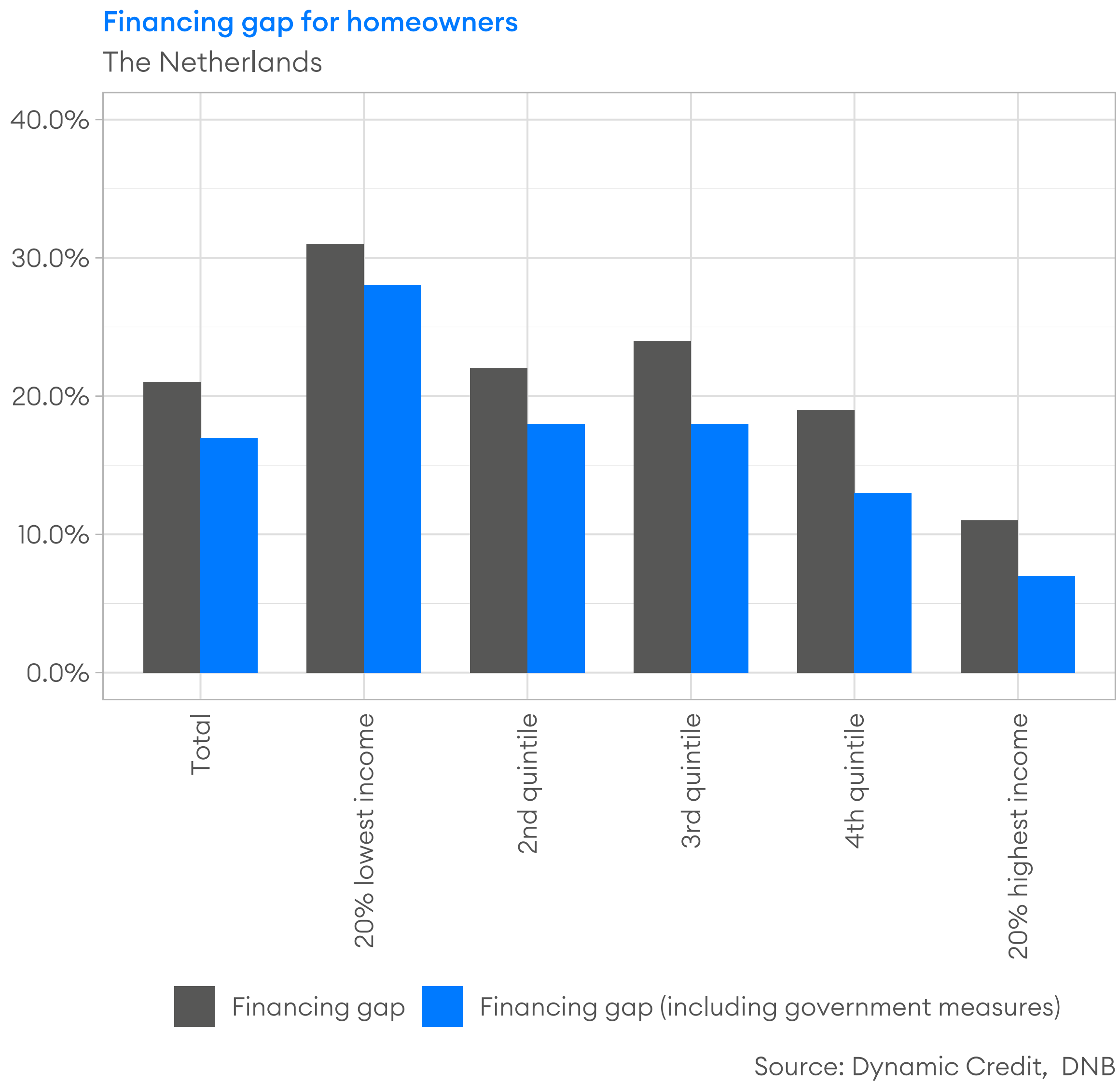


Figure 23: The percentage of homeowners that are not able to finance sustainability measures through savings or mortgage loans divided by income group. Source: DNB and Dynamic Credit, 2022

Appendix

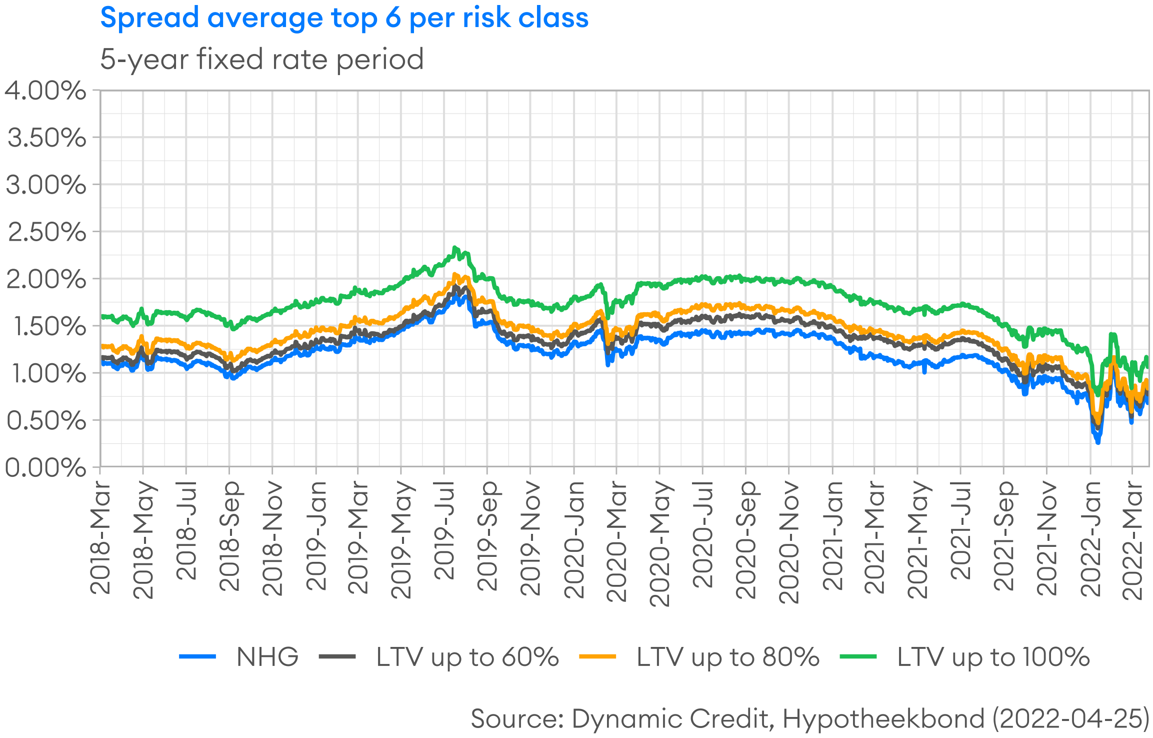


Figure A1: Spread of the average top-6 price leader mortgage rates (excluding action rates) for mortgage loans with a 5-year fixed rate period for four risk classes. Up to and including 25/04/2022.

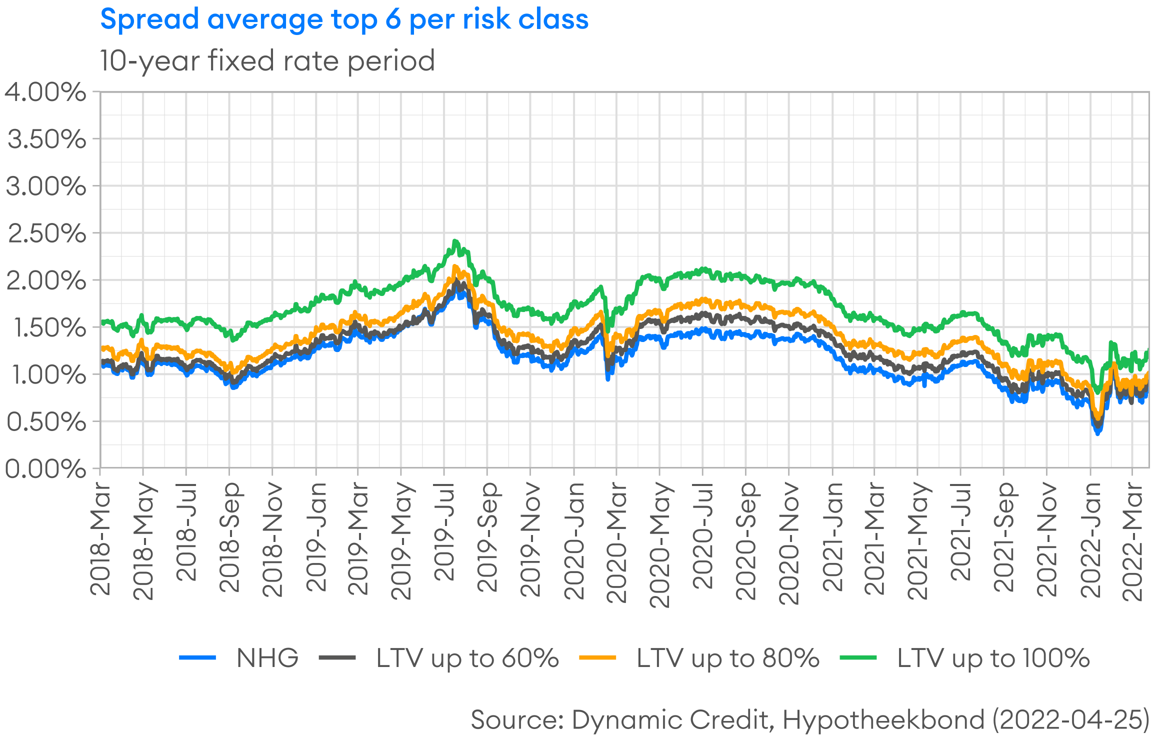


Figure A2: Spread of the average top-6 price leader mortgage rates (excluding action rates) for mortgage loans with a 10-year fixed rate period for four risk classes. Up to and including 25/04/2022.

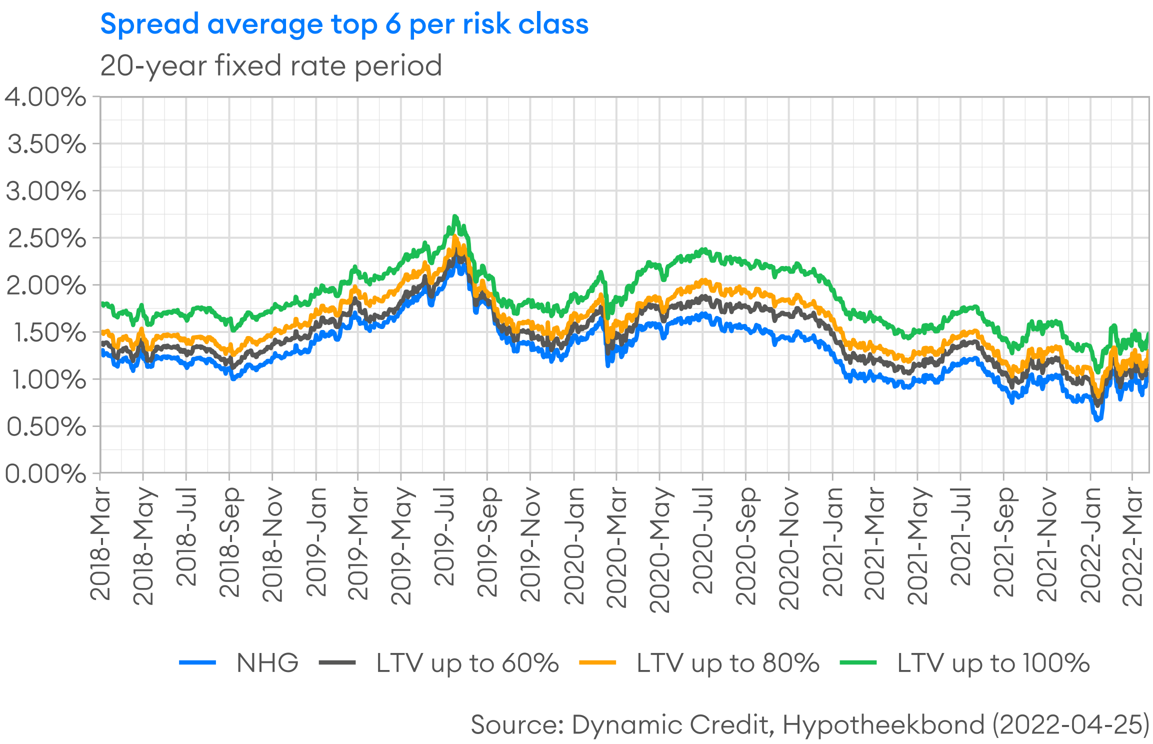


Figure A3: Spread of the average top-6 price leader mortgage rates (excluding action rates) for mortgage loans with a 20-year fixed rate period for four risk classes. Up to and including 25/04/2022.

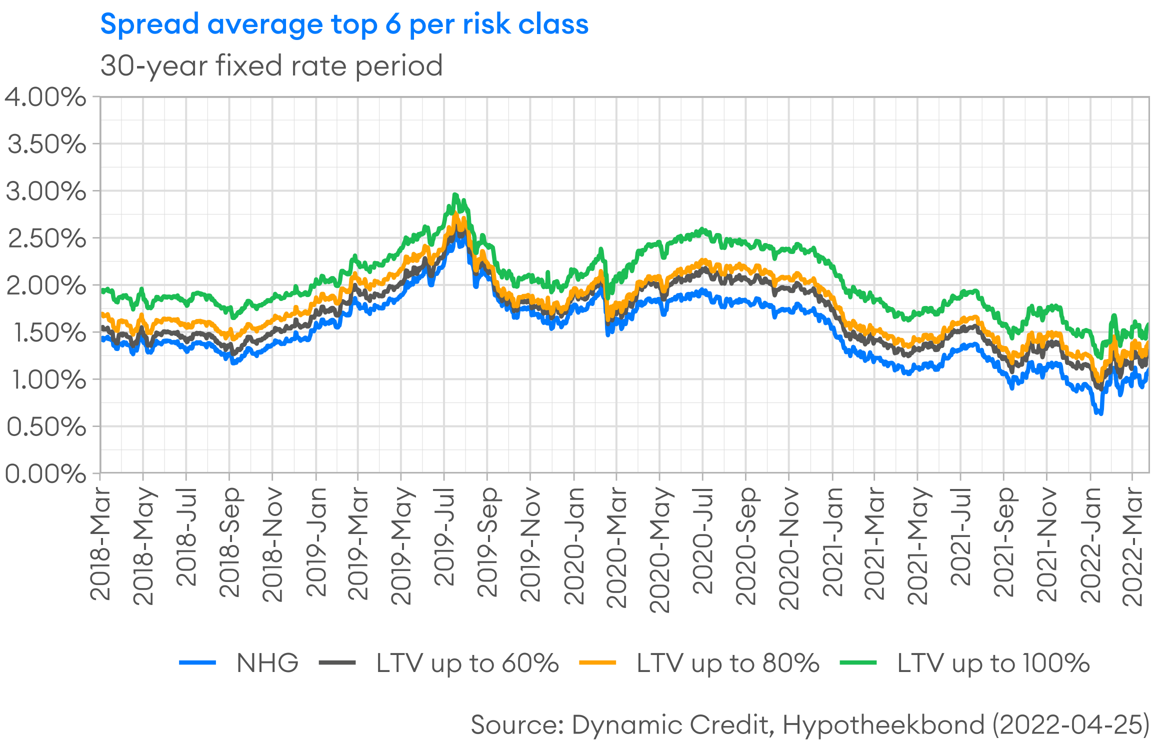


Figure A4: Spread of the average top-6 price leader mortgage rates (excluding action rates) for mortgage loans with a 30-year fixed rate period for four risk classes. Up to and including 25/04/2022.

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