Alternative view

The Dutch mortgage market from an international perspective

By David van Bragt
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The Dutch mortgage market from an international perspective

An increasing number of investors are looking at the opportunities that direct mortgage investments around the world can offer to their search for yield. However, each country has its own specific circumstances and regulations that drive the housing and mortgage market. The question then arises: how does the Dutch mortgage market compare to other major mortgage markets such as the US, UK, Japan, Germany, France, Denmark and Switzerland? Understanding the similarities and differences will help investors to decide which mortgage market offers the risk-return profile they are aiming for.

This article focuses on various aspects of mortgage markets: home ownership rate, size of the mortgage market, house price developments, mortgage rates, mortgage risks, mortgage product design, and mortgage market support. In comparison to other countries, the large number of social housing corporations in the Netherlands, which provide affordable rental housing for the lower incomes, has led to a relatively low home ownership rate. The Dutch mortgage market is nevertheless large and well developed, and supported by households with, on average, a high net worth.

The underlying house prices in the Netherlands have performed close to the average in the long run, as compared to an international sample. The financial crisis led to a significant correction, but house prices have recovered after 2013. Despite this house price volatility, mortgage arrears and defaults are still very low for the Dutch market. Additional restrictions on mortgage lending have been imposed by the Dutch government in recent years, leading to lower risks going forward. Also typical for the Dutch market is the “Nationale Hypotheekgarantie” (NHG) structure that provides credit protection to mortgage lenders.

The shift from banks, as the traditional funders of mortgages, towards insurance companies and pension funds is apparent in the Netherlands. Especially medium- and long-term Dutch mortgages are being financed more and more by pension funds or insurance companies in recent years. These mortgage investments can offer an attractive spread for institutional investors, compared to other large euro-denominated mortgage markets, and can also be incorporated well in their liability matching portfolios.
Home ownership rate and size of mortgage market

The Netherlands has a rather low home ownership percentage (around 68%, see Figure 1). This is mainly caused by the large number of social housing corporations which provide affordable rental housing for the lower incomes. Nevertheless, the overall mortgage debt as a percentage of the gross domestic product (GDP) is high in the Netherlands (around 100%, second only to Denmark, see Figure 2). Due to this sizable mortgage debt the total household debt as a percentage of total net disposable income, as shown in Figure 3, is also high in the Netherlands (around 270%, second only to Denmark). Household net worth as a percentage of total net disposable income is, however, also high (around 700%, highest ranked in our sample, see Figure 4). The Netherlands thus has a large and well-developed mortgage market, which is supported by households with, on average, a high net worth.

Figure 1: Home ownership rate (as of 2015, or latest data available).

Figure 2: Mortgage debt as a percentage of GDP (as of 2014). Source: EMF (2015, p. 90).
Figure 3: Household debt as a percentage of total net disposable income (as of 2016, or latest available). Source: OECD.

Figure 4: Household net worth as a percentage of total net disposable income (as of 2016, or latest available). Source: OECD.

House price developments
The average price increase of the Dutch housing market between 1980 and 2017, as compared to an international sample, is reflected in Figure 5. Figure 6 shows the price development in real (inflation-adjusted) terms. The average annual price increase has been 1.2% in real terms for the Netherlands for this period, compared to an average of 1.8% in a broad sample of countries. The Dutch market experienced a slow development in the 1980s, but accelerated in the 1990s and beginning of the 2000s. This house price growth was supported by different factors, such as tax deductibility of mortgage payments, an undersupply of houses, increasing incomes, decreasing interest rates and households being allowed to take a mortgage based on two incomes instead of one.¹

¹ See NVB (2014) for more background information.
Like in other countries, the Dutch housing market has taken a significant hit after the financial crisis. The price decrease was approximately 20% between 2008 and 2013. In 2018, Dutch house prices again reached the pre-crisis level. In terms of affordability, the ratio of house price to income has increased to approximately 150% at its peak in 2008, going down to 117% at the end of 2016, see Figure 7. A value of 100% should be interpreted here as the long-term historical average value. Figure 8 shows that the ratio of house price to rent has increased to approximately 150% at its peak in 2008, going down to 106% at the end of 2016. Again, a value of 100% is equal to the long-term historical average value.

Figure 5: House price change in different countries.  

Figure 6: Real house price change in different countries.

Figure 7: House prices versus average income.

Figure 8: House prices versus average rent.

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2 See https://www.kadaster.nl/prijsindex. In recent years, differences between the local and global housing market have been pronounced, however, in the Netherlands. For example, prices for apartments in Amsterdam have surged with almost 70% from 2013 to the end of 2017 (see https://www.hypotheker.nl/actueel/huizenprijzen-amsterdam/) whereas the average house price has only rebounded with 20% in this period.

3 Sources: The Economist; Banco de España; Banque National de Belgique; Banque Nationale Suisse; Deutsche Bundesbank; Eurostat; INSEE; Kadaster; OECD; ONS; Standard & Poor’s; Statistics Sweden; Teranet - National Bank. An interactive graph (also including other countries) is available via https://infographics.economist.com/2017/HPI/index.html.
Mortgages rates

Mortgage rates vary significantly across different countries. For example, at the end of 2017 the interest rate on 20-year mortgages ranged from 1.2% for Japan to 4.5% for Australia, see Figure 9. With 2.5%, the Netherlands is close to the average in a broad sample of countries. Figure 10 shows the historical development of mortgage rates. In the Netherlands, the mortgage rate is relatively high when we focus on the larger euro-denominated mortgage markets. Factors that may explain this are the relatively high loan-to-value of Dutch mortgages, the free option to (typically) prepay 10% of the mortgage per year and the relatively long maturity of Dutch mortgages.4

Overall, mortgage rates have declined significantly after the financial crisis, in line with the general decrease of market interest rates. The spread over the swap rate has increased, however, after the crisis and is currently for Dutch mortgages about 1.6% above the long (15-year) swap rate, see Figure 11. For liability-driven investors like pension funds or insurers, who base the valuation of their liabilities on the swap rate, Dutch mortgages thus remain an attractive investment opportunity.5

Figure 9: Interest rates on 20-year mortgages for different countries (end of 2017).

Source: https://www.numbeo.com.6

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4 See https://economie.rabobank.com/publicaties/2015/september/nederlandse-hypotheekrente-hoogste-van-de-eurozone/ (in Dutch) for more information.

5 The correlation between Dutch mortgage rates and the market swap rate depends on the specific time period (see TKPi, 2017). In the short run, mortgage rates respond with a delay to changes in the swap rate. This leads to a low instantaneous correlation between these rates. Measured over longer periods (e.g., 6 to 12 months), the correlation between mortgage and swap rates increases significantly, however. In practice, mortgages can thus be a suitable candidate for the matching portfolio of institutional investors with a longer investment horizon.

6 An interactive overview (also including other countries) is available via https://www.numbeo.com/cost-of-living/country_price_rankings?displayCurrency=USD&itemId=106.
Figure 10: Historical interest rates on new mortgages for different euro countries. Data for new mortgages with an initial rate fixation over 10 years. Source: ECB.

Figure 11: Comparison of Dutch mortgage rate with euro swap rates. Data for new Dutch mortgages with an initial rate fixation over 10 years. Source: ECB, Aegon Asset Management.
Mortgages risks

Mortgage arrears are relatively low for the Dutch market (only 0.2% has arrears of three months or more), see Figure 12. In most other European countries the arrears vary between 0.2% and 3.3%. France, UK and Belgium are at the lower end, Portugal, Spain, Italy and Ireland are at the upper end. An outlier is Ireland, with an arrears percentage of 10.5%. This high percentage is partly caused by an extremely low foreclosure rate in Ireland, which leads to a low incentive to meet mortgage obligations.

A similar picture emerges if we look at the mortgage defaults in Figure 13. Defaults are again very low for the Dutch market: only 0.07%. Most other European countries are in the range of 0.1% to 4.7%, again with France, UK and Belgium at the lower end, and Portugal, Spain, Italy and Ireland at the upper end. The cost of the foreclosure procedure also varies significantly across countries (see Lea, 2010).

Figure 14 shows that the typical duration of a mortgage foreclosure period is relatively low in the Netherlands (approximately half a year). In other European countries, foreclosure can take much longer: on average even up to five years in Italy. New legislation has however been passed in Italy to speed up this lengthy process.

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7 These data relate to the underlying mortgage pools of residential mortgage-backed securities.

8 All mortgage loans in these countries are recourse. This means that these loans allow the lender to pursue financial compensation if the borrower fails to pay off the loan, and if the value of the underlying asset is not enough to cover it. This is an important difference between much of the US and the countries compared in this figure, because US mortgage loans are often of the non-recourse type.
Mortgage product design

The mix between variable, short-term, medium-term and long-term fixed rate mortgages varies significantly across different countries. In the Netherlands, predominantly medium- and long-term fixed rate mortgages are sold (only 20% of the new mortgages are short-term or variable rate), see Figure 15. This makes Dutch mortgages a suitable asset class for the matching portfolio (to hedge long-term liabilities) of pension funds or life insurance companies.

Figure 15: Mortgage product interest variability (for new mortgages, as of 2016). Source: EMF (2017, Chart 23).

In recent years, the amount of mortgage funding provided by pension funds and insurers has surged in the Netherlands. In 2016, approximately 20% of all new Dutch mortgage loans was funded by pension funds and insurers. In other countries, like Ireland, Sweden, Italy or the U.K., short-term or variable rate mortgages are much more dominant. Such mortgages are more suitable for banks, since banks rely heavily on short-term funding.

Most mortgage borrowers in the Netherlands have the opportunity to prepay 10% of their mortgage loan per year without a penalty. Table 1 gives an overview of the prepayment penalties per country. Prepayment of the mortgage loan is also possible without additional costs in case of relocation. In other cases, prepayment incurs a penalty for fixed rate mortgages. In the Netherlands, this penalty may not be larger than the financial loss incurred by the mortgage lender. Mortgage lenders should also clearly explain to their clients how the penalty is calculated. In other countries, different approaches exist, with many countries allowing for prepayment penalties (within certain limits).

At the end of 2012, additional legislation became in force regarding new mortgage loans in the Netherlands. Since then, it is in general mandatory to pay off the mortgage loan within 30 years to receive a tax-friendly treatment. One can pay off the loan in an annuity or linear manner. In case of interest-only mortgages, the mortgage payments do no longer receive a tax friendly treatment. The fiscal regime for mortgages is also becoming less favorable in the coming

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9 We focus here on the period during which the interest rate is fixed, not the maturity of the mortgage loan.
10 See DNB (2016, p. 11).
years for borrowers in the highest tax income bracket. As of 2018, new mortgage loans may no longer exceed the value of the property.

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount</th>
<th>Applicability</th>
<th>Penalty Free Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Yield maintenance</td>
<td>Short-term fixed: loans with non-callable bonds</td>
<td></td>
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<tr>
<td>France</td>
<td>Maximum 6 months interest or 3% of outstanding balance</td>
<td>Variable or fixed rate</td>
<td>No fee if unemployed, death, or job change</td>
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<tr>
<td>Germany</td>
<td>Interest margin damage and reinvestment loss</td>
<td>All fixed rate; no penalty on variable rate</td>
<td>No penalty if property sold</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Yield maintenance</td>
<td>Fixed rate</td>
<td>Typically 10% per year; hardship or relocation with no penalty</td>
</tr>
<tr>
<td>Spain</td>
<td>Yield maintenance, up to 2.5% 0.5%</td>
<td>Fixed rate</td>
<td>Maximum 10% per year</td>
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<td></td>
<td></td>
<td>Variable rate</td>
<td></td>
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<tr>
<td>U.K.</td>
<td>2–5% of amount repaid</td>
<td>Discounts and fixed rates; in contract roughly 3 monthly payments</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Change in cost of funds</td>
<td>Discounts and fixed rates; in contract</td>
<td></td>
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<tr>
<td>Canada</td>
<td>Higher of lost interest or 3 months</td>
<td>Lender may waive for own customer</td>
<td>up to 20% per year</td>
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<tr>
<td>Japan</td>
<td>None</td>
<td>Borrowers make semi-annual bonus payments</td>
<td></td>
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<tr>
<td>South Korea</td>
<td>Declining over 3 years: 1.5%, 1%, 0.5%</td>
<td>ARMs12</td>
<td></td>
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<tr>
<td>Switzerland</td>
<td>Yield maintenance</td>
<td>Fixed rate</td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>Up to 5%; more typically 3%</td>
<td>ARMs only. Typically declining over 5 years.</td>
<td>20%</td>
</tr>
</tbody>
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Table 1: Prepayment penalties per country. Sources: Lea (2010), International Monetary Fund (2011, Table 3.2) and Beltratti et al. (2017, Table 8).

12 ARM stands for adjustable-rate mortgage.
Mortgage market support

Mortgage market support by governments can take different shapes, for example via mortgage insurance structures, via government security guarantees or via government-sponsored enterprises.\(^{13}\) Table 2 shows that in the Netherlands, a large mortgage insurance structure is in place: the Nationale Hypotheekgarantie (NHG). The Stichting Waarborgfonds Eigen Woningen (WEW) issues NHG mortgage loans. The WEW guarantees approximately €190 billion in mortgage loans. This entity is fully guaranteed by the central Dutch government.\(^{14}\) Based on this, an NHG mortgage loan can be considered to be government-guaranteed. As of January 1, 2018, NHG loans are possible for mortgage loans up to €265,000. Lenders pay a onetime premium of 1% for this guarantee.\(^{15}\)

<table>
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<td>Korea</td>
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<td>Switzerland</td>
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<td>U.S.</td>
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Table 2: Government mortgage market support. Source: Lea (2010).

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\(^{13}\) In France, mortgages can also be guaranteed by a bank, insurance company or mutual fund. In this case, the insurer acts as a guarantor to the mortgage lender in the event of default by the borrower on their mortgage loan. As a compensation, the borrower pays the insurer a fee that is proportional to the size of the loan. See [https://www.notaires.fr/en/mortgage-or-bank-guarantee](https://www.notaires.fr/en/mortgage-or-bank-guarantee) for more information.

\(^{14}\) See [https://www.nhg.nl/Over-NHG/Stakeholders-WEW](https://www.nhg.nl/Over-NHG/Stakeholders-WEW). NHG mortgages issued before 1 January 2011 are guaranteed for 50% by the central Dutch government and for 50% by the Dutch municipalities. After this date, the central government guarantees NHG mortgages for 100%.

\(^{15}\) Note, however, that an NHG guarantee only offers a partial credit protection. This is due to several reasons. First, the payment in case of a default only covers the difference between the nominal value of the mortgage loan and the value of the property. NHG does therefore not cover all types of regular mortgage payments. Second, the guaranteed amount decreases over time because the assumption is made that the mortgage loan is repaid within 30 years. Third, as of 2014 an own risk clause of 10% applies.

\(^{16}\) CMHC stands for Canada Mortgage and Housing Corporation.

\(^{17}\) FHA stands for Federal Housing Administration.


\(^{19}\) Fannie Mae and Freddy Mac buy U.S. mortgages and restructure them into residential mortgage-backed securities. These repackaged securities are then sold in the secondary mortgage market, along with a guarantee. Fannie Mae buys mortgages from retail banks while Freddy Mac buys them from smaller thrift ones.

\(^{20}\) FHLB stands for Federal Home Loan Banks.
Overall conclusions
We have put the Dutch mortgage market in a broader, international perspective in this article. The main observations are summarized below:

- **Home ownership:**
The Netherlands is a below-average country with respect to home ownership, mainly due to social housing corporations which provide affordable rental housing for the lower incomes.

- **Size of the mortgage market:**
The Netherlands has a large and well-developed mortgage market, which is supported by households with a high net worth (on average).

- **House price developments:**
House prices in the Netherlands have performed close to the average in the long run. After a slow development in the 1980s, Dutch house prices have picked up in the 1990s and beginning of the 2000s. The financial crisis led to a significant correction, but house prices have been recovering again after 2013.

- **Mortgage rates:**
The average Dutch mortgage rate is attractive for investors compared to other large euro-denominated mortgage markets. The difference between the mortgage rate and the swap rate has increased after the financial crisis and is currently around 1.6% for Dutch mortgages.

- **Mortgage risks:**
Mortgage arrears and defaults are very low for the Dutch market and the typical duration of a mortgage foreclosure period is also relatively low.

- **Mortgage product design:**
In the Netherlands, predominantly medium-term and long-term mortgages are sold (only 20% of the new mortgages are short-term or variable).

  Most mortgage borrowers in the Netherlands have the opportunity to prepay 10% of their mortgage loan per year (without a penalty). Otherwise, penalties apply.

  New mortgages should, in general, be amortizing and paid off in 30 years. Otherwise, a tax-friendly treatment is not possible. The fiscal regime for mortgages is also becoming less favorable in the coming years for borrowers in the highest tax income bracket. New mortgage loans are capped at the value of the property.

- **Mortgage market support:**
The Nationale Hypotheekgarantie (NHG) is an important mortgage guarantee structure in the Netherlands. This guarantee provides additional credit protection to mortgage lenders.

More in general, the shift from banks, as the traditional funders of mortgages, towards insurance companies and pension funds is apparent in the Netherlands. Medium- and long-term Dutch mortgages are being financed more and more by pension funds or insurance companies in recent years. These mortgage investments offer an attractive spread for those investors, compared to other large euro-denominated mortgage markets, and can also be incorporated well in their liability matching portfolios.
References


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