

Housing market developments – 1st quarter 2022

Strong house price growth in the province of Groningen

Average house prices increased the most in the province of Groningen with 23.9% year on year. The municipality of Westerkwartier is currently registering the fastest growth rate of all the municipalities in the Netherlands with 24.5%. The largest cities, Amsterdam and Rotterdam, show average house price increases of respectively 11.8% and 18.3%. The Hague and Utrecht show an average house price increase of resp. 15.1% and 15.5%.

Transactions decreased and number of homes for sale increased

The annual number of sales decreased to 249.000 houses. The number of homes for sale increased. The ratio between the number of sales and supply has reached a factor 0.3 (sales > supply).

Housing affordability declined

On average, 14.6% of net household income was required to service housing costs, in 2008 the housing affordability peaked with 27.0%. The relatively good affordability is mainly the result of the current low mortgage interest.

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CALCASA INDEXES 2022 Q1

| CAECASA INDEXES 2022 QT | |
|---|--------|
| Calcasa House Price Index (WOX) (1995Q1=100) | 457 |
| Calcasa WOX Top 15 Cities Index (1995Q1=100) | 531 |
| Residential price change | |
| WOX price change (year-on-year) | 18.4% |
| WOX price change (quarter-on-quarter) | 3.9% |
| WOX price change corrected for inflation (year-on-year) | 10.0% |
| House price forecast | |
| Yearly price change 2022 Q2 | 16.2% |
| Quarterly price change 2022 Q2 | 1.0% |
| Housing affordability | |
| Affordability index | 14.6% |
| Yearly change in housing affordability | -9.0% |
| Quarterly change in housing affordability | -2.4% |
| Transactions | |
| Number of transactions on a yearly basis (x 1,000) | 249 |
| Yearly change in the number of transactions | -19.7% |
| Quarterly change in the number of transactions | -8.6% |
| *Housing stock January 1st 2022 municipal reclassification 2021 | |

Table 1

Calcasa key numbers Q1 2022 Source: WOX Monitor Calcasa



Average house price keeps rising

- The WOX (1995 = 100) currently stands at 457 points.
- Average house price: € 447.000.
 - » Q-O-Q price development: +3.9%.
 - » Y-O-Y price development: +18.4%.
- The current Dutch inflation rate is 8.4% (which is the average rate for Q1 2022 according to Statistics Netherlands). In the first quarter of 2022, inflation-adjusted house prices rose by 10.0% y-o-y.

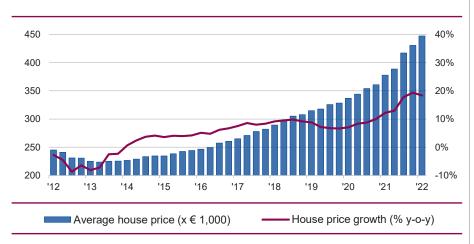


Figure 1

Average house price (x EUR1,000) and yearly price change per quarter in the Netherlands. Source: WOX Monitor Calcasa

- Average price of a single-family house: € 472.000.
 - » Q-O-Q price development of single-family houses: +4.0%.
 - » Y-O-Y price development of single-family houses: +19.3%.
- Average price for apartments: € 384.000.
 - » Q-O-Q price development of apartments: +3.4%.
 - » Y-O-Y price development of apartments: +15.5%.



Figure 2

Q-O-Q price change per housing type in the Netherlands. Source: WOX Monitor Calcasa



Highest price increase price class less than € 150,000

- Based on house price levels, Calcasa has divided the market into five price classes. Homes in the price class less than € 150,000 performed best with an annual average house price rise of 21.0%.
- The price class € 350,000 to € 500,000 increased the least in value; over the past year these homes increased in value by 17.2%.

| Price class (euro) | Price development y-o-y |
|----------------------------|-------------------------|
| Less than 150,000 | 21.0% |
| 150,000 to 250,000 | 19.9% |
| 250,000 to 350,000 | 19.3% |
| 350,000 to 500,000 | 17.2% |
| More than 500,000 | 18.1% |
| All residential properties | 18.4% |

Terraced/corner houses show biggest price increase

- Terraced/corner houses built after 2000 are registering the fastest growth. Their value increased by 20.6% in the past year.
- Apartments built between 1980 and 2000 are registering the slowest growth. Their value increased by 14.5% in the past year.

| Housing type | <1944 | 1945-1979 | >1980 | >2000 | Total |
|-----------------------|-------|-----------|-------|-------|-------|
| (semi) detached | 19.5% | 19.1% | 20.1% | 19.9% | 19.6% |
| Terraced/corner house | 16.3% | 19.4% | 20.3% | 20.6% | 19.2% |
| Apartment | 14.9% | 17.2% | 14.5% | 15.2% | 15.5% |
| Total | 16.4% | 18.7% | 18.6% | 18.3% | 18.4% |

Development (y-o-y) Construction year

Forecast house price development in Q2 2022

- Q-O-Q price change: 1.0% (Q2 2022 Q1 2022).
- Y-O-Y price change: 16.2% (Q2 2022 Q2 2021).
 - » Y-O-Y price change single-family homes: 17.5%.
 - » Y-O-Y price change apartments: 12.4%.

Calcasa publishes region-specific house price forecasts for four specific areas of the Netherlands, reflecting the diversity and variety displayed across the region.

Western part: 14.9%

Northern part: 16.9%

• Eastern part : 18.2%

Southern part: 17.6%

Table 2a

Netherlands - price development per price class and transaction distribution over the last year.

Source: Calcasa

Table 2b

Netherlands - annual price development per construction year and housing type. Source: Calcasa



Strong house price growth in Groningen

- Average house prices increased the most in the province of Groningen, with an annual increase of 23.9% in value.
- Single-family houses are in are in demand, with values going up by 24.1%. Apartments prices increased with 23.1%.
- The lowest price increase was measured for houses in the provinces of Limburg (15.8%) and North-Holland (16.9%).

| | Average price | Average price | Price change |
|-----------------|---------------|---------------|----------------|
| Q1 2022 | single-family | apartments | (year-on-year) |
| | houses | | |
| Groningen | 345,000 | 320,000 | 23.9% |
| Friesland | 374,000 | 318,000 | 21.8% |
| Drenthe | 386,000 | 287,000 | 20.4% |
| Overijssel | 401,000 | 383,000 | 18.5% |
| Flevoland | 328,000 | 267,000 | 22.4% |
| Gelderland | 470,000 | 325,000 | 20.9% |
| Utrecht | 653,000 | 422,000 | 19.0% |
| North-Holland | 613,000 | 523,000 | 16.9% |
| South-Holland | 515,000 | 359,000 | 17.6% |
| Zeeland | 327,000 | 317,000 | 19.4% |
| North-Brabant | 466,000 | 338,000 | 17.5% |
| Limburg | 341,000 | 264,000 | 15.8% |
| The Netherlands | 472,000 | 384,000 | 18.4% |

Table 3

Average price and y-o-y price development on province level Source: WOX Monitor Calcasa

Overig Groningen fastest growing region

- The largest annual price increase of 24.4% is measured for houses in the NUTS III region of Overig Groningen. The average house price in this region is € 325,000 .
- Second-largest annual price increase is seen in the NUTS III region East Groningen with an annual growth rate of 22.7%, here the value of single-family homes rose by 23.3% and the value of apartments by 15.4%.
- The NUTS III regions with the smallest price increases are Great-Amsterdam (13.7%) and South-Limburg (14.8%).
- In 15 of the 40 NUTS III regions the annual increase for houses prices is more than 20%.



Housing affordability

On average, 14.6% of net household income was required to service housing costs in the first quarter of 2022, compared to mid-2008 when housing costs represented 27.0% of net income.

- Q-O-Q change in net housing costs: 2.4%.
- Y-O-Y change in net housing costs: 9.0%.



Figure 3

Housing affordability index* (in % of household income) in the Netherlands. Source: WOX Monitor Calcasa

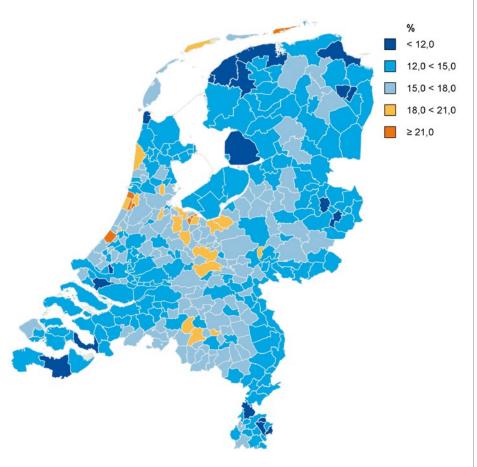


Figure 4

Affordability index per municipality (in %). Source: WOX Monitor Calcasa

*The index measures the affordability of Dutch owner-occupied houses. It is calculated taking into account net housing costs, current average mortgage costs (current interest rate, maintenance costs, local taxes and fiscal treatment.



Number of sales

The annual number of transactions has decreased. 249.000 residential properties were sold during the past year.

- Y-O-Y development, number of annual sales: -19.7%.
- Q-O-Q development, number of annual sales: -8.6%.



Figure 5

Number of annual sales* and y-o-y change in number of sales in the Netherlands. Source: Statistics Netherlands, Land Registry, adaptation by Calcasa

* Calcasa shows the number of housing sales on an annual basis for a reliable picture of the long term trend (corrected for seasonal effects).

Number of sales by housing type

Transaction development v-o-v

- Transactions of semi-detached houses decreased the most with 23.4% in the first quarter of 2022.
- Apartments sales decreased this quarter with 14.6% year-on-year.

| Transaction development y-o-y | | | | | |
|-------------------------------|--------|--------|--------|--------|--------|
| Housing type | 2021Q1 | 2021Q2 | 2021Q3 | 2021Q4 | 2022Q1 |
| Detached | 21.5% | 16.2% | 10.3% | -9.5% | -21.5% |
| Semi-detached | 12.7% | 7.5% | -0.3% | -8.3% | -23.4% |
| Corner house | 9.3% | 5.9% | 0.6% | -5.3% | -19.4% |
| Terraced house | 12.1% | 9.5% | 2.6% | -6.7% | -21.7% |
| Apartment | 14.5% | 17.5% | 14.5% | -9.1% | -14.6% |
| Total | 14.1% | 12.0% | 6.4% | -7.9% | -19.7% |

Table 4

Y-o-y transaction development by period and property type Source: WOX Monitor Calcasa

6



Sales in expensive price class increased

- The sale of homes in the price range € 350,000 to € 500,000 increased by 19.2% in the past year, whilst homes above € 500.000 increased by 36.3%.
- Especially in the east (52.6%) and in the north (66.6%) of the Netherlands more expensive homes (> € 500,000) were sold.
- In the south the highest increase in sales was measured for houses in the price range above € 500,000 (35.4%).
- The lowest price segment (€ 75,000 to € 150,000) decreased the most in the western part of the Netherlands by 35.1%.

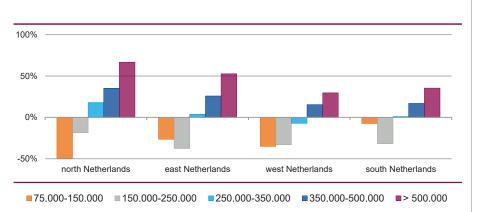


Figure 6

Growth (%) of share of housing sales per price class in North, East, West and South Netherlands in Q1 2022 compared to Q1 2021.

Source: WOX Monitor Calcasa

28% of housing sales within € 250,000 to € 350,000

- In the past year 18% of housing sales were within the price class of € 150,000 to € 250,000.
- The percentage of transactions in the price class € 75,000 to 150,000 decreased in four years time from 16% to 4%.
- The price segment € 350,000 to € 500,000 increased in four years time from 13% to 26%.
- 23% of housing sales were within the price class of € 500,000 or more. Four years ago this was 8%.

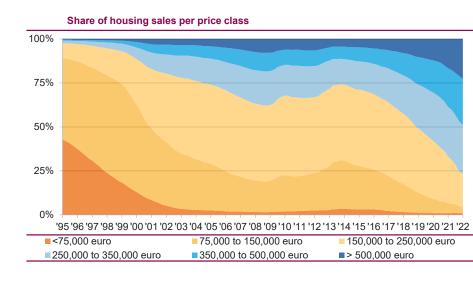


Figure 7

Share of housing sales per price class Source: WOX Monitor Calcasa



Groot-Amsterdam highest market liquidity

- In the NUTS III region Groot-Amsterdam 6.6% of the housing supply was sold during the past year. The regions Zeeuwsch-Vlaanderen and The Hague follow with 6.5% and 6.4% respectively.
- The NUTS III region IJmond has the lowest market liquidity: 4.3%.

| | Percentage of housing supply | | Percentage of housing supply |
|----------------------------|---------------------------------|--|---------------------------------|
| NUTS III region | sold last year | NUTS III region | sold last year |
| Groot-Amsterdam | 6.6% | IJmond | 4.3% |
| Zeeuwsch-Vlaanderen | 6.5% | Zuidwest-Overijssel | 4.6% |
| Agglomeratie 's-Gravenhage | 6.4% | Achterhoek | 4.7% |
| Zuidoost-Drenthe | 6.2% | Agglomeratie Leiden en Bollenstreek | 4.9% |
| Groot-Rijnmond | 6.2% | Twente | 5.0% |
| Flevoland | 6.0% | Delft en Westland | 5.0% |
| Oost-Groningen | 5.9% | Noord-Drenthe | 5.1% |
| Agglomeratie Haarlem | 5.9% | Arnhem/Nijmegen | 5.1% |
| Het Gooi en Vechtstreek | 5.8% | Kop van Noord-Holland | 5.1% |
| Overig Groningen | 5.7% | Alkmaar en omgeving | 5.1% |

Table 5

Top 10 NUTS III regions with highest and lowest percentage of housing supply sold last year

Source: WOX Monitor Calcasa

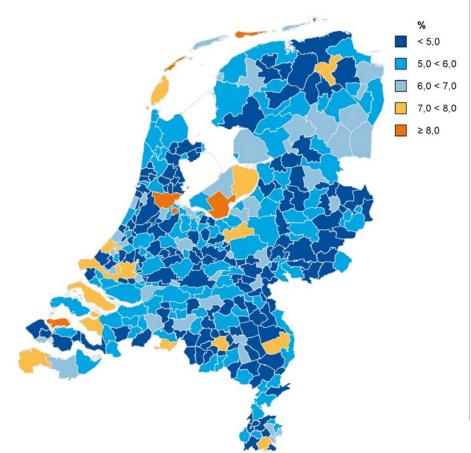


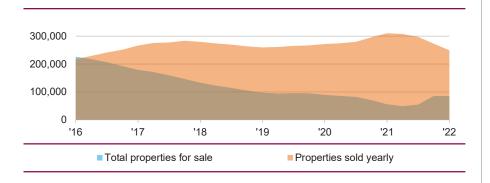
Figure 8

Market liquidity: sold homes as percentage of total number of owner occupied housing stock for previous year per municipality Source: WOX Monitor Calcasa



Market liquidity: number of sales surpassed supply

- The annual ratio of houses for sale vs. sold has increased to 0.3. A year ago this ratio was 0.2.
- The annual number of houses sold: 249,000. » Y-O-Y development: -19.7%
- Homes for sale in Q1 2022: 85,000
 - » Q-O-Q development: -0.5%
- The market liquidity is best in the municipality of Urk with a factor of 0.09.
- In the municipality of Wassenaar the market liquidity is highest (worst) with a factor of 0.47.





- The relationship between the supply of owner-occupied housing and total owner-occupied housing stock is also a component of market liquidity. The percentage of the total owner-occupied housing stock that sold last year is 5.5% for the Netherlands.
 - o The percentage of family homes sold previous year: 5.7%.
 - o The percentage of apartments sold previous year: 5.2%.
- The share of owner occupied housing stock which was sold last year is highest in the city of Zeewolde with 9.6%.
- In the municipality of Heumen only 3.2% of the existing stock of owneroccupied homes has changed owners.

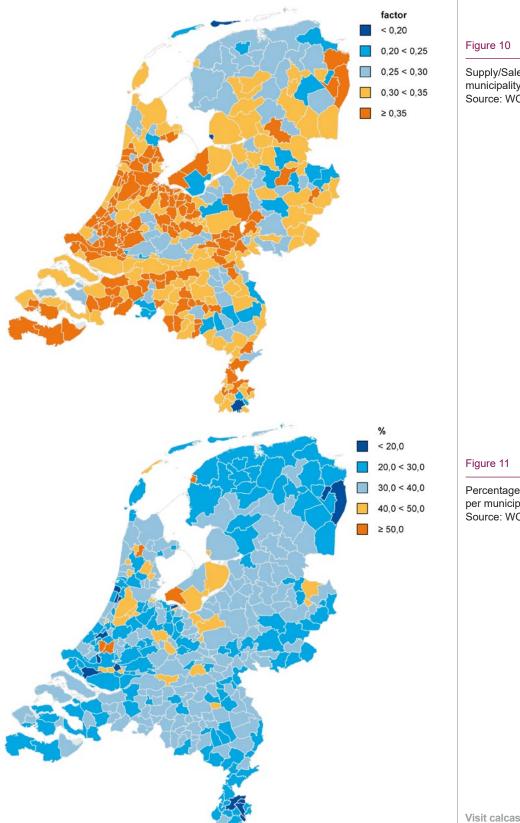
Figure 9a

Annual number of properties for sale versus number of properties sold in the Netherlands. Source: Multiple real estate agents, adaptation Calcasa

Figure 9b

Annual number of properties for sale versus number of properties sold in the Randstad. Source: Multiple real estate agents, adaptation Calcasa





Supply/Sales ratio all properties per municipality Source: WOX Monitor Calcasa

Percentage of properties with energy label A per municipality Source: WOX Monitor Calcasa



Mortgage approvals

Approximately 504,000 mortgages were approved last year.

- Y-O-Y development, number of annual mortgages: 0.1%.
- Q-O-Q development, number of annual mortgages: -2.1%.



Figure 12

Number of mortgages

Source: Statistics Netherlands, Land Registry and adaptation Calcasa

Number of foreclosures

Over the last four quarters, 260 foreclosures have been registered by the land registry.

- o Y-O-Y development amount of annual foreclosures: -10.3%.
- o Q-O-Q development amount of annual foreclosures: +1.6%.
- The share of foreclosure sales versus total sales is 0.1%.
- The highest share of foreclosure sales to total sales is 1.0% in the municipality of Druten.
- 217 municipalities had no foreclosure sales in the past year. The largest municipality without foreclosure sales is Den Bosch.

Note that many foreclosed properties will be sold via the public market and not via auction. The reason is that proceeds of a sale of a home through a forced auction can be less compared to a sale via the public market.

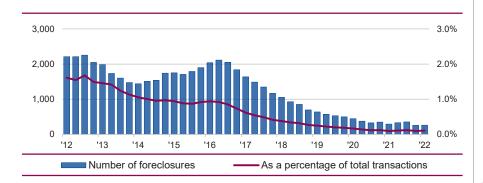


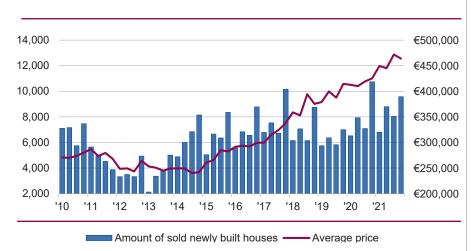
Figure 13

Number of yearly foreclosures and amount of foreclosures as a % of the total number of transactions in the Netherlands. Source: Statistics Netherlands, Land Registry and adaptation Calcasa



Average price newly built homes increased

- In the fourth quarter of 2021 the total amount of sales for newly built homes was 9.600. This is a increase of 10.8% year-on-year.
- During the fourth quarter of 2021 the average price for newly built houses was € 464.000. This is an increase of 9.1% compared to a year ago.



Amount of households in arrears decreased

- Since 2015 the number of homeowners with payment problems decreased with 65%.
- At the end of 2020 there were 39.000 homeowners who had difficulty paying their mortgage: this is a decrease of 20.4% compared to a year earlier.

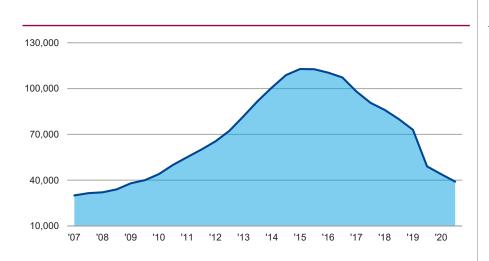


Figure 14

Average sales price for newly built houses per quarter in the Netherlands compared to the quarterly amount of newly built houses sold. Source: CBS

Figure 15

Number of borrowers with mortgage payment arrears Source: BKR



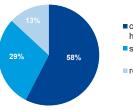
Dutch Housing Market Summary

| ^{Largesr cities} | All broperties | Single-family | Apartments | Ouner Occupie | Rental | Total population | Total households | Annual sales | Current supply |
|---------------------------|----------------|---------------|------------|---------------|--------|------------------|------------------|--------------|----------------|
| Amsterdam | 447,000 | 60,000 | 387,000 | 29% | 70% | 873,340 | 474,880 | 10,989 | |
| Rotterdam | 316,000 | 86,000 | 229,000 | 35% | 64% | 651,630 | 328,570 | 7,988 | |
| The Hague | 262,000 | 60,000 | 203,000 | 42% | 57% | 548,320 | 269,600 | 7,772 | |
| Utrecht | 157,000 | 68,000 | 88,000 | 45% | 54% | 359,370 | 181,780 | 4,746 | |
| Groningen | 116,000 | 47,000 | 69,000 | 41% | 58% | 233,270 | 136,510 | 3,494 | |
| Eindhoven | 113,000 | 68,000 | 45,000 | 44% | 55% | 235,690 | 121,630 | 3,581 | |
| Provinces | | | | | | | | | |
| Groningen | 282,000 | 185,000 | 97,000 | 55% | 45% | 586,940 | 296,370 | 8,862 | 2,612 |
| Friesland | 303,000 | 245,000 | 57,000 | 62% | 38% | 651,440 | 295,870 | 10,053 | 2,772 |
| Drenthe | 223,000 | 184,000 | 39,000 | 66% | 34% | 494,770 | 220,380 | 8,219 | 2,466 |
| Overijssel | 510,000 | 390,000 | 120,000 | 61% | 39% | 1,166,530 | 512,030 | 15,672 | 4,793 |
| Flevoland | 172,000 | 135,000 | 37,000 | 65% | 35% | 428,230 | 178,960 | 6,765 | 2,336 |
| Gelderland | 912,000 | 685,000 | 227,000 | 61% | 39% | 2,096,600 | 938,340 | 28,987 | 9,298 |
| Utrecht | 586,000 | 370,000 | 216,000 | 58% | 41% | 1,361,150 | 613,800 | 18,314 | 6,460 |
| North-Holland | 1,349,000 | 678,000 | 671,000 | 50% | 49% | 2,888,490 | 1,381,760 | 39,065 | 15,216 |
| South-Holland | 1,693,000 | 833,000 | 860,000 | 52% | 47% | 3,726,050 | 1,729,250 | 51,161 | 18,647 |
| Zeeland | 188,000 | 153,000 | 35,000 | 66% | 32% | 385,400 | 177,240 | 7,201 | 2,478 |
| North-Brabant | 1,141,000 | 857,000 | 284,000 | 61% | 38% | 2,573,950 | 1,165,900 | 38,003 | 12,699 |
| Limburg | 533,000 | 391,000 | 142,000 | 60% | 39% | 1,115,870 | 533,540 | 16,847 | 5,311 |
| Netherlands | 7,892,000 | 5,107,000 | 2,785,000 | 57% | 42% | 17,475,420 | 8,043,440 | 249,149 | 85,089 |

Table 6

Key figures for the Dutch housing market Source: Statistics Netherlands, Land Registry

Housing stock

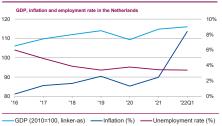


 owner occupied housing
social housing
rental housing

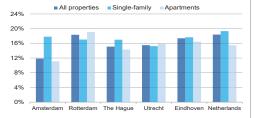
Mortgage developments

| | Amount | Change |
|-----------------------------|---------|--------|
| Sales with NHG | 11,800 | -50.6% |
| Execution sales with losses | 2 | -85.7% |
| Households in arrears | 39,000 | -20.4% |
| Sold mortgages | 504,255 | 0.1% |
| Total mortgage debt | 783B | 4.6% |

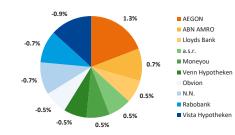
Macro-economic figures







Top mortgage lenders: increase/decrease market share





Figures 16 & 17

Source figure left: Statistics Netherlands Source figure right: Calcasa

Table 7 & Figure 18

Source table left: Statistics Netherlands, NHG, BKR, Land Registry Source figure right: Calcasa, IG&H

Figures 19 & 20

Source figure left: DNB, Statistics Netherlands Source figure right: Calcasa, Statistics Netherlands



| | Highest | | Lowest |
|---------------------|-----------------|----------------|-----------------|
| | property values | | property values |
| Municipalities | (x 1,000) | Municipalities | (x 1,000) |
| Bloemendaal | 1,187 | Heerlen | 245 |
| Wassenaar | 919 | Kerkrade | 248 |
| Heemstede | 886 | Brunssum | 250 |
| Gooise Meren | 736 | Eemsdelta | 251 |
| De Bilt | 704 | Oldambt | 255 |
| Wijdemeren | 675 | Terneuzen | 263 |
| Zeist | 659 | Veendam | 264 |
| Bergen (NH.) | 655 | Leeuwarden | 276 |
| Utrechtse Heuvelrug | 646 | Almelo | 277 |
| Huizen | 633 | Landgraaf | 279 |

Table 8

Top 10 highest and lowest property values, per municipality containing over 5,000 owner-occupied dwellings. Source: Calcasa

| | Highest | | Lowest |
|-------------------|--------------|----------------|--------------|
| | annual price | | annual price |
| Municipalities | development | Municipalities | development |
| Westerkwartier | 24.5% | Amsterdam | 11.8% |
| Groningen | 24.4% | Maastricht | 14.3% |
| Het Hogeland | 24.4% | Heerlen | 14.3% |
| Midden-Groningen | 24.3% | Kerkrade | 14.5% |
| Westerwolde | 23.4% | Brunssum | 14.5% |
| Tytsjerksteradiel | 23.1% | Sittard-Geleen | 14.8% |
| Dantumadiel | 23.0% | Landgraaf | 14.8% |
| Achtkarspelen | 23.0% | 's-Gravenhage | 15.1% |
| Winterswijk | 22.9% | Diemen | 15.2% |
| Almere | 22.9% | Beek | 15.2% |
| | | | |

Table 9

Top 10 highest and lowest price developments, per municipality with over 5,000 owner-occupied dwellings. Source: Calcasa



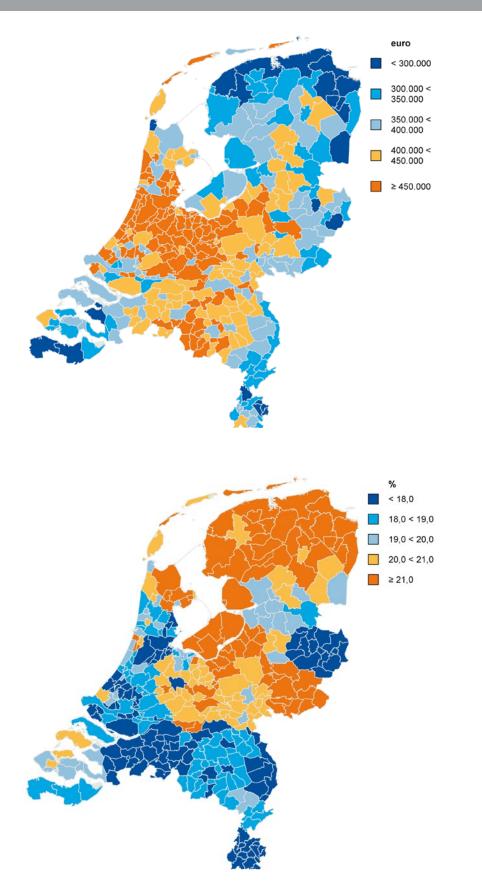


Figure 21

Average house price per municipality (EUR). Source: Calcasa

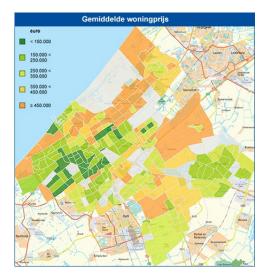
Figure 22

Year-on-year price change per municipality (%). Source: Calcasa



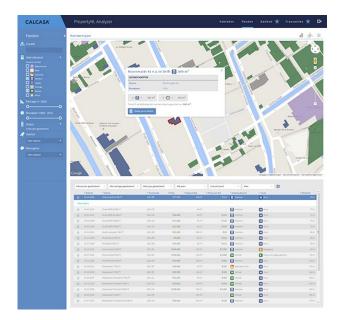
The WOX Monitor: All housing market data for every neighborhood

More information on price developments in various regional levels (neighborhood, municipality, province) is available via the WOX monitor.



Calcasa PropertyNL Analyzer

Analyzing the commercial real estate market is possible through the Calcasa PropertyNL Analyzer ("CPA"). CPA is an online application with information that is easily accessible for the office, retail and industrial markets. This tool increases the transparency in the property market.





About Calcasa

Calcasa is an independent technology company specializing in the statistical analysis and valuation of real estate. The Calcasa Automated Valuation Model (AVM) for valuation of individual homes is unique due to its high coverage and accuracy. It is internationally recognized by the three major rating agencies and regulators. Mortgage lenders, investors, intermediaries, validation institutes, housing corporations, consumer organizations, real estate companies, broker organizations, government agencies and regulators rely daily on the solutions Calcasa. www.calcasa.co.uk

Calcasa WOX: A reliable house price index

Calcasa WOX is demonstrably the most reliable house price index in the Netherlands. Every quarter, Calcasa calculates a reliable house price index for each province, municipality, borough and neighborhood in the Netherlands. The house price index is calculated using the national data on transactions starting from 1993 and additional house and location characteristics from the database. The source data is screened for integrity, such that non-representative data is omitted for the index calculation. The developed methodology takes into account any over or under representation of sold properties, compared to the existing housing stock in that area. Unlike most house price indices, the Calcasa WOX does not simply calculate the coincidental development of sales for a specific area; rather it calculates the development of prices of the total housing stock.

European AVM Alliance (EAA)

Calcasa is a founding member of the EEA which was launched as a pan-European initiative at the end of 2012. The mission is to promote and standardize the usage of AVM's resulting in a consistent approach to automated valuations in Europe. Other members include Hometrack (UK), Eiendomsverdi (Norway), Värderingsdata (Sweden), CRIF (Italy), Tinsa (Spain), On-Geo (Germany) and On-Geo (Austria).

Calcasa

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