Investing in Dutch Mortgages

Aegon Asset Management in the Netherlands is a leading provider of Dutch mortgages. The Aegon Asset Management Dutch Mortgage strategy is available to institutional investors, including banks, pension funds and insurance companies.

The aim of this document is to introduce the strategy to institutional investors who seek diversification into loans. Figures are as at end of June 2019, unless stated otherwise.

Why invest in Dutch mortgages?

• Since the crisis, reduced competition in the Dutch mortgage market and increased bank regulation have resulted in high mortgage spread levels.
• Dutch residential mortgages have been a safe asset and offer an attractive yield relative to government bonds and corporate debt.
• For institutional investors residential mortgages are an effective risk-diversifier: they offer direct credit exposure to consumers, as opposed to corporates and governments.
• Most Dutch residential mortgages have a long fixed-rate term. The long duration of mortgages provides a strong fit with the liabilities of pension plans and insurance companies.
• Residential mortgages have a low capital charge under Solvency II. They are covered by the “Default Risk Module” as opposed to the “Spread Risk Module”. Moreover, due to diversification benefits between different risk modules, the marginal capital charge can become negative under standard Solvency II rules.
• A significant part of Dutch residential mortgages benefit from a government guarantee through the National Mortgage Guarantee Scheme (NHG). Losses on Dutch mortgage portfolios have therefore always been very low.

Strategy characteristics

• The strategy currently offers a yield of Euro mid-swaps +225 bps.
• No official rating, but the implied rating is “AA”.
• Since inception of the Aegon Dutch Mortgage strategy in 2013, cumulative losses are less than 1 bps.
• Focus is on long fixed-term mortgages. The weighted average fixed-term is approximately 23 years. The effective duration is about 8 years.
• Only newly originated mortgages by Aegon.
• The monthly new Aegon mortgage production is split between external clients and Aegon’s own balance sheet. This co-origination governance structure ensures alignment of interest. Both receive the same yield and the same mortgage risk characteristics (such as loan-to-value distribution).
• Some liquidity via mortgage (p)repayment, and via matching of subscriptions and redemptions.
• The investment strategy stands at €20.2 billion, with over 90 institutional clients.

About Aegon Asset Management

• Aegon Asset Management manages assets of €316 billion on behalf of investors in Europe, North America and Asia (end of December 2018).
• Aegon Asset Management is part of Aegon Group, one of the world’s leading financial services organizations, providing insurance, pension and asset management services.
• Aegon Asset Management has managed Dutch mortgage vehicles since 1997.
• Aegon has a 7.6% share of the mortgage lending market in the Netherlands (2018) and is the market leader for long fixed-rate mortgages.
An attractive yield with underlying guarantees

Dutch residential mortgages offer an attractive spread over the swap rate, compared to traditional asset classes such as government bonds and corporate bonds. Yet they come with a significant underlying guarantee. Residential mortgages are also an attractive risk diversifier within multi-asset portfolios and their long duration ensures a strong fit within the asset-liability framework of pension plans and insurers.

### Asset class

<table>
<thead>
<tr>
<th>Traditional assets</th>
<th>Typical rating</th>
<th>Spread over swaps</th>
<th>Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA government bonds</td>
<td>AAA</td>
<td>-50 bps</td>
<td>Very high</td>
</tr>
<tr>
<td>European investment grade credits</td>
<td>BBB / A</td>
<td>75 bps</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>European high yield credits</td>
<td>BB / B</td>
<td>230 bps</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

**Less liquid or more complex**

| Investment grade ABS | BBB to AAA | 140 bps | Moderate |
| Dutch mortgages | AA          | 225 bps | Lower |

Source: Bloomberg, Barclays, Aegon Asset Management.

### Spread over swap

Short overview of the Dutch mortgage market

Mortgage origination is governed by the Code of Conduct for mortgage lenders. The Code is written by the Dutch Banking Association and the Dutch Association of Insurers. In 2013, the government incorporated the Code into law. The Code sets, for example, the maximum Loan-to-Value and Debt-to-Income ratio. Hence, the Code ensures risk limits in underwriting. Therefore mortgage lenders essentially only compete in the mortgage market on the basis of mortgage rates and client service.

The Dutch mortgage market is characterized by the following:

• Outstanding market size of Dutch mortgage debt is about €650 billion. Annual volume is around €100 billion. The fixed-rate term of a mortgage can be up to 30 years. Banks focus mostly on mortgages with a fixed term of up to 10 years, whereas insurance companies and pension funds focus on mortgages with a longer fixed-rate term.
• Predominantly prime, owner occupied. Virtually no buy-to-let, non-conforming or sub-prime mortgages.
• “Full-doc” underwriting and no self-certification of income. There is an industry-wide credit database (BKR) and Fraud Register (SFH).
• Strong legal position for lenders. Full recourse to the borrower. In case of default, lenders can repossess and sell properties by public auction without a court order. Further recourse to other wealth including salary. Any remaining debt remains enforceable until discharged in full. Moody’s (2013) ranks the Netherlands high in terms of the legal right of recourse and in the practice of enforcement in comparison to other countries.
• The Netherlands has a generous tax regime for homeowners. Interest paid on mortgage loans is fully deductible from pre-tax income.
• From 2013, new mortgages need to be an annuity or linear mortgage to be tax deductible. Existing Interest-Only mortgages are grandfathered and will remain tax-deductible.
• Mortgage loans are provided predominantly on the basis of income. LTVs are less of an issue in the Netherlands due to tax incentives that make Dutch mortgages much more affordable than in other countries. The Code prescribes an affordability calculation assuming a 30-year amortizing loan regardless of product and mortgage rate.
• The average LTV at origination has come down from 96% in 2010 to 89% in 2013 and has been stable since. The average debt service-to-income ratio of the mortgages in the Netherlands is around 20%.
• The NHG program is the public mortgage loan guarantee scheme supporting home ownership in the Netherlands. An NHG guarantee can be obtained for an amortizing mortgage loan up to an amount of €290,000. The mortgage lender receives 90% compensation from the NHG program in case of a loss on an NHG mortgage.
• Dutch households have a good track record in paying off their debts. Fitch (2013) ranks default probability for Dutch mortgages among the lowest in Europe. This is due to employment protection and strong unemployment benefits, strict underwriting rules and the strong legal position of lenders.

All of the above contributed to historically low losses on Dutch mortgage portfolios. Hence, the relatively high spread level on Dutch mortgages is not explained by mortgage fundamentals, but is mostly the result of the following technicals in the Dutch mortgage market:

• Banks are the largest mortgage providers in the Netherlands. New liquidity and capital rules make it more expensive for banks to provide mortgage loans. These additional costs for banks are transferred to the customer by higher mortgage spread levels.
• Dutch consumers hold the main share of their savings in pension plans. The level of bank deposits is therefore relatively low and is not sufficient for the funding of all loans provided by Dutch banks. This “deposit gap” keeps deposit rates much higher than in other countries. And these higher funding costs of banks are transferred to the customer with relatively high mortgage rates.
• In the 2008 financial crisis, the number of mortgage providers in the Netherlands decreased sharply, and is currently still well below 2007 level. The reduced competition in the mortgage market has also kept mortgage spread levels relatively high.
Aegon Asset Management’s mortgage experience

The Dutch mortgage market has undergone substantial change since the 2008 financial crisis. Banks have traditionally been the main providers of mortgage loans. However, due to the increased cost of funding for banks, together with the attractiveness of Dutch mortgage rates, insurance companies and pension plans have become principal providers of mortgage finance.

Aegon has been a mortgage lender in the Netherlands for more than 30 years, and has grown its market share over time. Currently, Aegon is number four in the Dutch mortgage market in mortgage production volume, behind three large Dutch banks: Rabobank, ABN AMRO and ING. These banks focus mostly on short fixed-rate mortgages, whereas Aegon focusses predominantly on providing long fixed-rate mortgages. This makes Aegon effectively the market leader in long fixed-rate mortgages in the Netherlands.

The losses in the Aegon portfolio have been very low and stable in recent years, due to Aegon's long-time expertise in underwriting and foreclosure.

Aegon Asset Management first set up a Dutch Mortgage vehicle in 1997 for its insurance-linked clients and sources the mortgages via Aegon. Since 2013, Aegon Asset Management also provides third-party institutional clients with access to the Dutch mortgage market, via a separate vehicle. Today, Aegon Asset Management manages €20.2 billion in Dutch Mortgages for institutional clients. Dutch mortgage investment has become a cornerstone of the fixed-income capabilities of Aegon Asset Management.
Investment team

The Dutch Mortgages strategy is managed by Aegon Asset Management’s European ABS & Mortgages team. It consists of ten portfolio managers who are responsible for our mortgage funds and the asset-backed securities strategies.

Frank Meijer (pictured), PhD joined Aegon Asset Management in 2005. Frank is Head of the European ABS & Mortgages team. He is also a member of the Asset Liability Committee of Aegon Bank and a permanent guest lecturer at VU University in Amsterdam. Prior to his current role, he was also responsible for the Quant Group and has set up the Structured Credit Desk. Before joining Aegon Asset Management, Frank worked at ABN AMRO in the Credit Risk Modelling & Product department. Frank holds an MSc in Physics, cum laude, from University of Groningen and a PhD in Physics from Delft University of Technology.

Bálint Vágvölgyi, PhD, CFA joined Aegon Asset Management in 2012. Since then, Bálint has been a portfolio manager in the European ABS & Mortgages team. Prior to his role at Aegon Asset Management, he worked for NIBC Bank as an ABS risk manager and subsequently as a trader. Bálint holds an MSc in Mathematics, cum laude, a MSc in Quantitative Finance from Amsterdam VU University, and a PhD in Mathematics from Amsterdam VU University. Bálint is a CFA charterholder.

Egbert Bronsema joined Aegon Asset Management in 2016. Since then, Egbert has been a portfolio manager in the European ABS & Mortgages team. Prior to joining Aegon Asset Management, he worked as portfolio manager at IMC Asset Management, handling a variety of European structured products. Before that, Egbert served as analyst structured finance, first at Fatorx Securities in Amsterdam and later at IMC Asset Management in New York. Egbert holds an MSc in Business Economics and Quantitative Economics from Maastricht University.

Ewout van der Meer, CFA joined Aegon Asset Management in 2014. Ewout is a portfolio manager in the European ABS & Mortgages team. Prior to joining Aegon Asset Management, Ewout served for five years in the Structuring Team of NIBC. In that role, he worked on securitizations and covered bond programs backed by mortgage receivables. He also executed transactions backed by leases and other receivables. Ewout holds an MSc in Financial Economics, cum laude, from Erasmus University and is a CFA charterholder.

Maarten Jan Hoefnagel, CFA joined Aegon Asset Management in 2008. Since then, Maarten Jan has been a portfolio manager in the European ABS & Mortgages team. Prior to his role at Aegon Asset Management, Maarten Jan worked as a European ABS analyst at NIBC for two years. Maarten Jan holds an MSc in Physics from Delft University of Technology and is a CFA charterholder.

Stijn Stortelder, CFA joined Aegon Asset Management in 2010. Stijn has been a portfolio manager in the European ABS & Mortgages team since 2012. Prior to his current role at Aegon Asset Management, he worked for two years in the Portfolio Risk Management & Control department of Aegon Asset Management. Stijn holds an MSc in Finance from Amsterdam VU University and is a CFA charterholder.

Jan-Willem Wellen, CFA has been a portfolio manager in the European ABS & Mortgages team since 2017. Prior to joining Aegon Asset Management, he worked in the treasury team at NIBC Bank, where he focused on the issuance of unsecured debt transactions, securitisations and covered bonds. Jan-Willem holds an MSc in Financial Economics from Erasmus University Rotterdam and is a CFA charterholder.

Rens Ramaekers, CFA joined Aegon Asset Management in 2015. Rens is a portfolio manager in the European ABS & Mortgages team. He started at Aegon Asset Management in 2014 as a trainee with a focus on Dutch Mortgages. Rens holds an MSc in Quantitative Finance and Actuarial Science from Tilburg University.

Jim Marinus has been a portfolio manager in the European ABS & Mortgages team since 2017. He joined the team after completing his internship at Aegon Group. Jim holds an MSc in Quantitative Risk Management from Amsterdam VU University.

Govert Wessels joined Aegon Asset Management in 2019. Since then, Govert has been a portfolio manager in the European ABS & Mortgages team. Prior to joining Aegon Asset Management, he was an investment banking analyst at Credit Suisse in London. Govert holds an MSc in Financial Economics, cum laude, from Erasmus University Rotterdam.
Representative portfolio summary

The portfolio statistics for a representative portfolio are summarized below (yield as of 30 June 2019, other portfolio statistics as of 31 May 2019).

<table>
<thead>
<tr>
<th>Portfolio statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of loans</td>
<td>7,855</td>
</tr>
<tr>
<td>Average principal balance per borrower</td>
<td>€250,953</td>
</tr>
<tr>
<td>Mortgages with Government guarantee (NHG)</td>
<td>26.8%</td>
</tr>
<tr>
<td>Current average coupon</td>
<td>2.71%</td>
</tr>
<tr>
<td>Current average yield</td>
<td>2.59%</td>
</tr>
<tr>
<td>Average remaining fixed-rate period</td>
<td>22.6 years</td>
</tr>
<tr>
<td>Modified duration</td>
<td>8.5 years</td>
</tr>
<tr>
<td>Average Indexed Loan-to-Value (LTV) of all mortgages</td>
<td>79.9%</td>
</tr>
<tr>
<td>Average Indexed LTV for non-NHG mortgages</td>
<td>78.0%</td>
</tr>
<tr>
<td>Debt service-to-income</td>
<td>16.3%</td>
</tr>
<tr>
<td>Cumulative losses since inception</td>
<td>&lt; 1 bps</td>
</tr>
</tbody>
</table>

Performance

The performance of a representative Dutch mortgages portfolio against the JPM Netherlands Government Bond Index is summarized below. The yield is currently the swap rate +225 bps per annum. We expect the strategy to outperform the reference index over a full business cycle.

<table>
<thead>
<tr>
<th>Annualized returns</th>
<th>1 year</th>
<th>3 years</th>
<th>5 years</th>
<th>Inception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch Mortgages I Composite</td>
<td>4.12%</td>
<td>3.84%</td>
<td>5.85%</td>
<td>5.78%</td>
</tr>
<tr>
<td>JPM Netherlands Government Bond Index</td>
<td>5.36%</td>
<td>1.08%</td>
<td>3.26%</td>
<td>3.73%</td>
</tr>
<tr>
<td>Relative performance</td>
<td>-1.24%</td>
<td>2.76%</td>
<td>2.59%</td>
<td>2.06%</td>
</tr>
<tr>
<td>Information ratio</td>
<td>0.69</td>
<td>0.59</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Tracking error (ex-post)</td>
<td>4.01%</td>
<td>4.42%</td>
<td>4.32%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calendar year returns</th>
<th>2019 YTD</th>
<th>2018</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch Mortgages I Composite</td>
<td>2.40%</td>
<td>2.40%</td>
<td>3.92%</td>
<td>6.32%</td>
<td>7.58%</td>
</tr>
<tr>
<td>JPM Netherlands Government Bond Index</td>
<td>4.75%</td>
<td>2.27%</td>
<td>-1.02%</td>
<td>4.33%</td>
<td>0.35%</td>
</tr>
<tr>
<td>Relative performance</td>
<td>-2.36%</td>
<td>0.13%</td>
<td>4.93%</td>
<td>1.99%</td>
<td>7.23%</td>
</tr>
</tbody>
</table>

Source: Aegon Asset Management. The inception date of the Dutch Mortgages I Composite is November 1, 2013. Figures are presented gross of fees, in EUR. All data as of end of June 2019. This information is supplemental information to the Composite disclose presentation at the end of this material. Returns for periods longer than 12 months have been annualized. Past performance is not indicative of future results.
### Strategy details

<table>
<thead>
<tr>
<th>Inception</th>
<th>30 August 2013 (for third-party institutional investors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets under management</td>
<td>€20.2 billion</td>
</tr>
<tr>
<td>Domicile</td>
<td>The Netherlands</td>
</tr>
<tr>
<td>Liquidity terms</td>
<td>Monthly liquidity</td>
</tr>
<tr>
<td>Minimum investment</td>
<td>€1 million</td>
</tr>
<tr>
<td>Fees</td>
<td>0.50% per annum</td>
</tr>
<tr>
<td>Available to</td>
<td>Qualified investors only</td>
</tr>
</tbody>
</table>

#### Investment policy and objective

- The strategy invests in Dutch mortgages that are originated by Aegon Hypotheken B.V., comply with the mortgage loan criteria and are secured by Dutch private homes.
- New mortgage loans in the portfolio are a cross-section of the new mortgage production and are acquired at the nominal value at the time of granting.
- Resources that are not invested in such mortgage loans will be invested in liquid assets or Dutch government bonds. Liquid assets are held for purposes such as facilitating entry and exit.
- The investment policy is aimed at buy-and-hold.

#### Benchmark

The strategy has no benchmark. The JPM Netherlands Government Bond Index is reported for comparison purposes.

#### Monthly reporting

- Net asset value
- Overview of mortgage arrears
- Detailed stratification tables of the portfolio
- Loan-level-data of all the mortgages via a portal
- Expected cash flows going forward
- Portfolio look-through report
- Dutch Mortgage Bulletin with portfolio and market information
Dutch Mortgages Composite disclosure

Aegon Investment Management B.V. defines the firm as all the investment funds that Aegon Investment Management B.V. offers (investment funds). This firm includes all “unit linked” (insurance related) funds and funds in which direct investment is possible. These funds are offered to retail and institutional investors and insurance relations. All investment funds have a legal and fiscal status. The funds that do not have a legal or fiscal status do not belong to the firm.

This composite is constructed from discretionary funds that invest actively in Dutch residential mortgages newly originated after January 2013 by Aegon. These mortgages fall under the Dutch legislation implemented since January 2013, which makes repayment mandatory for newly originated mortgages and have stricter LTV caps. The investment policy is focused on creating added value by making use of the interest rate spread between mortgage loans and government bonds, without an active duration policy. Since the inception of this composite the benchmark has been the JP Morgan Government Bond Traded Netherlands Index. The composite had been previously named Hypothecaire waarden Nederland verstrekt na 1 januari 2013 onder sinds die datum geldige hypothecaire regelgeving until December 2014.

Aegon Investment Management B.V. claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Aegon Investment Management B.V. has been independently verified for the periods from 2001. The verification reports are available upon request. Verification assess whether (1) the firm has complied with all composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure accuracy of any specific composite presentation.

Performance returns have been calculated gross of management fees. Gross-of-fees performance returns are presented before management and custodial fees, but after trading expenses. Net-of-fees performance returns are calculated by deducting the fee from the annual gross composite return. The annual fee utilized to calculate monthly net-of-fee performance for this composite is 0.50%, which represents the highest fee in the investment management fee schedule. The annual investment management fee schedule for this composite is 0.40-0.50% based on assets under management. Actual investment advisory fees incurred by clients may vary depending on, among other things, client type, the applicable fee schedule and portfolio size. No other fees are deducted in addition to direct trading expenses.

Returns are presented net of non-reclaimable withholding taxes.

Three-year annualized ex-post risk measures are not presented when there are fewer than 36 monthly observations available.

The internal dispersion of the annual composite return is calculated by using the standard deviation of the portfolio gross returns relative to the asset-weighted composite return. Portfolios are only included in the dispersions where the portfolio is presented in the composite for a whole year. The dispersion is not presented when there are five or fewer portfolios in the composite.

The Dutch Mortgages Composite’s inception date was November 1, 2013. The creation date for this composite was November 1, 2013.

Additional information regarding policies for valuing funds, a complete list of composites with descriptions, and information regarding policies for calculating and reporting returns are available upon request.
Important information

Aegon Investment Management B.V. is registered with the Netherlands Authority for the Financial Markets as a licensed fund management company. On the basis of its fund management license Aegon Investment Management B.V. is also authorized to provide individual portfolio management, receipt and transmission of orders and advisory services.

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The strategy is not open to investors who (i) are not “Non-United States Persons” within the meaning of Dodd Frank (Commodity Futures Trading Commission Rule 4.7(A)(1) (iv)), or (ii) are designated as “Specified U.S. Persons” within the meaning of paragraph 1.1471-5(f)(1) (D) of the Foreign Account Tax Compliance Act.

Past performance is not a guide to future performance. Future outcomes, including the payment of income, are not guaranteed and may differ from past performance.

This document is not intended for retail distribution and is directed only at investment professionals. It should not be distributed to, or relied upon by, private investors. The information in this document is based on our understanding of the current and historical positions of the markets. The views expressed should not be interpreted as recommendations or advice. Past performance is not a guide to future performance. The value of investments and the income from them may go down as well as up and is not guaranteed. While the investment objective of absolute return strategies is to achieve a positive return in all market conditions, this is not guaranteed in any way. Investment professionals must ensure that they meet their obligations in relation to their understanding of this product and the risks involved, and the extent to which this product meets the needs of their clients. Please refer to the Full Prospectus. This document is accurate at the time of writing but can be subject to change without notification.
About Aegon Asset Management

Aegon Asset Management is a global, active investment manager. Aegon Asset Management uses its investment management expertise to help its clients take responsibility for their financial futures, with a focus on excellence, trust and partnership. Institutional and private investors entrust Aegon Asset Management to manage over €300 billion worldwide.

 Positioned for success in its chosen markets (the UK, Continental Europe, North America and Asia), Aegon Asset Management’s specialist teams provide high-quality investment solutions across asset classes. Its clients benefit from the extensive international research capabilities and in-depth local knowledge of Aegon Asset Management, as well as Kames Capital, its UK investment team, and TKP Investments, its fiduciary management investment team in the Netherlands.

Aegon Asset Management is part of Aegon, one of the world’s leading financial services organizations, providing insurance, pension and asset management services.