

Property Index

Overview of European Residential Markets

Where does residential price growth end?

8th edition, July 2019

Introduction

We are pleased to present you the eight edition of **the Property Index, Overview of European Residential Markets**. During its long history the Property Index has become one of the most important European real estate publication and has acted as a valuable source for many, whether private or public institutions.

Property Index analyses factors influencing the development of residential markets and compares residential property prices in selected European countries and cities.

Our goal is to provide you with European residential market data on a regular basis and answer questions on how Europeans live and at what costs.

We hope you will find this eight issue of the publication interesting and inspiring for you and for your business.

This year we especially focus our attention on:

- Austria (AT);
- Belgium (BE);
- Croatia (HR);
- Czech Republic (CZ);
- Denmark (DK);
- France (FR);
- Germany (DE);
- Hungary HU);
- Italy (IT);
- Latvia (LV);
- Netherlands (NL);
- Norway (NO);
- Poland (PL);
- Portugal (PT);
- Spain (ES); and
- United Kingdom (UK).

Most presented indicators are on a year-on year basis and are to some extent also influenced by geopolitical situation or various factors affecting the volume of supply and demand.

The Property Index was prepared by a proven international and cross-functional team of Deloitte professionals in the development, mortgage and real estate markets. This publication has been prepared using data collected by individual Deloitte offices in selected countries.

The Property Index capitalises on Deloitte's extensive knowledge of the real estate and development industry, enabling us to provide you with independent and credible information.

Highlights

22%

Dwelling prices, surprisingly, increased by 22% in Prague, which was the largest growth among all examined capitals.

3.8 years

The most affordable housing can be found newly in Portugal, where you need to save on average only 3.8 years to buy a new dwelling.

321%

Properties in Paris (inside) were on average 321% of the national average and recorded therefore the largest difference. A virtually identical figure was observed in Lisbon (320%).

12,910 EUR/sq m

Paris (inside) was the most expensive city among surveyed cities with a price tag reaching 12 910 EUR / sq m.

4,043 EUR/sq m

Despite close economic connection within the EU, the residential market evolved diversely in particular countries. For the first time Norway took a leading position from the United Kingdom as the most expensive country in our research (4,043 EUR/ sq m).

25.3 EUR/sq m

Newly provided data from Norway show that rental housing is comparatively expensive. Oslo, followed by Trondheim occupied second and third place within our research with the value 25.3 EUR/ sq m and 21.3 EUR/ sq m per month respectively after Paris.

Italy

Housing prices rose in 15 out of the 16 selected countries since 2015. The only exception was Italy, where dwelling prices have been dropped constantly since the beginning of the financial crisis.

Berlin

Despite the current disorders due to rising rental prices mainly in Berlin, rent levels are low compared to other European cities.

Where Does Residential Price Growth End?

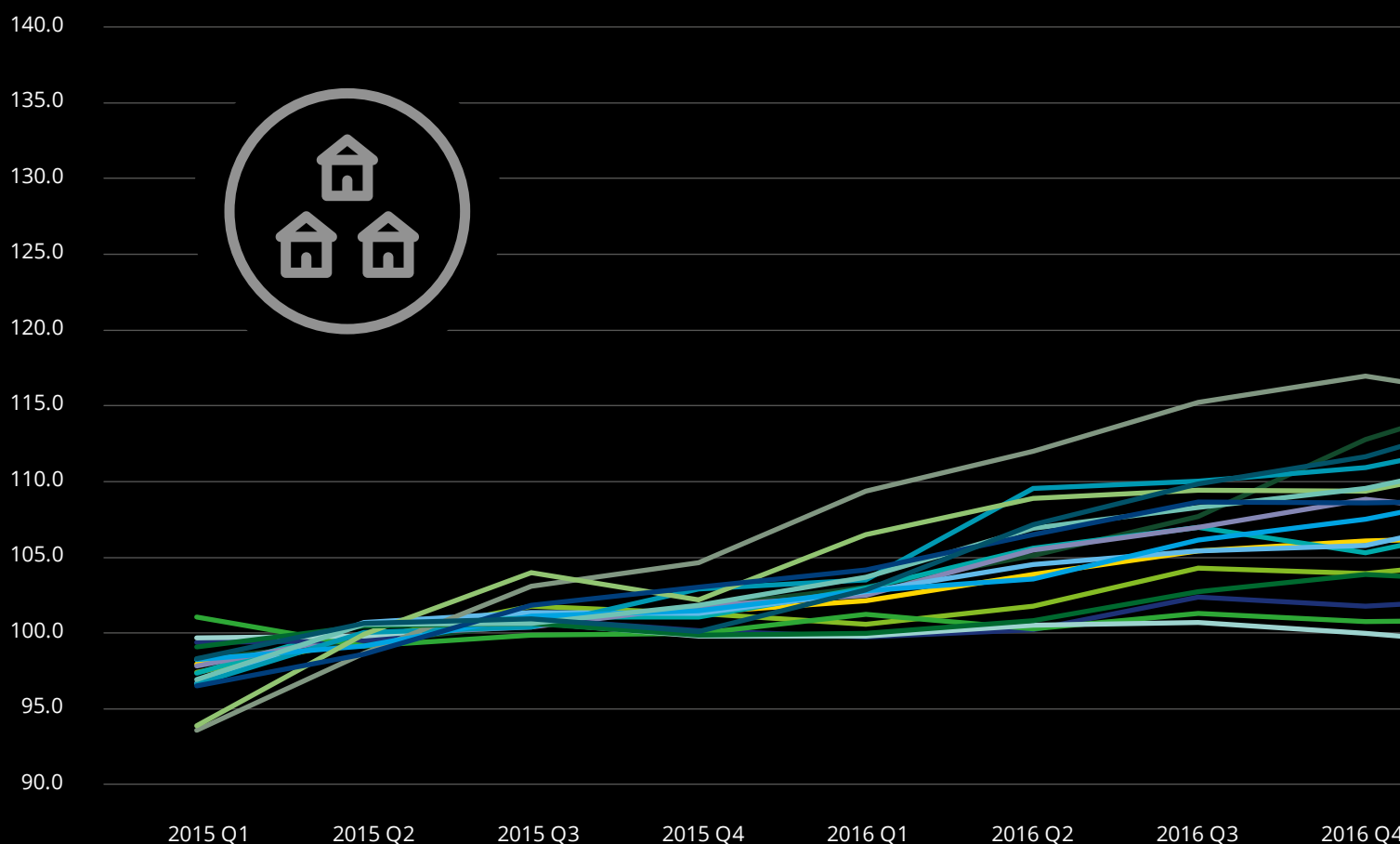
What has been the defining characteristic of the residential market within Europe in recent years? Undoubtedly, the price growth.

Housing prices have been on the rise in 15 out of the 16 selected countries since 2015. The only exception was Italy, where dwelling prices have been dropping constantly since the beginning of the financial crisis.

The average annual growth of property prices in the EU was 5% in the last three years. The dwelling prices in the Czech Republic, Hungary, Latvia and Portugal grew twice as fast as the EU average. Due to the significant rise in property prices in those countries, the possibility of home

ownership tends to diminish. The culprit is the consequences of the debt crisis, or the poor and slow administration of the state building authorities, which hampers the construction of new real estate. This reduces the supply that eventually fails to meet the high demand for housing.

House Price Index (2015 = 100) – quarterly data



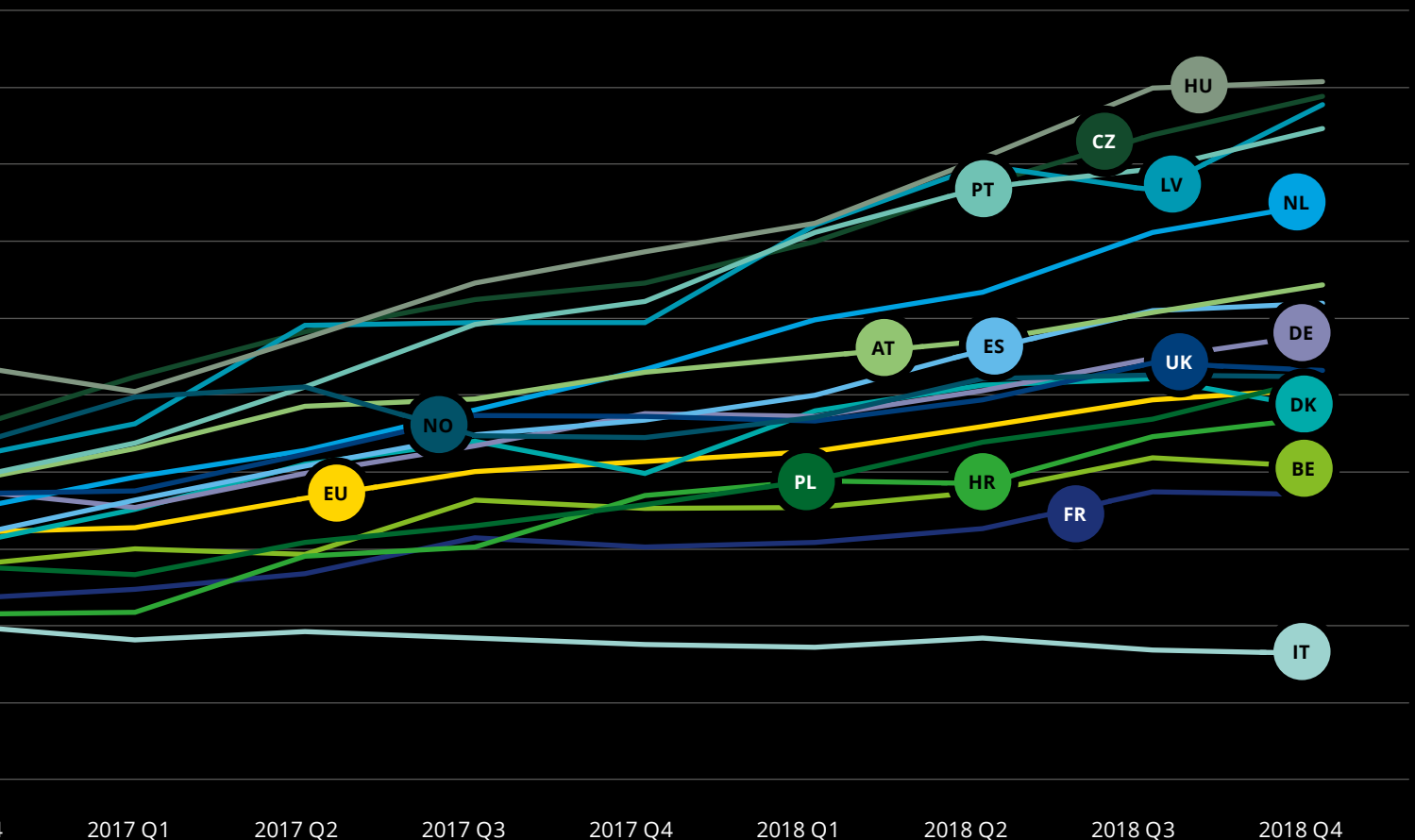
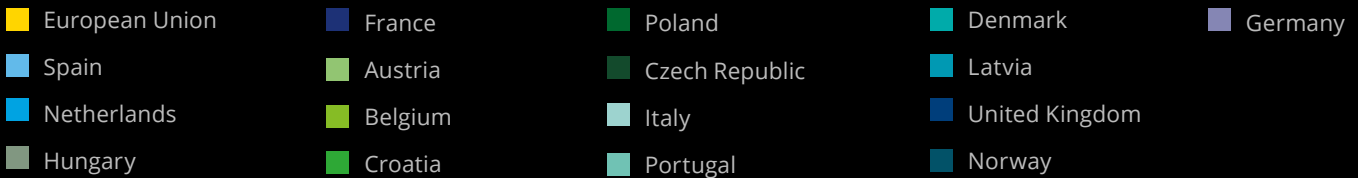
Source: Eurostat

Another reason may also be that the price base has always been lower in CEE countries and now we see an elimination of price differences and gradual approximation to Western countries. However, it should be noted that there are still fundamental discrepancies in terms of average wages, for example, which implies worse conditions for housing affordability.

The majority of European countries may be at risk of a future development as

a result of expansionary monetary policy from the European Central Bank (ECB) in the future. If the ECB maintains its monetary policy stance further, average house prices will exceed pre-crisis levels. Potential impacts of the real estate bubble on the real economy depend, in part, on the extent to which rising house prices are accompanied by rising debt and a construction boom. It is clear that rapid price growth will have to end once.

The House Price Index (HPI) published by Eurostat measures price changes of all residential properties purchased by households (flats, detached houses, terraced houses etc.), both new and existing, independently of their final use and their previous owners. Only market prices are considered, self-build dwellings are therefore excluded. The land component is included.



Economic Development in Europe

Similarly to other economies the European economy was significantly affected by the global financial crisis of 2008. It slightly recovered during 2010 and 2011 after the resulting recession. However, the EU was struck by the debt crisis of some of its member states in 2012 and the economy went through another short recession. The last five years were years of moderate growth. The European economy continued growing in 2018 however, the growth decelerated. GDP in the whole EU-28 grew by 2.0%, the Eurozone rose by 1.8%.

External conditions were tough as the US – China and US – EU trade tensions continued. The US growth accelerated to 2.9% from 2.4% in 2018 despite these tensions. The Chinese economy slightly decelerated from 6.9% to 6.6%. The Japanese economy also decelerated from 1.9% to

0.8%. The Russian and Brazilian economy continued in moderate growth. Because of tough external conditions, the EU economy decelerated from 2.5% to 2.0%. Further deceleration is expected this year.

In December 2018, the ECB decided to terminate its asset purchases programs. ECB policy rates remained on their historical lows (deposit rate -0.40%, refinancing rate 0.00%, marginal lending rate 0.25%). Despite termination of asset purchases programs, the monetary policy of ECB will remain very accommodative. ECB could renew asset purchases programs this year in response to slowdown of EU economy.

The real unit labour costs remained at the level of the year 2017 (0.56). In 2018 imports grew more than exports and consequently the trade surplus of EU turned

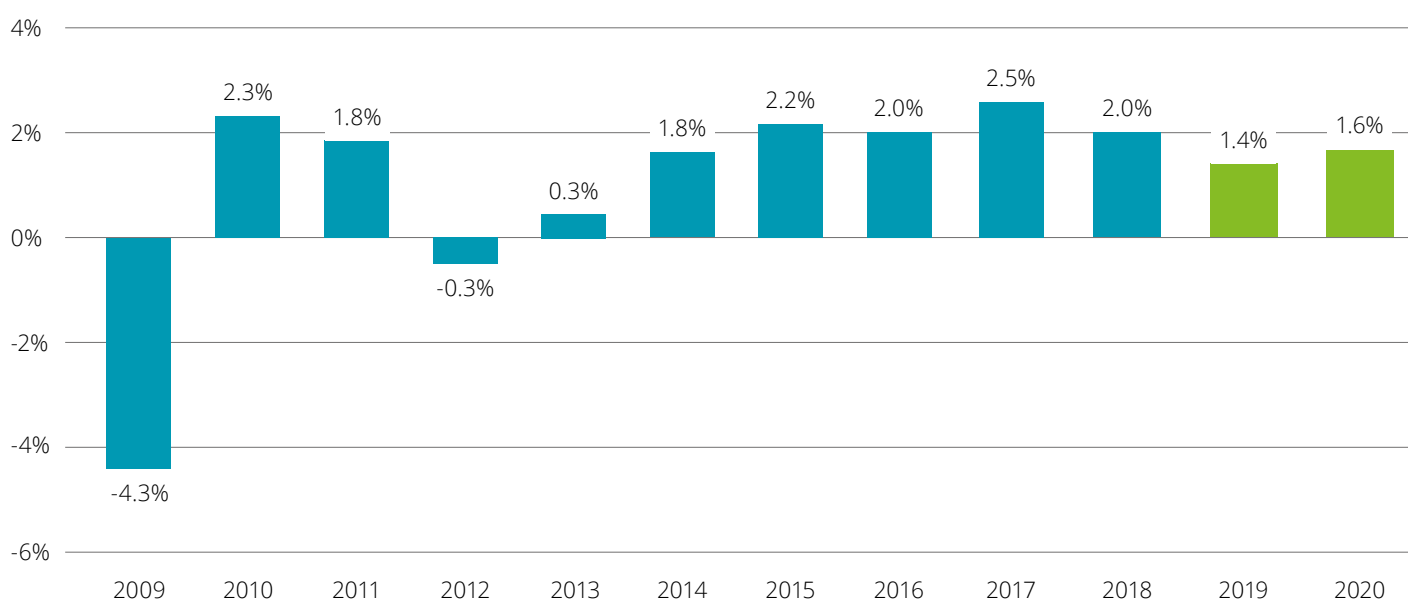
from a surplus of EUR 22 billion to a deficit of EUR 25 billion. The unemployment rate descended from its high of 10.9% in 2013 to 6.8% in 2018.

Fiscal policy in most European countries remained neutral or tightened in an effort to get closer to the long-term sustainability of public finances. General government deficit declined (or surpluses increased) in 19 out of 28 EU countries in 2017.

Europe still faces geopolitical risks that could have an impact on its economy. EU faces threat of tariffs on exports of cars and car parts to the USA (tariffs on exports of steel and aluminium were already imposed). Sanctions on Iran lead to higher oil prices that negatively affect EU economy. Sanctions against Russia are still in place. The United Kingdom entered the process of leaving the EU in March 2017 but did not leave yet. The date of departure has been postponed to 31st October 2019.

The long-term prospects of the EU and the Eurozone are expected to be negatively affected by the slow growth of total factor productivity. An aging population will add some pressure to the labour markets and could slowdown GDP growth as well. While the average growth in the 10 years before the financial crisis (1998–2007) reached 2.6%, expected long-term growth in coming years is likely to oscillate between 1.5–2.0%.

Growth of Real GDP in EU 28



Source: Eurostat. Forecast: Deloitte

The housing market is usually sensitive to economic conditions, especially GDP growth and interest rates. Correlation between lagged GDP growth and house prices in the EU reached 83% during the last 10 years. Thus, the expected sluggish economic growth is likely to limit inflation

in house prices in the coming years. On the other hand, the accommodative monetary policy of the ECB and other central banks in the EU will keep interest rates at low levels and together with the steadily falling unemployment rate supporting the housing market.

Comparison of Residential Markets – Housing Development Intensity

Completed Dwellings

The indicator of housing development intensity on the residential market shows number of completed dwellings per 1,000 citizens of a given country.

Similarly to last year's edition, the lowest total number of completed dwellings has been observed in Latvia. Throughout the 2018 only 3,000 dwellings were completed in the country, which is still almost a 100% increase in comparison with 2017.

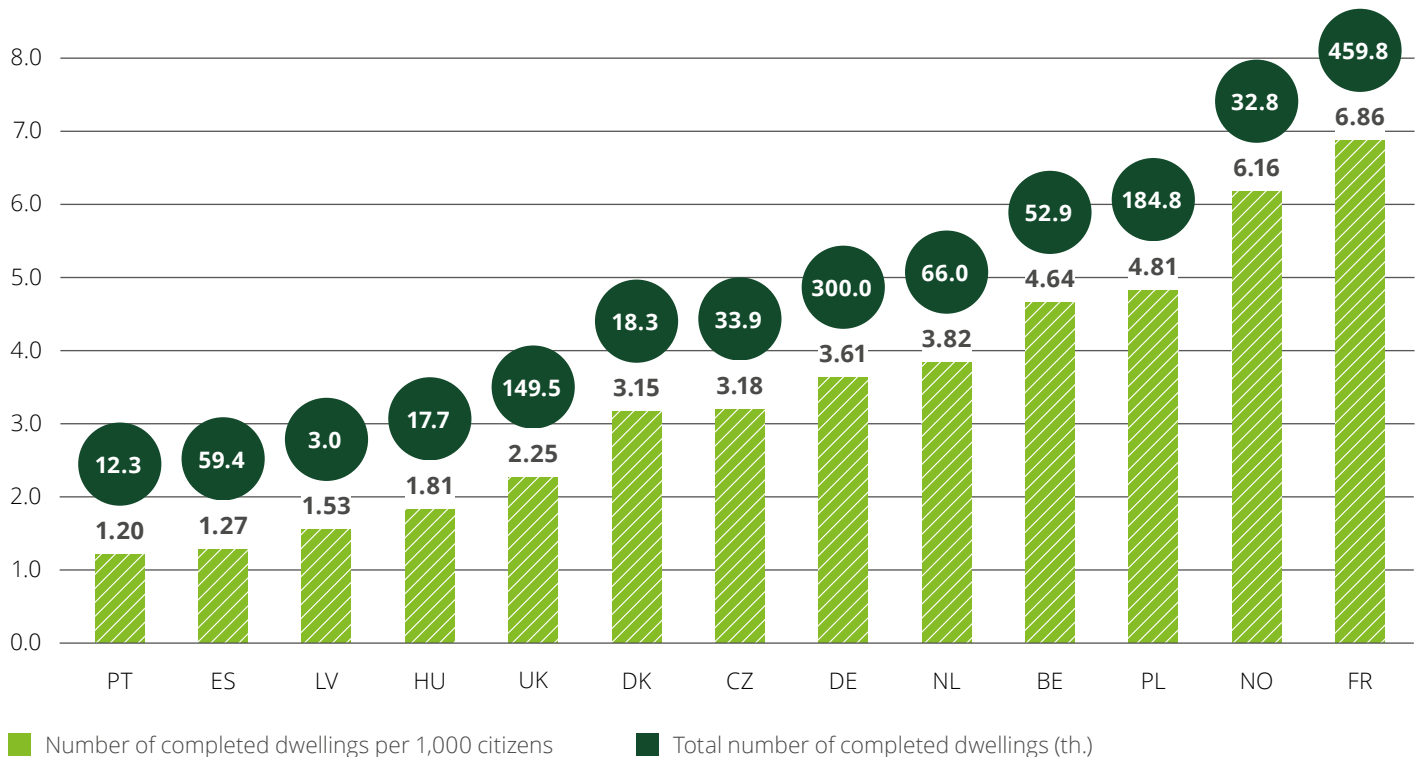
In terms of the highest total number of completed dwellings, France has again made it to the top with more than 459,000 new dwellings constructed. Distantly follows Germany where we have recorded an increase of 5.3% in total number of completed dwellings, from last year's 284,000 to 300,000 this year.

Considering the intensity of completed dwellings, the worst performance has been observed in Portuguese residential market, where only 1.2 dwelling was completed per 1,000 citizens (or 12,300 dwellings comple-

ted in total). On the other hand the highest intensity could be seen again in France. It has gone down a bit in comparison to last year, but still reached above 6.8 completions per 1,000 citizens.

From the local point of view, Poland has recorded both, the highest total number of completed dwellings (184,800) and the highest intensity of completions (4.81 per 1,000 citizens), therefore establishing itself as a leader in housing development within eastern European countries.

Housing Development Intensity Index of the number of completed dwellings per 1,000 citizens



Source: National Statistical Authorities, Euromonitor International, calculated by Deloitte

Initiated Dwellings

From 10 European countries, which were observed both in 2017 and 2018, the average increase of 2.7% of initiated dwellings signals a positive impulse for housing development in the future.

In this year's edition, an average country initiated construction of 3.8 dwellings per 1,000 citizens. Netherlands, Germany, Belgium, Poland, Norway and France managed to start more than average per 1,000 citizens.

The lowest intensity (1.1 initiated apartment per 1,000 citizens) and total number of initiated dwellings (2,100) was again recorded in Latvia, and partially predicts possible completions in the future in the smallest country out of edition's selection.

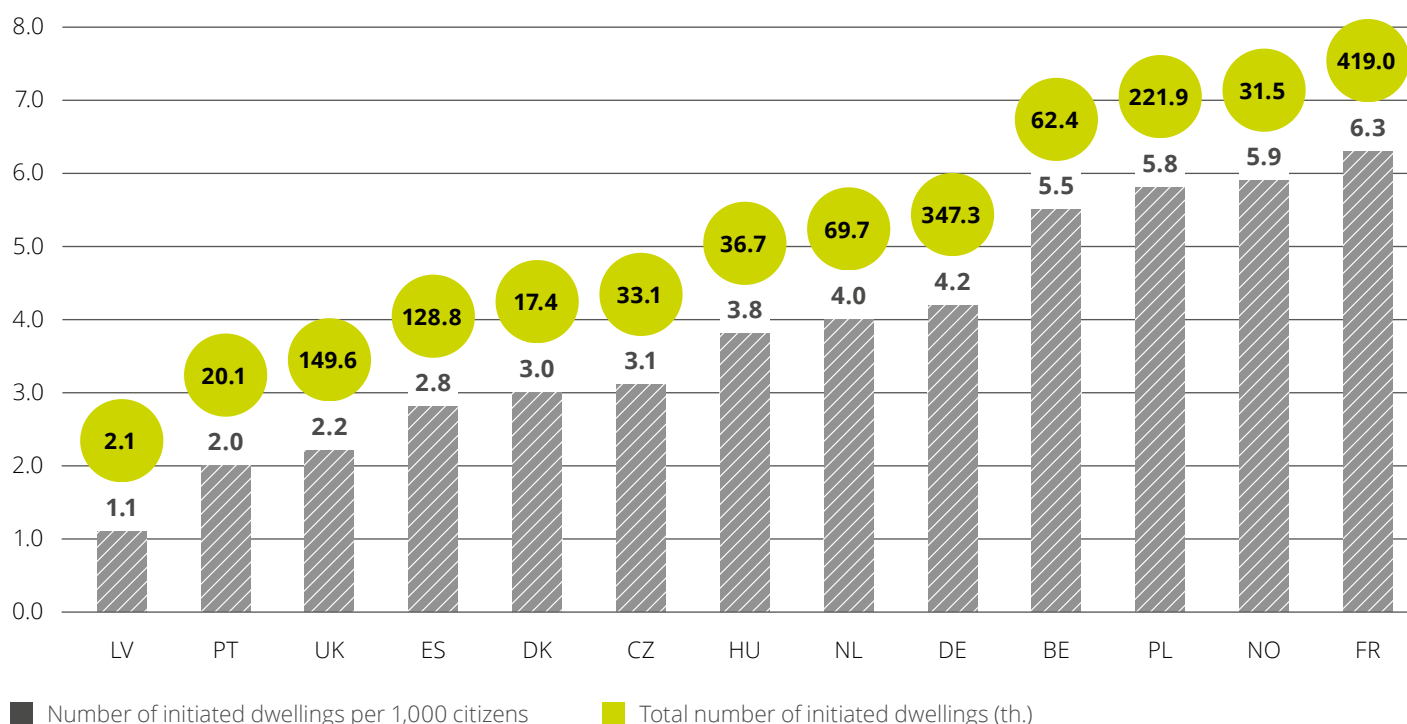
The highest year-on-year growth in the intensity of initiated dwellings has been marked by Belgium, which rose from 4.4 initiated dwellings per 1,000 citizens last year to 5.5 initiated dwellings per 1,000 citizens this year.

Similarly, Denmark has also risen significantly throughout the 2018 to 17,400 initiated dwellings (up from 11,600 last year).

The ranking within the first three countries based on total number of initiated apartments was identical to ranking within completed apartments. France has scored the highest (419,000 initiated dwellings), followed by Germany (347,300 initiated dwellings) and Poland (221,900 initiated dwellings).

Housing Development Intensity

Index of the number of initiated dwellings per 1,000 citizens



Source: National Statistical Authorities, Euromonitor International, calculated by Deloitte

Housing Stock

The structure and quality of the housing stock can be generally considered as one of the indicators of quality of life and regional development.

In terms of housing stock saturation, this year's edition is led by Portugal with almost 580 dwellings in stock per 1,000 citizens, closely followed by Italy (578 dwellings per 1,000 citizens) and France (528 dwellings per 1,000 citizens). However, the total highest number of dwellings is recorded

in Germany with more than 42.2 million apartments in stock.

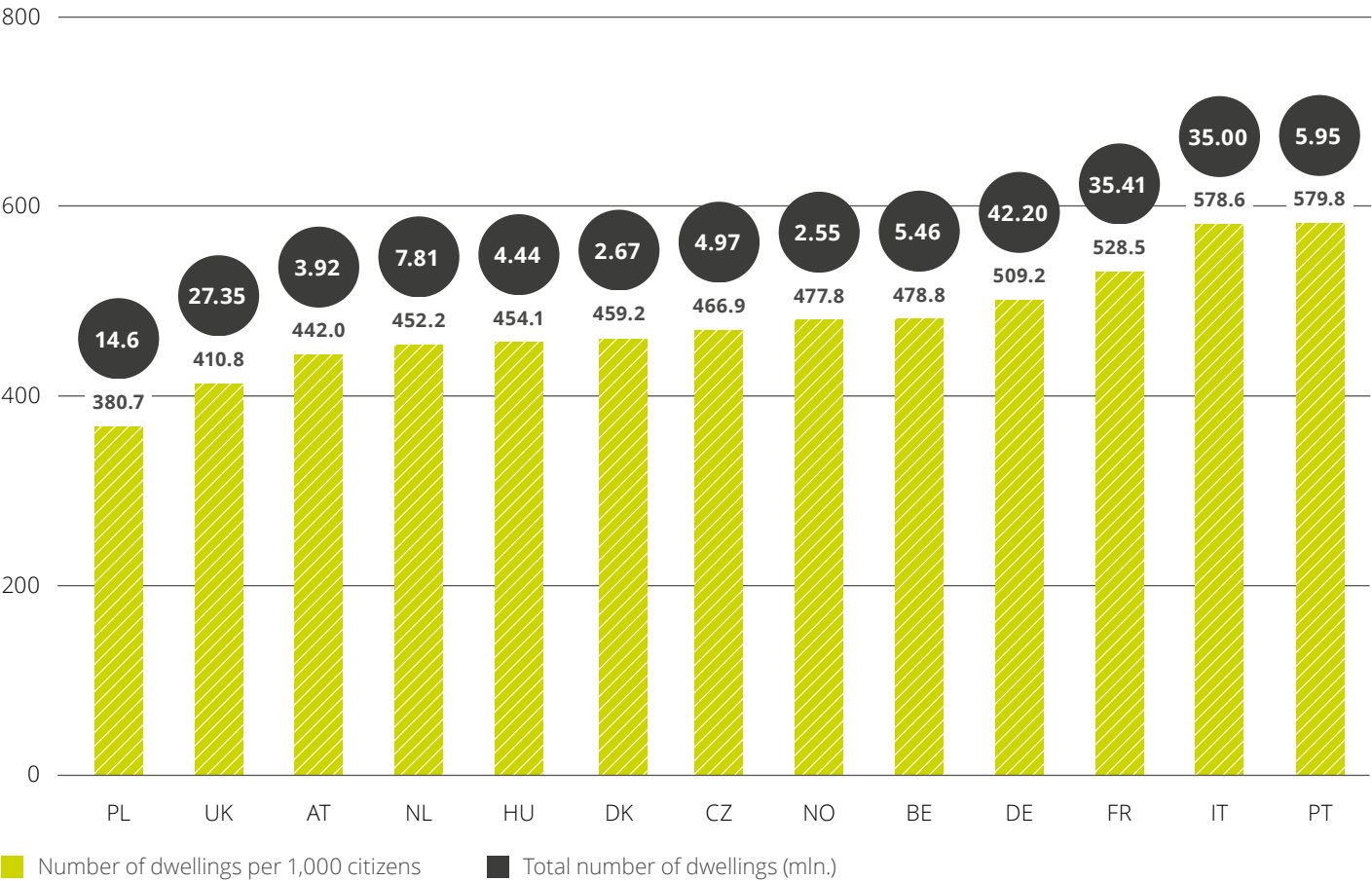
Based on available data, one of the least saturated markets while being one of the largest in size is in the United Kingdom (411 dwellings per 1,000 citizens, 27.35 million dwellings total stock).

The smallest markets in terms of housing stock can be found in Norway (478 dwellings per 1,000 citizens, total of 2.55 million dwellings in stock) and

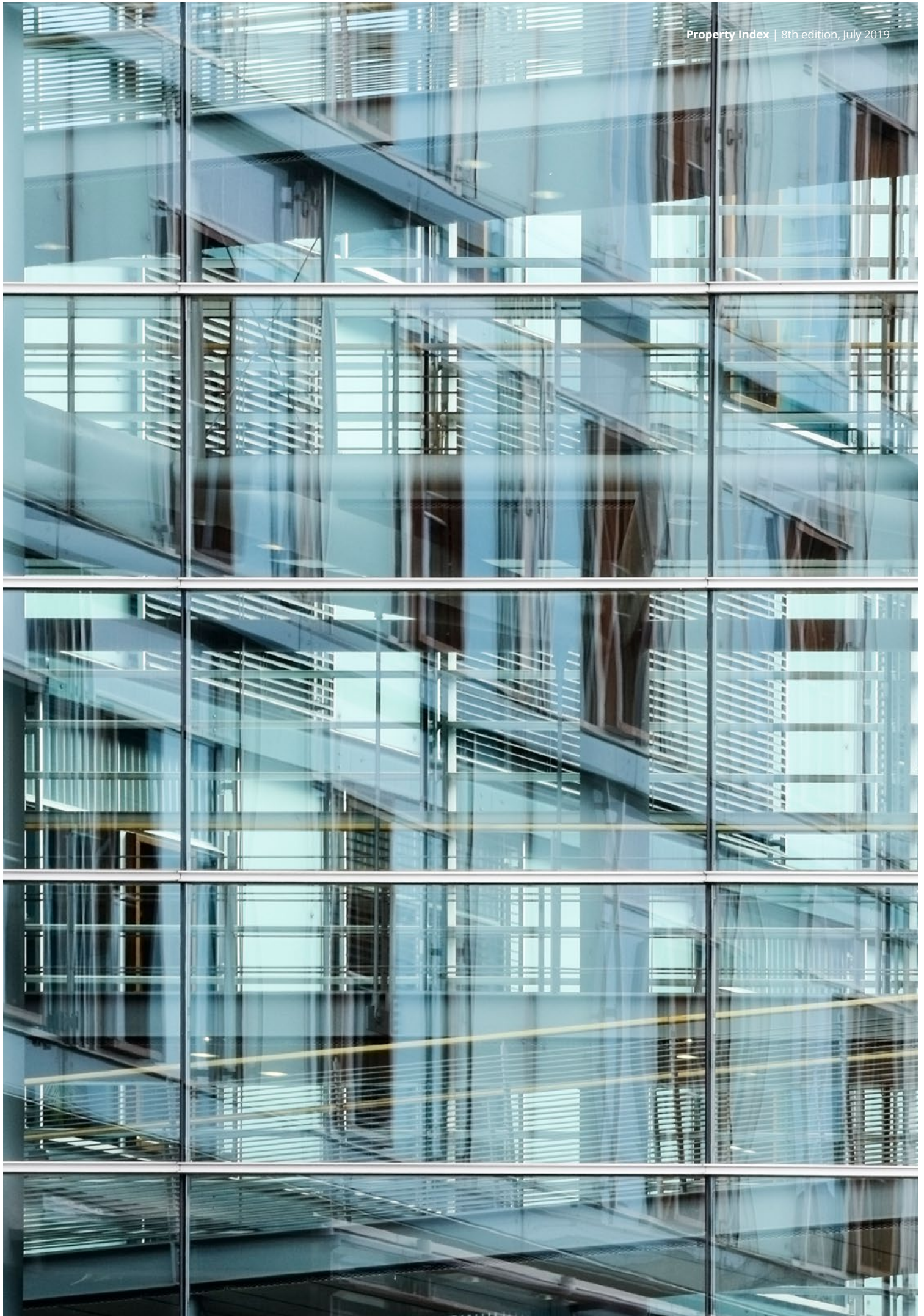
Denmark (459 dwellings per 1,000 citizens, total of 2.67 million dwellings in stock).

From this year's selection of countries, the average size of housing stock stands at about 478 dwellings per 1,000 citizens and therefore only Germany, France, Italy and Portugal have higher than average stocks.

Housing Stock
Number of dwellings per 1,000 citizens



Source: National Statistical Authorities, Euromonitor International, calculated by Deloitte





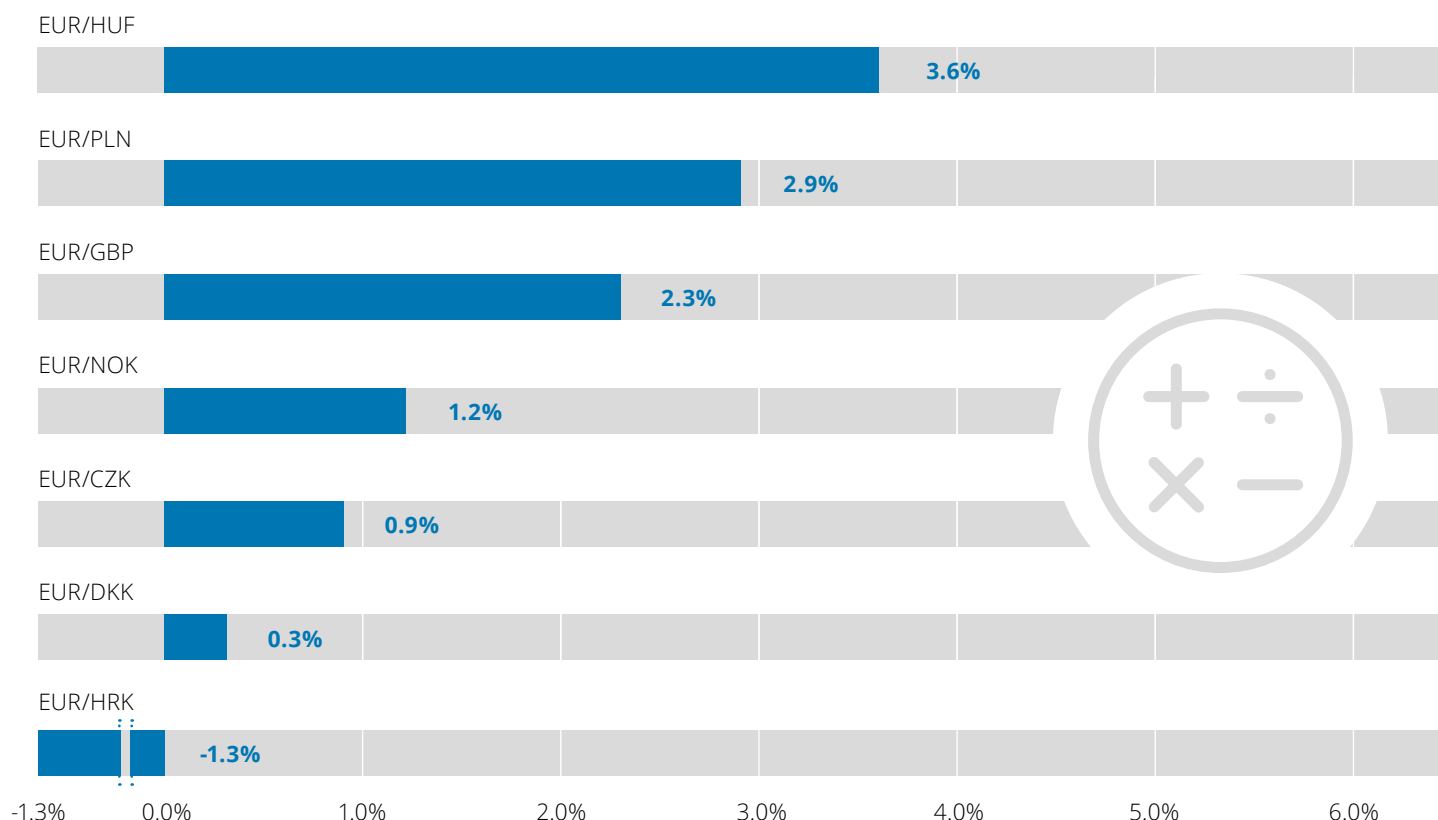
Comparison of Residential Property Prices in Selected Countries and Cities

This edition of Property Index covers data from 16 European countries and 46 cities. To harmonise all outcomes, dwelling prices are calculated in Euros, as such the price growth or fall is influenced by a change in exchange rates.

Depreciation or appreciation of national currencies other than euro are shown in the chart below. Largest y-o-y difference affecting the property value was recorded in Hungary. Fundamentally no y-o-y difference (0,3%) was recorded by Danish krone, which is however pegged to the euro via the ERM II.

Euro exchange rates changes, 31. 12. 2018 / 31. 12. 2017

(+%) = euro appreciation, (-%) = euro depreciation against a currency



Average Transaction Price of a New Dwelling in Selected Countries

Despite close economic connection within the EU, the residential market evolved diversely in particular countries. For the first time Norway took a leading position from the United Kingdom as the most expensive country in our research (4,043 EUR/ sq m). However, it is worth mentioning that this is a price for a detached house only as no further data was available.

Second place went to France, where the transaction price of a new dwelling recorded 4,016 EUR/ sq m. Although prices increase in big cities such as Paris, the tendency in the country is more a decline.

The third highest price per sq m was observed in the United Kingdom (3,753 EUR/ sq m) even despite the price decrease (-14,7%) compared to last year due to British Pound depreciation.

Conversely Portugal was placed on the tail of the ranking list in terms of average transaction price (1,088 EUR/ sq m).

The highest price growth in 2018 was surprisingly recorded in the Czech Republic, where transaction price of new dwellings rose by +16.8%. The second position occupied Hungary with a price growth of +13.7%, which may be partly attributed to the low price base. In the Netherlands increased the transaction price of new dwelling by 9.3%.

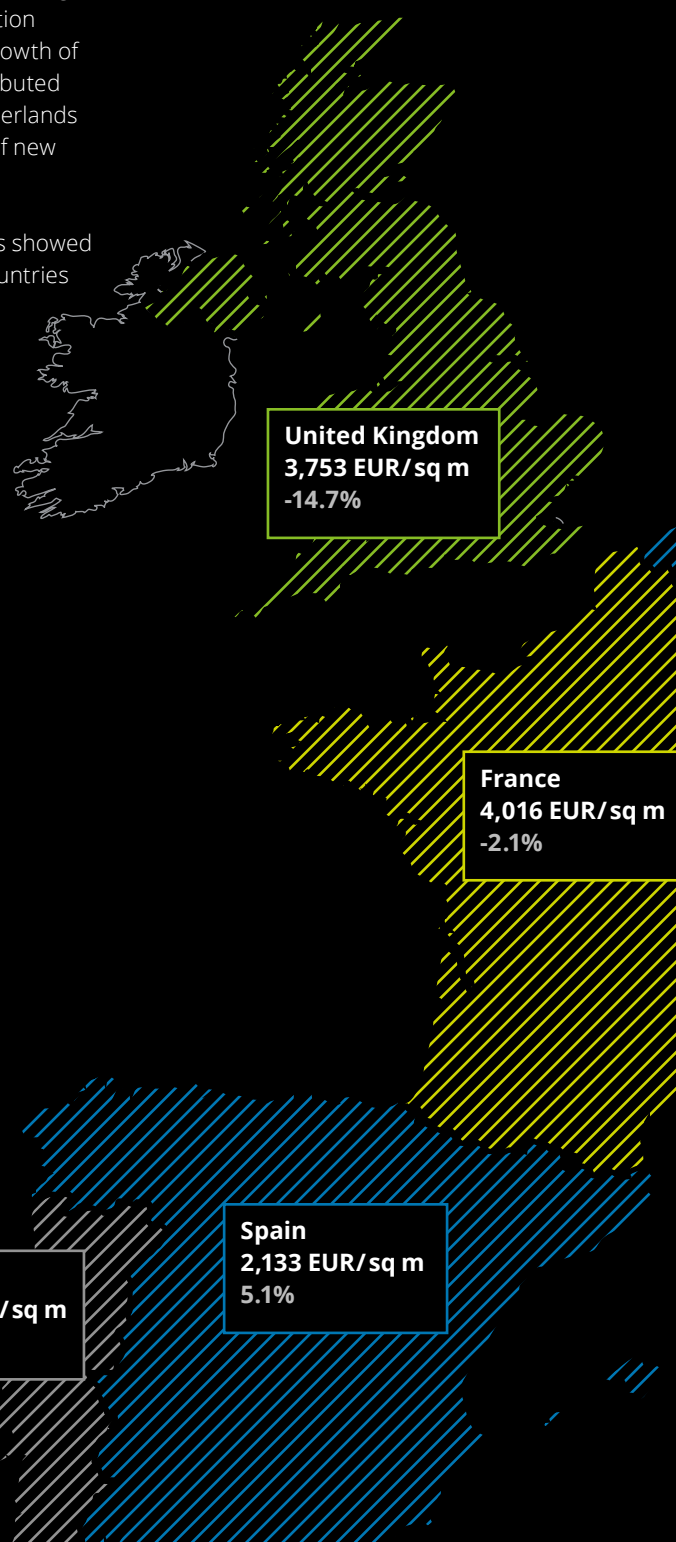
To sum up – 9 surveyed countries showed in 2018 a price increase and 3 countries a price decrease.

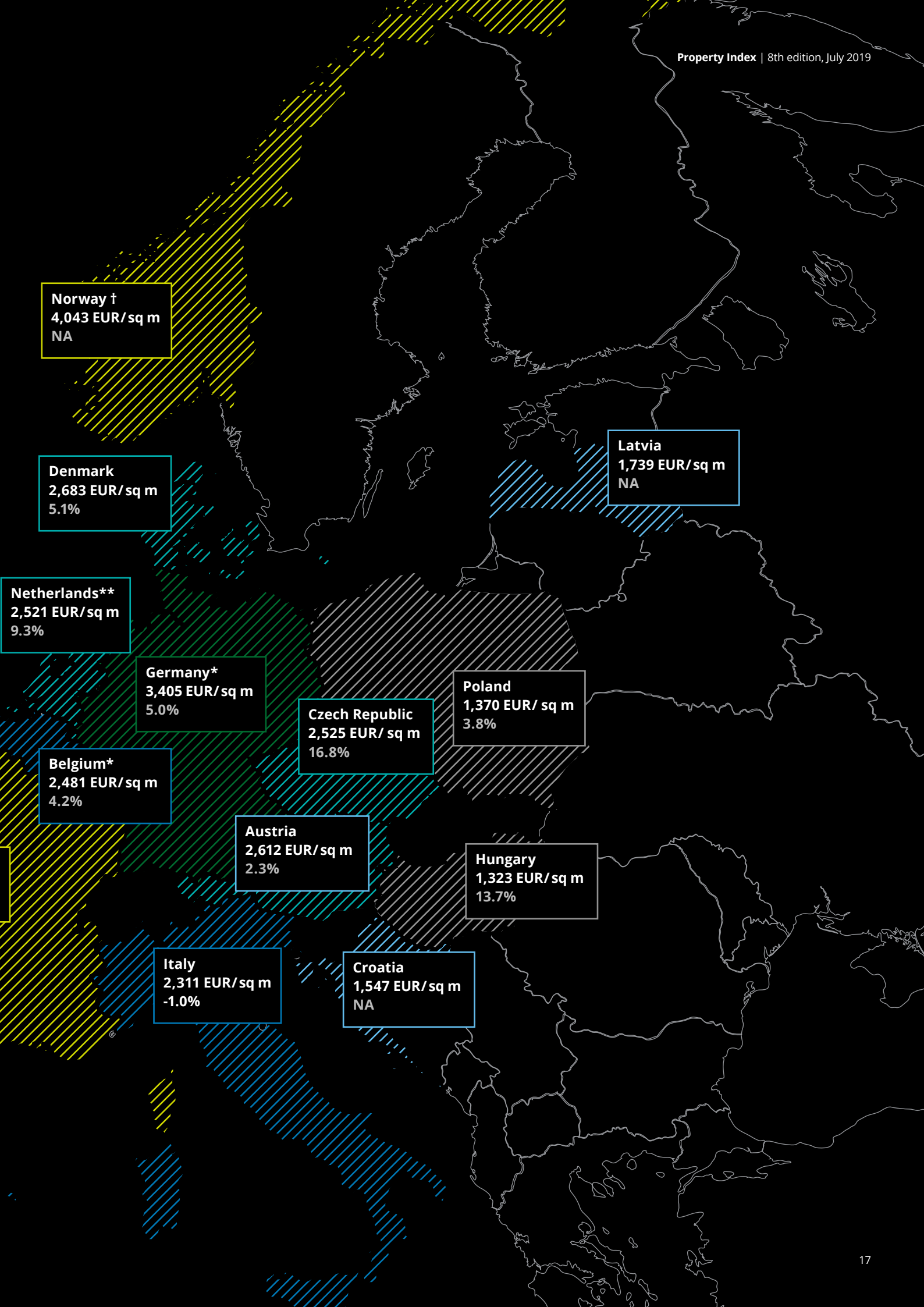
Average Transaction Price of a New Dwelling (EUR/sq m), 2018 Annual Change (%)

































































- * bid price
- ** older dwellings
- † detached houses

Source: National Statistical Authorities,
Deloitte data calculations





Average Transaction Price of a New Dwelling (EUR/ sq m) and 2018/2017 change

AT		Vienna	1.5%		4,199
		Graz	2.2%		3,157
		Linz	2.7%		2,980
BE*		Brussels	4.8%		3,350
		Antwerp	4.4%		3,250
		Ghent	4.8%		3,175
CZ		Prague	22.2%		3,162
		Brno	12.0%		2,298
		Ostrava	30.3%		1,693
DE		Berlin	8.8%		4,973
		Hamburg	0.5%		5,000
		Munich	4.0%		7,800
		Frankfurt	8.2%		6,170
DK		Copenhagen	12.4%		6,082
		Aarhus	0.6%		4,612
		Odense	-2.4%		3,205
ES*		Madrid	10.8%		4,345
		Barcelona	29.7%		5,460
		Alicante	NA		2,621
FR		Paris (inside)	20.7%		12,910
		Lyon	3.1%		4,284
		Marseille	3.3%		4,144
		Ile de France	1.9%		5,019
HR		Zagreb	NA		1,720
HU		Budapest	12.8%		1,853
		Debrecen	2.8%		1,110
		Győr	4.7%		1,195
IT		Milan	0.8%		3,637
		Rome	-1.5%		3,318
		Turin	-1.5%		1,954
LV		Riga	7.6%		1,744
NL**		Amsterdam	11.1%		5,148
		The Hague	9.6%		2,694
		Rotterdam	15.5%		2,518
NO†		Oslo	NA		6,930
		Bergen	NA		4,508
		Trondheim	NA		4,630
PL		Warsaw	4.8%		1,935
		Krakow	0.9%		1,607
		Łódź	4.3%		1,237
		Wrocław	2.9%		1,559
PT		Lisbon	15.9%		3,482
		Porto	13.1%		1,824
UK		London	NA		11,185
		Manchester	NA		2,671
		Birmingham	-13.4%		3,117

Average Transaction Price of a New Dwelling in Selected Cities

- Paris (inside) was the most expensive city among surveyed cities with a price tag reaching 12,910 EUR / sq m.
- The second most expensive city after Paris was London with a price at 11,185 EUR / sq m, however, with a new benchmark methodology using an average value for the whole city. Buying a dwelling in Manchester or Birmingham was in 2018 much more affordable.
- Munich became as in the previous year the third most expensive city with an average price of 7,800 EUR / sq m, surpassing other large German cities.
- Usually the capital is also the most expensive city in its country. However, this is not the case for some cities. Namely, Milan, Barcelona and Munich are more expensive than Rome, Madrid and Berlin.
- Double digit price growth was recorded predominantly in cities located in the Czech Republic, the Netherlands, Portugal and Spain.
- Largest y-o-y growth was recorded in Ostrava (+30.3%) followed by Barcelona (+29.7%).
- Debrecen in Hungary was again the cheapest city among all observed cities with a price tag of 1,110 EUR / sq m. The second cheapest city in 2018 was Győr with an average dwelling price amounted 1,195 EUR / sq m. If looking for a cheap living outside of Hungary, Łódź in Poland with a price of 1,237 EUR / sq m is a perfect place.

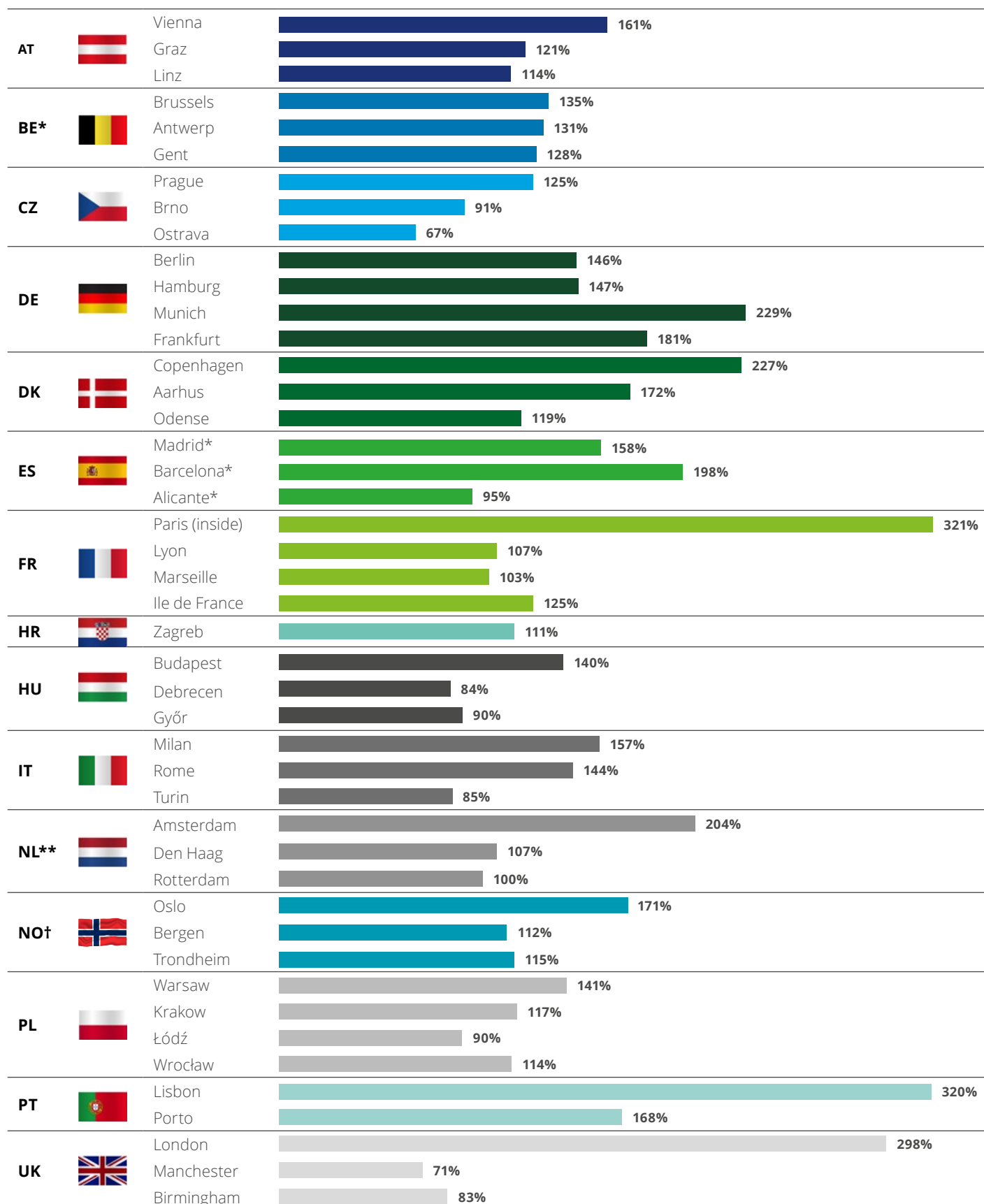
Double digit growth was recorded predominantly in cities located in the Czech Republic, the Netherlands, Portugal and Spain.

% Average Transaction Price of a New Dwelling – Annual change (%)

■ Average Transaction Price of a New Dwelling

* bid price
 ** older dwellings
 † detached houses

Comparison of the Main Cities to the Country Average (country average = 100%), 2018



Next section of the Property Index focuses on a comparison of prices of the surveyed cities to their respective national averages:

- Properties in Paris (inside) were on average 321% of the national average and recorded therefore the largest difference. Virtually identical figure showed also Lisbon (320%).
- In London it would cost almost 3 times as much to buy an average apartment than in an average city in the United Kingdom.
- Munich, Amsterdam and Copenhagen exceed the national averages by more than double.
- Some cities from our survey recorded a lower dwelling price this year than the national average. Namely: Birmingham, Manchester, Alicante, Łódź, Turin, Debrecen, Győr, Brno and Ostrava.

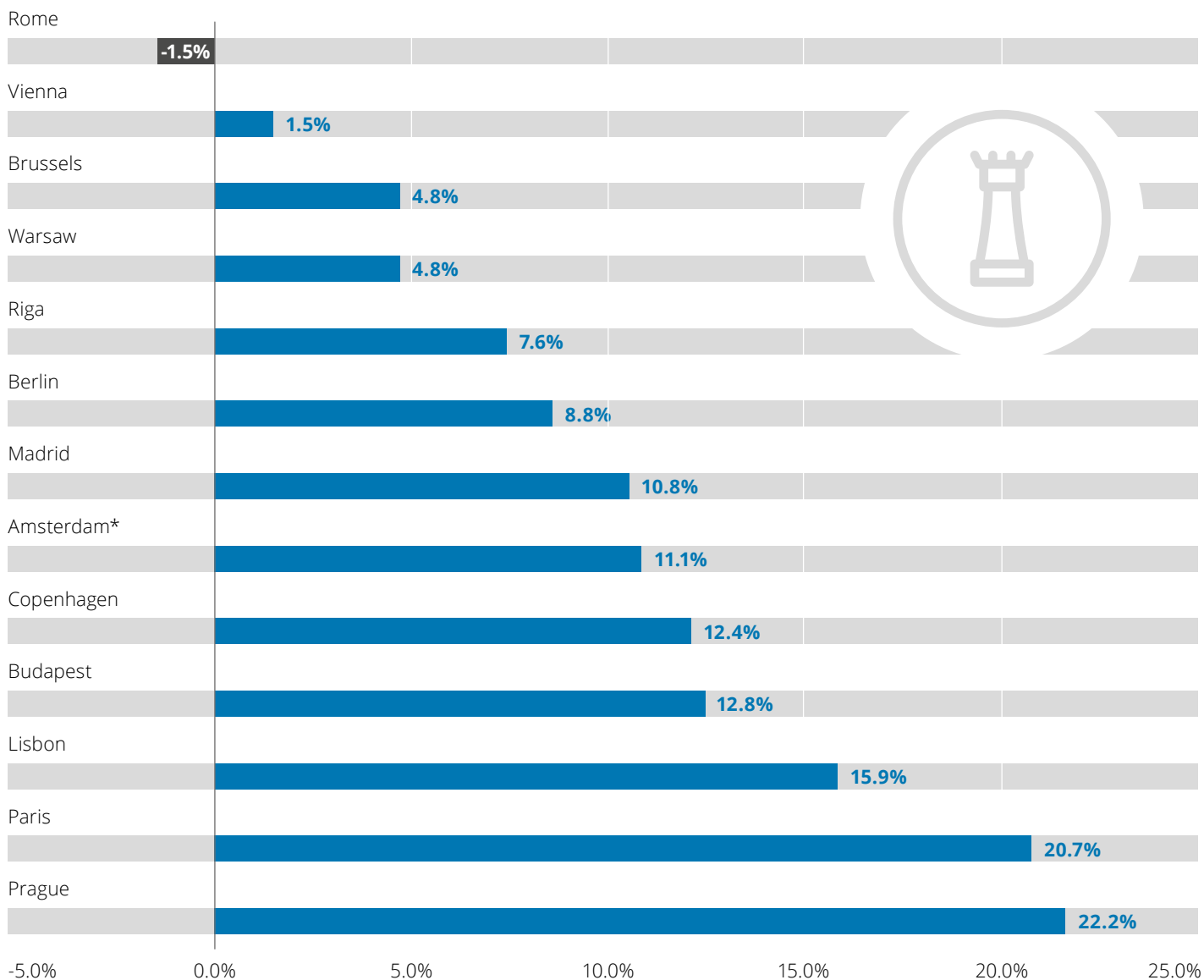
Properties in Paris (inside) were on average 321% of the national average and recorded therefore the largest difference. A virtually identical figure was observed in Lisbon (320%).

■ Comparison of the Main Cities to the Country Average in %, Average Transaction Price of a New Dwelling

- * bid price
- ** older dwellings
- † detached houses

Source: Source: National Statistical Authorities, Deloitte data calculations

Average Transaction Price of a New Dwelling Capitals 2018/ 2017 change (%)



*older dwelling

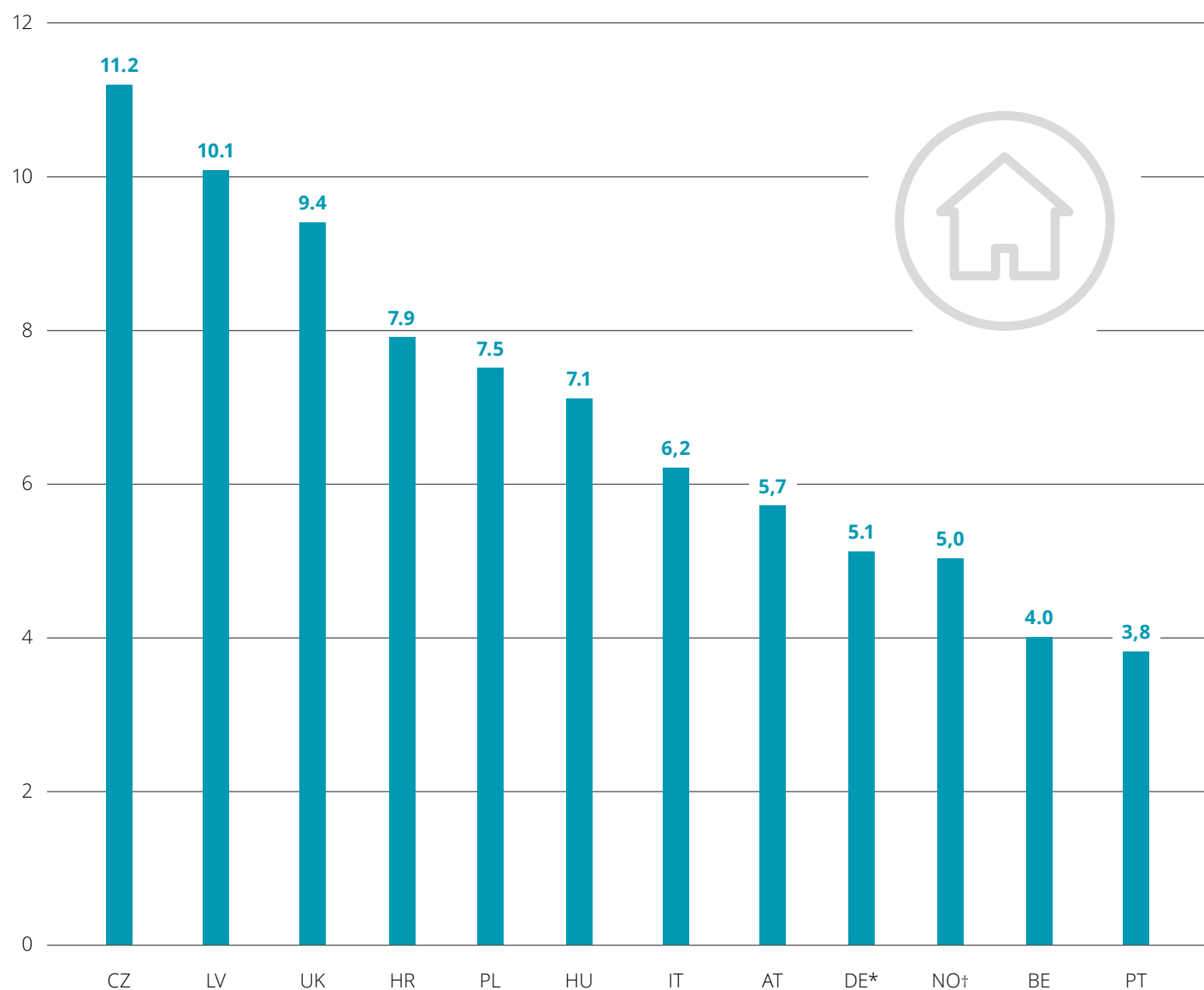
Source: National Statistical Authorities, Deloitte data calculations

For a better illustration we also dealt with a price development of transaction prices of the European capitals. Key results are:

- Property prices were growing again on most of the markets in 2018. Out of the 13 capital cities, where data were available only Rome saw a decrease in price compared to 2017.
- Dwelling prices, surprisingly, increased by 22% in Prague which was the largest growth among all examined capitals.
- Double digit growth was also observed in more capitals than in previous years, namely in Amsterdam (+11.1%), Budapest (+12.8%), Copenhagen (+12.4%), Lisbon (+15.9%), Madrid (+10.8%) and Paris (+20.7%).
- Paris experienced a cyclical period recently as in 2017 dwelling prices decreased relative significantly, while increasing in 2018.

Affordability of Own Housing

Gross annual salaries for the standardised new dwelling (70 sq m), 2018



* bid price † detached houses

Source: National Statistical Authorities, Deloitte data calculations

Affordability of One's Own Housing

In order to assess the affordability of one's own housing, we measure how many average gross annual salaries it takes to buy a standardised new dwelling (70 sq m):

- The most affordable housing can be found newly in Portugal, where you need to save on average only 3.8 years to

buy a new dwelling. Portugal is closely followed by Belgium (4.0 years). However, the difference between gross and net salary in Belgium is bigger than in most other countries.

- In Norway, Germany and Austria own housing is relatively affordable, specifically between 5 and 6 years.
- If local citizens are looking for an average new dwelling in Croatia, Italy, Hungary

or Poland, they need to save money between 6 – 8 years.

- The second least affordable own housing was recorded in Latvia amounting to 10.1 years.
- The least affordable own housing was for the third time in a row observed in the Czech Republic where citizens need to save more than 11 years to buy a new apartment.

Rental market

Already traditionally, the list of rental prices among selected cities is also included in our publication. We still believe that rental housing forms a key and vital part of the residential market and therefore we would like to provide you with general outcomes of our research:

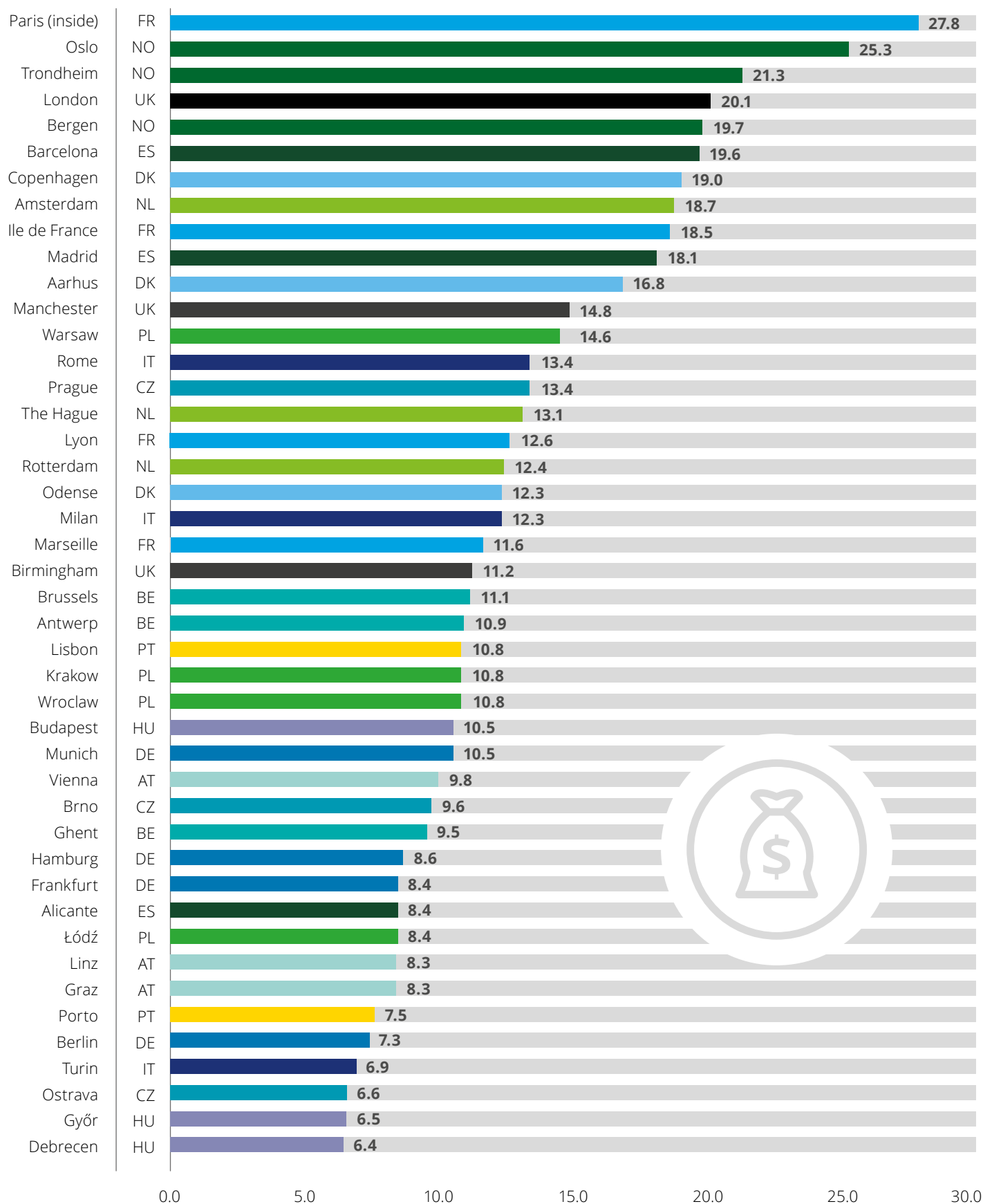
- A dwelling in the centre of Paris was again the most expensive for rent in 2018. The average monthly rent amounted 27.8 EUR / sq m.
- Newly provided data from Norway show that the rental housing is comparatively expensive. Oslo, followed by Trondheim occupied second and third place within our research with the value 25.3 EUR / sq m and 21.3 EUR / sq m per month respectively.
- It is not a surprise that the fourth highest rent could be found in London (20.1 EUR / sq m / month).
- Barcelona, Bergen and Copenhagen recorded the rent value above 19 EUR / sq m / month.
- In Belgian and in Austrian cities was the rent level relative low compared to their transaction prices in general.
- Despite the current disorders due to rising rental prices mainly in Berlin, rent levels are low compared to other European cities.*
- The lowest average rent can be found in Debrecen, where you need only 6.4 EUR / sq m / month, following by Győr (6.5 EUR / sq m / month) and Ostrava (6.6 EUR / sq m / month).

A dwelling in the centre of Paris was again the most expensive for rent in 2018. The average monthly rent amounted 27.8 EUR / sq m.

 Austria (AT)	 Denmark (DK)	 Hungary (HU)	 Netherlands (NL)	 Portugal (PT)
 Belgium (BE)	 France (FR)	 Italy (IT)	 Poland (PL)	 Spain (ES)
 Czech Republic (CZ)	 Germany (DE)	 Latvia (LV)	 Norway (NO)	 United Kingdom (UK)

*In markets with no or very low fluctuations, the average of contracted rents is driven by long lasting rental relationships. And as the rents in the past have been significantly below contracted rents as of today, the reported average of contracted rents are also low compared to newly contracted rents.

Average Monthly Rent per sq m in EUR, 2018



	Average bid price of new dwelling – sq m	Average transaction price of new dwelling – sq m	Average bid price of older dwellings – sq m	Average transaction price of older dwellings – sq m
Austria	4,043	2,612	2,902	1,766
Belgium	2,481	NA	NA	1,838
Croatia	NA	1,547	NA	NA
Czech Republic	3,152	2,525	1,586	1,435
Denmark	2,818	2,683	2,254	2,147
France	NA	4,016	3,265	3,298
Germany	3,405	NA	2,394	NA
Hungary	1,390	1,323	780	743
Italy	2,687	2,311	2,153	1,852
Latvia	NA	1 739	NA	536
Netherlands	NA	NA	2,725	2,521
Norway	NA	4,043 *	NA	4,227
Poland	1,444	1,370	1,367	1,208
Portugal	NA	1 088	NA	947
Spain	2,753	2,133	1,618	1,469
United Kingdom	NA	3,753	NA	2,876

* detached houses



Mortgage Markets in Europe

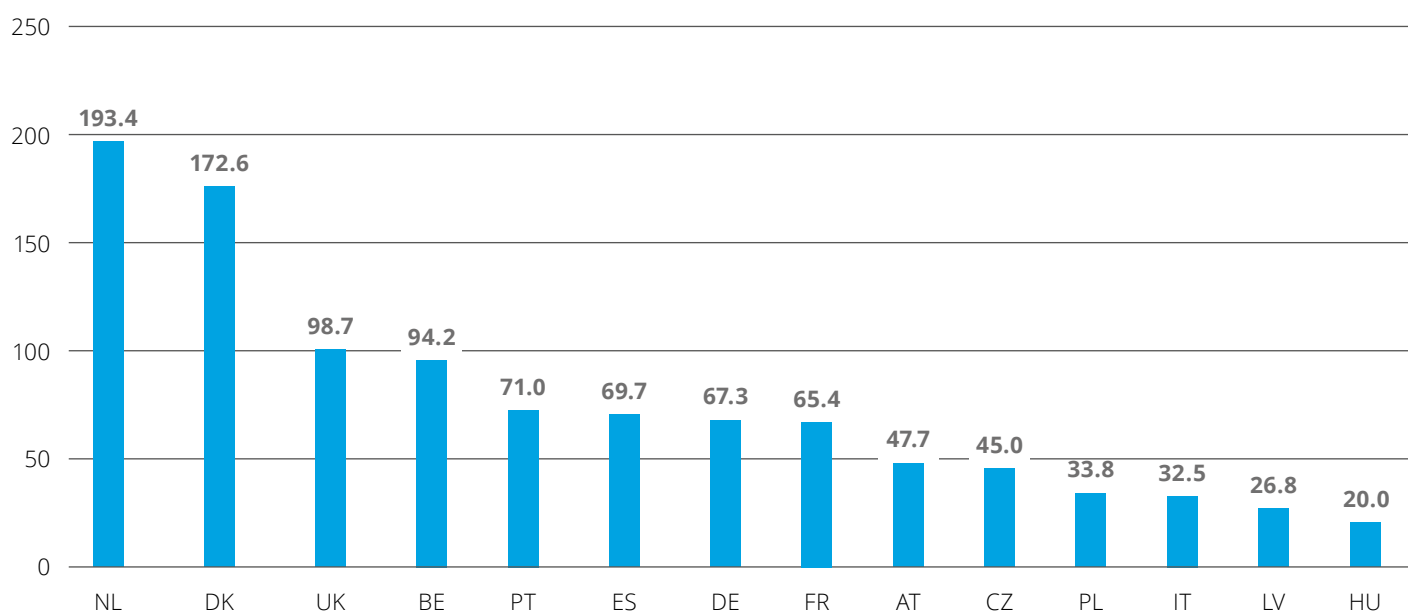
Every year we also focus our attention on the mortgage market. One of the most important indicators on the residential market is the indebtedness of the households, i.e. the proportion of the volume of mortgage loans to household disposable income. Consequently debt capacity is one of the determinants of house price growth.

- The lowest level of indebtedness among all surveyed countries could be found in Hungary with 20.0% of residential debt to household disposable income.
- Countries with a low level of indebtedness proportion were Latvia, Italy, Poland, the Czech Republic and Austria, with total outstanding residential loans to household disposable income under 50%.
- The highest level of indebtedness could be found in the Netherlands and Denmark with residential debt to household disposable income of above 170%.

As the Federal Reserve raised its benchmark interest rate and signaled confidence in the US economy, mortgage rates within the EU face pressures to stop low interest rate environment recently. However some European national central banks followed the politics of FED and started pushing the interest rate at a higher levels. Also the residential market was heavily influenced. It seems significant discrepancies in mortgage rate within European markets may rise in the future.

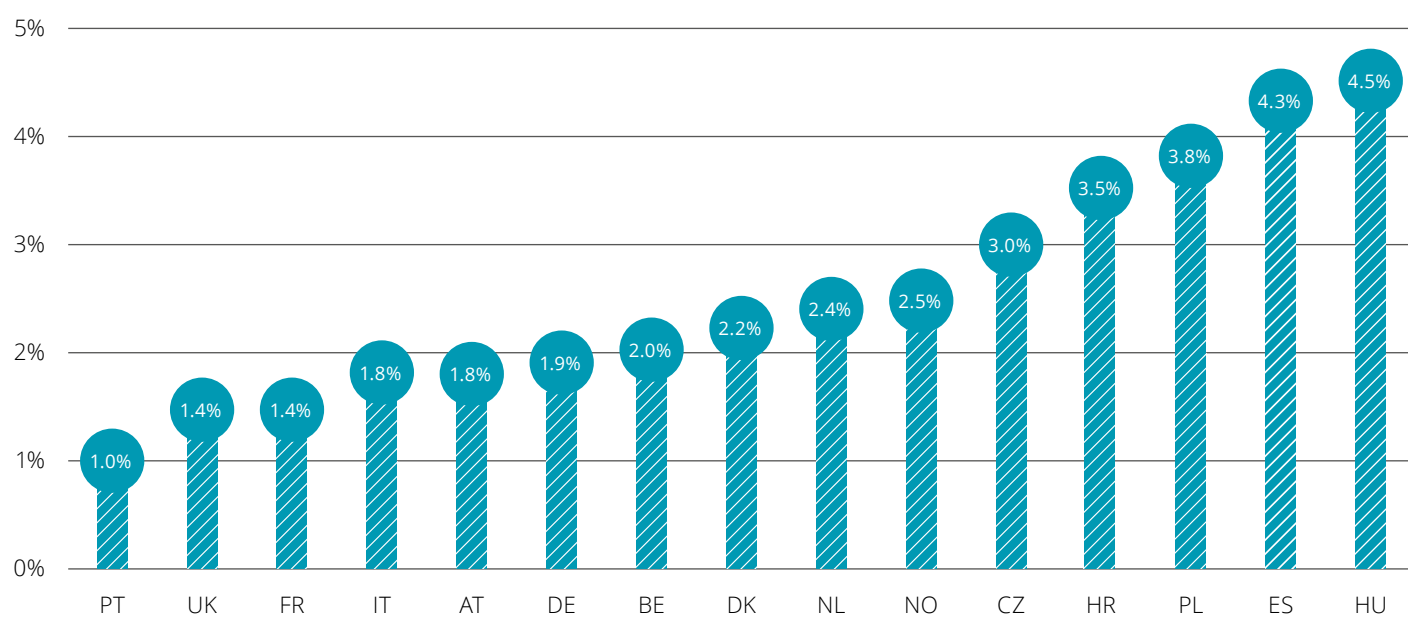
- Portugal was the place where you could get a mortgage with the most favourable conditions of bank financing in 2018. The average mortgage rate fluctuated around 1.0%.
- The second lowest level was observed in France and United Kingdom, where it is possible to find mortgage financing with 1.4% interest rate.
- Least affordable mortgage financing could be found in Hungary with an average interest rate of 4.5%, followed by Spain (4.3%).

Total Outstanding Residential Loans to Disposable Income of Households Ratio (in %), 2018



Source: Hypostat 2018

Average Mortgage Rate (in %), 2018



Source: Deloitte data calculation



Annex: Comments on Residential Markets

Austria



In 2018, the total amount of 50,222 transactions with a real estate value of EURbn 10.9 was registered in the residential real estate sector regarding apartments in Austria, which corresponds to a y-o-y volume change of 3.4%. The general price level increase of 1.8% in 2018 did not exceed the reported inflation rate of 2% and represents the lowest price increase since 2009. The developments in the construction and financing sector as well as the still increasing demand for residential real estate in combination with diminishing buildable land are forecasted to further increase prices as demonstrated below.

The residential construction of new apartments measured by building permits decreased as of YTD Q3 2018 by -5.56%. According to the Austrian National Bank, the increasing series trend is more accurate to consider, as the tracking of building permits exhibits a strong variability. Both the building construction price index (3.72%) and residential construction cost index (2.9%) strongly increased compared to last year's figures, reflecting the recent construction boom.

The financing activity shows a steady increase of new mortgages in the private household sector of 5.07% in 2018. The financing conditions were all in all household friendly, as amongst others the interest rate remains constantly low for variable and fixed rates.

Despite all the real estate activity and past price increases, the most recent fundamental price indicator for residential real estate published by the OENB (Q4 2018) shows a persisting overvaluation for real estate in Vienna.

The following legal changes and recent developments have influenced the residential real estate sector in 2018:

- **Rental market:** A new map for location related rent additions was published, which is expected to negatively influence yields in the period building sector in Vienna and as a consequence refurbishment activity.
- **Building rules:** The Viennese building code was aggravated regarding the demolition of buildings (before 1 January 1945) making it more difficult to get a permit.

Belgium



The Belgian housing market had a very strong 2018. Compared to 2017, transaction prices increased on average by 4% and the number of transactions was 5% higher. The number of issued building permits even surged by a stunning 24%. Historically low interest rates and the resulting high borrowing capacity continued to drive the market, supported by the overall strong macro-economic conditions and labour market. Lower transfer taxes („registration duties“) in the three regions also had a positive impact. The growing population (partly due to immigration) and decreasing family size are pushing demand further.

On the back of low interest rates and a more volatile stock market in 2018, residential real estate – with its stable returns and value increase – has become a very popular investment class. This is changing the market dynamic, as the Belgian market is traditionally very owner-occupier oriented. Due to the increasing prices, it is becoming more difficult for low-income families to acquire or rent housing. There is a big demand for affordable housing and the government is trying to make the social housing sector more attractive to private investors.

The Belgian real estate market has historically proven to be very stable, also during the financial crisis. Despite the current upward pressure, we do not expect a correction in the short to medium term. The main risk for the market lies in an interest rate increase, which we do not expect in the near future, given the recent ECB announcement. It is possible that the Belgian National Bank would further increase the bank's required capital buffers for mortgage risks. Federal and regional elections are taking place in 2019, meaning other risks relate more to a change in policy, such as a change in the property taxation or increased sustainability requirements for housing. The so-called „concrete stop“ („betonstop“) aims to put a halt to consuming open space altogether by 2040 and could further limit the available land for development.

Croatia



The Croatian residential market has essentially been in the recovery mode since the severe economic recession which Croatia endured between 2009 and 2014. A significant number of new built apartments which were built during the period of recession were not able to attract buyers. The number of new apartments built for example in Zagreb of just under 9,000 units in 2008 had plunged to a nadir of some 500 units only in 2014 before recovering somewhat to 1,800 apartments built in 2017.

Transaction volumes in terms of the number of apartments sold in Zagreb had nearly doubled increasing from a low point of some 4,200 apartments in 2014 to 8,000 apartments in 2017. Typical characteristics of the residential market in Croatia are: lack of developers with many having gone out of business during the recession; labour shortages in the construction industry and inflated land prices in some locations.

The Croatian residential real estate market is varied depending on location. Demand and sold volumes are strongest in Zagreb and the tourist coastal areas where demand is quite strong. In the capital, Zagreb, demand is driven by a need for permanent housing while on the coast, the rental business to tourists features quite prominently. The key issues with respect to demand for residential housing are affordability (difficult for those on median or lower income), economic trends with declining interest rates in recent years having a positive impact on loan affordability and negative demographic trends as indicated by a significant level of emigration by Croatians into other EU countries in recent years.

In 2018, the asking prices for apartments rose in 85% of Croatian counties. In general, it is expected that prices will continue to appreciate slightly over the medium term in Zagreb and in coastal areas based on continuing favourable macroeconomic conditions continuing to prevail i.e. continuing GDP growth and continuing low interest rates.

Czech Republic



A significant increase in construction costs, regulatory measures from the Czech National Bank and lengthy approval processes had a significant impact on the development of the residential market in the Czech Republic in 2018.

Home ownership is becoming increasingly less affordable, causing the demand in Prague and other regional cities to start to shift to the rental market or outside of city limits in 2018. The primary trend on the residential market in the Czech Republic in 2018 was therefore in particular an increase in the number of development projects focused on rental housing, as well as a growth in projects intended for senior or student housing.

Transaction prices increased year-on-year in all regional cities of the Czech Republic and in all segments of the residential market. Average apartment selling prices in Prague and regional cities had increased by 6.4% by the end of 2018 compared to the previous year. The average price per square meter thus reached CZK 57,200.

The reason why the prices of residential properties have been growing so quickly in recent years predominantly relates to the supply. The number of second-hand apartments for sale is declining and developers have to wait a long time for various affirmative opinions in approval processes, which makes projects more expensive and causes delays. The total time from the beginning of pre-project preparation until the completion of construction of a residential development project in Prague takes 8.9 years on average. This is one of the reasons why we can observe a shift of developers from new development projects to reconstructions or renovations of existing historical buildings especially in city centres.

However, the demand fever is falling and in 2019 we can expect a certain decline in the number of sales in all areas, for older apartments or detached houses as well as for new apartments. Despite that, a decrease in prices remains rather unlikely.

Denmark

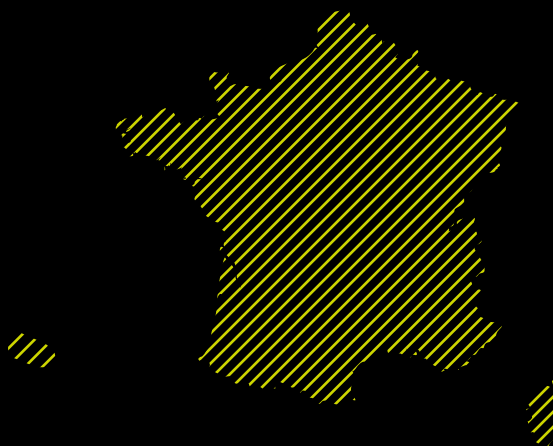


The Danish M & A market covered a total transaction volume of approx. EUR 10.3bn (approx. DKK 77bn) in 2018, which is a reduction of EUR 2m from an all time high in 2017. The historic trend with an increasing amount of foreign investors did not repeat itself, and they only accounted for 45% (against 56% the year before) of the total transaction volume in 2018. The retraction of the transaction volume is mainly related to the Copenhagen area whereas the rest of Denmark is relatively unchanged.

The average transaction price was approx. EUR 4.6m (approx. DKK 34m). For the residential area the transaction volume was down by 6% in 2018 totalling approx. EUR 4.9bn (approx. DKK 36.7bn) which is approx. 48% of the total transaction volume. In contrast to other asset classes residential transactions are dominated by foreign investors (approx. 55%), e.g. Heimstaden. The capital of Denmark, Copenhagen, and Aarhus (the second biggest city) faced a reduction in the transaction volume which we believe relates to the significant price increases in 2018 (ask prices) and therefore very low expected yields to investors.

Consequently, both local and international investors expanded their focus to the rest of Denmark where residential transaction volumes increased by 39% compared to 2017. We believe this trend will continue in 2019. Prices on the more expensive flats will probably not increase or even fall due to tighter regulatory restrictions on lending and uncertainty about the new public assessment currently being developed by the Ministry of Taxation. However, the long-term trend is still that people are moving to the bigger cities increasing demand for new developments going forward.

France



2018 has been a dynamic year for the real estate residential market in France. For the second year in a row, the number of transactions in the entire country exceeds 950,000, a high level.

As to prices, since 2015, real estate prices have been rising constantly (+0.3% in 2015, +2.9 in 2016, 4.4% in 2017) and 2018 shows another solid growth at +3.4%, although at a moderated pace. This tendency is observed throughout France, but geographies show discrepancies with a strong +4.2% rise for apartments in the Paris region although the regions also showed growth (+2.6%), even if major cities such as Bordeaux and Lyon benefitted from significant uplifts.

This dynamic should be pursued in 2019, taking advantage of increased demand for quality premises in major cities in a background of continuous low costs of borrowing.

In the residential construction sector, last year has shown a decrease in the number of bookings (c. 9%) as well as the number of sales, by c. 14%. As of today, private investors, looking for buy-to-let schemes, mainly drive this market (2/3 of transactions in the regions), lead by tax incentive policies. The recent changes in the so called "Pinel tax law" explains part of this decrease in the new homes sector, which should not evolve in the short term.

Germany



Despite the overall economic growth slowdown in the second half of the year, the boom on the German residential market is still ongoing. Global developments have neither affected the construction nor the real estate industry in Germany. Consequently, yields are still under compression. Low interest rates and the simultaneous shortage of supply intensified the pressure on capital investment.

The purchasing volume is at another record high for the sixth consecutive year. 2018 reached approximately EUR 181 billion, which is a further 6% increase compared to 2017. The residential construction sector in Germany again has lagged behind the rise in the number of inhabitants. Even though the number of building permits is at a high level since 2015.

In addition to the lack of capacity in the construction sector, the excess demand for building areas remains high.

As a result, there is an increase of 3.9% in rental revenues in the area of new lets. Furthermore, bid prices for dwellings rose on average by 8.2 %. The highest appreciation of dwellings has been measured in Berlin with 15.2%.

The tension on the residential market in major cities is expanding and leads to massive price movements in the catchment areas.

Hungary



The upturn on the Hungarian housing market continued in 2018, as reflected both in the dynamic increase in house prices and the rising number of transactions.

In 2018, the number of transactions significantly increased by 8% compared to 2017 in Hungary. Furthermore, the number of new dwelling transactions increased by 150%, which was responsible for almost 5% of all the transactions. The number of older dwelling transactions also increased by 6.4%.

Additionally, the residential price increase continued in 2018, which means that transaction prices of new dwellings increased on average by 8.3%, while the older dwellings by 5.1%. This means that since 2015, in real terms the new dwellings transaction prices increased by 16%, while the old dwellings transaction prices rose by 23%.

The Hungarian housing market shows a strong level of spatial heterogeneity, and the disparities between the individual settlement types continued to increase in 2018. The transaction market is characterised with strong concentration, 42% of the transactions took place in Budapest or in one of the county seats, while 58% in smaller settlements. Nearly 50% of all the new dwellings for sale in Hungary were built in 6 districts of Budapest and in 10 different cities in the countryside. In Budapest, most of the dwellings were built in districts IX., XI. and XIII, while in the countryside the most popular city was Győr.

In the domestic housing market, all factors are pointing towards robust demand. The improving financial position of the household sector and the intense wage outflow also substantially boosted the savings of this sector, which paints a more positive picture of prospective demand conditions in the housing market.

On the other hand, the supply side of the domestic housing market still cannot keep pace with the strong demand, which is exemplified by the fact that more and more new dwellings under development are sold prior to completion. The main causes may be the tight labour and material capacities of the construction industry, the relatively low productivity of the sector and the lack of the use of efficient technologies. On the whole, all of the factors in the domestic housing market point to the continuation of strong demand, while there are several factors working against a healthy upswing in housing supply.

Italy



In 2018, Italian GDP registered a growth of 1% compared to 1.5% reported for 2017. In 2019 GDP is expected to slow down with a growth of around 0.2%. With respect to government debt the government budget deficit narrowed to EUR 37,605 million in 2018, or 2.1% of GDP, from EUR 41,541 million in 2017, or 2.4% of GDP - the lowest government deficit to GDP achieved since 2007.

In terms of total debt the government debt to GDP ratio increased marginally by 0.61% from EUR 131.4bn in 2017 to EUR 132.2bn in 2018. The unemployment rate continued its downward trend in 2018, decreasing from 11.2% in 2017 to 10.5% in 2018. The Bank of Italy forecasts that this trend will continue in 2019 and 2020 with a decrease of the rate of unemployment of around a further 0.2% per year.

The real estate market is stable but expected to improve during 2019 especially in the residential sector and not just limited to the main conurbations of Rome and Milan. The number of transactions in the residential real estate market in 2017 was around 580,000, increasing by around 10% compared to 2017 - this figure is expected to remain stable in 2019.

Latvia



The Latvian real estate sector keeps positive tendencies in its development. While the number of available apartments in the Latvian residential market decreased in 2018, increased supply from commissioning new developments is expected to bring the market closer to fulfilling the demand for residential real estate in the upcoming year.

During 2018, 20,408 apartments were sold in Latvia, including 9,170 in Riga, reflecting an increase of 2.6% and 4.1% in comparison to 2017 in Latvia and Riga respectively.

The demand for the residential market is determined by several factors. In accordance with immigration law, foreigners get a five-year residence permit in Latvia if they buy residential real estate. Moreover, attractive rent yields and strong economic growth in Latvia, improve business environment and also contribute to high demand.

Housing supply has been gradually improving since 2010, however growth rates dropped from 1.7% in 2011 to 0.46% in 2017. Since most of the apartments' buyers are foreigners who pay in cash, the outstanding value of loans to households for house purchases keeps decreasing (from EURb 4.4 in 2017 to EURb 4.1 in 2018), despite the introduced Mortgage Loan Programme in 2015 and favourable mortgage interest rates.

Netherlands

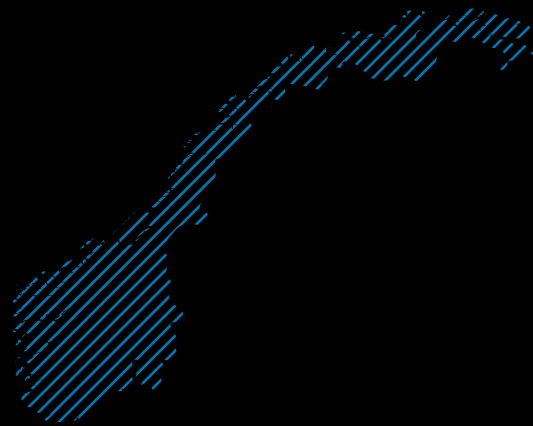


In the first half of 2018 the pressure on residential developments in the Netherlands grew to record levels. Although c. 66,000 newly developed dwellings (a record number since 2009) were completed, the demand for housing remains higher than the supply. Construction companies struggle to fill job vacancies, which limits the capacity of their development pipeline. In addition to a lack of newly developed dwellings the interest rate (mortgage) remains relatively low at 2.4%, which further increases the demand for houses.

The shortage in the Dutch housing market is also demonstrated by the average transaction prices per square meter, showing a 9% increase nationally. The increase in average transaction prices is even higher in densely populated areas like Amsterdam, Rotterdam and The Hague. Those three cities showed increases in the average transaction price of 11%, 15% and 10%, respectively.

However, in the last months of 2018 the pressure on the housing market seems to have stabilised. According to the NVM (Dutch association of real estate brokers) the high increases in average transaction prices of the past few years are evening out. Among others, this is shown by the fact that the number of houses on the market rose by 5% in the last quarter of 2018, compared to the previous quarter. This is the first time in 4.5 years that the number of houses on the market has risen. Furthermore, the NVM reports that 8% less dwellings were sold in the Q4 2018, compared to the same quarter in the previous year.

Norway



In line with the population increase, the number of dwellings in Norway has increased steadily, with an average of 27,477 new dwellings per year from 2008 to 2018. However, as many as 32,830 new dwellings were completed in 2018. The proportion of detached houses decreased from 54.2% of the total number of dwellings in 2006 to 49.9% in 2018, which is explained by the apartment building boom in the big cities.

The number of dwelling properties transferred as free market sales, increased from 85,200 in 2017 to 87,800 in 2018, which represents an increase of 3%. In the same period, there was also an increase in transaction prices of new and old dwellings, with an increase of 4.24% and 0.98%, respectively.

Approximately one quarter of the Norwegian households rent their dwellings. The monthly rent of dwellings averaged at EUR 18.9 per square meter, with Oslo as the prime segment with monthly rent of EUR 25.3 per square meter.

In a bid to restrain housing prices and high household debt levels in Norway, the Government implemented stricter mortgage regulations on 1 January 2017. Initially, these restrictions were supposed to expire in July 2019, however, the government decided to extend them until December 2019. According to the Norwegian Central Bank, the strict mortgage regulations have decreased the proportion of loans in breach of the loan requirements, as well as decreased housing prices. However, the price decrease is also correlated with a sharp increase in housing prices prior to the implementation.

In 2018, the Norwegian Central Bank tightened monetary policy, increasing its key rate from 0.50 percent to 0.75 percent. In response, major Norwegian banks decided to increase their interest rates on home mortgages accordingly. The Norwegian Central Bank announced that it plans to make five rate hikes by the end of 2021. The effect of the increase is yet to be seen.

Poland



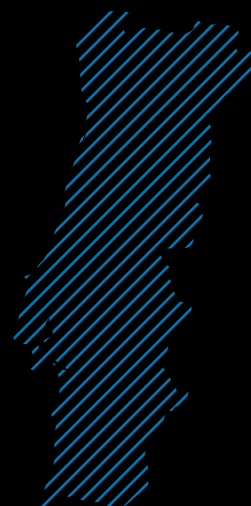
The residential market performed very well in 2018. The total amount of apartments sold was ca. 64.8k which was lower than 2017 but higher compared to sales results of 2016.

New supply amounted to 65.7k which is slightly lower (ca. 2%) compare to 2017. Transaction prices for an apartment are still on the rise in the biggest Polish cities. On annual basis, the highest growth of transaction prices on the primary market was recorded in Gdańsk (12.8%) and Warsaw (8%)¹.

The demand for residential space is still high but limited debt availability (end of MdM program) affects the slowdown in transaction activity. On annual basis the total amount of transaction decreased by 11%. The highest drops were observed in Tricity 16%, Warsaw and Wrocław contributed with 15% drop and 10% decrease in Cracow. Poznan was stable but there was an outstanding increase of the amount of transaction in Łódź (30%)².

The residential market recorded good results but did not overcome the result of 2017. Current market relative stability is sustained by low interest rates while increased construction and labor costs as well as lack of land availability in Warsaw and regional cities, may be the reason of developers' margins decrease over the next years.

Portugal



Throughout 2018, the residential market continued to show increasing demand. On the other hand, supply seems insufficient to satisfy this necessity mainly required by the Portuguese inhabitants that are gaining representativeness.

It is important to highlight that during 2018, some luxury residential complexes had arisen, mostly in the Lisbon City Centre, and were clearly directed at the foreign market (in 2018, according to the National Institute of Statistics (INE), the median transaction value per sqm in the Lisbon City was around 3.500€ for new dwellings). In addition, the lack of plots in these central areas led mostly to buildings' requalifications and reconstructions.

For the national market, new developments, outside central areas, were supposed to take shape however, developers consider that the conditions to lead off these processes are not met. Actually, the construction costs have been increasing, leaving no room for investors to follow, in terms of price, the Portuguese's purchasing power. In contrast, foreigners reflect willingness and aversion regarding peripheral areas (with the exception of the Cascais Coastal zone) and also there is no critical mass to absorb such developments.

The problem in the Portuguese residential market is increasingly clear. There is a misfit between supply and demand and a new equilibrium point must be achieved quickly. Once more, there is a growing urgency to rethink public and private policies to accommodate both realities.

¹ Growth rate based on values presented in PLN – not in EUR.

² Based on REAS Residential Market in Poland report.

Spain



The main Spanish macroeconomic indicators are positive and reflect solid pillars. However, growth is slowing compared to previous years. Spanish GDP, unemployment and the current population pyramid show figures which are representative of a mature market, which also point to new challenges in the near future.

Since 2012, the Spanish population has decreased. However, since 2016 the trend has changed and the population is growing (+166k residents), mainly, due to foreigners. After years of crisis and uncertainty, the number of people willing to buy a house has increased significantly. Currently, there is high potential demand consisting of 23.6 million people, 51% of the total population. Out of which 31% of the total potential demand relates to the replacement housing market and most of which has been satisfied.

The Real Estate sector leads the job creation trend. From 2013 to 2018, this sector experienced a 63% increase. The Construction Sector is experiencing a sustained recovery, which is still far from the excess construction in the pre-crisis period. Total housing transactions have almost doubled since 2013 to date and are expected to continue increasing. However, this upward trend has slowed down in the last months due to the moderate increase in new built housing sales and foreign transactions.

The spread of transactions is similar to the previous officially approved developments, therefore no new housing stock has been generated. In the past year, the main cities have shown signs of stabilisation and sustained growth, therefore exploring new markets is necessary.

The average selling price of new open market housing is above pre-crisis levels. However, the global open market is still 20% lower. Most recently developers have focused on replacement housing demand, therefore there is a risk of depletion.

Young people are looking to purchase houses with affordable prices and thus, look for 2nd hand houses and refurbish them. Most of the unsatisfied demand comprises the younger population with limited salaries looking for their first house.

United Kingdom



Figures published by the NHBC show that other than London, UK regions have seen a rise in completions over the past 12 months. The most significant rise can be seen in the North West (7%), West Midlands (6%) and Yorkshire and the Humber (5%). The West Midlands, East Midlands, East of England, South West and London witnessed a decline in starts during the past 12 months. The most significant rises in completions can be seen in the North West with a 9% increase and North East with an 8% increase. England overall saw a 5% fall in starts and the United Kingdom as a whole saw a 4% fall in starts during the last 12 months.

Housebuilding declined sharply in London and the Midlands in 2018 as political and economic uncertainty around Brexit hit the housing market. Across the UK, housebuilders registered 159,617 new homes in 2018, down 0.5% from 160,396 in 2017 (this is different figure from the number of completed dwellings published by the NHBC below). The private sector declined 1% (117,497 registrations) while the affordable sector – homes registered by housing associations – was stable at 42,120 new homes in 2018. There were big regional variations. Half the UK regions showed growth – Yorkshire & Humberside rose by 20%, the north-west by 7%, Northern Ireland by 39%, albeit from a small base, the south-east by 3% and eastern England by 2%. The number of new homes completed rose 1% to 149,480 last year, according to the NHBC. Widespread fears over Brexit caused British house prices to stagnate during the year. Figures from Nationwide show houseprices rose by the smallest recorded amount for almost six years in 2018. Right-move is forecasting zero growth in house prices across the UK in 2019 amid “stretched” buyer affordability.



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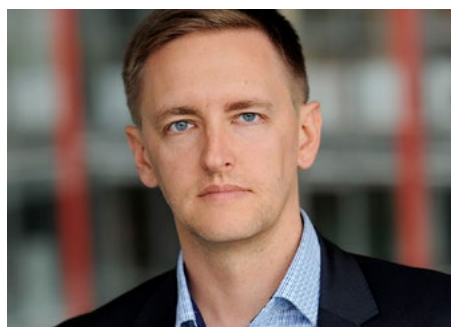
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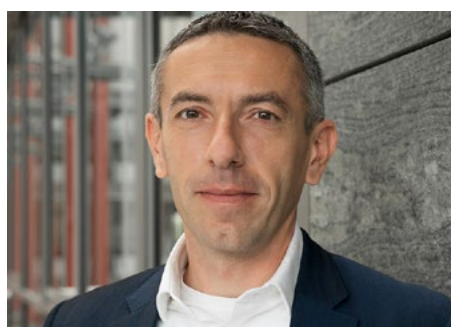
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