

PATRIZIA

# INSIGHT

EUROPEAN RESIDENTIAL MARKETS

2017/2018





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## Dear readers,

In today's world, half of the world's population resides in cities. Although Europe is already predominantly urban, the share of people living in urban areas will continue to rise in the decades to come. This trend, while not new, is relentless and of great importance for real estate investments. It is therefore necessary to know the drivers and fundamentals of what makes a city competitive and attractive for developing an investment strategy. Accompanied by a second demographic trend, the ageing population, it is essential to understand the impact of these developments for residential investments because both trends will have a great impact on housing demand and, ultimately, investment performance.

European residential markets saw a strong recovery over the last four years. This development is the result of a broad-based, synchronised economic recovery and the expansionary monetary policy in Europe. In parallel, and as a consequence of increasing house prices and the imbalances between demand and supply, housing construction has picked up substantially underlining the overall improvement in the residential market and offering opportunities for higher return investment strategies.

With this PATRIZIA Insight on the European Residential Markets, we hope to give you a thought-provoking view on how the European residential landscape is changing and will develop in the future in order to provide you with a solid understanding of current trends and a basis for investment strategies.

Enjoy the issue!

Yours,

  
Wolfgang Egger



## Executive summary

- **Europe offers relative stability:** The economic and legal environment in Europe remains stable in these times of political uncertainty. The economic development has benefited from ECB policy and structural reforms, but also several country specific policy actions. Unemployment has seen a remarkable decline across the countries; the reduction of youth unemployment in particular indicates a significant recovery.
- **Win with demography:** The residential market in Europe is challenged by two aspects: ageing and urbanisation. For investors it is essential to understand these two dimensions to find the best investments from a risk-return perspective. Estimates from the UN reveal that the median age as well as the share of the population living in urban areas will continue to rise in the coming decades. Both trends are not uniform across Europe, requiring a thorough regional understanding.
- **Have a city focus:** In a globalising and urbanising world the focus is on cities. Cities present both opportunities for and challenges to sustainable development. Understanding the drivers of what makes a city competitive and attractive is a crucial element for developing an investment strategy. The PATRIZIA European City Ranking takes into account demographic and economic aspects as well as indicators for innovation and connectivity combined with a liquidity indicator to identify the best investment locations depending on the risk profile of an investor.
- **Residential investments are global now:** The cross-border residential investment activity in Europe is no longer dominated by European players. About half of the capital of all cross-border investments came from non-European investors as a consequence of the ongoing globalisation and professionalization of multi-family investment activities of institutional investors. The sustained demand for low-risk investments led to rising investment volumes resulting, in 2017, in the highest level since records began.
- **It's all about income:** The attractiveness of residential investments in a low-yield environment can be seen in the solid total return performance. With the income return as an important driver of stability, understanding rental growth is important to judge the overall investment risk-return profile. One of the main drivers of rental growth is the ongoing imbalance between demand and supply which, despite increasing development activity in many urbanisations, in the short to medium term, supporting further rental and capital growth.

- **The only way for German rents is up:** The development of quality adjusted rents in the German housing market displays diverging patterns across different city groups. Within the top seven German markets only Berlin and Munich showed rental growth of more than 5% for newly built dwellings during the last four years. The flat or even temporarily negative development in the remaining markets of the top seven can also be seen in secondary cities. Rents of existing dwellings showed a significant increase in the top seven markets while, by contrast, some secondary cities have seen negative developments. Investors, therefore, have to understand the drivers of each single market to develop strategies and business plans.
- **Capital growth returns:** Looking at the next few years, capital growth will become more important as a driver of total returns due to the high institutional demand for multi-family assets and ongoing rent increases. This will result in capital growth between 2.0% and 4.0% per annum accounting for up to 50% of the expected total return in some countries in a single year.



## Economic environment

The global economy has expanded solidly over the last year with substantial recovery in trade, labour demand and improvements on the inflation front. The macro-financial environment in the Euro Zone consolidated in terms of employment growth, GDP growth and, most importantly fiscal balances. At the same time, strong levels of political uncertainty surrounding the EU-UK negotiations, the electoral outcomes in Europe and possible trading protectionism in the US remain important factors affecting European growth going forward. In this environment demand for residential assets in Europe remained firm and has even picked up in some countries in comparison

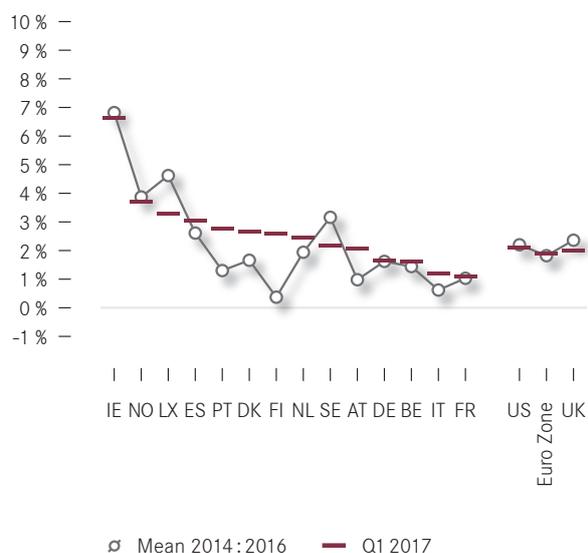
to our last PATRIZIA Insight European Residential Markets 2016/2017. While fundamental data point to a further robust macroeconomic environment, the residential market in Europe is increasingly challenged by the changing age structure and ongoing urbanization, demanding a close monitoring.

Europe has seen a solid recovery in terms of GDP growth during the last year and there is a consensus that the overall economic development has benefited from ECB policy and structural reforms. As a consequence unemployment has seen a remarkable decline over the last six quarters, pointing to a strong

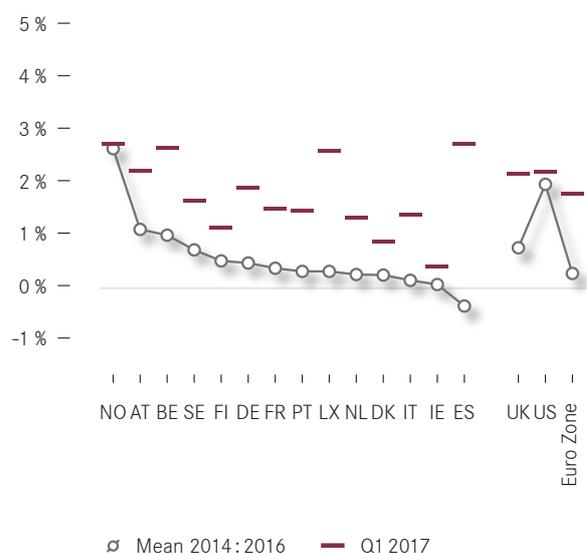
### Main economic development and inflation in Europe

Real GDP in own currency at constant prices

GDP



CPI

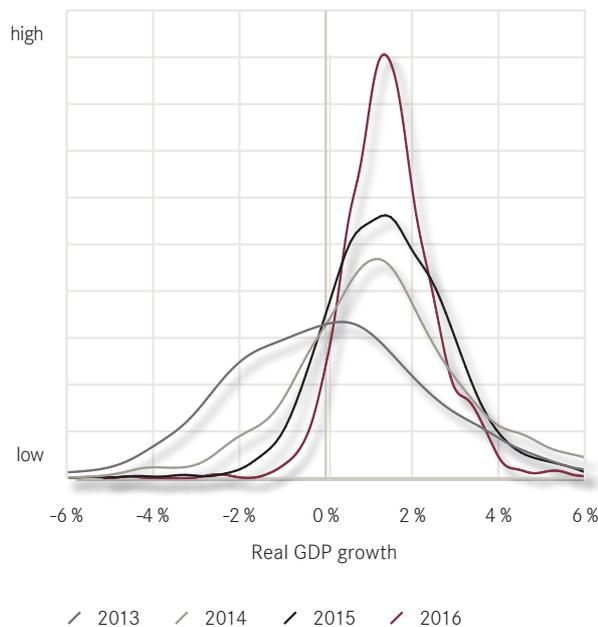


recovery in market confidence and income levels by households. While criticism of the ECB's monetary policy emerged in 2017, the global economy in general and especially the macroeconomic environment in Europe are not supportive for tightening monetary policy in Europe in the coming 12 to 18 months. It is not the question if the ECB will go for a tightening in monetary policy as this is undeniably necessary in the long term; the question is rather how sustainable is the current inflationary environment and can the ECB move already now to rising interest rates with the European financial markets still faced with a lot of uncertainty. The small differences between growth and inflation on

country level are mirroring the broad based cyclical upswing in Europe and the Euro Zone. Going further down on the regional level (NUTS 3), the improvement in growth across Europe becomes even more obvious. Growth is very much synchronised within Europe as the narrow distribution of NUTS 3 level GDP growth rates indicates, when compared with the preceding years. The convergence in regional growth highlights the current economic stability of the European Union and has to be seen as a result of the common institutional framework, represented by the single market and the free movement of people, services, goods and capital.

Employment across Europe continues to grow as a result of the stable economic environment and at the same time supporting the economic outlook going forward. As a consequence unemployment rates across Europe fell, but it is especially the continuous reduction of youth unemployment that indicates a significant recovery. The reduction of youth unemployment the European Union was seen as a crucial element within the recovery and was supported by several country-specific policy actions. The reforms across Europe focused primarily on participation-friendly schemes, working hours, affordability of child care, labour taxation and gender equality. As a consequence, the European labour market has advanced together with the substantial increase in economic activity. Yet, while the reduction in overall unemployment was more or less homogenous across the countries, the issue and the development of youth unemployment and long term unemployment within the countries still shows serious divergences. The share of long-term unemployed (> 1 year) and youth unemployment rates (< 25 years) have increased in Austria, Finland and partly France, which in the case of France and partly Austria points

**Distribution of regional GDP growth over time**



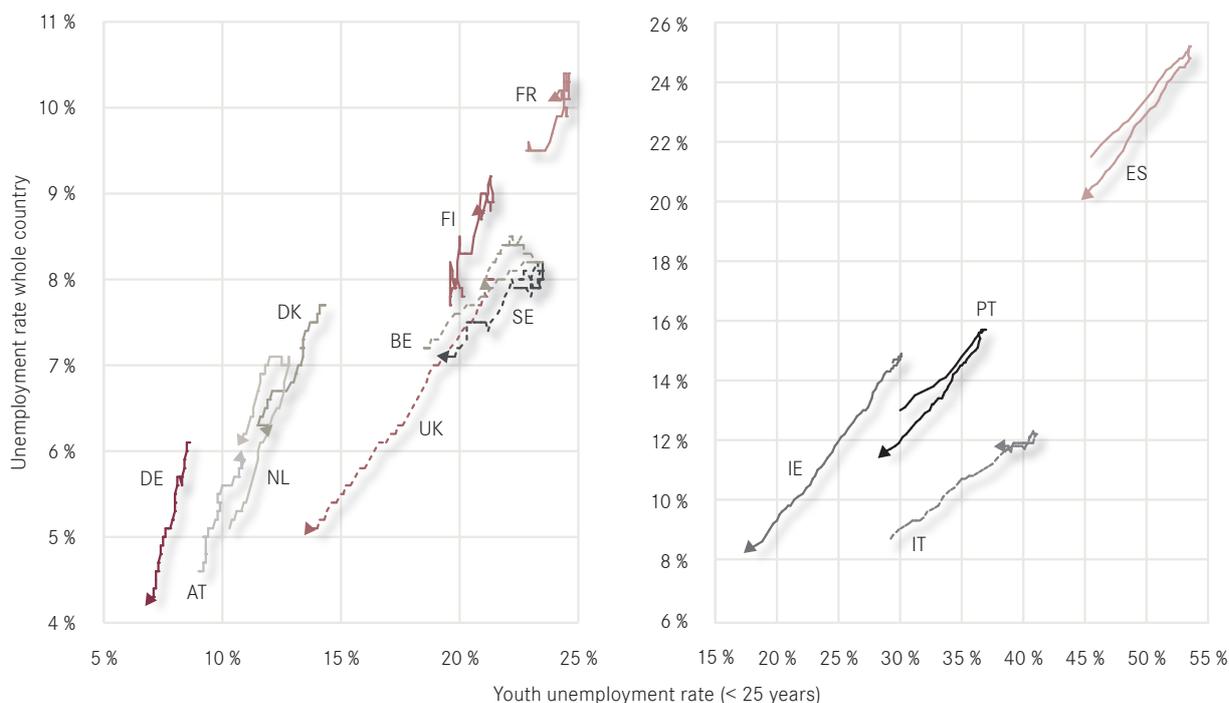
to the need of further structural reforms, while the development in Finland is the consequence of the differing economic development in Finland over the last three years. In contrast, the UK and Germany together with Spain and Portugal have achieved a substantial reduction in long-term unemployment and have taken remarkable steps towards the integration of young workers in the labour market. Hence, the downside risks in these countries from a labour market perspective have been reduced considerably.

Coming to the financial markets, the Fed has gradually started with a normalization of its monetary policy over the last 12 to 18 months. Therefore market players and financial institutions have been starting to discuss the potential impact of rising interest rates on the value of

real estate assets. The potential repricing of real estate investments in case of a significant change in monetary policy in Europe has become a major topic for property investors, although the ECB still seems to be some time away from a turning point. However, with property yields for prime assets on rock bottom levels the investment behaviour, also in the residential sector, is starting to change in a direction of more value add investing. With this move investors are protecting parts of their future returns against interest rises as they are determined by active asset management and less by the overall market or yield movement. In addition, one has to keep in mind that the comeback of inflation over the last six quarters to pre-crisis levels is to a substantial degree the result of the rise in oil prices

**European labour markets M1 2011 – M3 2017**

Harmonised unemployment rates by Eurostat



**10-year-government bond yields in Europe from a long term perspective**

Countries included: DE, UK, FR, AT, DK, FI, NL, SE, PT, NO, ES, IT, IE



and not the consequence of the quantitative easing measures of the ECB and therefore a temporary effect. As a consequence the BoE and the ECB are currently more interested in maintaining a favourable growth environment to stabilize the underlying economy in times of BREXIT and geopolitical uncertainty than keeping temporary inflationary spikes under control.

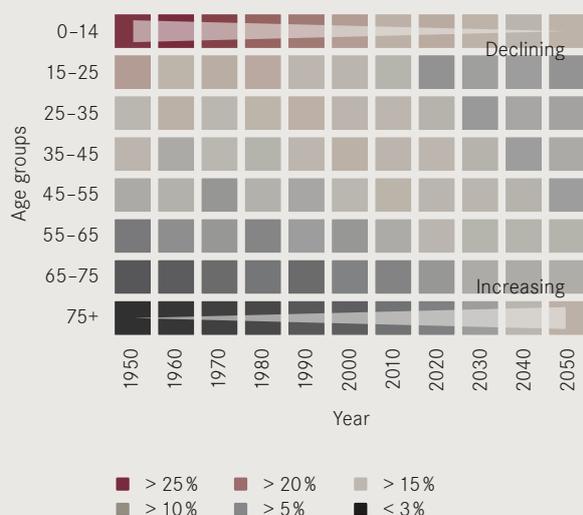
## ‘Winning with demography’ – What does this mean for residential investors

The world’s population growth in the coming years will be urban, mostly occurring in Asia and Africa. At the same time we will see an ongoing aging of the population. Consequently the future of property investments is to a large extent driven by the development of population numbers and the distribution of these people within a country or region. In Europe it is mainly aging and urbanisation that’s driving the property markets. Understanding these two dimensions of the demographic future of Europe is therefore a crucial element in property investing to ‘Win with demography’.

Looking at the first demographic element, aging, the overall story for Europe is quite clear, but the development is far from uniform across Europe and the overall

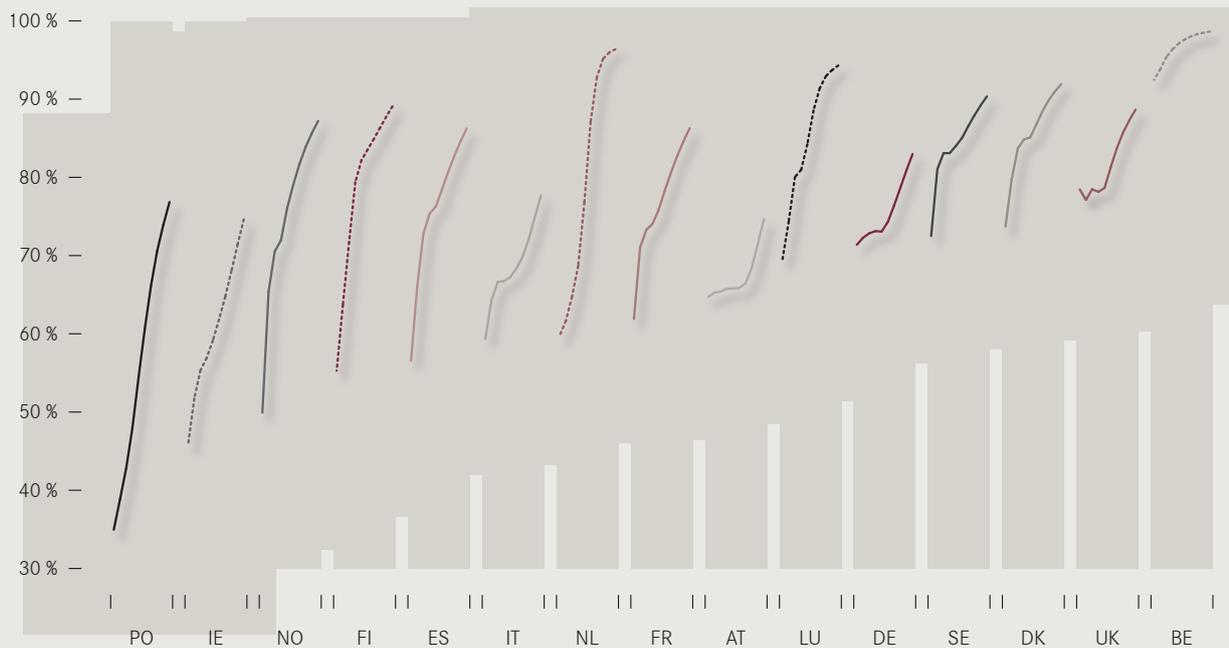
population development has to be taken into account to assess the opportunities and challenges associated with this development. The UN estimates that the median age rose from 28.9 years in 1950 to 41.7 in 2015 and it is expected to rise further in coming decades, to more than 46 by 2050. Seven of the world’s ten oldest populations are in Europe. Stopping the analysis at this point would lead to the following conclusion for a residential investor: As the total population and its age structure is an important demand driver, the impact of this development has to be taken into account and investments would have to deal with a weakening demand for student housing, as the younger population declines, while the aging process results in rising demand for retirement housing or care homes. But this conclusion would mislead investors and they would miss opportunities while they would possibly take higher risks as expected when simply focusing on senior homes or age care properties, as they have to take the spatial distribution of the population into account.

### The European age structure over time



Although Europe is today already predominantly urban, the share of people living in urban areas will continue to rise in the coming decades. It is estimated by the UN that from today’s level of 74% the share of the population living in urban areas will rise to more than 80% by 2050. This ongoing shift to urban living means that even in many countries that are expected to see their overall populations shrink, urban populations will continue to rise for the coming 15 to 20 years. But again, this development is not uniform across Europe, as it shows significant differences regarding speed and degree of urbanisation on country level demanding a thorough understanding to benefit from these developments.

## Urbanisation levels over time 1960 – 2050



The above mentioned recommendations consequently have to be augmented by a regional perspective. As a consequence, a closer look on retirement housing or care homes only makes sense for long term oriented residential investors as long as they keep a strong focus on location, as many more rural areas, where we have a strong demand base today, will see this demand disappearing over the coming 25 years. As a result the risk associated with the assets will rise over time while the tradability will decline, resulting in negative capital growth. At the same time, student housing is not generally a bad idea, as the ongoing urbanisation results in a housing shortage in many urban areas driving many students into student housing. As a consequence, depending on the situation on the free rental market, student housing might be a profitable niche for the coming 15 to 20 years. After that period, the overall aging process will also be felt in the cities and the demand

for student housing will start to decline. This will be felt on the asset level, especially if the free rental market has seen a lot of construction and the asset is not well positioned in the market via its location or brand.

Overall the residential investment universe, as described in our PATRIZIA Insight European residential markets 2016/2017, offers not only a wide variety of investment products with a significantly differing mix of income and capital return as well as risk profiles. Investors looking to invest in the European residential universe are also facing an investment region that is very diverse in a demographic perspective, requiring a very thorough understanding of the different regions in respect to the investment horizon and the asset under consideration as there is also a considerable regional effect, influencing the income return and the capital growth perspectives.

## European residential markets

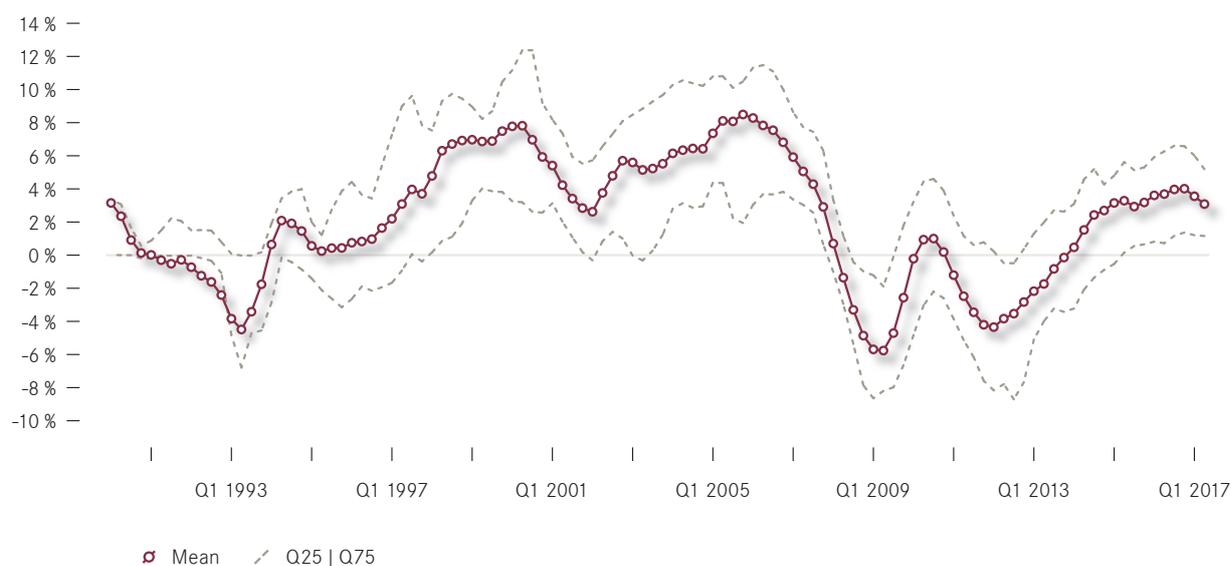
Given the encouraging economic performance in Europe the European residential markets have gained momentum during the course of the last year. From a supply perspective, construction activities continued to improve and in more and more countries this signals a bottoming out of the long-lasting low construction levels providing the desperately needed housing supply in the urban centres. The demand continued its solid development as private and institutional demand for residential assets remained high. From a micro perspective, however, European residential markets show a much more diverse picture as trends like urbanization and aging transform urban areas more than ever. Overall the current market conditions are favourable for

institutional residential investments provided that the micro long-term fundamentals are carefully evaluated.

Overall real house prices have seen a strong recovery in the course of the last three years. Most importantly, the development of house prices looks much more synchronized in comparison to prior market cycles. This development is partly the result of the more broad-based synchronized economic development and of the monetary policy in Europe. When breaking down the European cycle on country level a more diverse picture emerges, highlighting the importance of understanding the institutional framework of each country to invest in. The analysis shows a substantial upward pressure

### European real housing price cycle

House prices deflated by countries' HICP. Values represent the mean, the 75% and 25% quantiles





on prices in Ireland, Germany, Norway, Sweden and the Netherlands. These countries showed house price growth of at least 400 BP above inflation at the end of the second quarter of 2017 pointing to an accelerated demand for housing facing a still constrained supply side. At the same time, Italy, the UK, Belgium and Austria showed a less pronounced deviation of real house prices from inflation, suggesting affordability issues or a less pronounced imbalance between demand and supply. Looking ahead the current market situation suggests no drastic repricing on the housing market in the coming quarters, also a slowdown

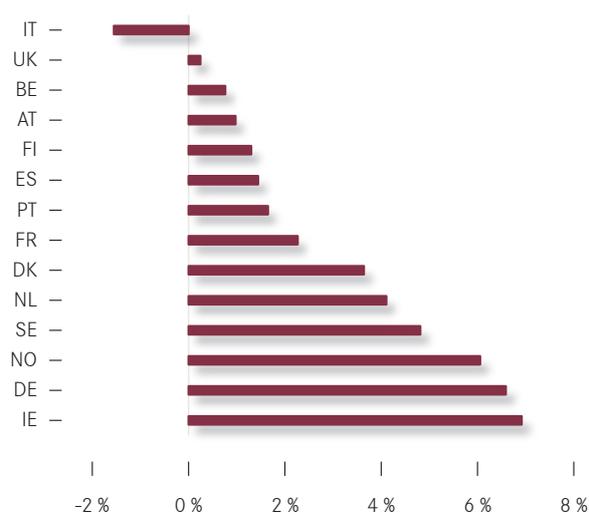
of the price growth seen in some of the European countries over the last quarters can be expected.

This recovery of the European housing markets over the last years was supported by the loose monetary conditions in Europe mirrored in a continuously declining average housing lending rate and a more or less constantly growing aggregated stock of loans for house purchases. With the memory of the housing market imbalances in Ireland and Spain, macro prudential regulation is increasingly focusing on these developments to avoid another crash on the European housing markets or an excessive indebtedness of households, with its negative consequences for bank balance sheets. Nevertheless, given today's low interest rates and the solid market fundamentals in most cities the demand for housing loans will remain high in the medium term and further growth can be expected, in line with an ongoing housing market cycle.

As a result of increasing house prices and imbalances between demand and supply housing construction has picked up substantially. Construction activities have risen significantly in Austria, Denmark, Germany and especially Sweden. At the same time, countries strongly hit by the global financial crisis such as Spain, Portugal but also Finland and the Netherlands show a noteworthy improvement, particularly in view of the long-lasting period of contraction or low construction level during the last five years. This overall development is a strong sign for an overall improvement in the residential industry and a sign that the market has realized the urgent need to provide additional housing in the urban regions across Europe.

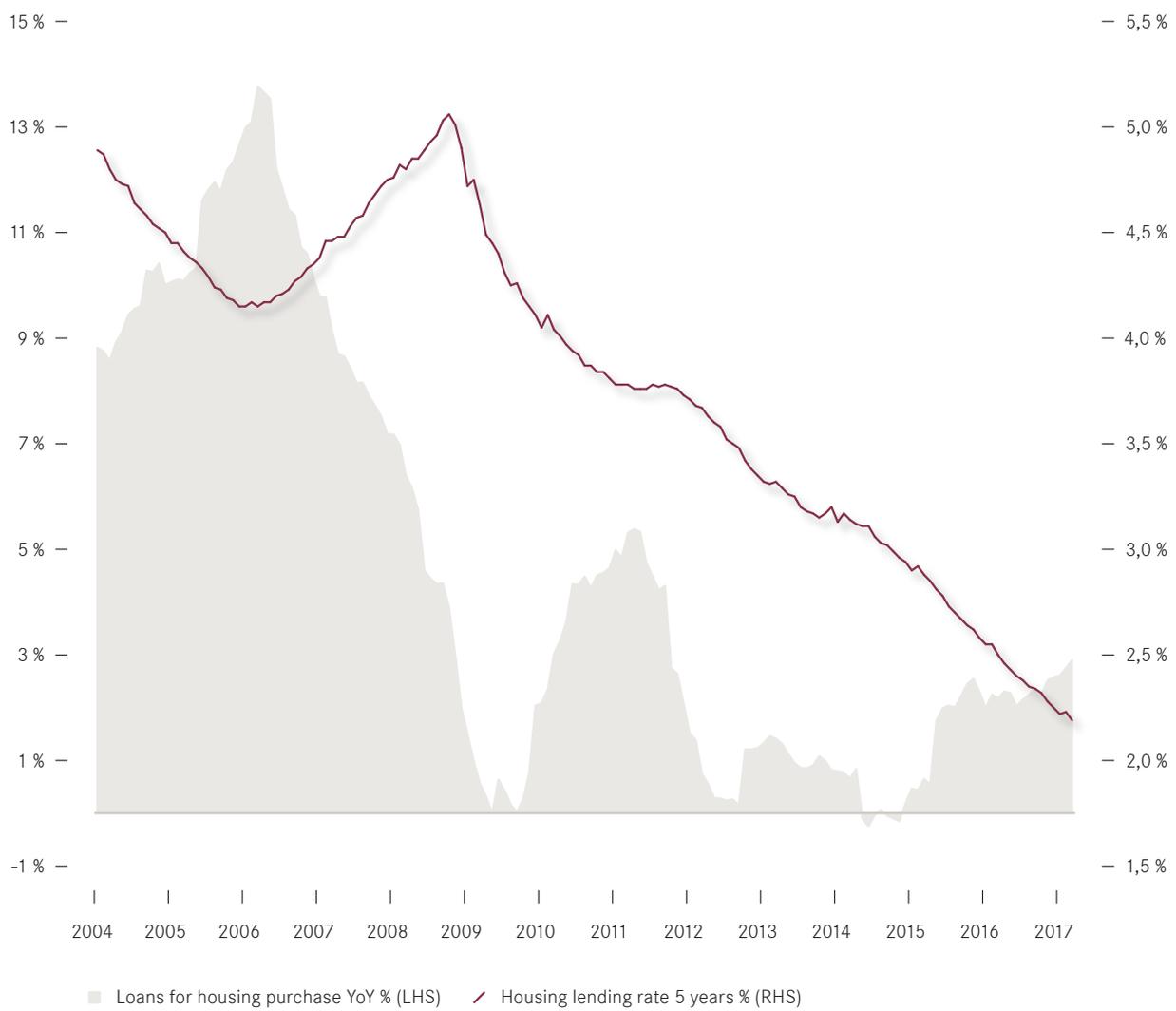
**European real housing price YoY % – country  
breakdown at Q2 2017**

House prices deflated by countries' HICP



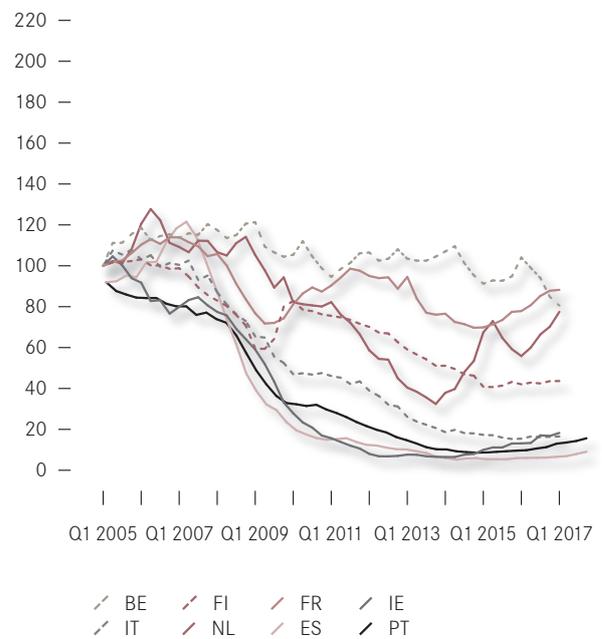
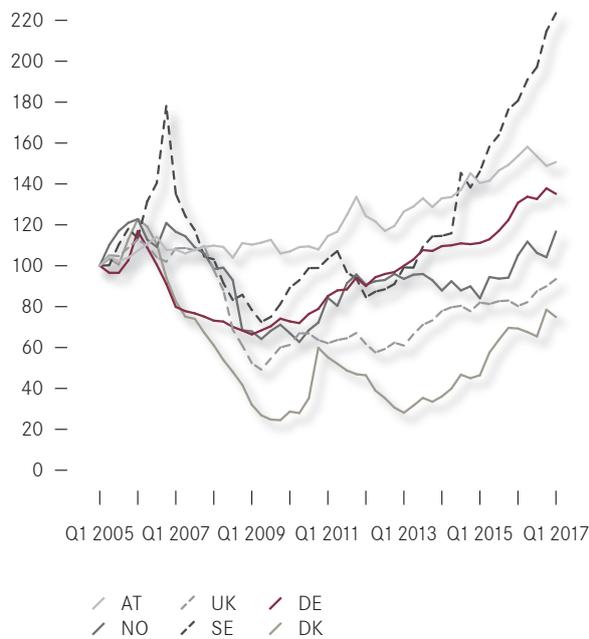
**Aggregated YoY-growth of loans for housing purchase and lending rate in the Euro Zone**

Aggregated data from ECB



**European housing construction trends across Europe**

Values from Eurostat, Q1 2005 = 100

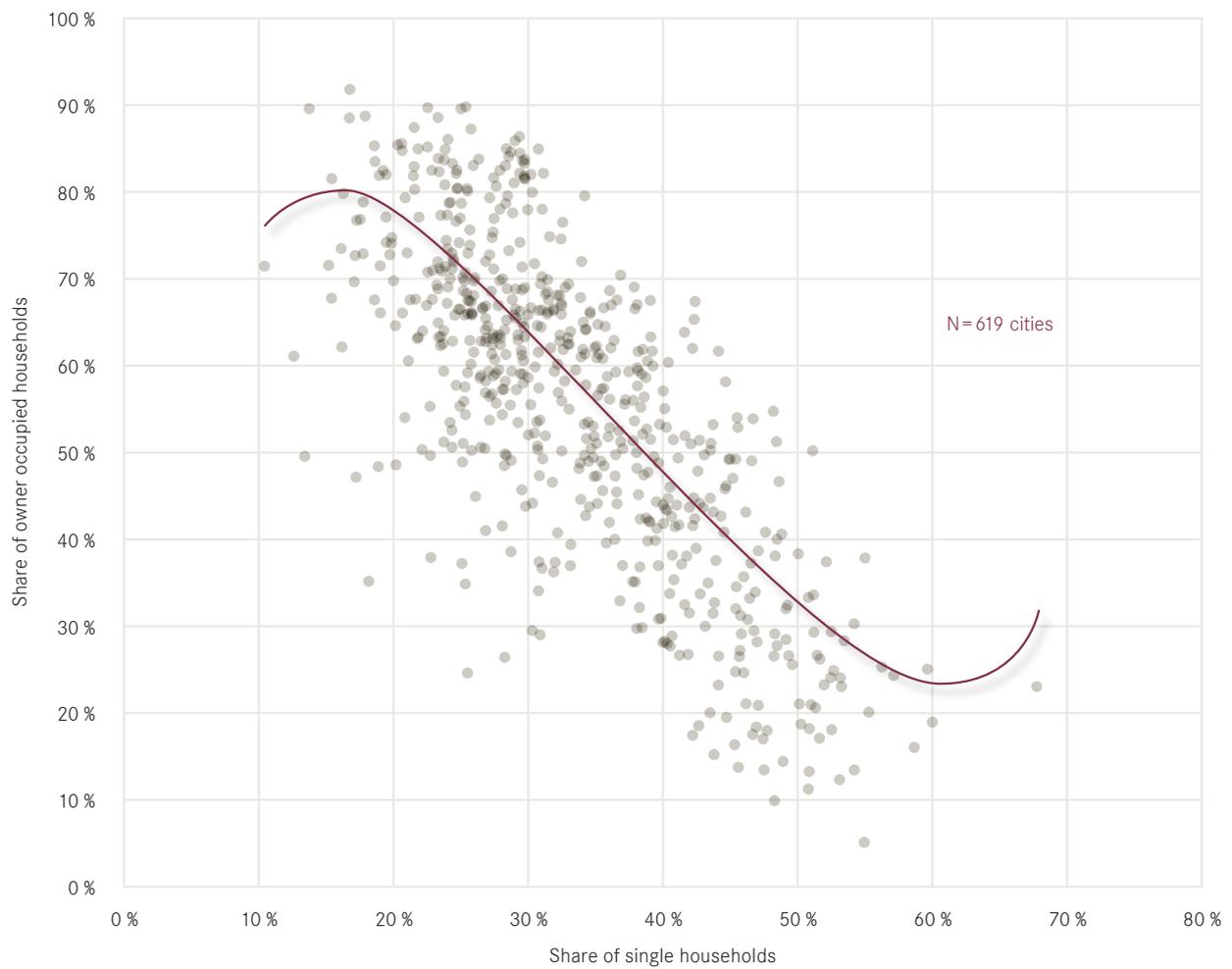


But again these country level developments are only a starting point for any institutional investor when developing his investment strategy. It is the information on city level that ultimately determines the cities to focus on and invest in. The ongoing urbanization has led the European Union to gather detailed data about the structure of cities to assess their particular situation. The data show a strong heterogeneity between the housing markets and the demographic composition on city level. More specifically, the owner occupancy rate and the share of single households

display a robust negative relationship. In other words, European cities with a large rental market hold a relative high share of single households and vice versa. Such insights on the composition of the cities are useful when developing investment strategies, especially for residential sub-segments like micro apartments or student housing, and for assessing the future opportunities and risks from an urban perspective.

**Market fundamentals of European cities**

Data from Eurostat on the urban audit as of 2016 or last



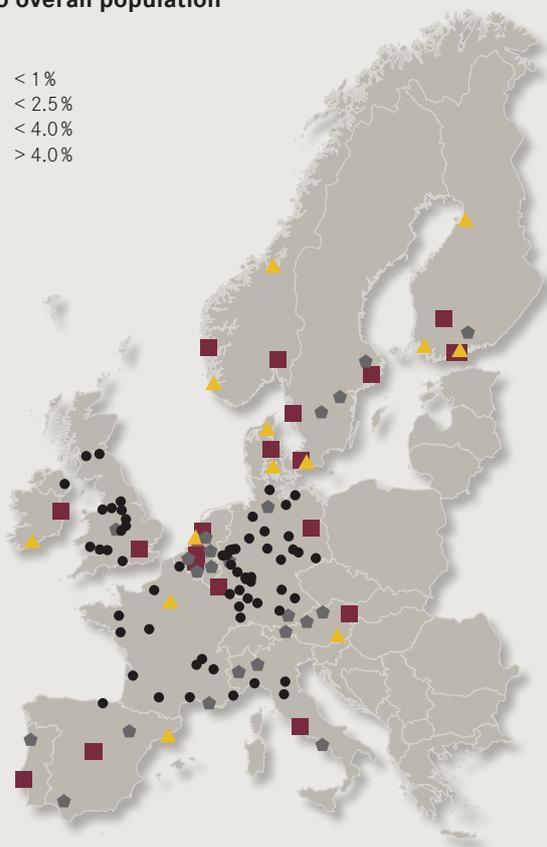
## European city ranking

Successful investment strategies in today's world are not about countries. In a globalising and urbanising world they are about regions or cities, as 56% of the world population live in cities today and by the middle of the 21st century these numbers will increase to seven out of ten people in the world. Despite this increasing importance of cities and the fact that cities

generate 80% of global growth and wealth, cities face major challenges arising from social divisions, economic inequality, general demographics and environmental issues. Understanding the drivers of what makes a city competitive and attractive is therefore a crucial element for developing an investment strategy as it determines the long term success of a city to attract businesses and people.

### Urbanisation: Share of main cities to overall population

- < 1%
- ◆ < 2.5%
- ▲ < 4.0%
- > 4.0%

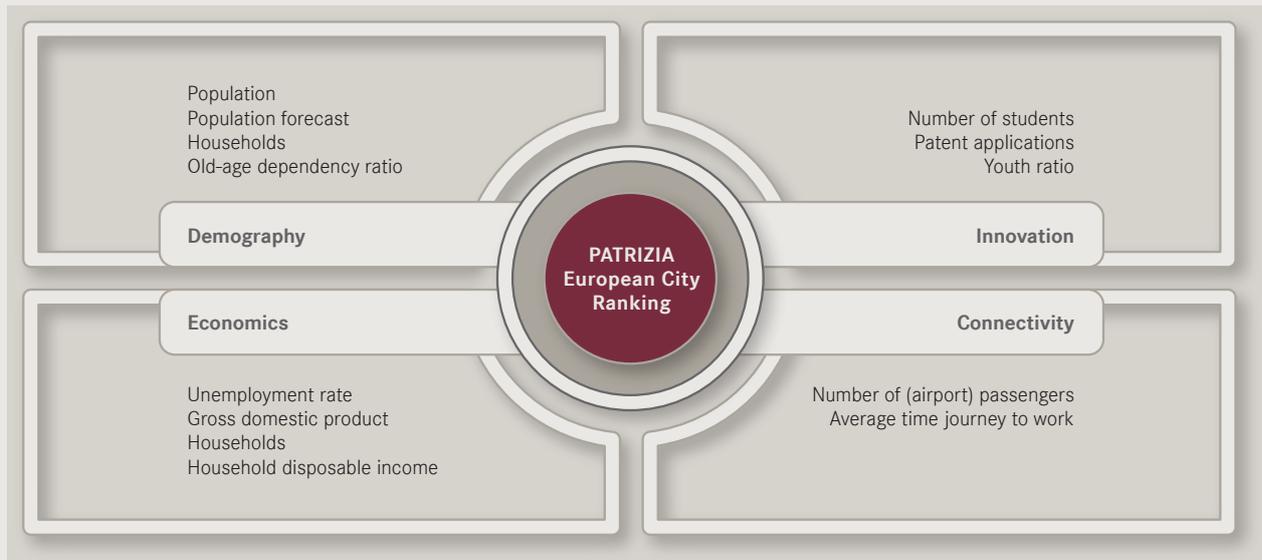


As PATRIZIA knows that understanding these drivers is a crucial element for long term investors, we developed a European wide city ranking based on demographic and economic aspects of each city as well as taking the innovative capacity and the connectivity of each city into account. To reflect the complex relationship of the four above-mentioned categories, a number of quantitative and qualitative indicators for each category were identified, followed by the identification of the cities for which all needed indicators are available through various sources. At the end PATRIZIA made a choice of 119 cities across Europe and weighted the data, resulting in rankings for the four above-mentioned subcategories of the overall ranking. In a next step the outcome of these four sub rankings were weighted again to form the final PATRIZIA European City Ranking.

But identifying the attractiveness of a city in a ranking is only the first step in developing an investment strategy according to specific risk return requirements of an institutional investor. For investors it is also important to know how liquid a certain investment market is, as this determines how fast capital can be deployed and how good active portfolio management activities can be executed while the fund matures or



Indicators of the PATRIZIA European City Ranking

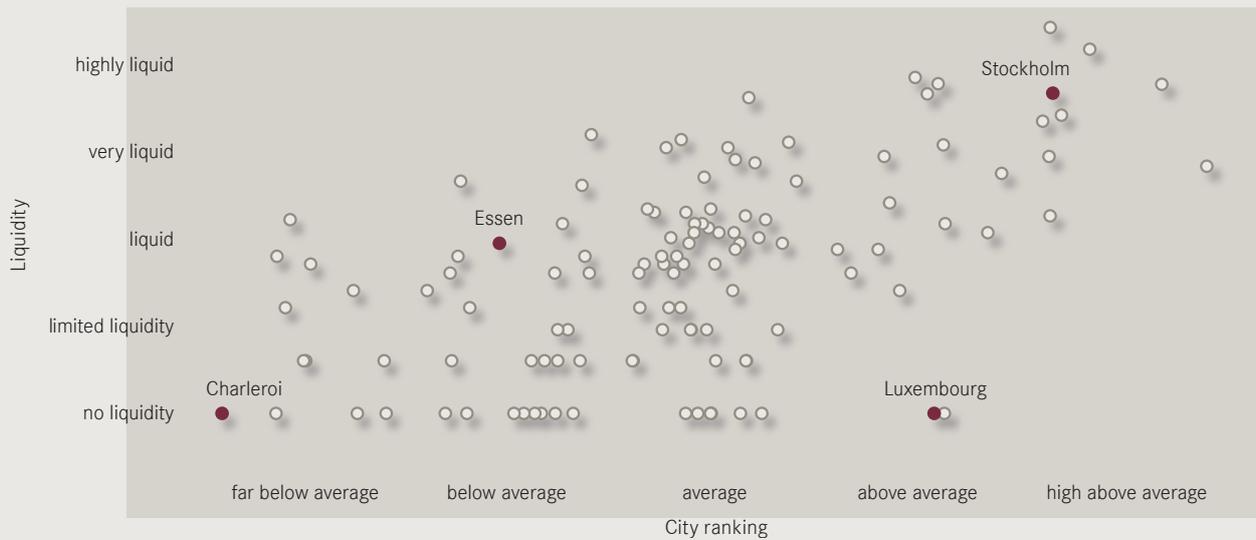


the investment requirements change. Consequently the PATRIZIA European City Ranking had to be augmented by a liquidity indicator based on recorded transaction activity, showing how active the institutional residential market in each city has been in the last four years. The private for sale market was excluded from this analysis, due to generally not being a relevant market segment for institutional investors. As such, it should not be reflected in the liquidity score calculated for each city, although it may be of interest for selected exit strategies like privatisation. Combining these two dimensions – ranking and liquidity – for the 119 cities analysed, the result is a 25 field matrix, enabling investors to segment the cities according to their long term attractiveness and liquidity to identify their target cities for a given strategy/risk-return-requirement. Looking at some city examples, the benefit of working with the matrix for development of a residential real estate strategy becomes obvious. The top right hand field shows cities like Stockholm which offers a

very competitive, dynamic and innovative economic environment and a very liquid institutional residential investment market. Consequently the city enables an institutional investor to deploy capital swiftly and execute active portfolio management strategies, but this is generally paid for with a low return environment for a pure buy-and-hold investor. On the opposite, in the lower left hand field, cities like Charleroi not only have a non existing institutional residential investment market, but also feature a far below average city attractiveness. Consequently these are the cities investors will not focus on and only invest in if an individual deal shows outstanding attractiveness, as they will generally not be part of a residential investment portfolio, especially if the investor has a long term investment horizon.

Not surprisingly, the more interesting cities can be found in the fields' in-between. An example is the city of Luxembourg. In a European-wide city comparison, this is a very attractive city, but it distinctively lacks

**PATRIZIA European City Ranking combined with market liquidity index**



liquidity when it comes to institutional residential transaction activity. Nevertheless, for long term investors such a city can offer the opportunity to benefit from the development of an institutional residential investment market, as the city will continue to attract businesses and people, resulting in an increased housing demand which will support the development of an institutional multi-family housing market to deal with the housing shortage. Consequently significant capital growth will compensate early movers for the risks they are taking in such an immature institutional multi-family market. On the other hand cities like Essen offer a liquid institutional investment market, enabling active portfolio management strategies to optimize the IRR of a given investment, as these cities in general should not be selected for a long term hold investment.

## Market performance

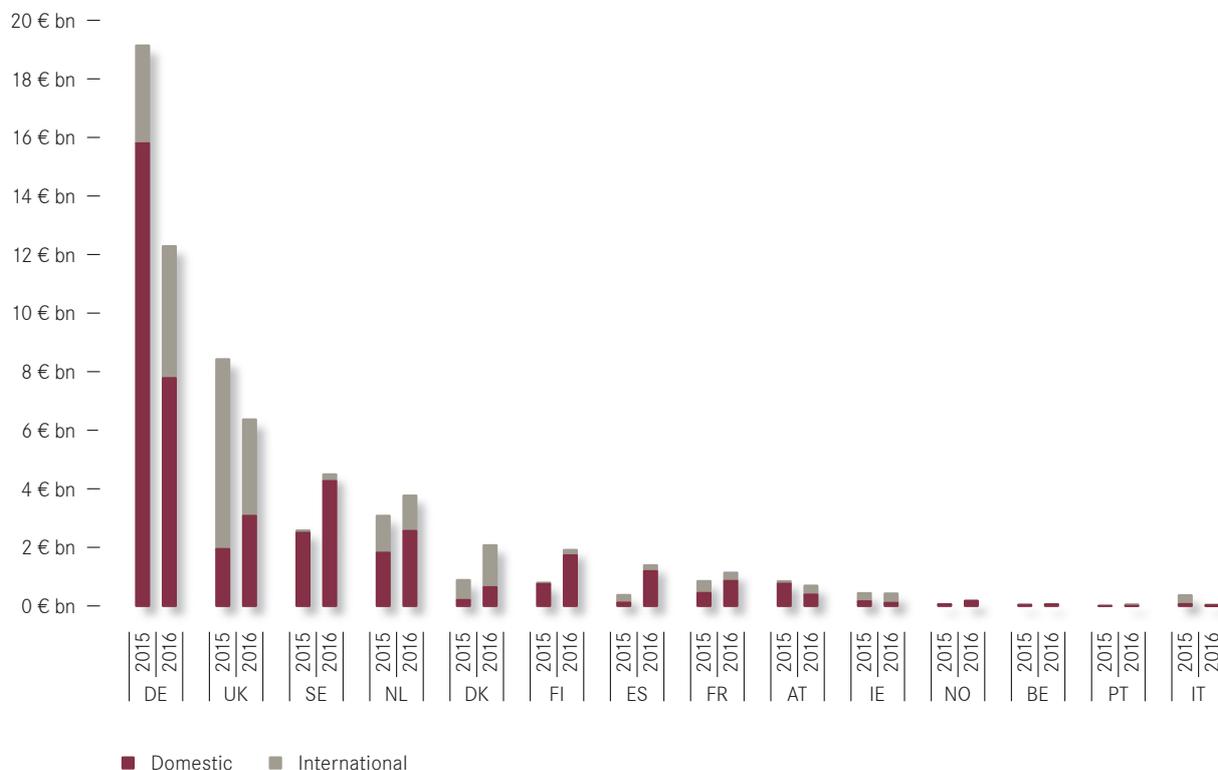
The solid performance of the European residential market fundamentals is accompanied by an ongoing increase in demand of institutional investors for residential properties. The interest of these investors is driven by the return stability residential investments offer and the resulting low downside risks as well as by the increasing liquidity of many formerly emerging multi-family markets in

Europe. As the favourable investment conditions are expected to persist in the medium to long term, the search for investable product – assets, portfolios or, developments - will continue and result in rising prices and declining yields across Europe.

Looking at the overall investment volumes in Europe Germany is the dominant residential investment

### National and international residential investments in European markets 2016

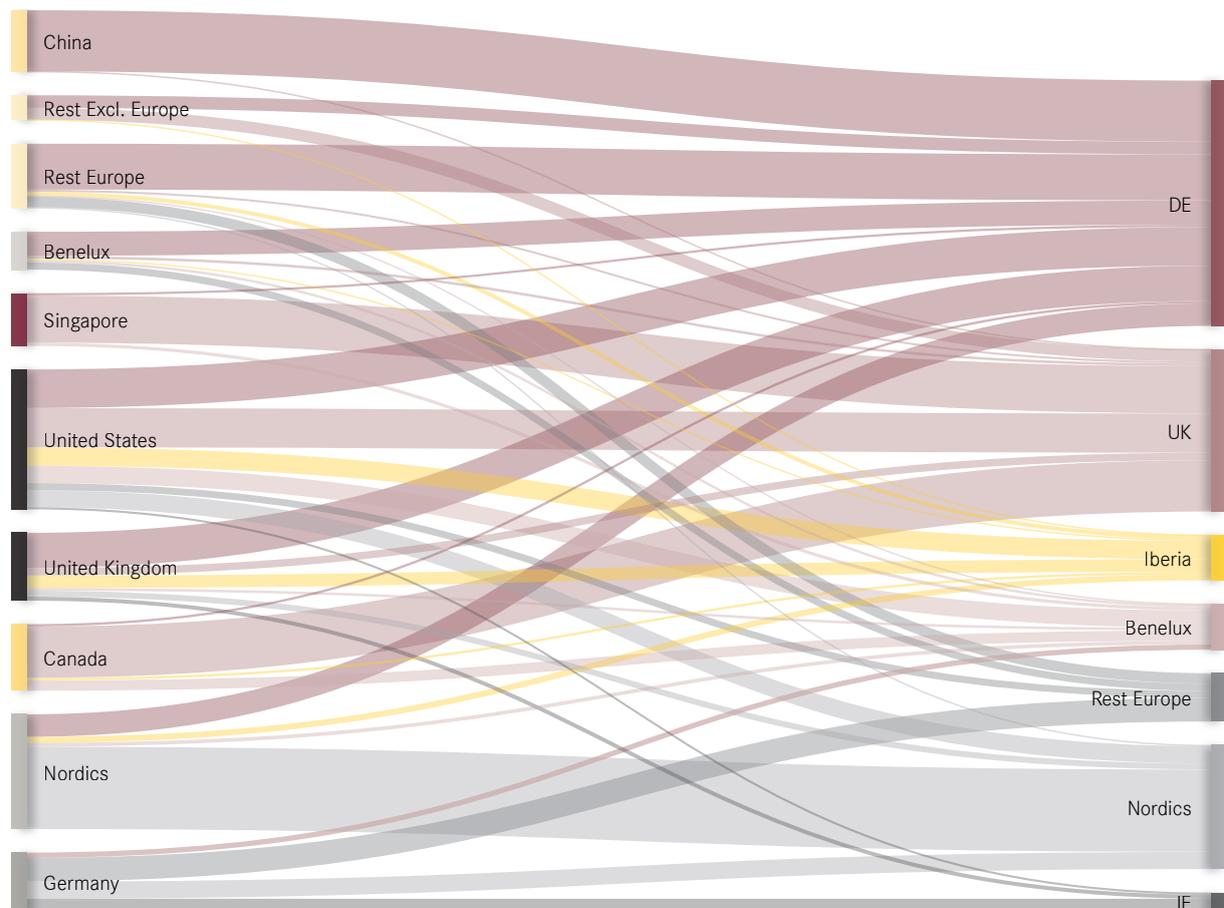
Aggregated data from RCA





**Cross-border and overseas investments in residential markets Q3 2016 – Q2 2017**

Aggregated data from RCA, overall volume 12,4 Bn. Euros



market in Europe, followed by the UK, Sweden and the Netherlands. Most of the cross-border investment capital in Europe focused in 2015 and 2016 on Germany, the UK, with a substantial allocation going to the Netherlands in 2015 and to Denmark and Ireland in 2016. From a liquidity point of view, Germany, the UK, the Nordics and the Netherlands are therefore the favoured markets for institutional investors. From the remaining countries France, Ireland and Spain and to some extent Belgium and Austria offer some liquidity

and might be attractive for investors with in longer time horizon as structural changes are underway in most of these countries, improving the liquidity situation.

The globalization of multi-family investment activities of institutional investors has continued during the last twelve months and lead to rising share of non-European institutional capital in the cross-border investment activity in Europe. Looking at the cross-border investment activity in Europe during the last 12 months,

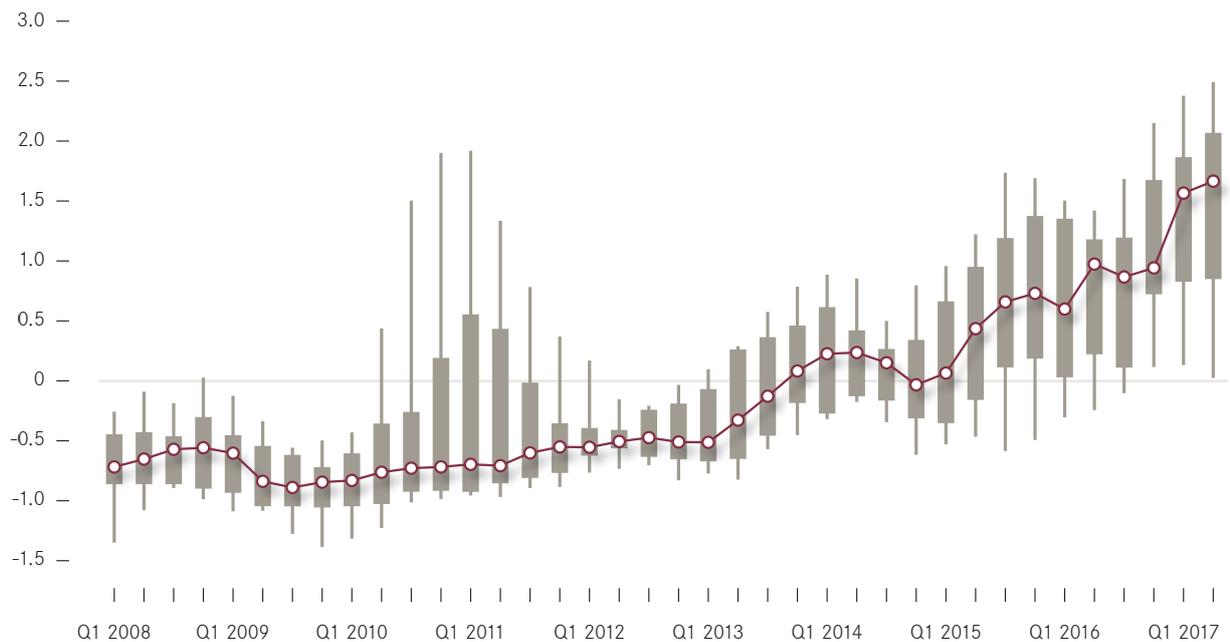
overseas capital and non-domestic European capital each accounted for round about 50% of all cross-border investments. In other words, cross-border residential investment activity in Europe is no longer dominated by European players, but increasingly shows a similar picture to the transaction activity overserved in the commercial sector, an additional proof for the professionalization and internationalisation of institutional residential investments.

While Germany and the UK remain the most liquid markets by size, the Nordics, Iberia and Benelux gained momentum in terms of cross-border and overseas investment activity. Two aspects are worth mentioning when looking at the cross-border capital flows: The Austrian and Italian residential markets only saw limited

European capital targeting these countries, to a large extent due to the high competition of domestic players and the low yields in Austria and the overall economic and institutional situation in Italy. In addition, the cross-border flows into the French residential market are exceptionally low when compared with the economies and markets of Germany and the UK as well as Ireland. This development might partly be a reflection of the uncertainty preceding the French elections, but it is also a result of the institutional regulatory framework of the French residential market, demanding a lot of local knowledge to be successful. In this respect the observed cross-border flows are a reflection of the complexity of the institutional framework and the transparency, professionalization as well as the competitiveness of the respective national residential markets.

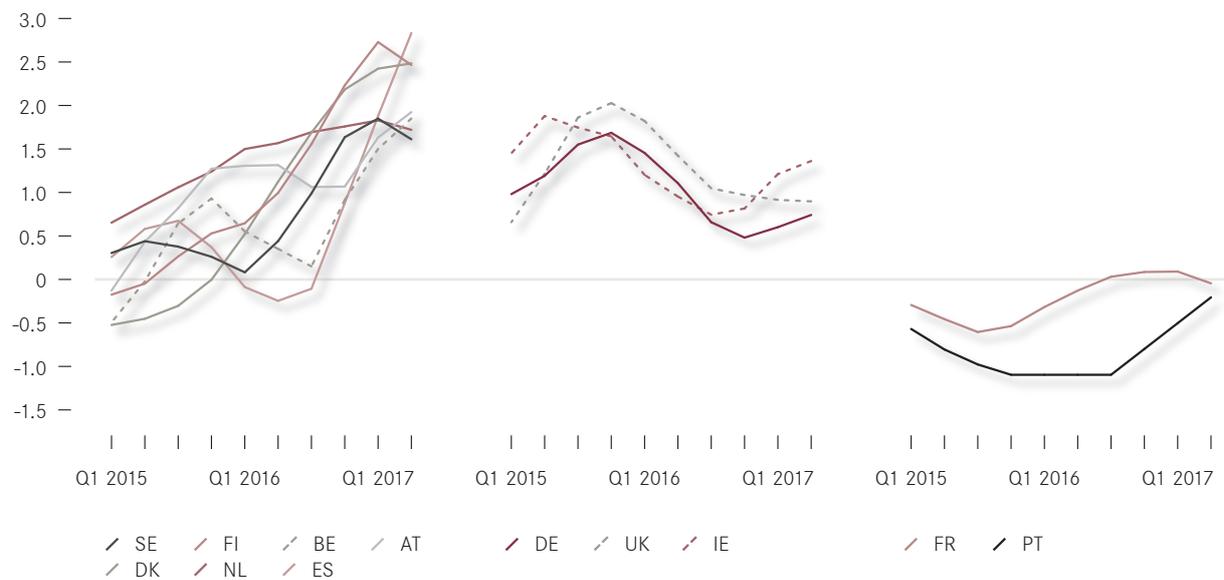
**12-month rolling residential investment cycle across Europe**

Z-Scores correspond to normalized values and show the market-size-adjusted cyclical development of investment volumes across Europe. The line represents the mean value, the boxes correspond to the quantiles 25% and 75% and the outer vertical lines correspond to extreme values.



**European rolling residential investment cycle – country breakdown – normalized values**

Z-Scores correspond to normalized values and show the market-size-adjusted cyclical development of investment volumes across the countries. The line represents the mean value.



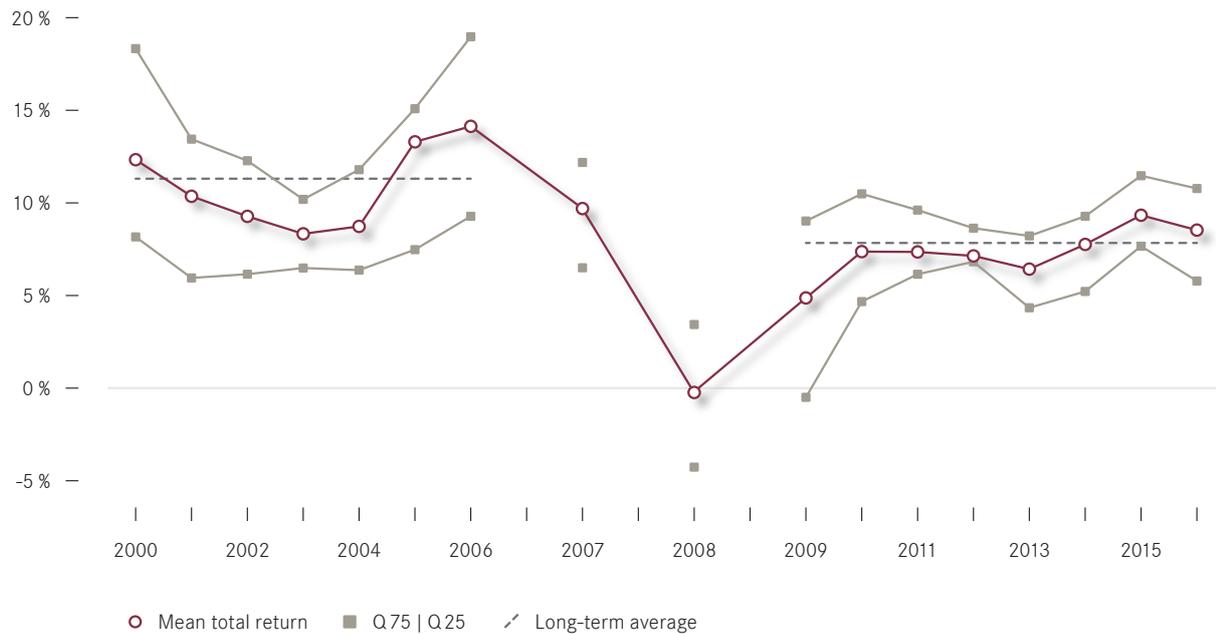
Real estate is currently one of the most sought after investment products by European and global institutional players. It is therefore not surprising that investment volumes pick up, especially in view of the current low yield environment for government bonds, for low risk investments like residential. During the course of the last decade the aggregated volume of residential investment has grown continuously, reflecting the increasing interest of institutional investors for residential due to its diversification potential in institutional real estate portfolios. Consequently, at the end of the second quarter 2017, the European investment cycle shows the highest appetite for institutional residential products since records began in 2008, mirroring the strong institutional appetite for this asset class.

When analysing the investment cycles on country level, a mixed picture emerges. The results mirror on the one hand the strong growth of institutional demand for

residential in the Nordics, Benelux and Spain over the last three years. On the other hand, the results confirm the ongoing high interest and the strong momentum of the markets in Germany, the UK and Ireland, as the slowdown during 2016 is more a result of a lack of product than a declining interest in these markets, while the markets in France and Portugal are lagging the overall European investment cycle significantly.

The total return performance of residential investments has stabilized on a comparatively attractive level. Since 2009 the total return of residential investments in Europe has stabilized around a level of about 7.5% p. a. Although this level is significantly below the pre crisis level, today's returns are less volatile and more predictable as they are more dependent on income return instead of capital growth. A development highly favoured by institutional investors and also a reflection of the professionalization of the residential markets across Europe.

**Total return performance of residential investments in Europe**

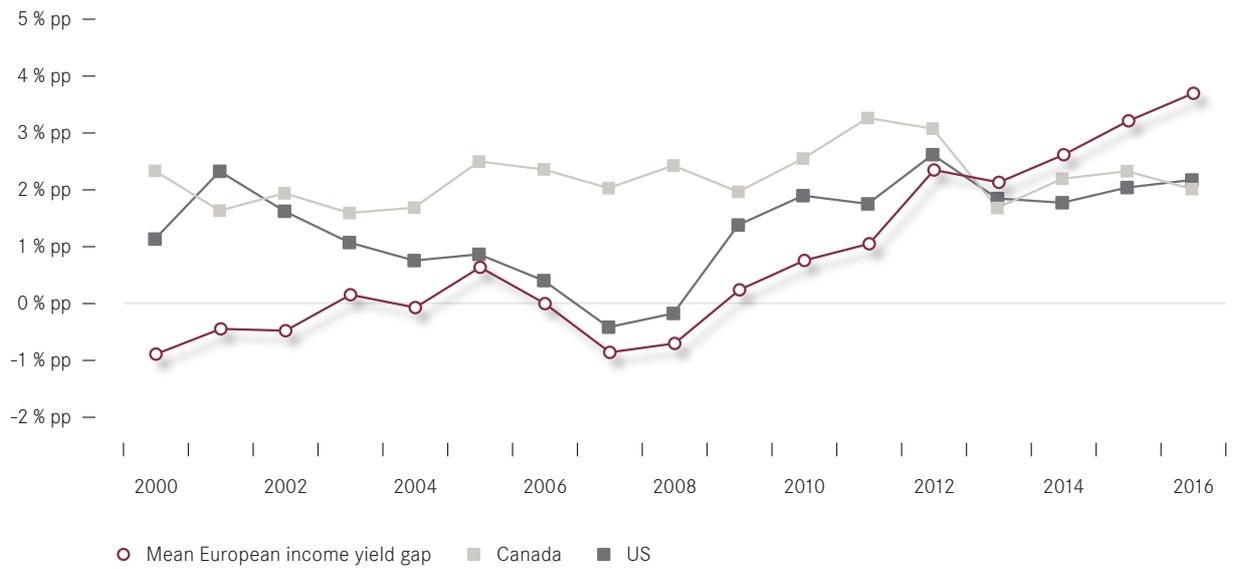


In today's low yield environment the performance of residential investments has also to be viewed from a different, alternative opportunity perspective. With the stability and security of the income return component as a major driver of the attractiveness of residential investments, it is worth taking a look at its spread with respect to the respective ten year government bond yields. The estimated yield spread measures the attractiveness of residential investments relative to risk free investments, with similar cash flow stability. The results show a strong increase in the relative attractiveness of European residential investments since the end of the global financial crisis. The income return spread has climbed to 300 BP above government bond yields. In other words, investors allocating capital to residential investments are rewarded with a premium of at least 300 BP relative to government bonds for the liquidity and regulatory risks they are taking, i.e. a healthy risk compensation in historical perspective. Also in

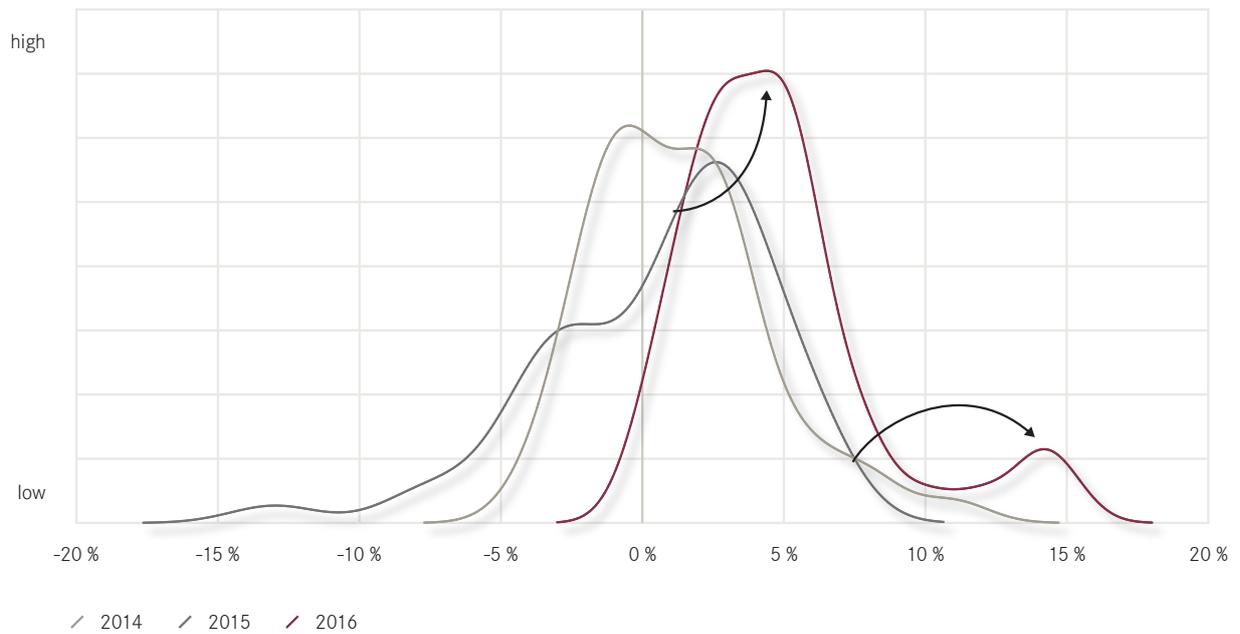
an international perspective, the relative attractiveness of European residential assets in comparison with American or Canadian residential assets has increased. Today the income return spread of European residential investments has not only surpassed the level seen in the US and Canada, Europe has also seen a much more pronounced increase in this spread, compared with the US and especially Canada, where the spread remained fairly stable over the last decade.

This attractiveness of the income return highlights the importance of the rental performance for the overall investment return. In this respect, the residential markets across Europe have gained substantial momentum over the last years due to the ongoing imbalance of demand and supply in the cities. This imbalance is one of the main drivers of rental growth as the supply of housing is unable to cope with the rising household demand due to migration and slightly

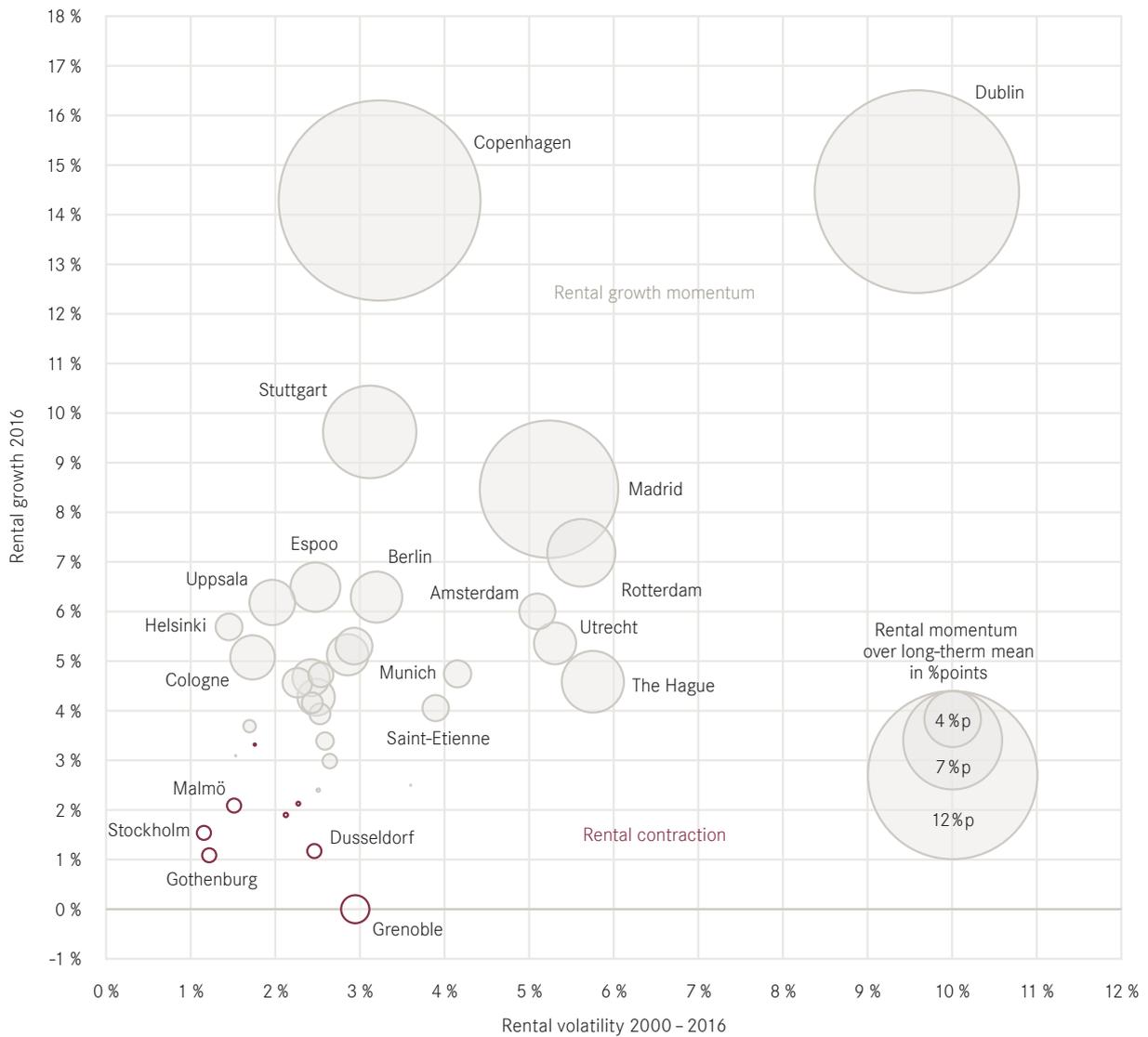
**Residential income return spreads on 10-year-government bond yields**



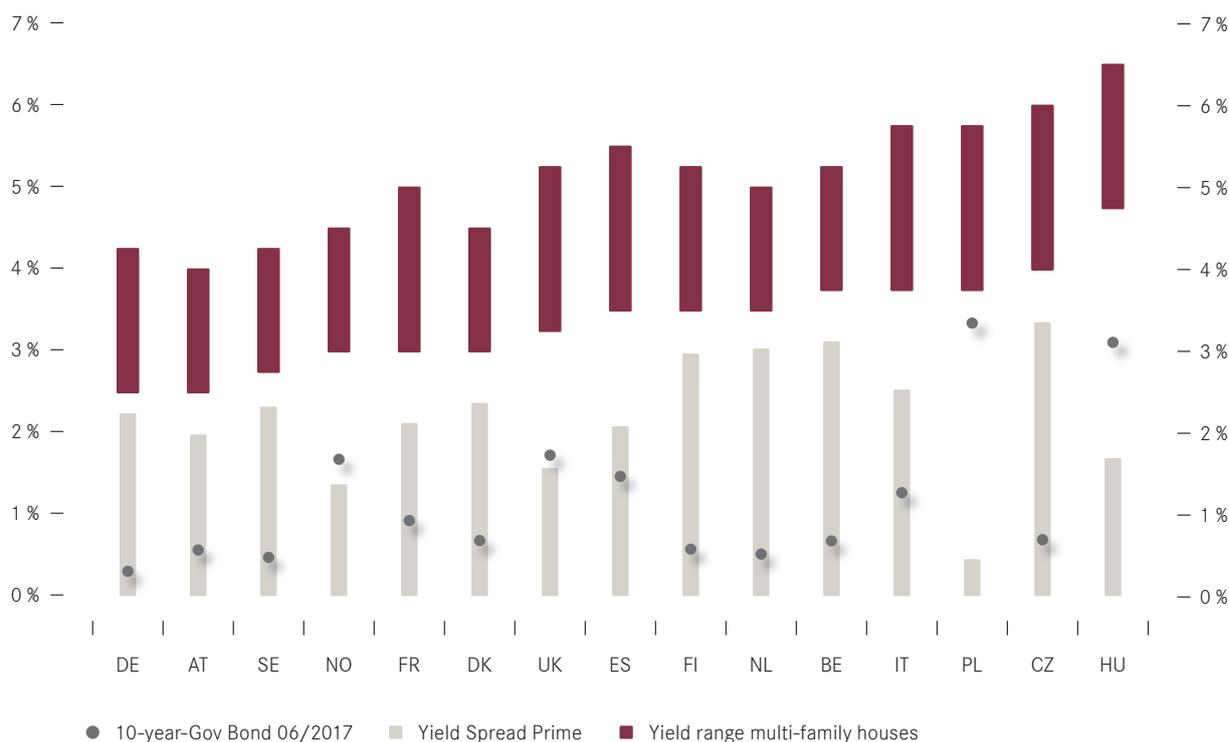
**Distribution of rental growth of European cities**



Rental growth, long term volatility and current rental cycle of selected cities



Gross initial yields for multi-family housing vs. 10-year-government bond yields in Europe



increasing fertility. This development can be seen across Europe in all major urban centres as well as their surrounding areas and results in a strong rental dynamic. Although this trend can be observed in nearly all major cities across Europe, the development over time and therefore the volatility differ noticeably between cities. Cities like Dublin and Copenhagen lead this development with strong rental growth in 2016 which is also very clearly above the long term average due to a very slow supply response to the increased demand. In the middle of the European city sample the Dutch cities can be found, showing some outperformance of the long term average rental growth due to the rental market deregulation in the last years that increasingly can be seen in the free rental

market. Only three cities – Gothenburg, Stockholm and Grenoble – saw rental growth in 2016 that was below the long term average, and in the case of the Swedish cities this has to be attributed to regulation and not to market fundamentals. Overall this analysis illustrates again the importance of the understanding of the institutional framework and the local demand drivers in running a Pan-European residential portfolio.

An analysis of the rental increases in the different cities on a yearly basis over the last three years confirms the general acceleration of rental growth across Europe. From 2014 to 2015 and on to 2016 the rental growth distribution shifted to the right. But it is not only a shift to the right that can be observed,

also the distribution of rental growth has changed. A second peak at the higher end of the rental growth spectrum emerged, representing the highly supply constraint markets in cities like Dublin or Copenhagen with rental growth in the double digits. With the supply side reacting to these developments it has to be seen, if this change is permanent or only temporarily.

Overall this rent and price development resulted in a more or less stable yield range for institutional multi-family housing compared with 2016. Only a slight sharpening at the prime end could be seen in markets like the UK and Denmark which saw heavy investors interest in the last 12 month. A general trend currently observed is the decrease in product availability often accompanied by a deteriorating asset or portfolio quality which makes the deployment of committed capital in good quality multi-family housing increasingly challenging if local market access is missing. Nevertheless and despite the slight increase in government bond yields compared with last year, the spread over 10-year-government bonds for prime buy and hold multi-family investments remains healthy at around 200 to 300 basis points in most European markets.



## City level development of rents and prices in Germany

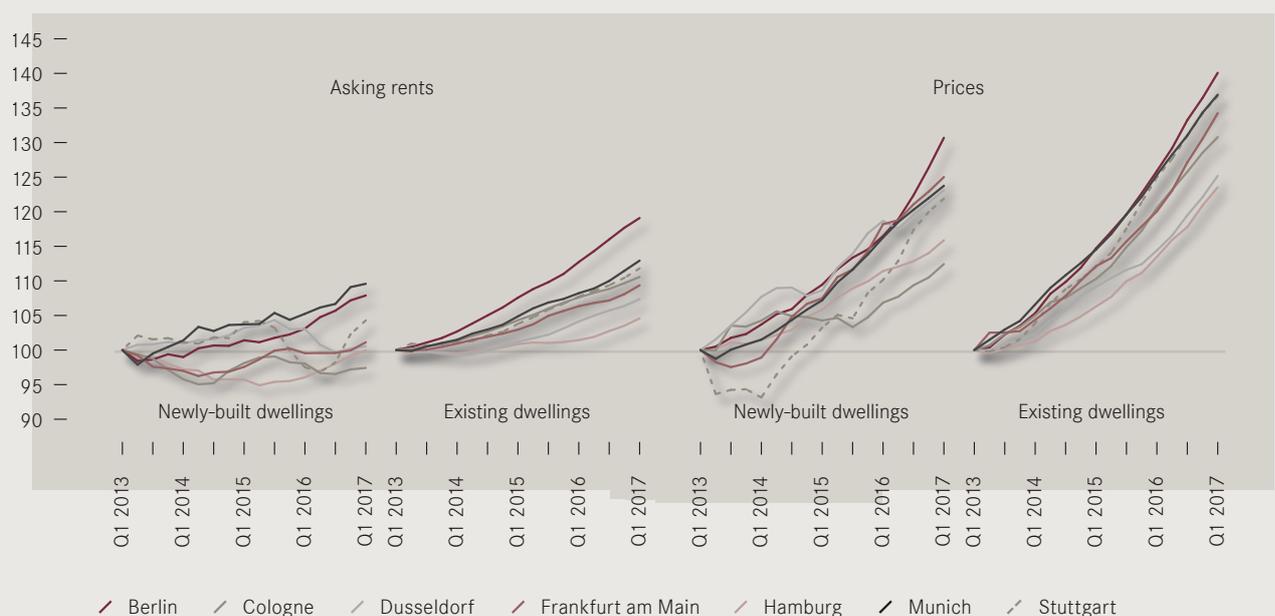
The German housing market has fundamentally changed over the last years. The strong macro fundamentals attracted a significant amount of foreign workers into the main German cities fueling the demand for housing. At the same time, the German housing stock has expanded accordingly. Since this has resulted in significantly rising prices and rents, questions surrounding the stability of the German housing market have been raised.

The German housing market shows two particularities in a European comparison that make aggregated empirical market analysis, monitoring and forecasting

challenging. Given the federal structure, the German housing market is polycentric meaning that economic production, population and construction are distributed across several more or less equally important cities. Furthermore, as the owner occupied sector is not the dominating tenure like in most other European countries, any city level analysis has to consider two different equally important segments within each the city, a rental segment and an owner occupier segment. As these segments differ in importance between cities, the German housing markets is prone to show diverging and converging patterns in prices and rents over time and between cities.

### Development of quality adjusted rents and prices by market segment in the top seven markets in Germany

Hedonically adjusted property price indices based on asking rents and prices





**Development of quality adjusted rents and prices by market segment in secondary markets in Germany**

Hedonically adjusted property price indices based on asking rents and prices



The identification of regional spillovers between the cities is carried out traditionally by hedonic modeling techniques as they are able to consider local, regional and spatial patterns in the formation of prices and rents. The employed hedonic analysis in this study captures the development of both rents and prices in 43 German cities with an emphasis on the effect of building age on prices and rents. This differentiation allows the identification of regional patterns in the dynamic of rents and prices over time. The analysis shows that the German housing market displays considerable diverging patterns in rents and prices across different city groups.

When looking at the development in the German top seven markets quality adjusted rents for newly built dwellings show a flat or even temporarily negative development during the last four years. Only two of the seven cities, Berlin and Munich, have seen aggregated rental growth of more than 5%. This indicates that most of the headline rental growth reported in the top seven German cities is due to changing quality of the units offered. In contrast, prices for new built units sold show a significant price increase over the same period, reflecting the increased ability and willingness to buy from certain parts of the German population. In the segment of existing dwellings no marked differences

between the growth path of prices and rents between the top seven German housing markets can be seen. A similar development in the new built segment can be seen in the residential markets of secondary cities when looking at the rental market, while prices in some of these cities have also seen temporarily negative growth rates. In contrast, the rent and price momentum of existing dwellings is less pronounced in the secondary cities and some of these cities have even seen temporarily negative rental and price growth in 2013.

These developments indicate the need of a thorough understanding of the drivers of each single market to assess the risks and opportunities of investments in

existing stock or developments. In general residential investments have shown to be inflation-protecting investments, but the analysis has shown that rental growth – contributing significantly to the income return component – is highly dependent on the selected city and the residential market segment under consideration. In other words, investment strategies targeting new developments or asset repositioning via refurbishment might expect higher rent levels in comparison with investments in the existing stock, but investors have to expect less rental growth in these assets in comparison to investments in existing stock. Consequently these differences have to be considered on city level when developing strategies and business plans.



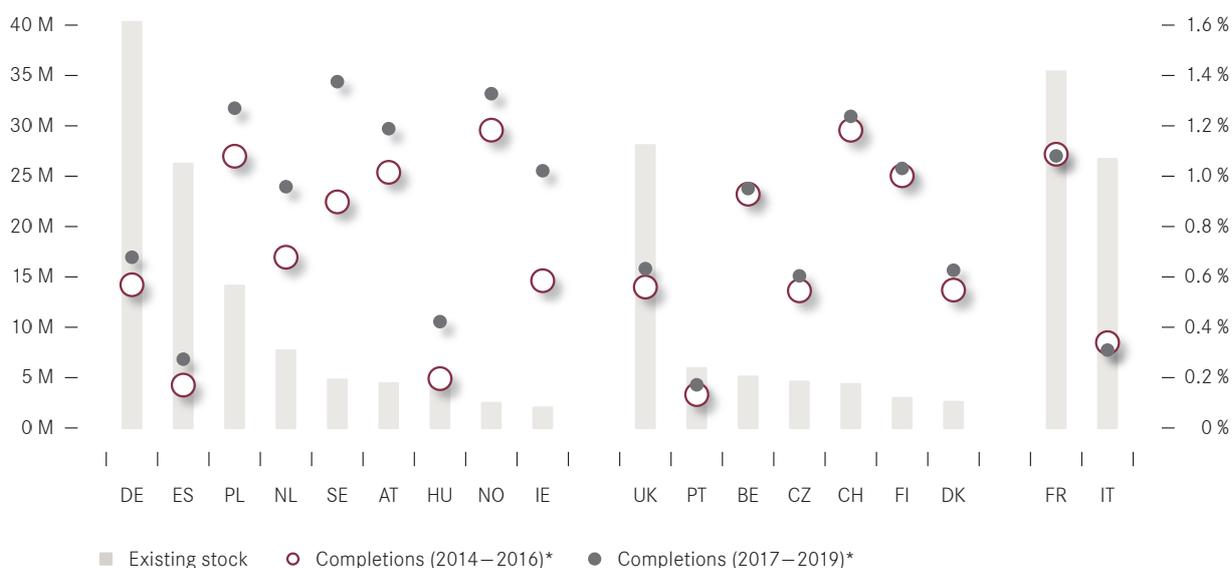
## Outlook and strategy

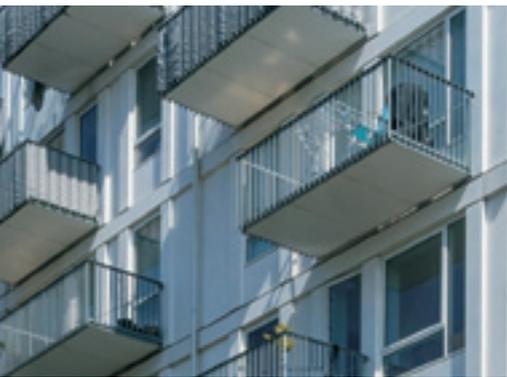
The increasing internationalisation of the European residential markets in a ‘lower for longer’ environments is the fundamental shift currently under way and this will continue in the coming years. At the same time the advancing urbanisation process poses huge challenges for the urban areas in Europe as most cities are unable to deliver the needed supply to house the increasing population. As a consequence rents and prices will continue to increase especially at the lower end of the rent and price spectrum, albeit with a decreasing pace as affordability issues are increasingly arising. For institutional investors this results in a solid environment for multi-family housing investments, with a continuous increase in rental income and capital values.

Consequently classical buy-and-hold multi family housing investing will remain an interesting ‘bond-like’ stable income generating investment alternative for institutional investors. However, investors need to keep in mind that cash-flow security and stability come at the price of ever declining yield levels and it requires a thorough understanding of the different national and regional institutional frameworks to optimize the cash flows in a European wide multi-family housing portfolio. In such an environment institutional investors are well advised to monitor the regulatory developments closely to assess the possible consequences of any politically discussed legal changes on rental growth and cash flows in a timely manner enabling a

### Completions and existing stock

\*as % of existing stock p. a.



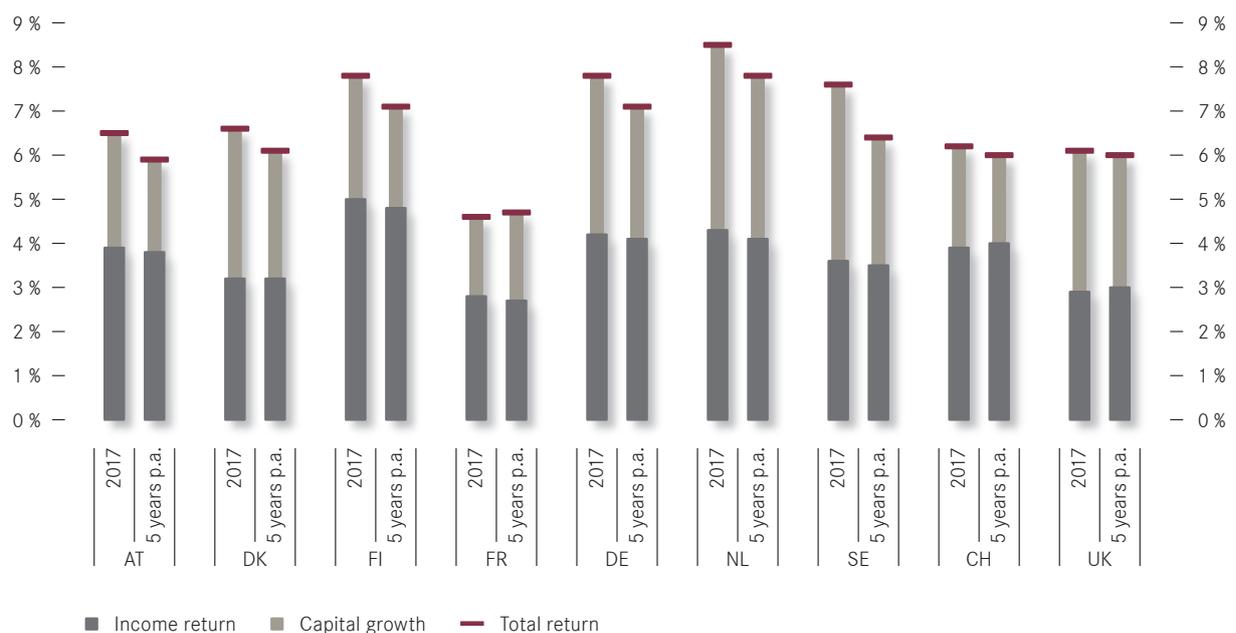


continuous adaption or optimization of their investment strategies. Additionally institutional investors need to be aware of the fact that risk-returns profiles have been changing over the past years. While the income component remains the dominant source of return across Europe, the importance of capital growth as a driver of total return has increased considerably over the past years. In line with the longer term trend of declining yields in the government bond market due to the QE measures by the central banks, the yields and ultimately income returns on the European residential markets will follow this trend in delayed form. As a result, the expected income returns in coming years will be lower than any historical 5 or 10 year average.

At the same time continued high institutional demand for multi-family assets and ongoing rent increases will generate significant capital growth in the coming years, as most valuations of existing assets are following the

overall market development with a considerable time lag. Consequently, capital growth should figure more prominently in any calculation of expected returns for buy-and-hold portfolio strategies as market fundamentals suggest that the underlying drivers of this capital growth are here to stay for some time to come, even if regulatory changes might limit rental growth in some heavily undersupplied rental markets with serious affordability issues. Across Europe this will result in capital growth between 2.0% and 4.0% p.a. in the coming five years result, accounting for up to 50% of the expected total return in some countries in a single year. In general buy-and-hold multi-family housing strategies will generate a total return in the range of 6 to 8% p.a. in the next five years in Europe. Given the high competition for traditional buy-and-hold residential investments and the declining income returns, institutional investors are increasingly targeting value-add activities – like buying under rented

**Total return forecast**



properties and bringing them to market level with the corresponding consequences for income and capital growth or wholesale-to-retail conversion of well-located buildings in economically attractive agglomerations – in order to increase the income component. As these approaches require a solid understanding of the markets under consideration, especially in regard to institutional framework, and often need a medium term time horizon to be realized only institutional investors with a longer investment horizon are actually able to execute this type of strategies. As long as this is taken into account residential value-add strategies can generate substantially higher returns compared to classic core strategies without incurring significantly higher risk.

In addition, investors with a short to medium time horizon and higher return requirements are targeting the development sector. The reason is that the construction activity in the major European urban areas generally remains on a low level and falls short of what is needed to balance the market, offering higher return investment opportunities in the built-to-rent and built-to-sell segment. Even in a former crisis country like Ireland, the capital city of Dublin is experiencing a severe housing shortage, offering development opportunities with an attractive risk-return relationship as long as the property features good access to public transport. Looking at the major European markets, Germany and the UK, they still offer a very good environment for development activities despite the fact that construction activity is slowly increasing in both countries. Assuming a lifetime of 100 years, building activity in Germany and the UK of about 0.6 to 0.7% of existing stock p. a. does not compensate for the age-related decrease in housing stock of 1% p. a. (0.5% p. a.)

and is unable to mitigate the housing shortage in urban centres of both countries. A similar situation can be seen in Denmark and to a lesser extent in the Netherlands where construction activity will increase significantly going forward. From a country level perspective the situation looks much more balanced when looking at past and expected construction activity in countries like Norway and to a lesser extent Austria, as these countries see construction continuously running at levels of 1.0% or more of existing stock. But again, a continuous urbanisation in these countries nevertheless results in supply constrained residential markets in most urban areas.

**Country abbreviations:** AT = Austria, BE = Belgium, CA = Canada, CH = Switzerland, CZ = Czech Republic, DE = Germany, DK = Denmark, ES = Spain, FI = Finland, FR = France, GR = Greece, HU = Hungary, IE = Ireland, IT = Italy, JP = Japan, LU = Luxemburg, NL = Netherlands, NO = Norway, PL = Poland, PT = Portugal, SE = Sweden, UK = Great Britain, US = United States

**Abbreviations of German federal states:** BB = Brandenburg, BE = Berlin, BW = Baden-Württemberg, BY = Bavaria, HB = Bremen, HE = Hesse, HH = Hamburg, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine Westphalia, RP = Rhineland-Palatinate, SH = Schleswig-Holstein, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, TH = Thuringia

**In essence the following sources have been used for the report:** AFME, BBSR, BIS, CECODHAS, CIA, Commercial Mortgage Alert, EIU, empirica, Euroconstruct, European Mortgage Federation, Eurostat, ECB, INREV, IPD, IMF, JLL, KTI, National statistical agencies, OECD, Oxford Economics, RCA, Regiograph, Reuters, UN, various Real Estate Agents, vdp

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