

Housing market developments – 1st quarter 2020

Strong house price growth outside the Randstad

Average house prices increased in the province of Groningen with 9.4% year on year. The municipality Groningen is currently registering the second fastest growth of all the municipalities in the Netherlands with 10.3%. The two largest cities, Amsterdam and Rotterdam, show average house price increases of respectively 5.8% and 10.8%. The Hague and Utrecht show average house price increases of respectively 8.8% and 7.1.

Transactions remain stable and number of homes for sale drops

The annual number of sales increased in five years from 137 thousand to 272 thousand houses. The number of homes for sale continues to decline. The ratio between the number of sales and supply has reached a factor 0.3 (sales > supply).

Housing affordability improves

On average, 13.5% 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 2020 Q1

Calcasa House Price Index (WOX) (1995Q1=100)	344
Calcasa WOX Top 15 Cities Index (1995Q1=100)	403

Residential price change

WOX price change (year-on-year)	7.2%
WOX price change (quarter-on-quarter)	2.7%
WOX price change corrected for inflation (year-on-year)	4.5%

House price forecast

Yearly price change 2020 Q2	7.9%
Quarterly price change 2020 Q2	1.6%

Housing affordability

Affordability index	13.5%
Yearly change in housing affordability	9.2%
Quarterly change in housing affordability	13.1%

Transactions

Number of transactions on a yearly basis (x 1,000)	272
Yearly change in the number of transactions	4.8%
Quarterly change in the number of transactions	2.0%

*Housing stock January 1st, 2020, municipal reclassification 2019

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 Q1 2020
Source: WOX Monitor Calcasa

Average house price keeps rising

- The WOX (1995 = 100) currently stands at 344 points.
- Average house price: 337 thousand euro.
 - » Q-O-Q price development: +2.7%.
 - » Y-O-Y price development: +7.2%.
- The current Dutch inflation rate is 2.7% (which is the average rate for Q1 2020 according to Statistics Netherlands). In the first quarter of 2020, inflation-adjusted house prices rose by 4.5% y-o-y.

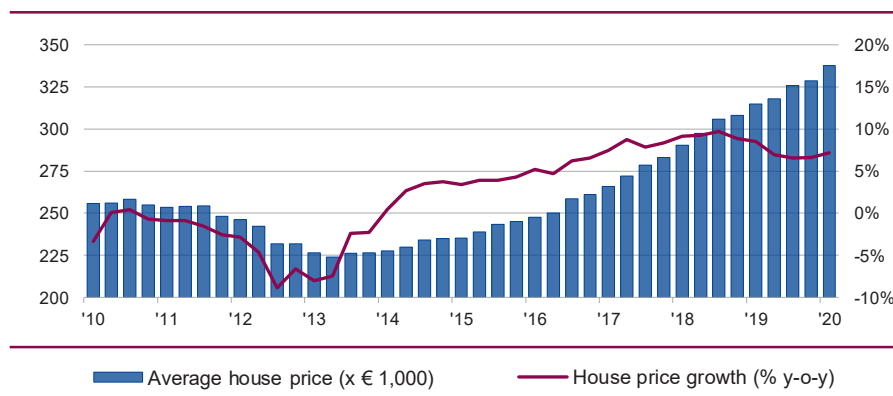


Figure 1

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: 353 thousand euro.
 - » Q-O-Q price development of single-family houses: +2.5%.
 - » Y-O-Y price development of single-family houses: +6.7%.
- Average price for apartments: 296 thousand euro.
 - » Q-O-Q price development of apartments: +3.4%.
 - » Y-O-Y price development of apartments: +8.7%.

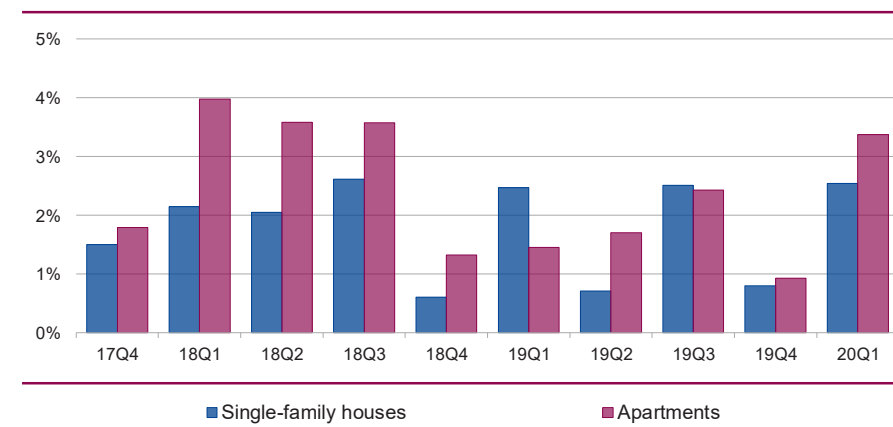


Figure 2

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

Highest price increase for less than 150,000 euro class

- Based on house price levels, Calcasa has divided the market into five price classes. Homes in the price class less than 150 thousand euros performed best with an annual average house price rise of 9.7%.
- The most expensive houses - worth 500k or more - increased the least in value; over the past year these homes increased in value by 4.1%.

Price class (euro)	Price development y-o-y
Less than 150,000	9.7%
150,000 to 250,000	8.9%
250,000 to 350,000	7.5%
350,000 to 500,000	6.1%
More than 500,000	4.1%
All residential properties	7.2%

Older apartments show biggest price increase

- The value of apartments saw the biggest price growth in the past year; their average price rose by 8.6%.
- Apartments built between 1945 and 1979 are registering the fastest growth. Their value increased by 9.1% in the past year.

Development (y-o-y)	Construction year				Total
	<1944	1945-1979	>1980	>2000	
(semi) detached	6.2%	6.2%	6.5%	5.6%	6.2%
Terraced/corner house	6.9%	7.2%	7.4%	6.2%	7.0%
Apartment	8.1%	9.1%	8.3%	8.9%	8.6%
Total	7.3%	7.6%	7.4%	7.2%	7.2%

Forecast house price development in Q2 2020

- Q-O-Q price change: +1.6%.
- Y-O-Y price change: 7.9% (Q2 2019 - Q2 2020).
 - » Y-O-Y price change single-family homes: 7.6%.
 - » Y-O-Y price change apartments: 8.5%.

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: 7.8%
- Northern part: 8.2%
- Eastern part: 7.4%
- Southern part: 8.2%

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 9.4% in value.
- Apartments in South-Holland and Friesland are in demand, with values going up by 10.8% and 10.7% respectively.
- The lowest price increase was measured for houses in the provinces of North-Holland (6.3%) and Zeeland (6.4%).

Q1 2020	Average price	Average price	Price change
	single-family houses	apartments	(year-on-year)
Groningen	245,000	236,000	9.4%
Friesland	270,000	227,000	6.7%
Drenthe	280,000	207,000	7.9%
Overijssel	296,000	294,000	7.2%
Flevoland	242,000	211,000	7.9%
Gelderland	341,000	239,000	6.5%
Utrecht	486,000	317,000	7.4%
North-Holland	456,000	420,000	6.3%
South-Holland	391,000	272,000	8.1%
Zeeland	250,000	238,000	6.4%
North-Brabant	354,000	262,000	6.7%
Limburg	269,000	205,000	7.5%
The Netherlands	353,000	296,000	7.2%

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 9.7% is measured for houses in the NUTS III region of Overig Groningen. In this region the value of single-family homes rose by 8.6% and the value of apartments by 12.1%.
- Second-largest annual price increase is seen in the NUTS III region Groot-Rijnmond with an annual growth rate of 9.5%, here the value of single-family homes rose by 8.1% and the value of apartments by 11.8%.
- The NUTS III regions with the smallest price increases are Delft en Westland (4.4%) and Haarlem (5.4%).
- In 12 of the 40 NUTS III regions the annual increase for houses prices is more than 8%.

Housing affordability

On average, 13.5% of net household income was required to service housing costs in the first quarter of 2020, compared to mid-2008 when housing costs represented 27.0% of net income.

- Q-O-Q change in net housing costs: -13.1%.
- Y-O-Y change in net housing costs: -9.2%.

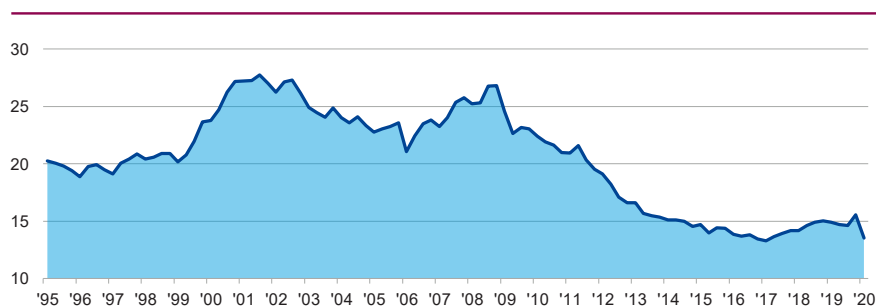


Figure 3

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

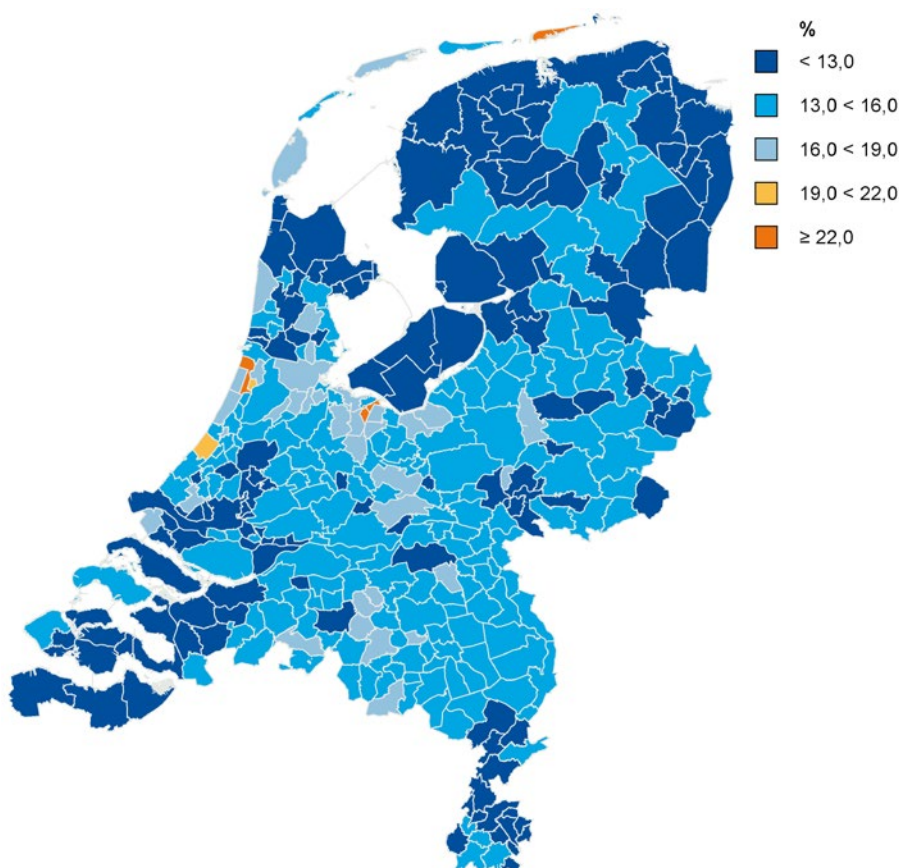


Figure 4

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 increased. 272 thousand residential properties were sold during the past year.

- Y-O-Y development, number of annual sales: +4.8%.
- Q-O-Q development, number of annual sales: +2.0%.

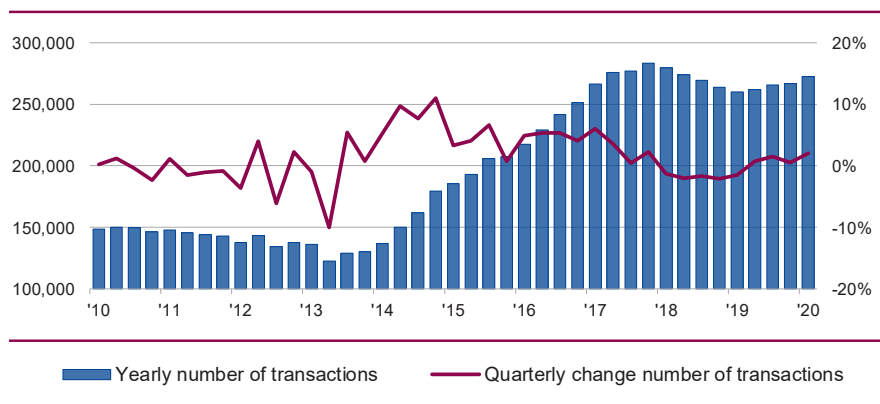


Figure 5

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 semi-detached houses increased with 9.1% in the last quarter. Transactions of corner houses increased with 8.5%.
- Apartments sales increased the least this quarter with 0.6% year-on-year. This is partly caused by a shrinking supply of apartments.

Transaction development y-o-y

Housing type	2019Q1	2019Q2	2019Q3	2019Q4	2020Q1
Detached	-2.1%	0.5%	2.7%	3.3%	6.1%
Semi-detached	-4.8%	-0.4%	3.2%	6.3%	9.1%
Corner house	-5.5%	-2.2%	1.0%	3.4%	8.5%
Terraced house	-7.3%	-5.7%	-2.7%	0.2%	4.4%
Apartment	-11.6%	-9.0%	-6.0%	-2.8%	0.6%
Total	-7.1%	-4.5%	-1.4%	1.2%	4.8%

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 to 500 thousand euros increased by 17.3% in the past year, whilst homes above 500 thousand euros increased by 18.2%.
- Especially in the east (22.5%) and in the north (25.1%) of the Netherlands more expensive homes (>500 thousand euros) were sold.
- In the south the highest increase in sales was measured for houses in the price range above 500 thousand euros (19.4%).
- The lowest price segment (75 to 150 thousand euros) decreased the most in the western part of the Netherlands by 32.4%.

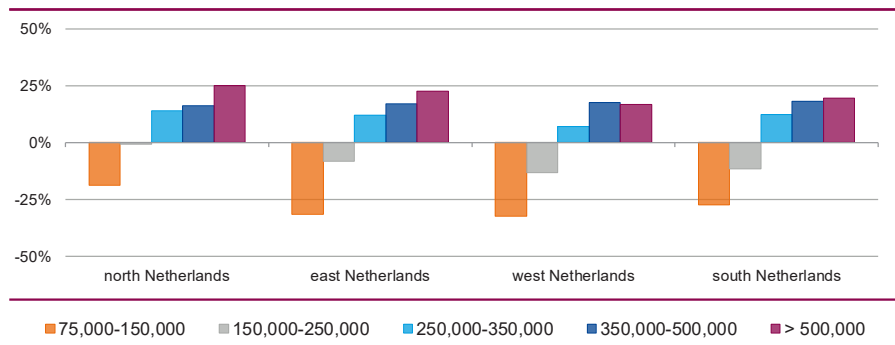


Figure 6

Growth (%) of share of housing sales per price class in North, East, West and South Netherlands in Q1 2020 compared to Q1 2019.

Source: WOX Monitor Calcasa

33% of housing sales within 150 to 250 thousand euros

- In the past year 33% of housing sales were within the price class of 150 to 250 thousand euros.
- The percentage of transactions in the price class 75 to 150 thousand euros decreased in four years time from 23% to 8%.
- The price segment 350 to 500 thousand euros increased in four years time from 9% to 18%.
- 12% of housing sales were within the price class of 500 thousand euros or more. Four years ago this was 6%.

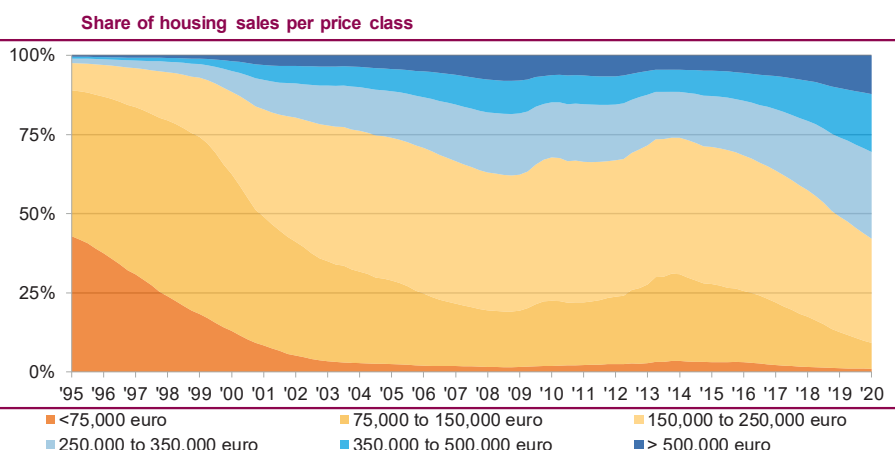


Figure 7

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 7.2% of the housing supply was sold during the past year. The regions of The Hague and Groot-Rijnmond follow with 7.1% and 6.9% respectively.
- The NUTS III region Noord-Limburg had the lowest market liquidity: 5.1%.

NUTS III region	Percentage	NUTS III region	Percentage
	of housing supply sold last year		of housing supply sold last year
Groot-Amsterdam	7.2%	Noord-Limburg	5.1%
's-Gravenhage	7.1%	Midden-Limburg	5.3%
Groot-Rijnmond	6.9%	IJmond	5.4%
Flevoland	6.9%	Zuid-Limburg	5.5%
Overig Groningen	6.8%	Twente	5.6%
Oost-Groningen	6.6%	Achterhoek	5.6%
Zuidwest-Drenthe	6.6%	Leiden en Bollenstreek	5.6%
Veluwe	6.6%	Delft en Westland	5.7%
Overig Zeeland	6.6%	Noord-Drenthe	5.8%
Noord-Friesland	6.5%	Zuidwest-Overijssel	5.8%

Table 5

Top 10 NUTS III regions with highest and lowest percentage of housing supply sold last year
Source: WOX Monitor Calcasa

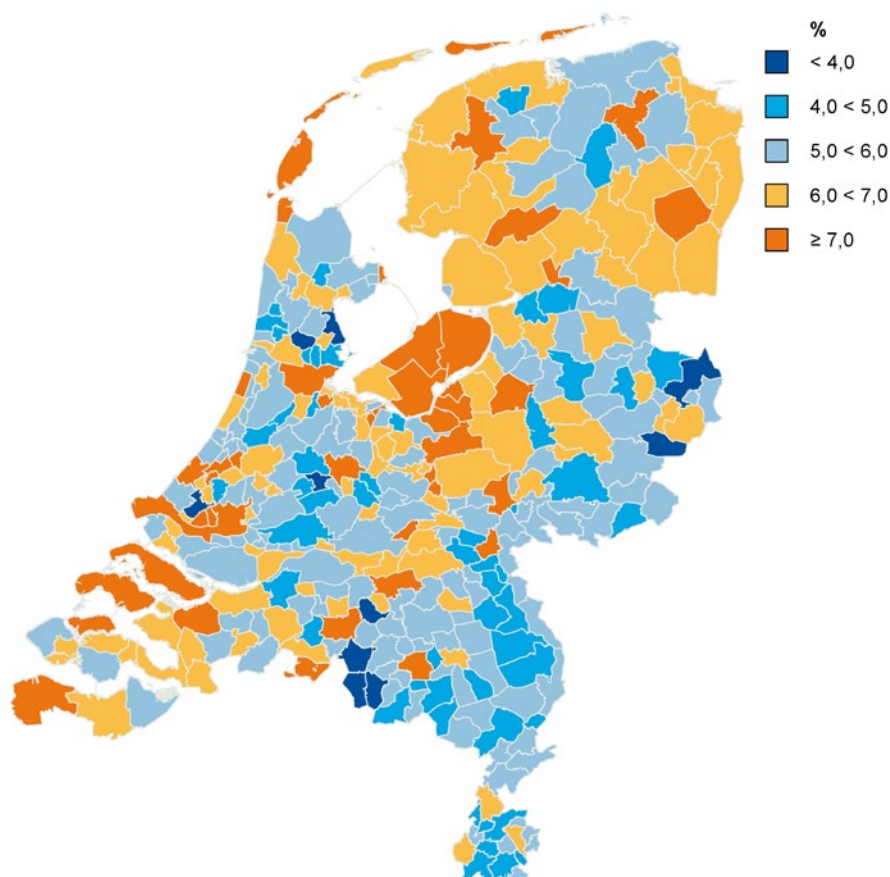


Figure 8

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 0.3. This is an improvement compared to last year when this ratio was still 0.4.
- The annual number of houses sold: 272 thousand.
 - » Y-O-Y development: 4.8%
- Homes for sale in Q1 2020: 73 thousand
 - » Y-O-Y development: -20.2%
- The market liquidity is best in the municipality of Groningen with a factor of 0.16.
- In the municipality of Wassenaar the market liquidity is highest (worst) with a factor of 0.61, followed by the municipality of Bladel with a factor of 0.50.

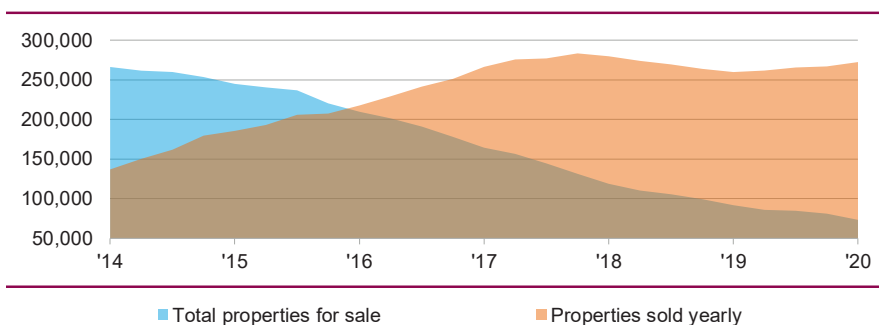


Figure 9a

Annual number of properties for sale versus number of properties sold over the period 2014-2020 in the Netherlands. Source: Multiple real estate agents, adaptation Calcasa

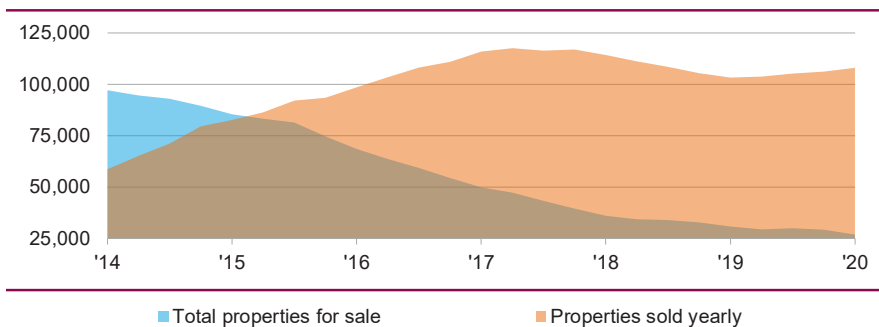


Figure 9b

Annual number of properties for sale versus number of properties sold over the period 2014-2020 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 6.2% for the Netherlands.
 - o The percentage of family homes sold previous year: 6.5%.
 - o The percentage of apartments sold previous year: 5.5%.
- 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 Edam-Volendam only 3.3% of the existing stock of owner-occupied homes has changed owners.

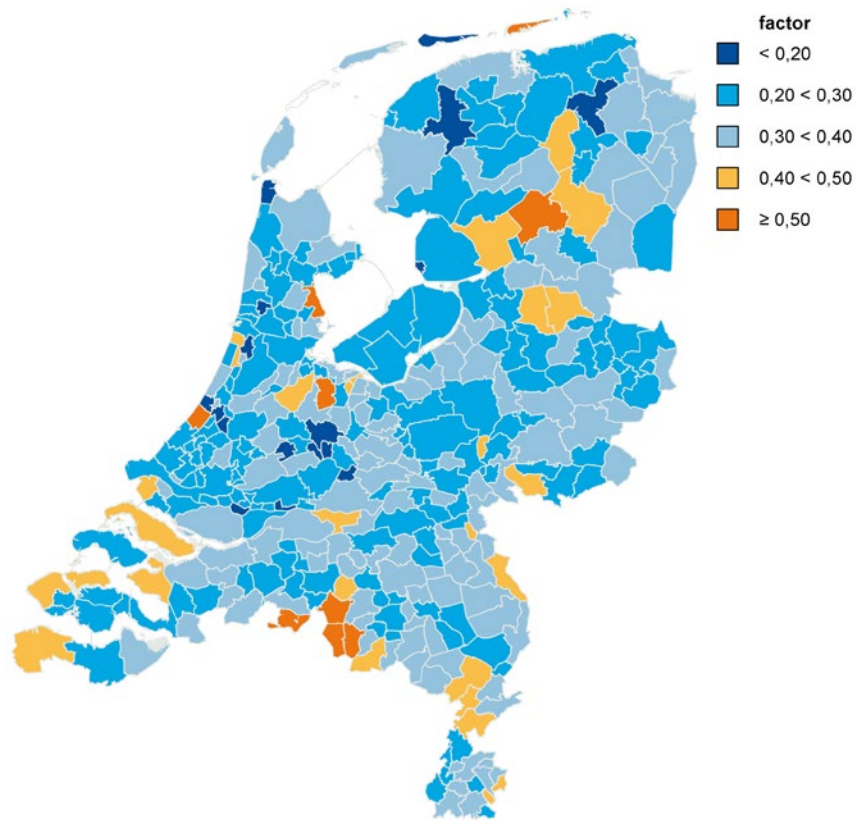


Figure 10

Supply/Sales ratio all properties per municipality

Source: WOX Monitor Calcasa

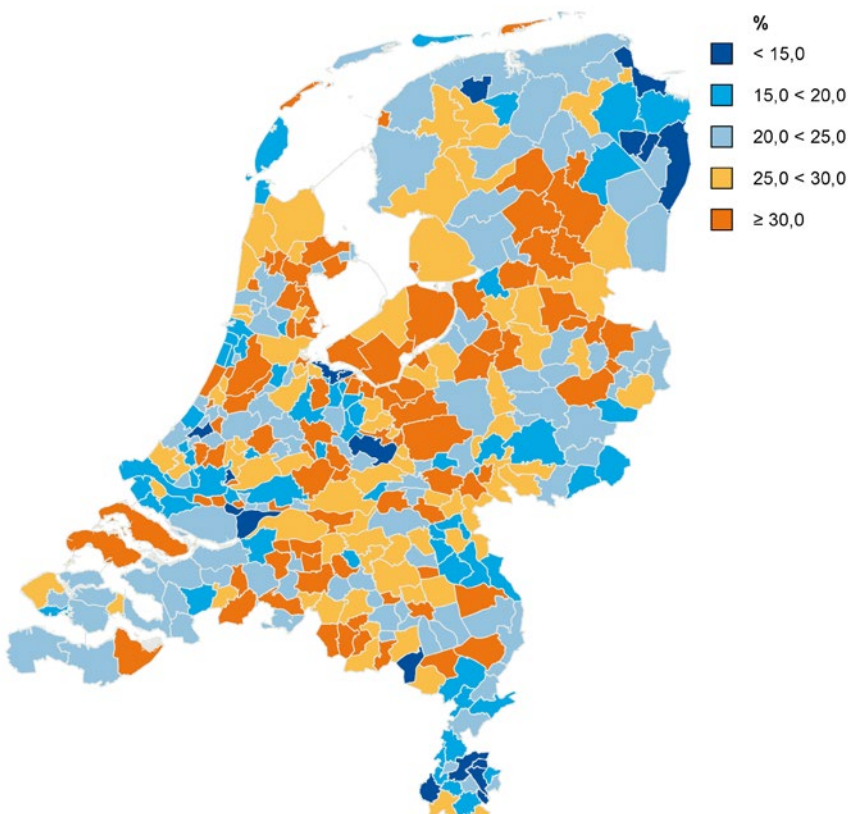


Figure 11

Percentage of properties with energy label A per municipality

Source: WOX Monitor Calcasa

Mortgage approvals

Approximately 394 thousand mortgages were approved last year.

- Y-O-Y development, number of annual mortgages: 13.4%.
- Q-O-Q development, number of annual mortgages: 4.7%.

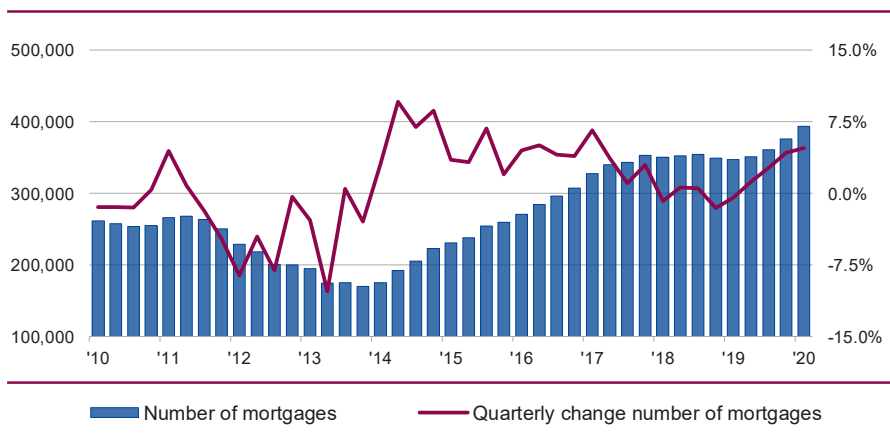


Figure 12

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

Number of foreclosures

Over the last four quarters, 444 foreclosures have been registered by the land registry.

- o Y-O-Y development amount of annual foreclosures: -30.4%.
- o Q-O-Q development amount of annual foreclosures: -10.8%.
- The share of foreclosure sales versus total sales is 0.2%.
- The highest share of foreclosure sales to total sales is 1.9% in the municipality of Nederweert.
- 184 municipalities had no foreclosure sales in the past year. The largest municipality without foreclosure sales is Meierijstad.

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 up to 40 percent 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.

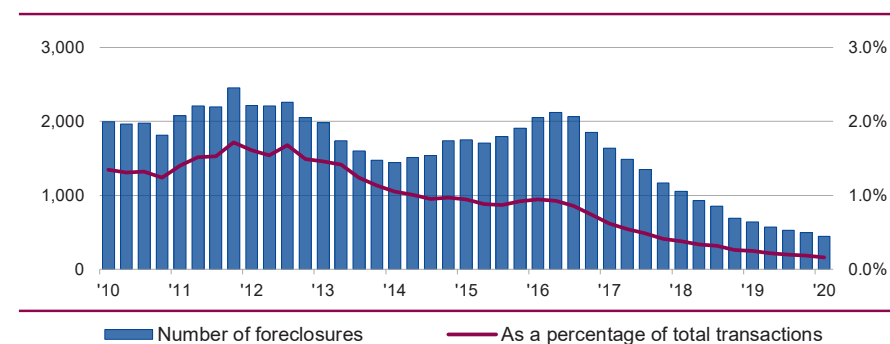


Figure 13

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 first quarter of 2019 the total amount of sales for newly built homes was 7 thousand. This is an increase of 15.4% year-on-year.
- During the fourth quarter of 2019 the average price for newly built houses was 411 thousand euros. This is an increase of 9.4% compared to a year ago.

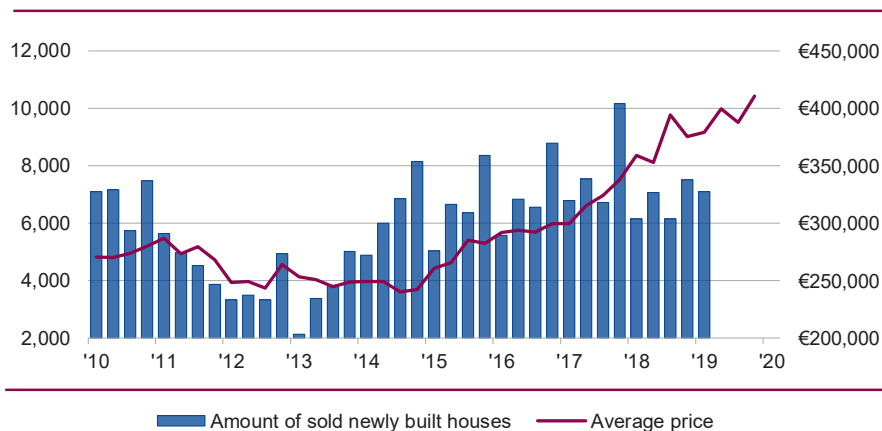


Figure 14

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 38%.
- Currently there are 70 thousand homeowners who have difficulty paying their mortgage: this is a decrease of 12.5% compared to a year ago.

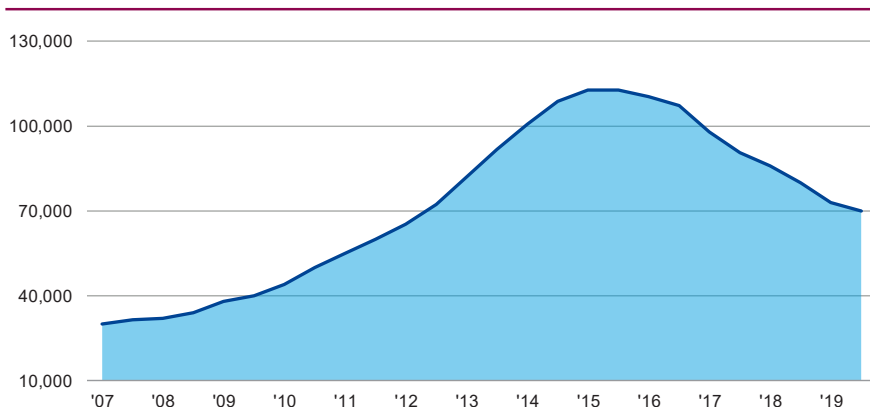


Figure 15

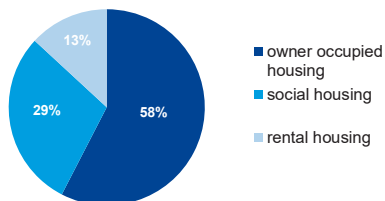
Number of borrowers with mortgage payment arrears

Source: BKR

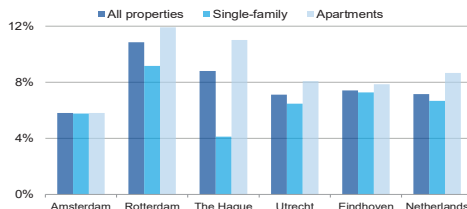
Dutch Housing Market Summary

	Largest cities	All properties	Singles-family	Apartments	Owner occupied	Rental	Total population	Total households	Annual sales	Current supply
Amsterdam	433,000	61,000	372,000	30%	70%	862,960	470,220	11,849		
Rotterdam	311,000	87,000	225,000	34%	64%	644,620	324,540	9,021		
The Hague	257,000	59,000	198,000	42%	56%	537,830	263,370	8,295		
Utrecht	151,000	67,000	84,000	45%	54%	352,870	180,370	5,363		
Groningen	113,000	46,000	67,000	42%	57%	231,300	135,080	3,943		
Eindhoven	109,000	67,000	43,000	45%	54%	231,640	119,540	3,777		
Provinces										
Groningen	277,000	183,000	94,000	55%	44%	583,990	293,740	10,126	2,551	
Friesland	298,000	243,000	55,000	61%	37%	647,670	292,170	11,594	3,129	
Drenthe	221,000	182,000	38,000	65%	33%	492,170	217,830	8,978	2,783	
Overijssel	500,000	384,000	116,000	60%	38%	1,156,430	503,840	17,398	4,673	
Flevoland	166,000	132,000	34,000	64%	35%	416,550	173,590	7,284	1,661	
Gelderland	894,000	676,000	218,000	60%	39%	2,071,970	923,360	33,034	9,213	
Utrecht	572,000	365,000	207,000	58%	41%	1,342,160	604,570	20,359	5,020	
North-Holland	1,318,000	670,000	648,000	50%	49%	2,853,360	1,362,850	43,264	11,034	
South-Holland	1,663,000	824,000	839,000	51%	48%	3,673,890	1,701,650	55,079	13,720	
Zeeland	185,000	151,000	34,000	65%	34%	383,030	175,080	7,956	2,443	
North-Brabant	1,116,000	847,000	269,000	61%	38%	2,544,810	1,146,310	40,567	11,612	
Limburg	529,000	390,000	139,000	60%	39%	1,116,140	529,710	16,847	5,421	
Netherlands	7,741,000	5,047,000	2,694,000	57%	42%	17,282,160	7,924,690	272,486	73,260	

Housing stock



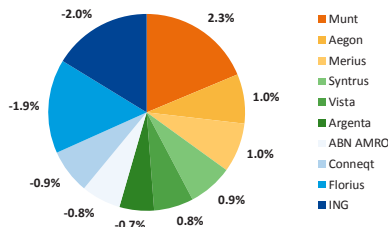
Y-O-Y price development largest cities



Mortgage developments

	Amount	Change
Sales with NHG	24,200	8.0%
Execution sales with losses	92	-47.1%
Households in arrears	70,000	-12.5%
Sold mortgages	393,519	13.4%
Total mortgage debt	723B	1.3%

Top mortgage lenders: increase/decrease market share



Macro-economic figures

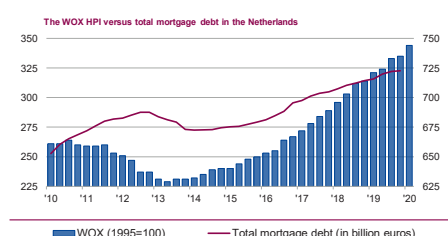
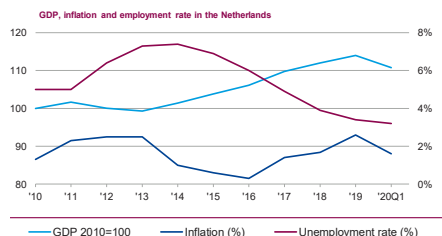


Table 6

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

Visit calcasa.co.uk for more information

Appendices

Provinces	Detached houses	Semi-detached	Corner houses	Terraced houses	All single-family dwellings
Groningen	275,000	226,000	203,000	201,000	245,000
Friesland	314,000	229,000	194,000	175,000	270,000
Drenthe	354,000	249,000	209,000	185,000	280,000
Overijssel	407,000	269,000	242,000	221,000	296,000
Flevoland	495,000	320,000	251,000	233,000	242,000
Gelderland	481,000	332,000	283,000	248,000	341,000
Utrecht	771,000	532,000	397,000	366,000	486,000
North-Holland	618,000	497,000	389,000	347,000	456,000
South-Holland	606,000	458,000	352,000	324,000	391,000
Zeeland	350,000	240,000	209,000	194,000	250,000
North-Brabant	518,000	348,000	300,000	267,000	354,000
Limburg	386,000	251,000	234,000	215,000	269,000
Netherlands	460,000	339,000	305,000	285,000	353,000

Table 8

Average house price for single-family dwellings, per property type and per province in the Netherlands (in euros).
Source: Calcasa

Provinces	Porch flat	Gallery flat	Maison-nette	Up/downstairs apartment	All apartments
Groningen	207,000	184,000	200,000	212,000	236,000
Friesland	207,000	172,000	182,000	190,000	227,000
Drenthe	211,000	184,000	185,000	215,000	207,000
Overijssel	192,000	189,000	208,000	206,000	294,000
Flevoland	256,000	214,000	232,000	206,000	211,000
Gelderland	228,000	201,000	222,000	247,000	239,000
Utrecht	293,000	256,000	306,000	319,000	317,000
North-Holland	301,000	273,000	357,000	393,000	420,000
South-Holland	237,000	225,000	267,000	272,000	272,000
Zeeland	264,000	270,000	212,000	221,000	238,000
North-Brabant	259,000	224,000	248,000	259,000	262,000
Limburg	202,000	180,000	206,000	207,000	205,000
Netherlands	248,000	228,000	273,000	304,000	296,000

Table 9

Average house price for apartments, per property type and per province in the Netherlands (in euros).
Source: Calcasa

Municipalities	Highest	Municipalities	Lowest
	property values (x 1,000)		property values (x 1,000)
Bloemendaal	845	Delfzijl	176
Wassenaar	687	Oldambt	184
Heemstede	636	Veendam	194
Gooise Meren	566	Heerlen	197
De Bilt	534	Kerkrade	200
Wijdmeren	522	Brunssum	201
Zeist	501	Leeuwarden	203
Bergen (NH.)	493	Terneuzen	204
Utrechtse Heuvelrug	490	Noardeast-Fryslân	209
Huizen	484	Waadhoeke	210

Table 10

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
Rotterdam	10.8%	Delft	4.2%
Groningen	10.3%	Midden-Delfland	4.3%
Schiedam	10.0%	Westland	4.6%
Vlaardingen	9.6%	Bloemendaal	4.9%
Capelle aan den IJssel	9.2%	Heemstede	5.0%
Midden-Groningen	9.2%	Tilburg	5.1%
Maassluis	9.1%	Leudal	5.1%
Ridderkerk	9.1%	Gooise Meren	5.1%
's-Gravenhage	8.8%	Roerdalen	5.2%
Venlo	8.7%	Huizen	5.2%

Table 11

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

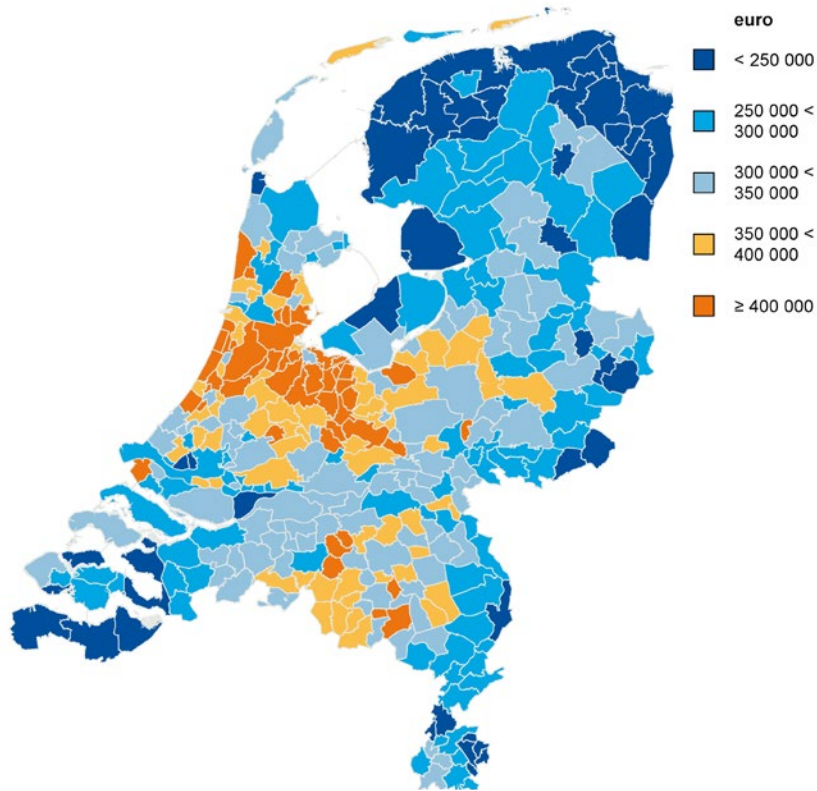


Figure 21

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

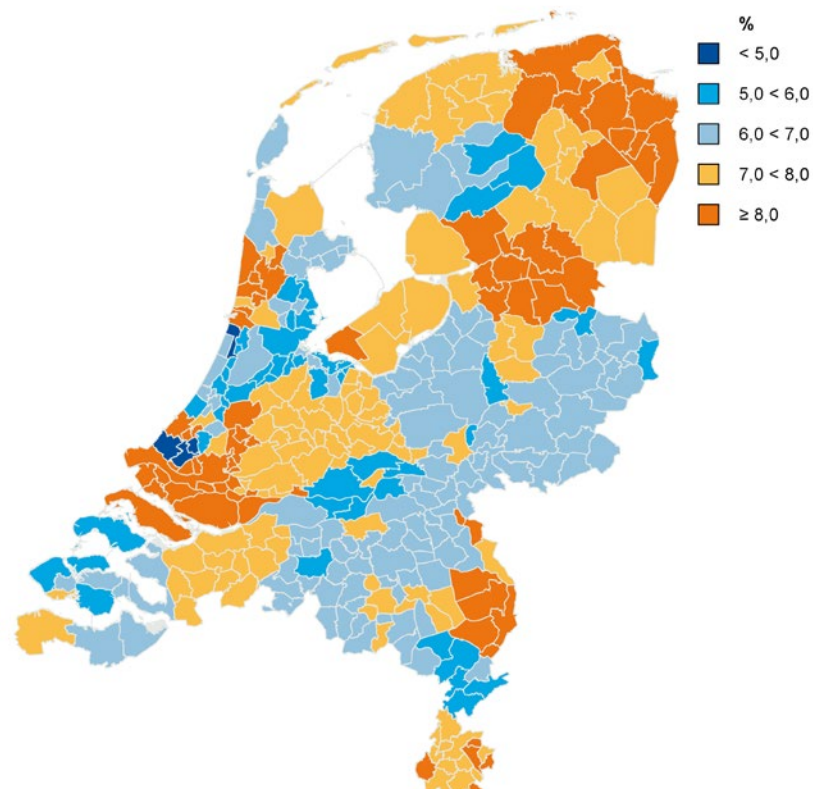
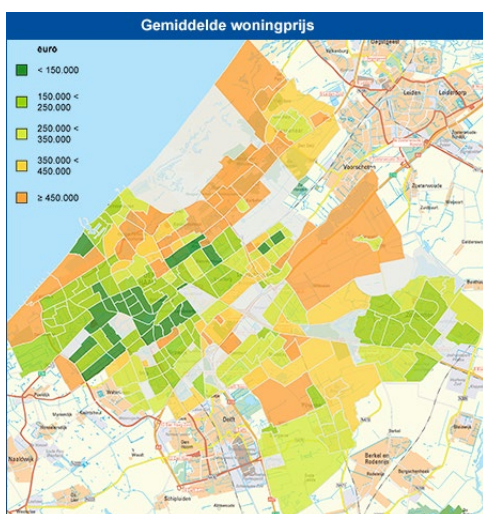


Figure 22

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

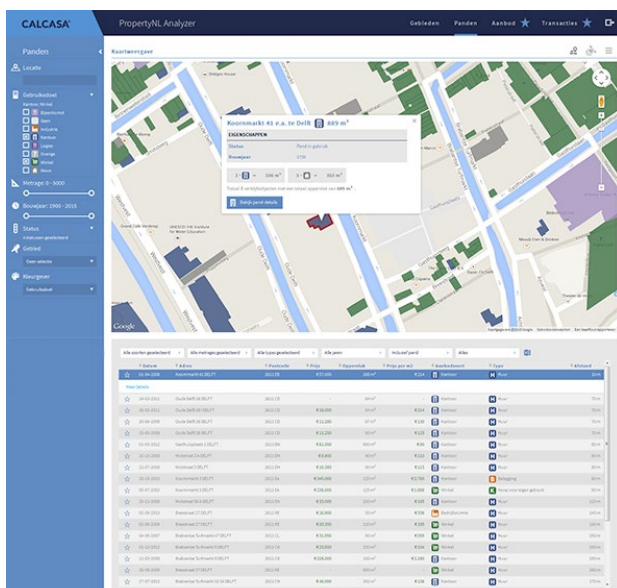
The WOX Monitor: All housing market data for every neighborhood

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. For more information contact Mr. Rogier van der Hijden: Rogier@Calcasa.nl



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