

Housing market developments – 4th quarter 2021

Strong house price growth in the province of Flevoland

Average house prices increased the most in the province of Flevoland with 24.8% year on year. The municipality of Almere (Flevoland) is currently registering the fastest growth rate of all the municipalities in the Netherlands with 25.1%. The largest cities, Amsterdam and Rotterdam, show average house price increases of respectively 16.4% and 19.3%. The Hague and Utrecht show an average house price increase of resp. 18.8% and 21.9%.

Transactions decreased and number of homes for sale decline

The annual number of sales decreased to 273.000 houses. The number of homes for sale continues to decline. The ratio between the number of sales and supply has reached a factor 0.2 (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.

CALCASA INDEXES 2021 Q4

Calcasa House Price Index (WOX) (1995Q1=100)	440
Calcasa WOX Top 15 Cities Index (1995Q1=100)	511
Residential price change	
WOX price change (year-on-year)	19.4%
WOX price change (quarter-on-quarter)	3.4%
WOX price change corrected for inflation (year-on-year)	14.6%
House price forecast	
Yearly price change 2022 Q1	18.2%
Quarterly price change 2022 Q1	3.7%
Housing affordability	
Affordability index	14.6%
Yearly change in housing affordability	-8.6%
Quarterly change in housing affordability	-3.1%
Transactions	
Number of transactions on a yearly basis (x 1,000)	273
Yearly change in the number of transactions	-7.9%
Quarterly change in the number of transactions	-8.3%

*Housing stock January 1st, 2021, municipal reclassification 2020

Content WOX:

Introduction	1
House prices and development	2
Segment analyses and forecast	3
House prices by region	4
Affordability	5
House sales	6
Market liquidity	8
Mortgage market	11
Foreclosures	11
Dutch housing market summary	13
Appendices	14

Table 1

Calcasa key numbers Q4 2021
Source: WOX Monitor Calcasa

Average house price keeps rising

- The WOX (1995 = 100) currently stands at 440 points.
- Average house price: € 431.000.
 - » Q-O-Q price development: +3.4%.
 - » Y-O-Y price development: +19.4%.
- The current Dutch inflation rate is 4.8% (which is the average rate for Q4 2021 according to Statistics Netherlands). In the fourth quarter of 2021, inflation-adjusted house prices rose by 14.6% y-o-y.

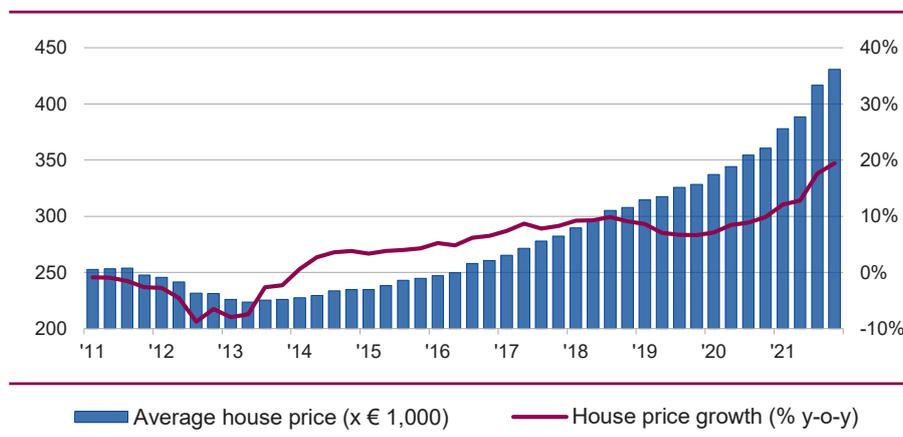


Figure 1

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: € 454.000.
 - » Q-O-Q price development of single-family houses: +3.9%.
 - » Y-O-Y price development of single-family houses: +19.8%.
- Average price for apartments: € 372.000.
 - » Q-O-Q price development of apartments: +1.7%.
 - » Y-O-Y price development of apartments: +18.2%.



Figure 2

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

Highest price increase price class € 150,000 to € 250,000

- Based on house price levels, Calcasa has divided the market into five price classes. Homes in the price class € 150,000 to € 250,000 performed best with an annual average house price rise of 21.2%.
- The price class € 350,000 to € 500,000 increased the least in value; over the past year these homes increased in value by 18.4%.

Price class (euro)	Price development y-o-y
Less than 150,000	19.3%
150,000 to 250,000	21.2%
250,000 to 350,000	20.0%
350,000 to 500,000	18.4%
More than 500,000	18.8%
All residential properties	19.4%

Terraced/corner houses show biggest price increase

- Terraced/corner houses built between 1980 and 2000 are registering the fastest growth. Their value increased by 20.6% in the past year.
- Apartments built between after 2000 are registering the slowest growth. Their value increased by 17.1% in the past year.

Development (y-o-y)	Construction year				Total
	<1944	1945-1979	>1980	>2000	
(semi) detached	19.7%	18.6%	18.5%	19.5%	19.0%
Terraced/corner house	20.0%	20.4%	20.6%	20.4%	20.4%
Apartment	17.3%	19.9%	18.2%	17.1%	18.2%
Total	18.6%	19.8%	19.3%	18.8%	19.4%

Forecast house price development in Q1 2022

- Q-O-Q price change: 3.7%.
- Y-O-Y price change: 18.2% (Q1 2021 - Q1 2022).
 - » Y-O-Y price change single-family homes: 19.3%.
 - » Y-O-Y price change apartments: 15.5%.

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: 17.3%
- Eastern part: 20.8%
- Northern part: 21.5%
- Southern part: 16.3%

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 Flevoland

- Average house prices increased the most in the province of Flevoland, with an annual increase of 24.8% in value.
- Apartments in Drenthe and Overijssel are in demand, with values going up by 21.8% and 21.7% respectively.
- The lowest price increase was measured for houses in the provinces of Zeeland (16.2%) and Limburg (16.2%).

Q4 2021	Average price	Average price	Price change
	single-family houses	apartments	(year-on-year)
Groningen	323,000	294,000	22.1%
Friesland	311,000	256,000	21.4%
Drenthe	359,000	302,000	21.5%
Overijssel	370,000	272,000	19.3%
Flevoland	382,000	368,000	24.8%
Gelderland	448,000	319,000	22.4%
Utrecht	638,000	416,000	21.5%
North-Holland	592,000	512,000	18.6%
South-Holland	498,000	343,000	18.4%
Zeeland	312,000	300,000	16.2%
North-Brabant	447,000	324,000	18.3%
Limburg	328,000	253,000	16.2%
The Netherlands	454,000	372,000	19.4%

Table 3

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

Flevoland fastest growing region

- The largest annual price increase of 24.8% is measured for houses in the NUTS III region of Flevoland. In this region the value of single-family homes rose by 25.2% and the value of apartments by 21.1%.
- Second-largest annual price increase is seen in the NUTS III region Arnhem/Nijmegen with an annual growth rate of 22.9%, here the value of single-family homes rose by 23.3% and the value of apartments by 21.4%.
- The NUTS III regions with the smallest price increases are Midden-Limburg (15.6%) and South-Limburg (15.8%).
- In 19 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 fourth quarter of 2021, compared to mid-2008 when housing costs represented 27.0% of net income.

- Q-O-Q change in net housing costs: 3.1%.
- Y-O-Y change in net housing costs: 8.6%.



Figure 3

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

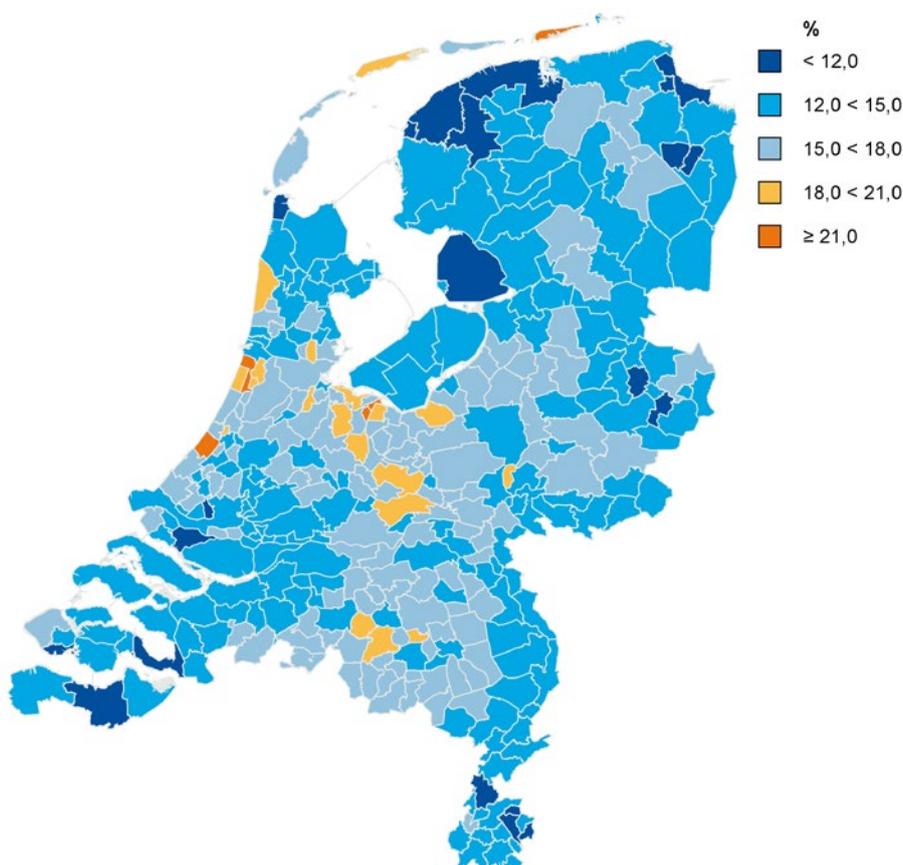


Figure 4

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. 273.000 residential properties were sold during the past year.

- Y-O-Y development, number of annual sales: -7.6%.
- Q-O-Q development, number of annual sales: -8.3%.

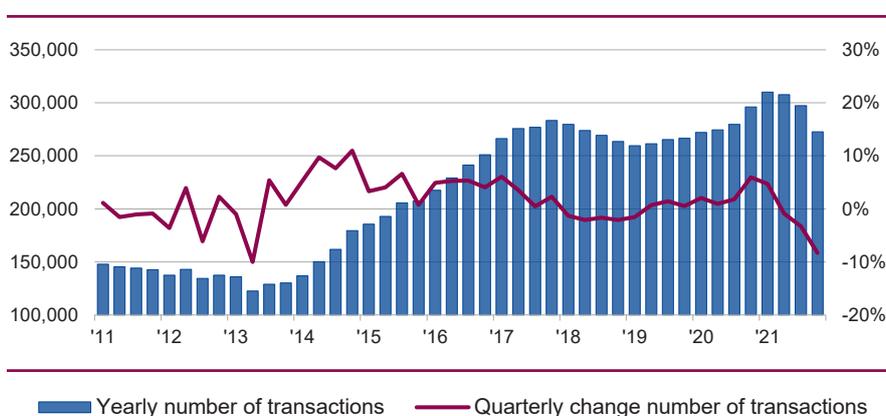


Figure 5

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

- Transactions of detached houses decreased the most with 9.6% in the fourth quarter of 2021.
- Apartments sales decreased this quarter with 9.1% year-on-year.

Transaction development y-o-y

Housing type	2020Q4	2021Q1	2021Q2	2021Q3	2021Q4
Detached	18.6%	21.5%	16.1%	10.2%	-9.6%
Semi-detached	9.2%	12.7%	7.7%	-0.1%	-8.3%
Corner house	6.7%	9.3%	5.9%	0.6%	-5.3%
Terraced house	8.1%	12.1%	9.5%	2.6%	-6.7%
Apartment	12.7%	14.5%	17.4%	14.4%	-9.1%
Total	11.1%	14.1%	12.0%	6.3%	-7.9%

Table 4

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

Sales in expensive price class increased

- The sale of homes in the price range € 350.000 to € 500.000 increased by 25.6% in the past year, whilst homes above € 500.000 increased by 39.6%.
- Especially in the east (53.1%) and in the north (62.9%) 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 (42.4%).
- The lowest price segment (€ 75.000 to € 150.000) decreased the most in the western part of the Netherlands by 41.5%.

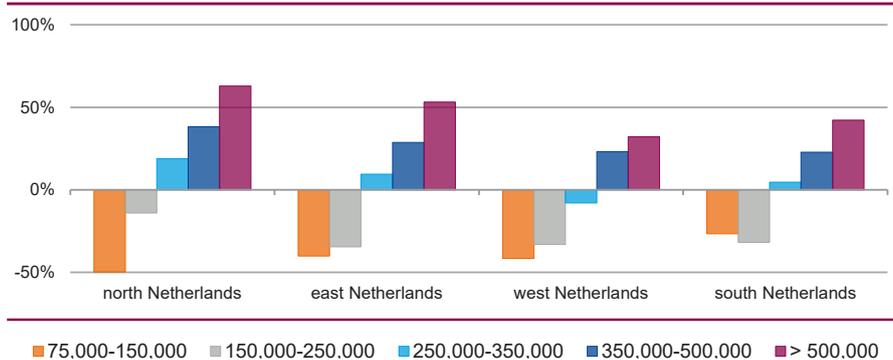


Figure 6

Growth (%) of share of housing sales per price class in North, East, West and South Netherlands in Q4 2021 compared to Q4 2020.

Source: WOX Monitor Calcasa

28% of housing sales within € 250.000 to € 350.000

- In the past year 20% 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 17% to 4%.
- The price segment € 350.000 to € 500.000 increased in four years time from 12% to 26%.
- 21% of housing sales were within the price class of € 500.000 or more. Four years ago this was 8%.

Share of housing sales per price class

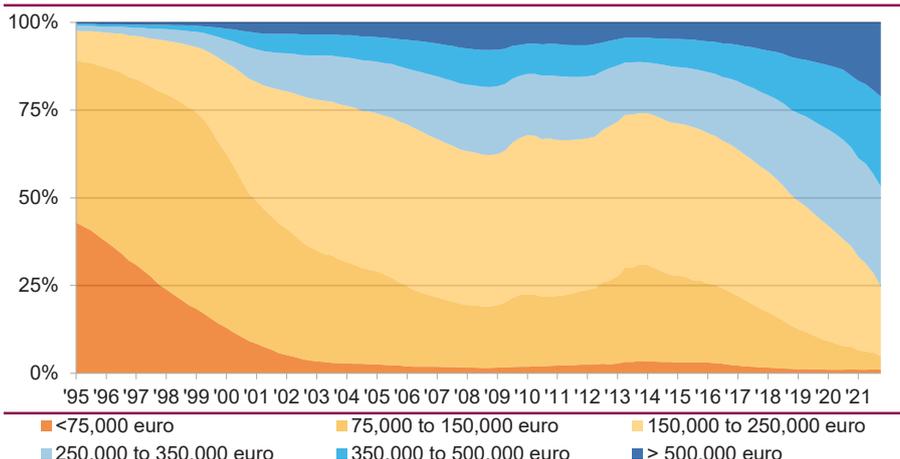


Figure 7

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

Visit calcasa.co.uk for more information

Groot-Amsterdam highest market liquidity

- In the NUTS III region Groot-Amsterdam 7.5% of the housing supply was sold during the past year. The regions The Hague and Groot-Rijnmond follow with 6.8% and 6.8% respectively.
- The NUTS III region IJmond has the lowest market liquidity: 4.8%.

NUTS III region	Percentage	NUTS III region	Percentage
	of housing supply sold last year		of housing supply sold last year
Groot-Amsterdam	7.5%	IJmond	4.8%
Agglomeratie 's-Gravenhage	6.8%	Zuidwest-Overijssel	5.1%
Groot-Rijnmond	6.8%	Achterhoek	5.1%
Zeeuwsch-Vlaanderen	6.7%	Twente	5.5%
Zuidoost-Drenthe	6.6%	Alkmaar en omgeving	5.5%
Agglomeratie Haarlem	6.5%	Leiden en Bollenstreek	5.5%
Flevoland	6.5%	Delft en Westland	5.5%
Het Gooi en Vechtstreek	6.4%	Zuid-Limburg	5.5%
Veluwe	6.3%	Zuidoost-Friesland	5.6%
Midden-Noord-Brabant	6.3%	Arnhem/Nijmegen	5.6%

Table 5

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

Source: WOX Monitor Calcasa

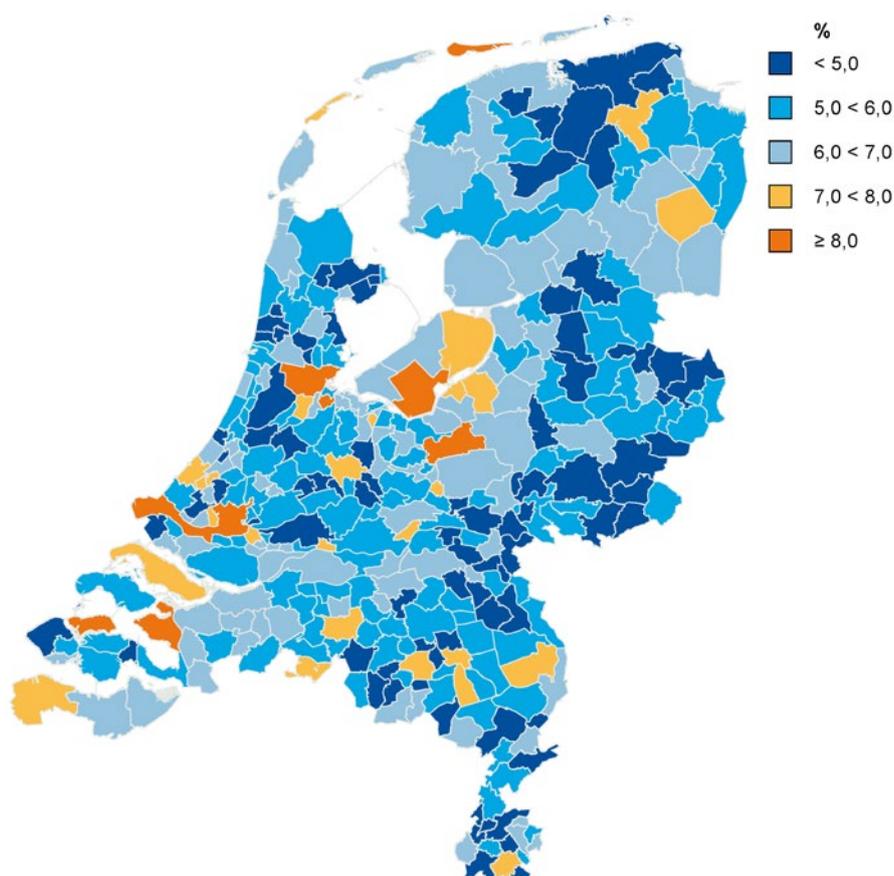


Figure 8

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 decreased to 0.2. This is an improvement compared to last year when this ratio was still 0.2.
- The annual number of houses sold: 273.000.
 - » Y-O-Y development: -7.9%
- Homes for sale in Q4 2021: 65.000
 - » Y-O-Y development: -2.1%
- The market liquidity is best in the municipality of Urk with a factor of 0.04.
- In the municipality of Wassenaar the market liquidity is highest (worst) with a factor of 0.38.



Figure 9a

Annual number of properties for sale versus number of properties sold over the period 2015-2021 in the Netherlands. Source: Multiple real estate agents, adaptation Calcasa

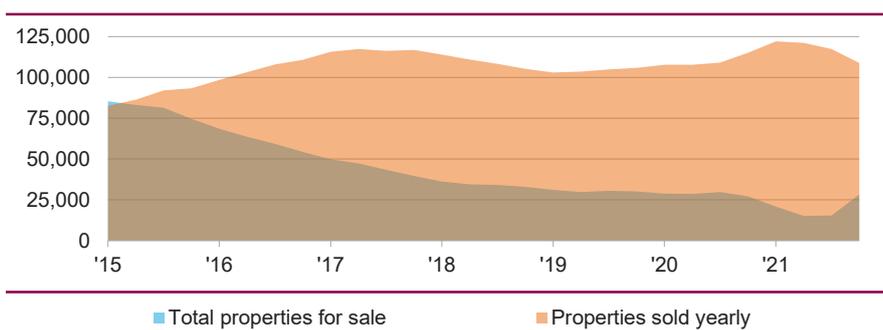


Figure 9b

Annual number of properties for sale versus number of properties sold over the period 2015-2021 in the Randstad. Source: Multiple real estate agents, adaptation Calcasa

- 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 6.1% for the Netherlands.
 - o The percentage of family homes sold previous year: 6.4%.
 - o The percentage of apartments sold previous year: 5.4%.
- The share of owner occupied housing stock which was sold last year is highest in the city of Zeewolde with 10.3%.
- In the municipality of Heumen only 3.7% of the existing stock of owner-occupied homes has changed owners.

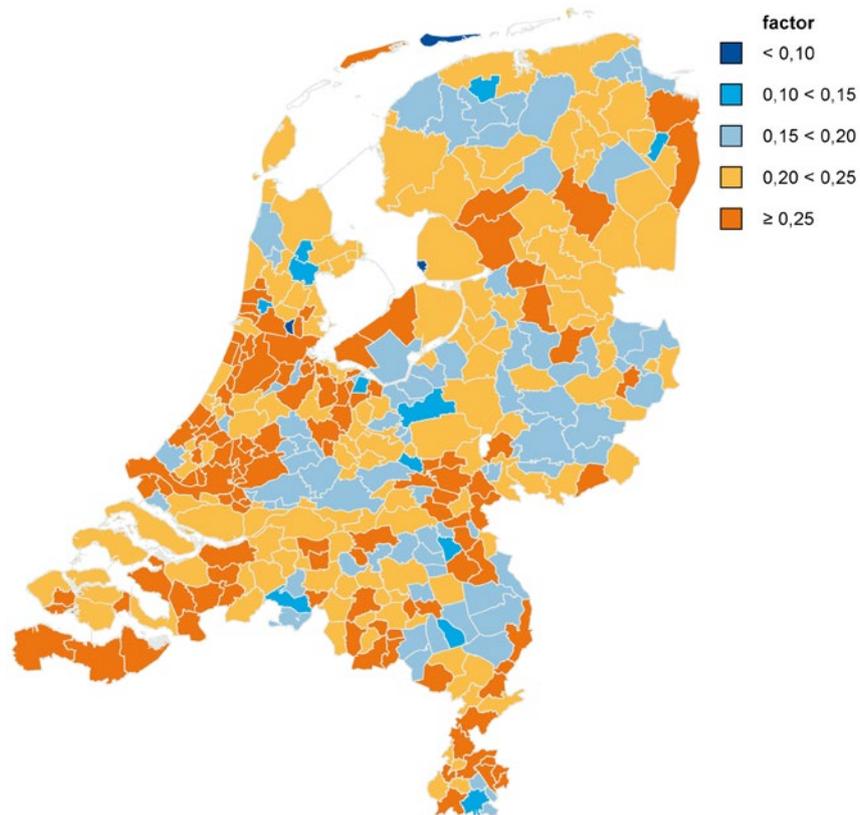


Figure 10

Supply/Sales ratio all properties per municipality

Source: WOX Monitor Calcasa

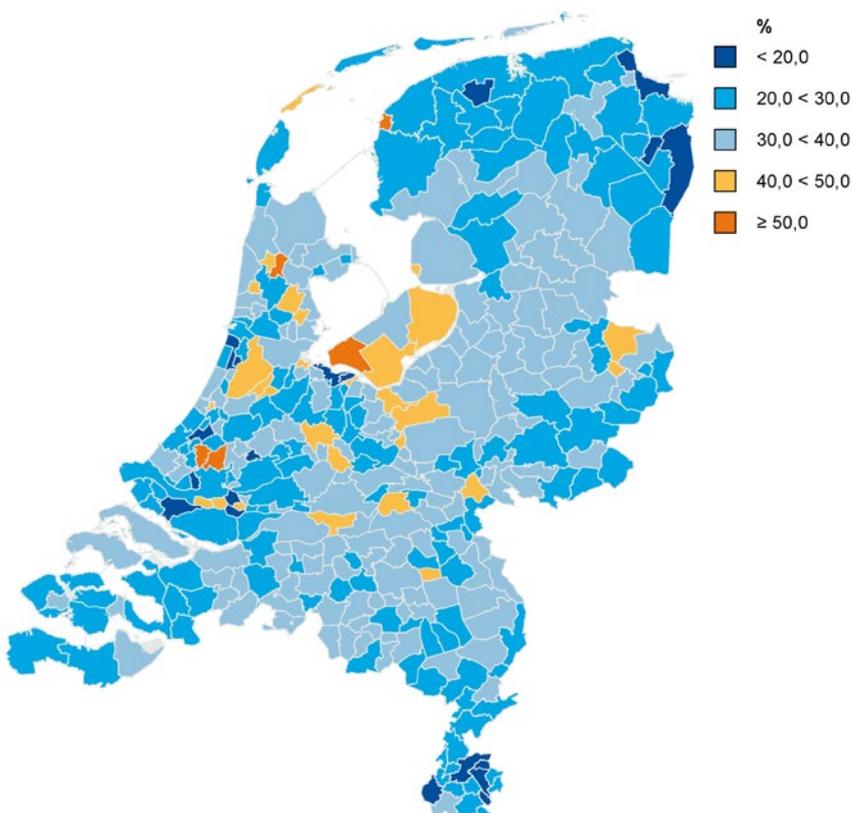


Figure 11

Percentage of properties with energy label A per municipality

Source: WOX Monitor Calcasa

Mortgage approvals

Approximately 515.000 mortgages were approved last year.

- Y-O-Y development, number of annual mortgages: 8.2%.
- Q-O-Q development, number of annual mortgages: 1.1%.

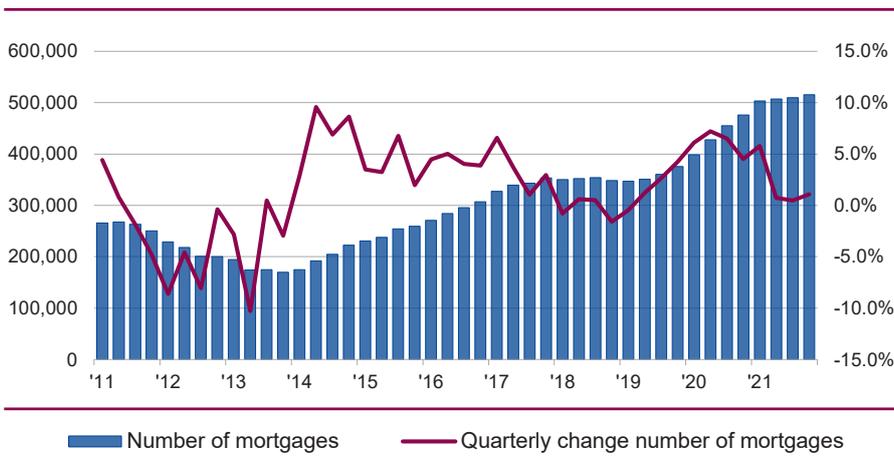


Figure 12

Number of mortgages
Source: Statistics Netherlands, Land Registry and adaptation Calcasa

Number of foreclosures

Over the last four quarters, 256 foreclosures have been registered by the land registry.

- o Y-O-Y development amount of annual foreclosures: -26.2%.
- o Q-O-Q development amount of annual foreclosures: -26.9%.
- The share of foreclosure sales versus total sales is 0.1%.
- The highest share of foreclosure sales to total sales is 0.8% in the municipality of Druten.
- 220 municipalities had no foreclosure sales in the past year. The largest municipality without foreclosure sales is Haarlem.

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.

Due to the increase in the number of foreclosures after the crisis, the NHG has come up with stricter regulations allowing banks to only sell homes via auction if the selling price is less than 5% below market value. This is to avoid big losses.

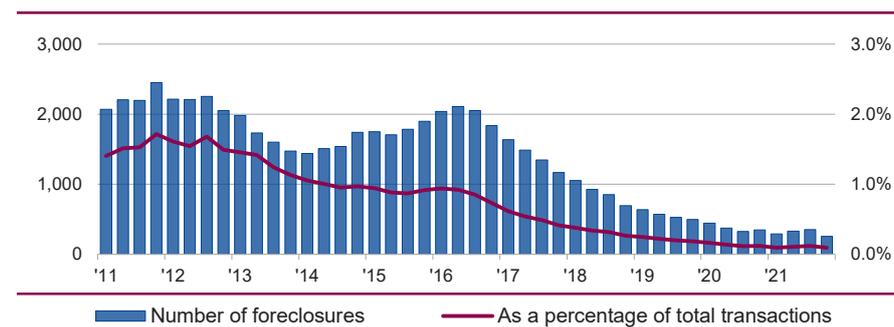


Figure 13

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 third quarter of 2021 the total amount of sales for newly built homes was 8.000. This is a increase of 13.4% year-on-year.
- During the third quarter of 2021 the average price for newly built houses was € 472.000. This is an increase of 12.5% compared to a year ago.

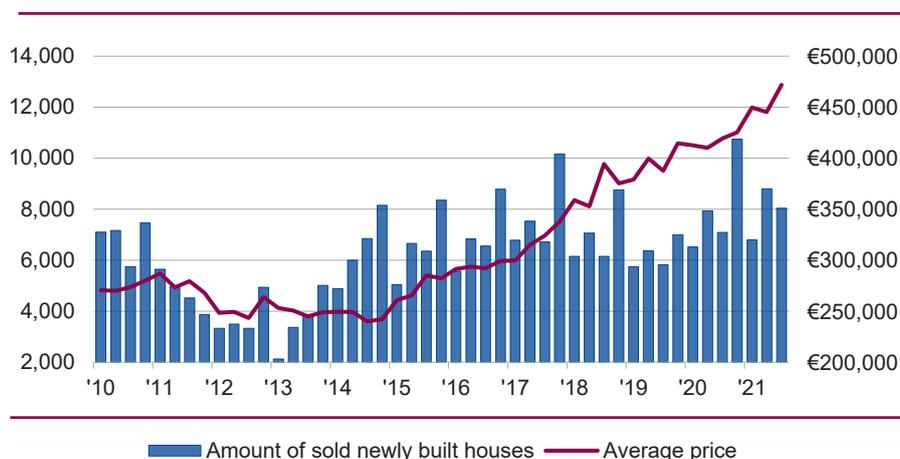


Figure 14

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

Source: CBS

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.

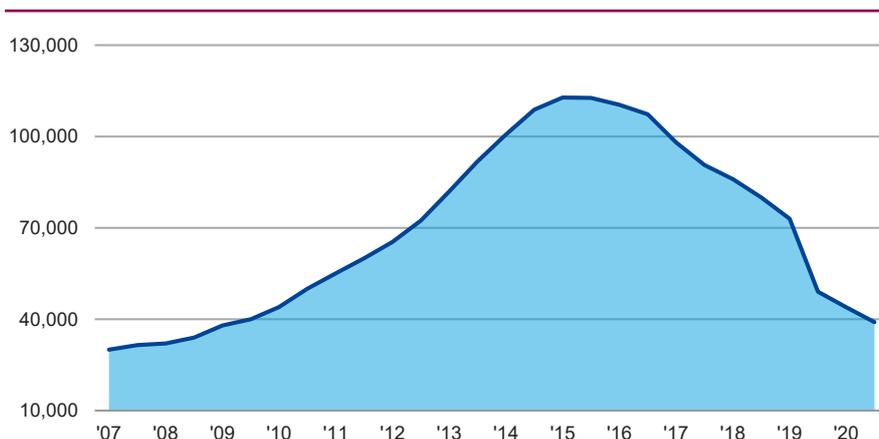


Figure 15

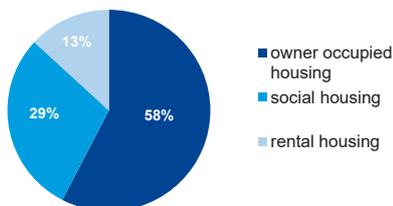
Number of borrowers with mortgage payment arrears

Source: BKR

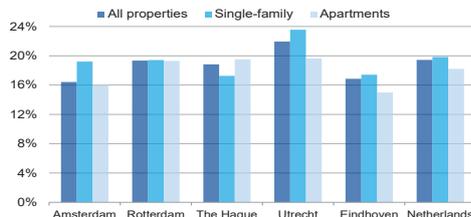
Dutch Housing Market Summary

	Largest cities	All properties	Singles-family	Apartments	Owner occupied	Rental	Total population	Total households	Annual sales	Current supply
Amsterdam	441,000	60,000	382,000	30%	70%	872,760	475,370	12,662		
Rotterdam	312,000	86,000	226,000	35%	64%	651,160	328,280	8,730		
The Hague	259,000	59,000	200,000	43%	57%	545,840	268,310	8,127		
Utrecht	154,000	67,000	87,000	46%	54%	357,600	181,670	5,342		
Groningen	115,000	47,000	68,000	42%	58%	232,870	136,380	3,588		
Eindhoven	111,000	67,000	44,000	45%	55%	234,390	120,980	3,796		
Provinces										
Groningen	280,000	184,000	96,000	55%	44%	585,870	295,470	9,375	2,012	
Friesland	300,000	243,000	57,000	62%	37%	649,960	294,470	10,739	2,110	
Drenthe	222,000	183,000	39,000	66%	34%	493,680	219,300	8,849	1,888	
Overijssel	505,000	386,000	119,000	61%	39%	1,162,410	508,410	17,118	3,731	
Flevoland	169,000	133,000	36,000	65%	35%	423,020	176,620	7,182	1,683	
Gelderland	903,000	679,000	224,000	61%	39%	2,085,950	931,490	31,848	6,818	
Utrecht	579,000	366,000	213,000	59%	41%	1,354,830	610,330	20,624	4,785	
North-Holland	1,334,000	671,000	663,000	51%	49%	2,879,530	1,376,230	43,681	11,740	
South-Holland	1,676,000	825,000	850,000	52%	47%	3,708,700	1,719,990	55,584	14,195	
Zeeland	187,000	152,000	35,000	66%	32%	383,490	175,700	7,529	1,989	
North-Brabant	1,129,000	849,000	280,000	62%	38%	2,562,960	1,157,460	42,096	9,916	
Limburg	531,000	390,000	141,000	60%	39%	1,117,200	532,320	18,034	4,379	
Netherlands	7,815,000	5,060,000	2,754,000	57%	42%	17,407,580	7,997,800	272,659	65,246	

Housing stock



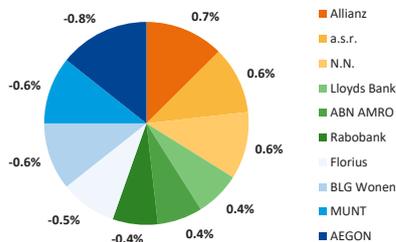
Y-O-Y price development largest cities



Mortgage developments

	Amount	Change
Sales with NHG	14,300	-27.0%
Execution sales with losses	3	-88.0%
Households in arrears	39,000	-20.4%
Sold mortgages	515,164	8.2%
Total mortgage debt	776B	4.1%

Top mortgage lenders: increase/decrease market share



Macro-economic figures

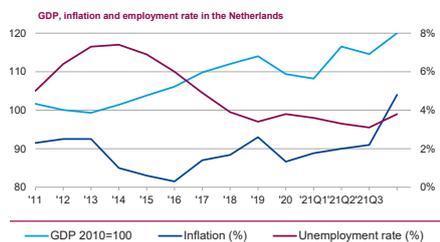


Table 6

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

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

Municipalities	Highest	Municipalities	Lowest
	property values (x 1,000)		property values (x 1,000)
Bloemendaal	1,056	Delfzijl	227
Wassenaar	869	Heerlen	237
Heemstede	797	Kerkrade	239
Gooise Meren	713	Oldambt	241
De Bilt	673	Brunssum	241
Wijdmeren	656	Veendam	250
Zeist	631	Terneuzen	252
Bergen (NH.)	625	Leeuwarden	261
Utrechtse Heuvelrug	618	Almelo	266
Huizen	613	Noardeast-Fryslân	267

Table 8

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

Municipalities	Highest	Municipalities	Lowest
	annual price development		annual price development
Almere	25.1%	Veere	15.2%
Lelystad	25.0%	Borsele	15.3%
Noordoostpolder	24.5%	Maasgouw	15.3%
Midden-Groningen	24.4%	Leudal	15.3%
Zeewolde	24.3%	Hulst	15.3%
Dronten	24.2%	Roerdalen	15.4%
Urk	24.2%	Echt-Susteren	15.4%
Het Hogeland	23.7%	Nederweert	15.4%
Westerkwartier	23.5%	Landgraaf	15.5%
Buren	23.4%	Schouwen-Duiveland	15.6%

Table 9

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

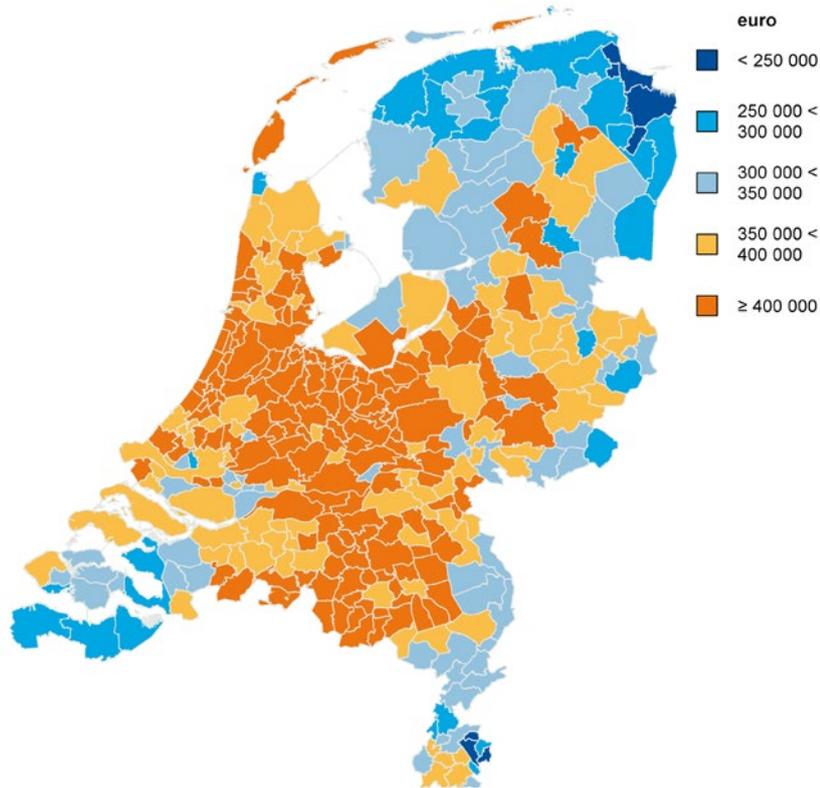


Figure 21

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

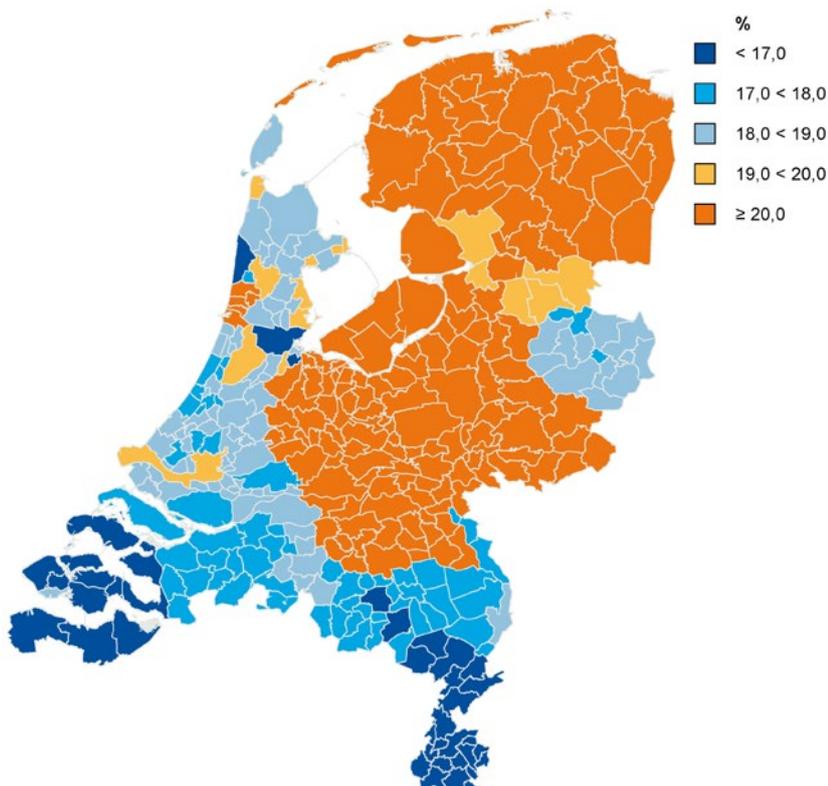


Figure 22

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

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

Koornmarkt 41

2611 EB Delft

The Netherlands

T 0031 15 214 88 34

Visit calcasa.co.uk for more information