

Housing market developments – 2nd quarter 2023

House prices decreased the most in the municipality of Utrecht

Average house prices decreased the most in the province of Utrecht with -9.0% year on year. The municipality of Utrecht is currently registering the lowest price development of all the municipalities in the Netherlands with -11.1%. The largest cities, Amsterdam and Rotterdam, show average house price decreases of respectively -8.4% and -5.4%. The Hague shows an average house price decrease of -8.4%.

Transactions decreased and number of homes for sale decreased

The annual number of sales decreased to 225.000 houses. The number of homes for sale also decreased. The ratio between the number of sales and supply has reached a factor 0.2 (sales > supply).

Housing affordability declined

On average, 24.0% of net household income was required to service housing costs, in 2008 the housing affordability peaked with 27.0%. The relatively good affordability in the last years was mainly the result of the low mortgage interest.

CALCASA INDEXES 2023 Q2

Calcasa House Price Index (WOX) (1995Q1=100)	443
Calcasa WOX Top 15 Cities Index (1995Q1=100)	506

Residential price change

WOX price change (year-on-year)	-5.6%
WOX price change (quarter-on-quarter)	-1.1%
WOX price change corrected for inflation (year-on-year)	-11.2%

House price forecast

Yearly price change 2023 Q3	-5.1%
Quarterly price change 2023 Q3	1.4%

Housing affordability

Affordability index	24.0%
Yearly change in housing affordability	-37.7%
Quarterly change in housing affordability	-3.7%

Transactions

Number of transactions on a yearly basis (x 1,000)	225
Yearly change in the number of transactions	-7.3%
Quarterly change in the number of transactions	-2.4%

*Housing stock January 1st, 2022, municipal reclassification 2021

Content WOX:

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Table 1

Calcasa key numbers Q2 2023
Source: WOX Monitor Calcasa

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Average house prices

- The WOX (1995 = 100) currently stands at 443 points.
- Average house price: € 434.000.
 - » Q-O-Q price development: -1.1%.
 - » Y-O-Y price development: -5.6%.
- The current Dutch inflation rate is 5.6% (which is the average rate for Q2 2023 according to Statistics Netherlands). In the second quarter of 2023, inflation-adjusted house prices decreased by -11,2% y-o-y.

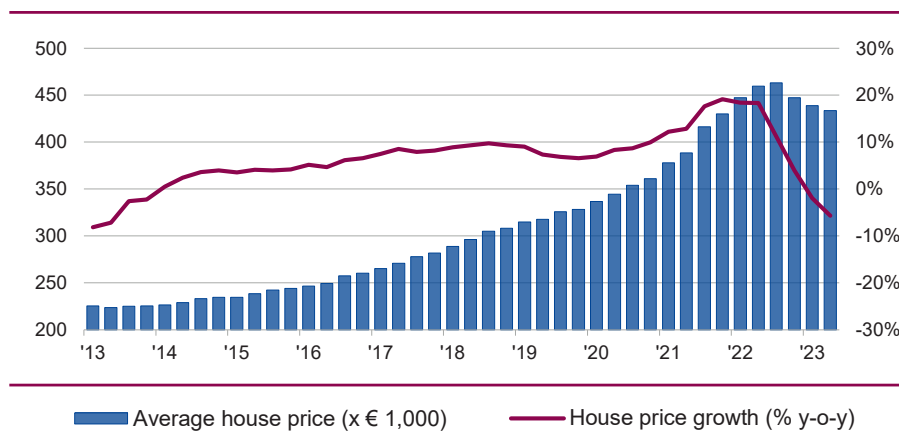


Figure 1

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: € 459.000.
 - » Q-O-Q price development of single-family houses: -1.3%.
 - » Y-O-Y price development of single-family houses: -5.0%.
- Average price for apartments: € 368.000.
 - » Q-O-Q price development of apartments: -0.7%.
 - » Y-O-Y price development of apartments: -7.6%.

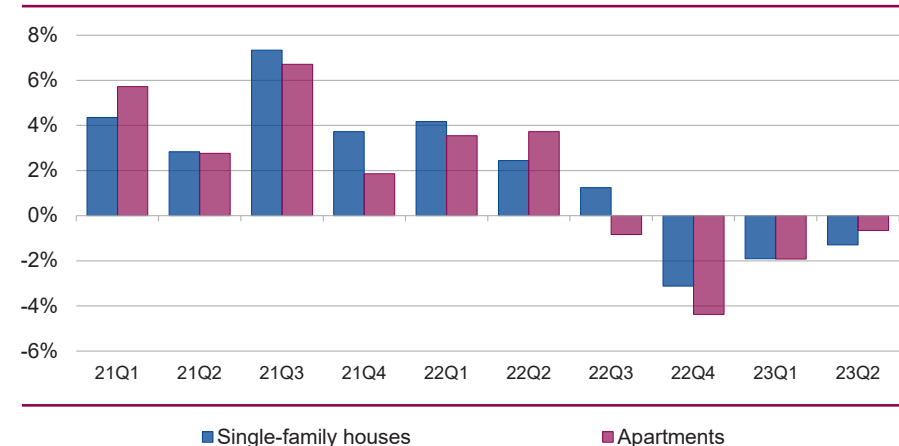


Figure 2

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

Highest decrease in price class more than € 500,000

- Based on house price levels, Calcasa has divided the market into five price classes. Homes in the price class more than € 500,000 performed worst with an annual average house price decrease of -6.3%.
- The price class € 150,000 to € 250,000 decreased the least in value; over the past year these homes decreased in value by -5.0%.

Price class (euro)	Price development y-o-y
Less than 150,000	-6.2%
150,000 to 250,000	-5.0%
250,000 to 350,000	-5.0%
350,000 to 500,000	-5.8%
More than 500,000	-6.3%
All residential properties	-5.6%

Highest decrease in price for apartments

- (Semi-) detached houses built after 2000 decreased the least in value. Their value decreased by 2.9% in the past year.
- Apartments built before 1944 are registering a price decline. Their value decreased by 9.8% in the past year.

Development (y-o-y)	Construction year				
Housing type	<1944	1945-1979	>1980	>2000	Total
(semi) detached	-5.0%	-5.7%	-3.2%	-2.9%	-4.5%
Terraced/corner house	-8.3%	-4.5%	-5.0%	-3.8%	-5.3%
Apartment	-9.8%	-8.3%	-6.3%	-4.5%	-7.6%
Total	-8.2%	-6.1%	-4.9%	-3.9%	-5.6%

Forecast house price development in Q3 2023

- Q-O-Q price change: +1.4% (Q2 2023 - Q1 2023).
- Y-O-Y price change: -5.1% (Q2 2023 - Q2 2022).
 - » Y-O-Y price change single-family homes: -5.0%.
 - » Y-O-Y price change apartments: -5.3%.

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: -6.5%
- Northern part: -4.0%
- Eastern part: -3.7%
- Southern part: -2.4%

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

House price decrease in Utrecht

- Average house prices decreased the most in the province of Utrecht, with an annual decrease of 9.0% in value.
- Apartments in Groningen fell sharply in value, with a value decrease of 12.1%. Single-family houses prices decreased with 6.1%.
- The smallest price decrease was measured for houses in the provinces of Overijssel (-2.4%) and Limburg (-2.3%).

Q2 2023	Average price single-family houses	Average price apartments	Price change (year-on-year)
Groningen	333,000	282,000	-7.7%
Friesland	392,000	277,000	-3.1%
Drenthe	395,000	368,000	-4.8%
Overijssel	331,000	260,000	-2.4%
Flevoland	361,000	313,000	-4.8%
Gelderland	461,000	319,000	-4.2%
Utrecht	612,000	391,000	-9.0%
North-Holland	573,000	503,000	-7.9%
South-Holland	501,000	344,000	-6.0%
Zeeland	328,000	310,000	-3.1%
North-Brabant	462,000	333,000	-3.4%
Limburg	342,000	265,000	-2.3%
The Netherlands	459,000	368,000	-5.6%

Table 3

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

House prices 9% lower in the Haarlem region

- The largest annual price decrease of 9.1% is measured for houses in the NUTS III region of Haarlem. The average house price in this region is € 624,000.
- Second-largest annual price decrease is seen in the NUTS III region Utrecht with a price decrease of 9.0%, here single-family homes fell in value by 9.0% and the value of apartments by 9.0%.
- The NUTS III regions with the smallest price decreases are Noord-Overijssel (-2.1%) and Noord-Limburg (-0.8%).
- In 15 of the 40 NUTS III regions the annual decrease for houses prices is more than 5%.

Housing affordability

On average, 24.0% of net household income was required to service housing costs in the second quarter of 2023, compared to mid-2008 when housing costs represented 27.0% of net income.

- Q-O-Q change in net housing costs: 3.7%.
- Y-O-Y change in net housing costs: 37.7%.

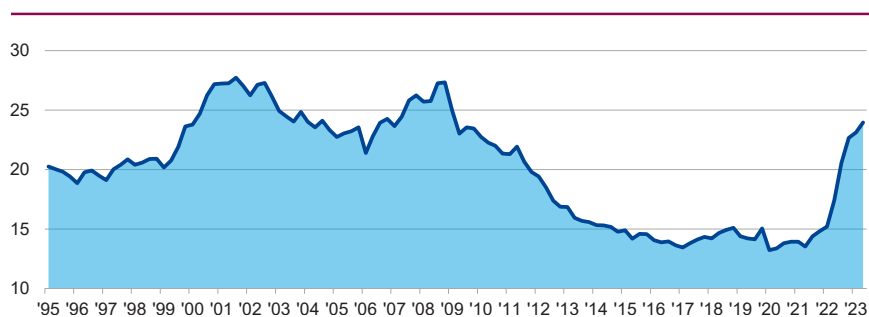


Figure 3

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

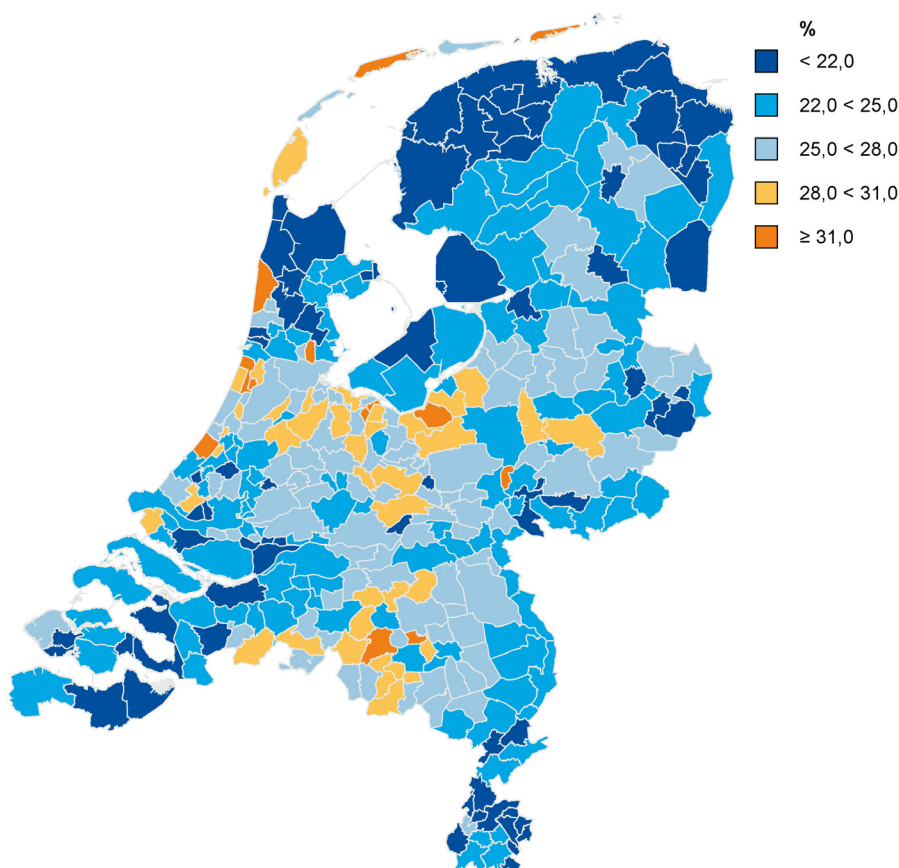


Figure 4

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. 225.000 residential properties were sold during the past year.

- Y-O-Y development, number of annual sales: -7.3%.
- Q-O-Q development, number of annual sales: -2.4%.

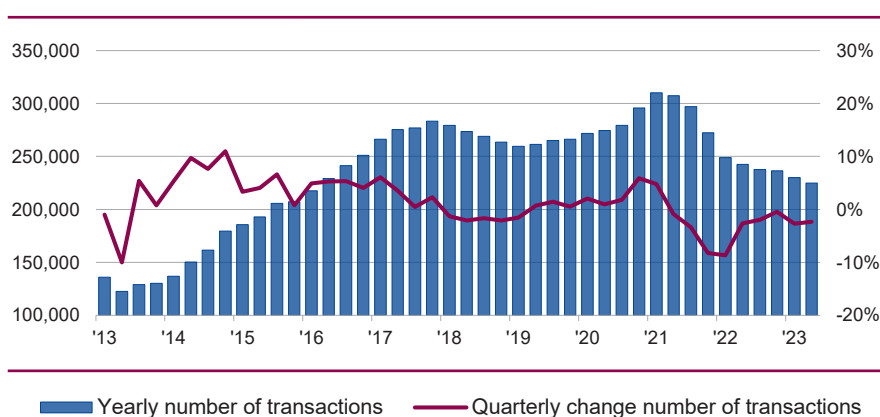


Figure 5

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 13.6% in the second quarter of 2023.
- Apartment sales decreased this quarter with 11.4% year-on-year.

Transaction development y-o-y

Housing type	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Detached	-22.9%	-24.1%	-16.2%	-12.4%	-13.6%
Semi-detached	-23.8%	-20.9%	-15.3%	-5.4%	-4.1%
Corner house	-21.4%	-19.2%	-14.1%	-4.4%	-2.4%
Terraced house	-22.3%	-18.7%	-13.2%	-3.6%	-2.6%
Apartment	-17.1%	-18.3%	-9.6%	-10.6%	-11.4%
Total	-21.1%	-20.0%	-13.2%	-7.5%	-7.3%

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 8.1% in the past year, whilst homes above € 500,000 increased by 3.0%.
- Especially in the east (9.3%) and in the north (10.3%) of the Netherlands more expensive homes (price class 350,000 to € 500,000) were sold.
- The lowest price segment (€ 75,000 to € 150,000) decreased in the western part of the Netherlands by 41.1%.

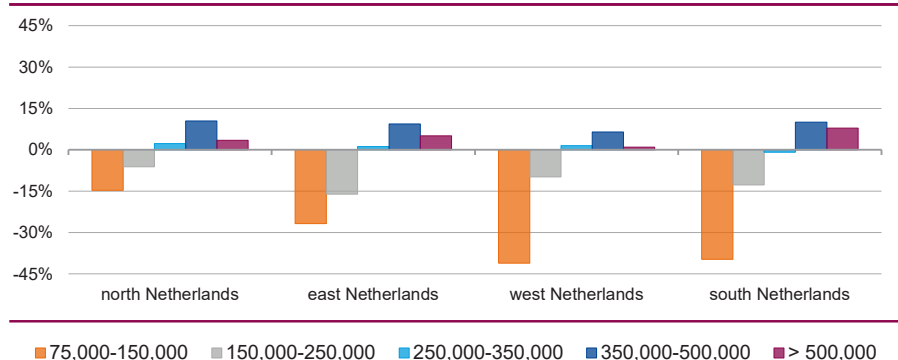


Figure 6

Growth (%) of share of housing sales per price class in North, East, West and South Netherlands in Q2 2023 compared to Q2 2022.

Source: WOX Monitor Calcasa

30% of housing sales within € 350,000 to € 500,000

- In the past year 14% 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 11% to 2%.
- The price segment € 350,000 to € 500,000 increased in four years time from 16% to 30%.
- 26% of housing sales were within the price class of € 500,000 or more. Four years ago this was 11%.

Share of housing sales per price class

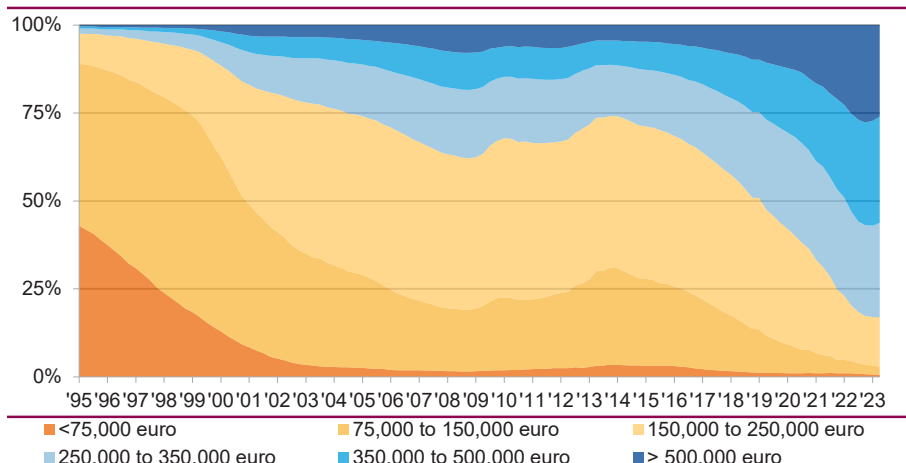


Figure 7

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

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Groot-Amsterdam highest market liquidity

- In the NUTS III region Groot-Amsterdam 6.0% of the housing supply was sold during the past year. The regions Overig Groningen and Zuidoost-Drenthe follow with 5.4% and 5.4% respectively.
- The NUTS III region Noord-Limburg has the lowest market liquidity: 4.2%.

NUTS III region	Percentage of housing supply sold last year	NUTS III region	Percentage of housing supply sold last year
Groot-Amsterdam	6.0%	Noord-Limburg	4.2%
Overig Groningen	5.4%	Delfzijl en omgeving	4.3%
Zuidoost-Drenthe	5.4%	Twente	4.3%
's-Gravenhage	5.4%	Zuidwest-Friesland	4.4%
Zeeuwsch-Vlaanderen	5.4%	Zuidoost-Friesland	4.4%
Agglomeratie Haarlem	5.3%	Noord-Drenthe	4.4%
Groot-Rijnmond	5.2%	Achterhoek	4.4%
Flevoland	5.2%	IJmond	4.4%
Zaanstreek	5.1%	Noordoost-Noord-Brabant	4.4%
Oost-Groningen	5.0%	Zuid-Limburg	4.4%

Table 5

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

Source: WOX Monitor Calcasa

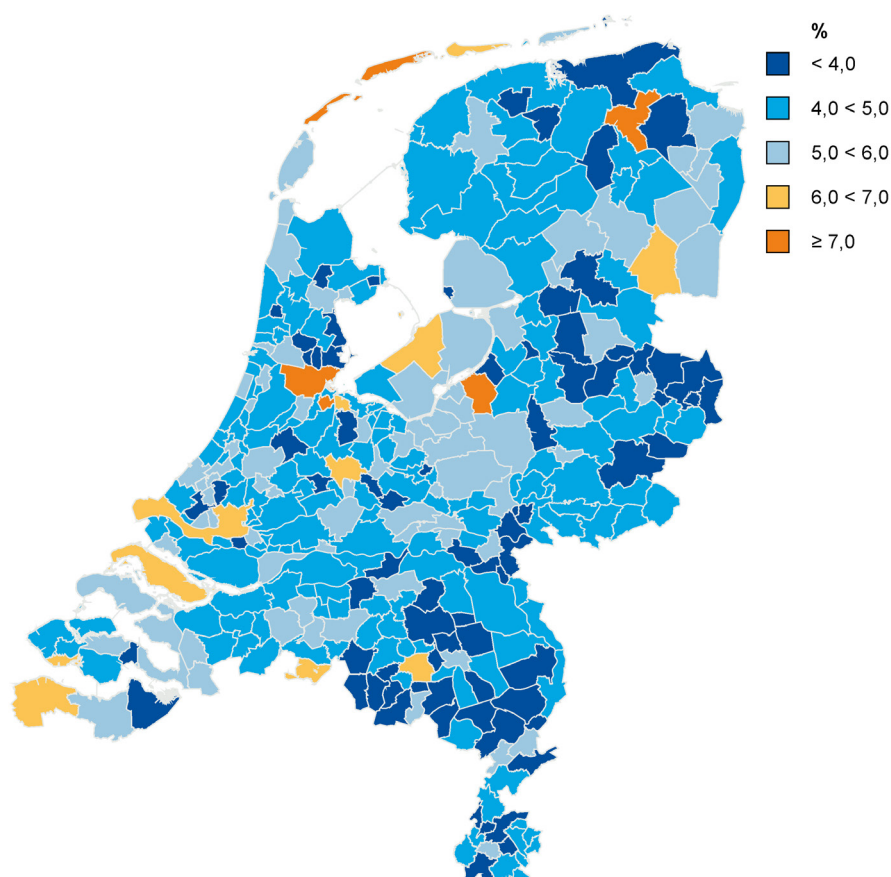


Figure 8

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 0.2. A year ago this ratio was 0.3.
- The annual number of houses sold: 225,000.
 - » Y-O-Y development: -7.3%
- Homes for sale in Q2 2023: 37,000
 - » Y-O-Y development: -46.6%
- 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 0.37.

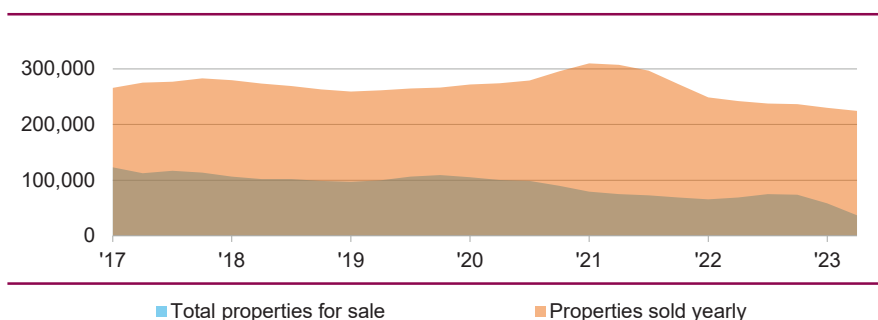


Figure 9a

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

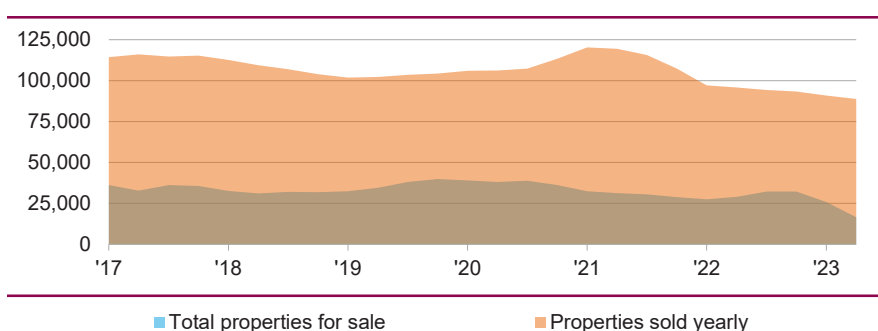


Figure 9b

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

- 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 4.9% for the Netherlands.
 - o The percentage of family homes sold previous year: 5.1%.
 - o The percentage of apartments sold previous year: 4.3%.
- The share of owner occupied housing stock which was sold last year is highest in the city of Amsterdam with 7.9%.
- In the municipality of Dantumadiel only 3.0% of the existing stock of owner-occupied homes has changed owners.

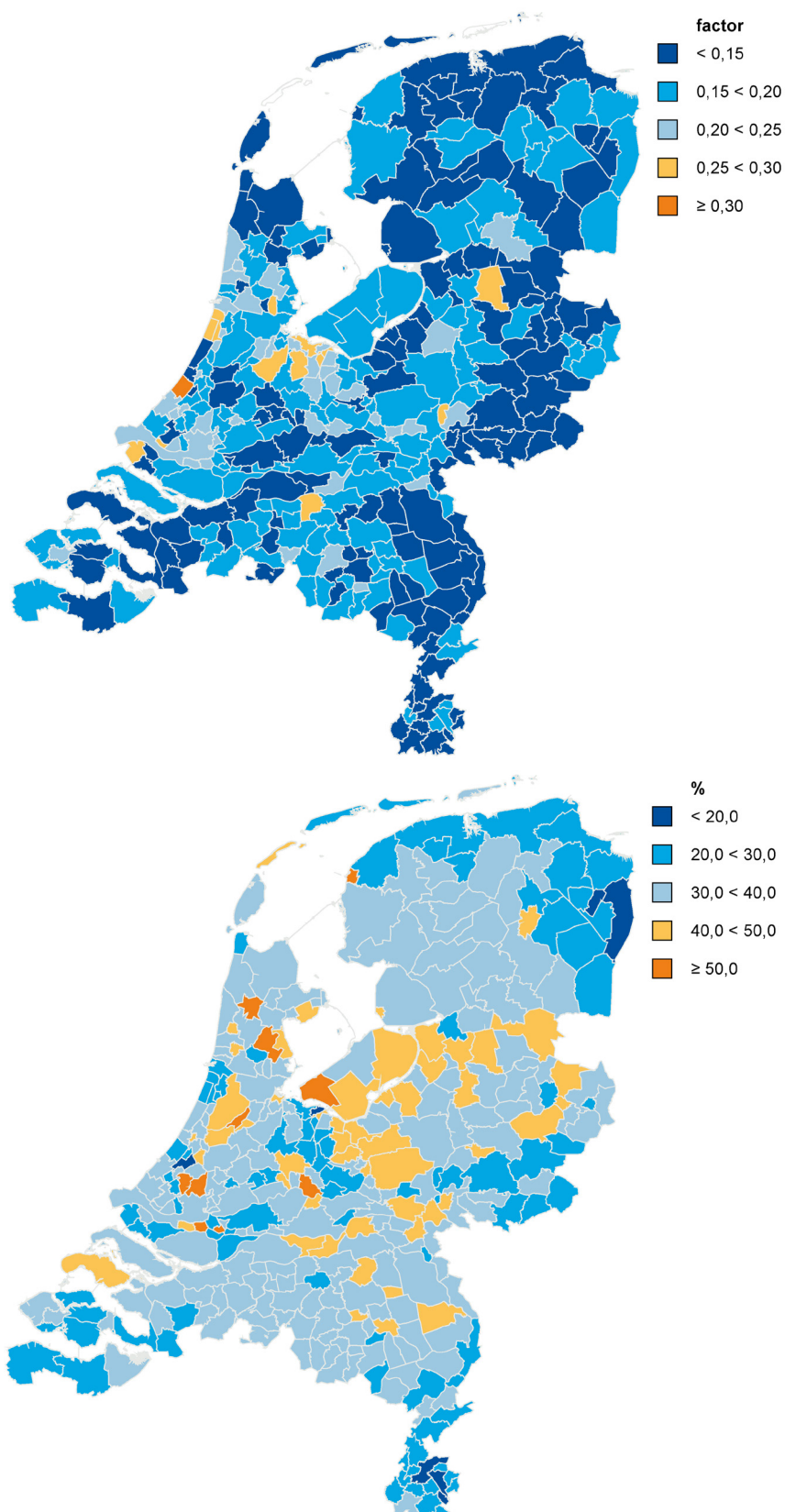


Figure 10

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 359,000 mortgages were approved last year.

- Y-O-Y development, number of annual mortgages: -30.5%.
- Q-O-Q development, number of annual mortgages: -13.9%.

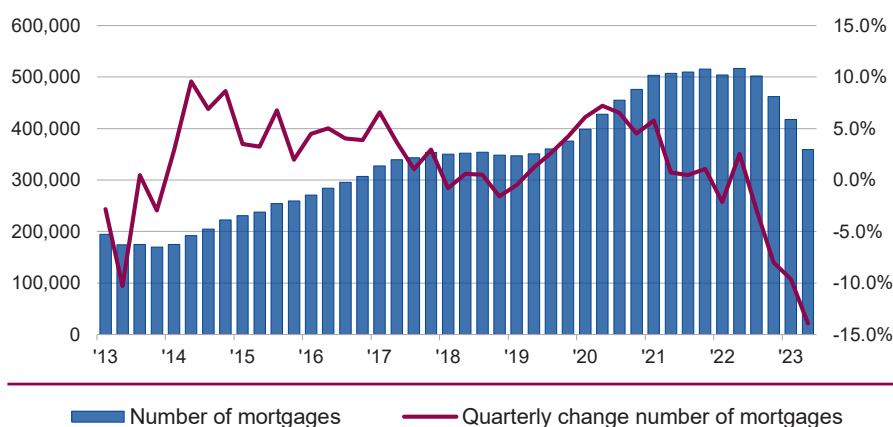


Figure 12

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

Number of foreclosures

Over the last four quarters, 225 foreclosures have been registered by the land registry.

- o Y-O-Y development amount of annual foreclosures: -5.9%.
- o Q-O-Q development amount of annual foreclosures: 6.1%.
- The share of foreclosure sales versus total sales is 0.1%.
- The highest share of foreclosure sales to total sales is 1.5% in the municipality of Brunssum.
- 235 municipalities had no foreclosure sales in the past year. The largest municipality without foreclosure sales is Groningen.

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.

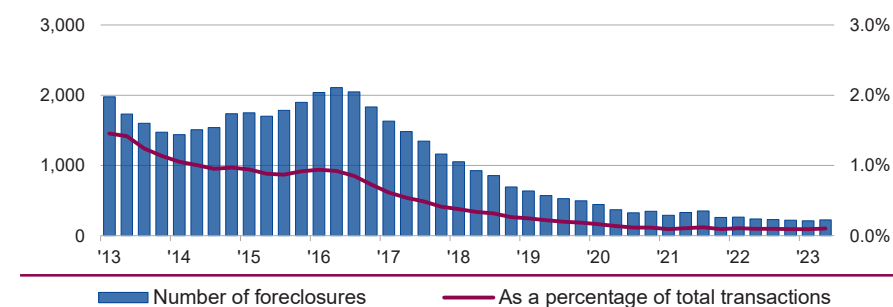


Figure 13

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 first quarter of 2023 the total amount of sales for newly built homes was 3.300. This is a decrease of 52.0% year-on-year.
- During the first quarter of 2023 the average price for newly built houses was € 504.000. This is an increase of 2.1% compared to a year ago.

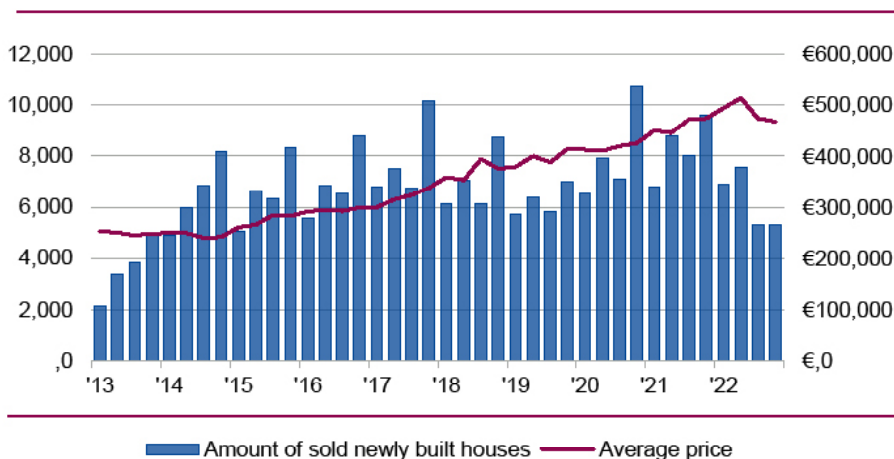


Figure 14

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 69%.
- At the beginning of 2022 there were 35.000 homeowners who had difficulty paying their mortgage: this is a decrease of 6.8% compared to a year earlier.

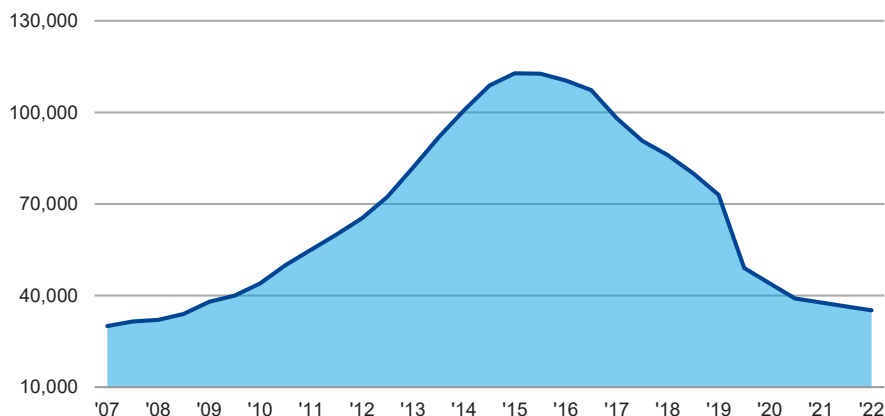


Figure 15

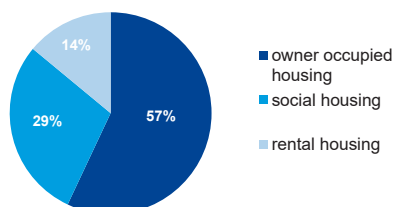
Number of borrowers with mortgage payment arrears

Source: BKR

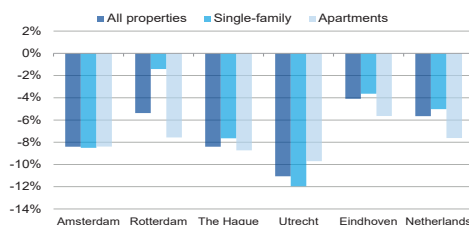
Dutch Housing Market Summary

Largest cities	All properties	Single-family	Apartments	Owner occupied	Rental	Total population	Total households	Annual sales	Current supply
Amsterdam	458,000	61,000	397,000	29%	71%	882,630	484,570	10,437	
Rotterdam	319,000	87,000	232,000	34%	65%	655,470	333,060	6,651	
The Hague	268,000	60,000	208,000	41%	58%	553,420	274,660	6,528	
Utrecht	162,000	70,000	93,000	44%	55%	361,700	183,460	4,772	
Groningen	121,000	49,000	72,000	40%	60%	234,950	138,500	3,379	
Eindhoven	116,000	68,000	48,000	44%	56%	238,330	123,760	3,289	
Provinces									
Groningen	288,000	189,000	99,000	54%	46%	590,170	299,200	8,102	1,114
Friesland	307,000	248,000	59,000	62%	38%	654,020	298,710	8,839	1,178
Drenthe	226,000	186,000	40,000	66%	34%	497,740	222,160	7,206	1,128
Overijssel	519,000	396,000	123,000	61%	39%	1,171,910	516,960	14,301	2,034
Flevoland	178,000	139,000	39,000	65%	35%	434,770	183,150	5,941	975
Gelderland	932,000	698,000	234,000	61%	39%	2,110,470	948,460	27,053	4,224
Utrecht	601,000	377,000	224,000	58%	42%	1,369,870	619,990	17,489	2,958
North-Holland	1,377,000	688,000	689,000	50%	50%	2,909,830	1,400,580	36,372	6,854
South-Holland	1,724,000	843,000	881,000	52%	48%	3,753,940	1,751,090	44,916	8,324
Zeeland	189,000	153,000	36,000	67%	32%	386,770	178,650	6,462	969
North-Brabant	1,164,000	871,000	293,000	61%	39%	2,592,870	1,181,240	33,841	5,084
Limburg	540,000	395,000	146,000	60%	39%	1,118,300	538,400	14,238	1,923
Netherlands	8,046,000	5,184,000	2,862,000	57%	43%	17,590,670	8,138,590	224,760	36,766

Housing stock



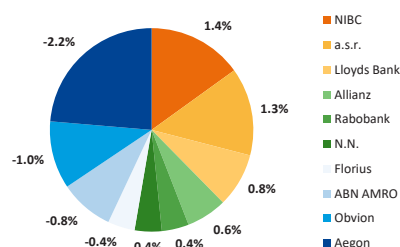
Y-O-Y price development largest cities



Mortgage developments

	Amount	Change
Sales with NHG	21,300	52.1%
Execution sales with losses	3	200.0%
Households in arrears	35,000	-6.8%
Sold mortgages	359,204	-30.5%
Total mortgage debt	817B	2.9%

Top mortgage lenders: increase/decrease market share



Macro-economic figures

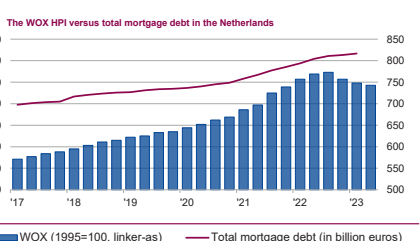
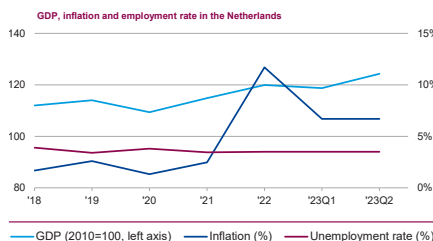


Table 6

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	1,154	Heerlen	256
Wassenaar	909	Kerkrade	259
Heemstede	851	Brunssum	260
Gooise Meren	725	Eemsdelta	263
De Bilt	705	Oldambt	265
Wijdmeren	671	Terneuzen	274
Zeist	659	Veendam	275
Bergen (NH.)	655	Leeuwarden	286
Utrechtse Heuvelrug	646	Den Helder	288
Huizen	624	Landgraaf	290

Municipalities	Highest	Municipalities	Lowest
	annual price development		annual price development
Horst aan de Maas	0.1%	Utrecht	-11.1%
Peel en Maas	-0.1%	Heemstede	-9.5%
Gennep	-0.3%	Groningen	-9.3%
Venray	-0.4%	Haarlem	-9.1%
Hardenberg	-1.2%	Bloemendaal	-9.0%
Zwartewaterland	-1.4%	Weesp	-8.8%
Dalfsen	-1.7%	Gooise Meren	-8.7%
Ommen	-1.8%	Huizen	-8.7%
Venlo	-1.8%	Zandvoort	-8.5%
Noardeast-Fryslân	-1.9%	Rijswijk	-8.4%

Table 8

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

Table 9

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

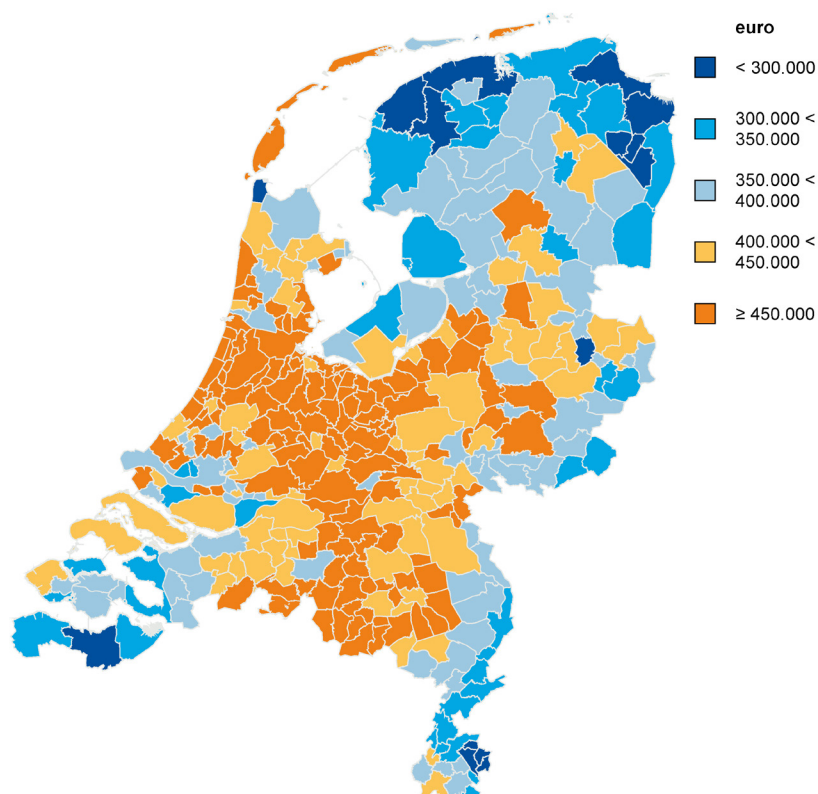


Figure 21

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

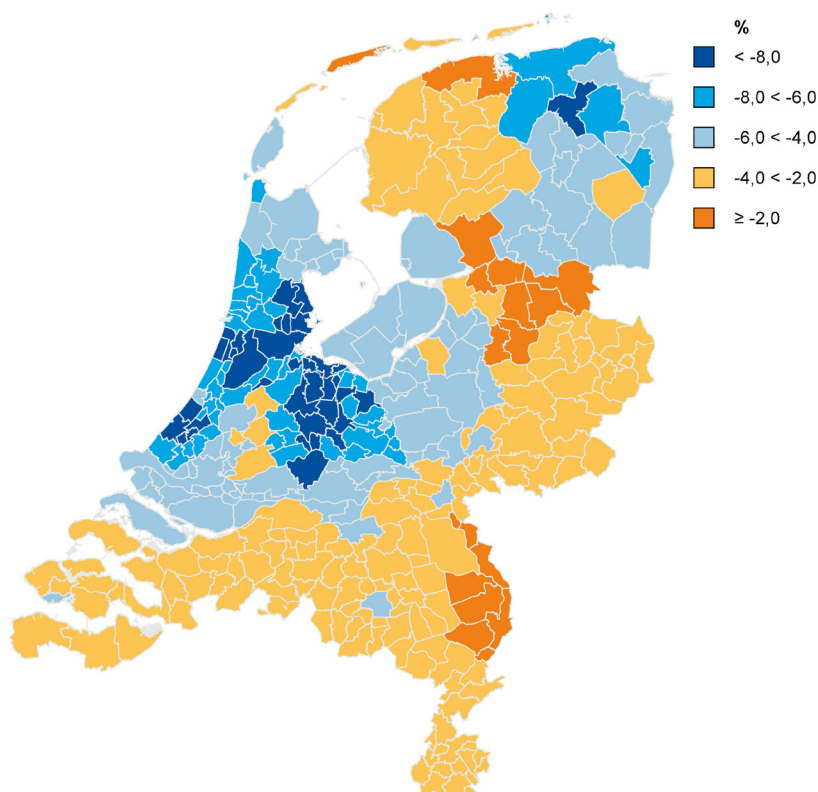
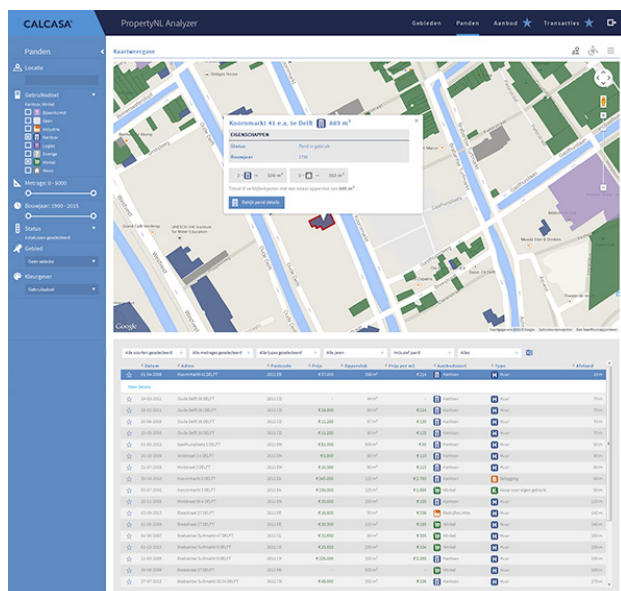


Figure 22

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

Analyzing the commercial real estate market is possible through the Calcsa 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.



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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).

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