

# Q1

## *Think* **European cities**

Trends and tactics  
2019 outlook

# Economic dashboard

## *Trade tensions dent economic momentum*

Eurozone growth was just 0.2% in Q3 2018, the slowest in five years. Slower industrial output and investment contributed to the soft economic patch, whilst the household sector continues to make only modest gains. The standoff between Rome and Brussels over the 2019 Italian budget and stuttering global growth suggests little confidence of a rebound in Q4 2018. The lack of contagion in the bond markets from the events in Italy is positive, but any notable deterioration of the Eurozone domestic economy would be a blow to growth forecasts and the European Central Bank's (ECB) proposal to end QE purchases in December. Should inflation undershoot, the ECB could be persuaded to consider additional measures to support the Eurozone economy. Under this scenario, the growing divergence between the US and the rest of the world's central bank policies could start to spook global investors and influence capital flows. The escalation of political risks globally reiterates our belief that monetary policy in Europe and the U.K. will remain extremely prudent. Talk of glacial rate rises in the U.K. is dependent upon a deal being passed by Parliament and agreed with Europe, which looks increasingly challenged. However, revised lower long-term economic trend rates are also a reflection of changing demographic and productivity trends indicative across many developed economies. These are shaping future long-term borrowing rates and, consequently, capital flows across asset classes. A demand-led shock, amplified by technological or structural change, is the biggest concern for real estate investors as the traditional causes of corrections, namely excessive debt or a supply glut, are currently not present.
















































*Growth momentum has slowed, downside risk for exports is materialising.*

*An inflation up-tick will not alter the cautious ECB approach.*

*Italian budgetary events should not undermine the region's growth outlook.*

*Domestic demand driven by rising employment offers a potential upside.*

# Economic dashboard *continued*

Market health	Growth	Retail sales	Job growth	Inflation	Bond yields*
Austria					
Benelux					
Britain					
France					
Germany					
Italy					
Nordics					
Poland					
Spain					

Source: Oxford Economics, Nuveen Real Estate, Q4 2018.

\*Bond yields symbols are illustrative of whether they are supportive for real estate pricing.

# State of play

## *Politics undermining the region's strength*

Political uncertainty and rising trade tensions are undermining exports and investment, and will temper near-term output. The complexity of the UK talks with Brussels and the lengthy transition period, should an agreement be achieved, will deflate UK prospects. Jittery financial markets are illustrative of widespread political uncertainty, particularly in the UK and Italy. Another factor is the US monetary and fiscal policy stance, which is elongating the current financial cycle and inflating asset prices.

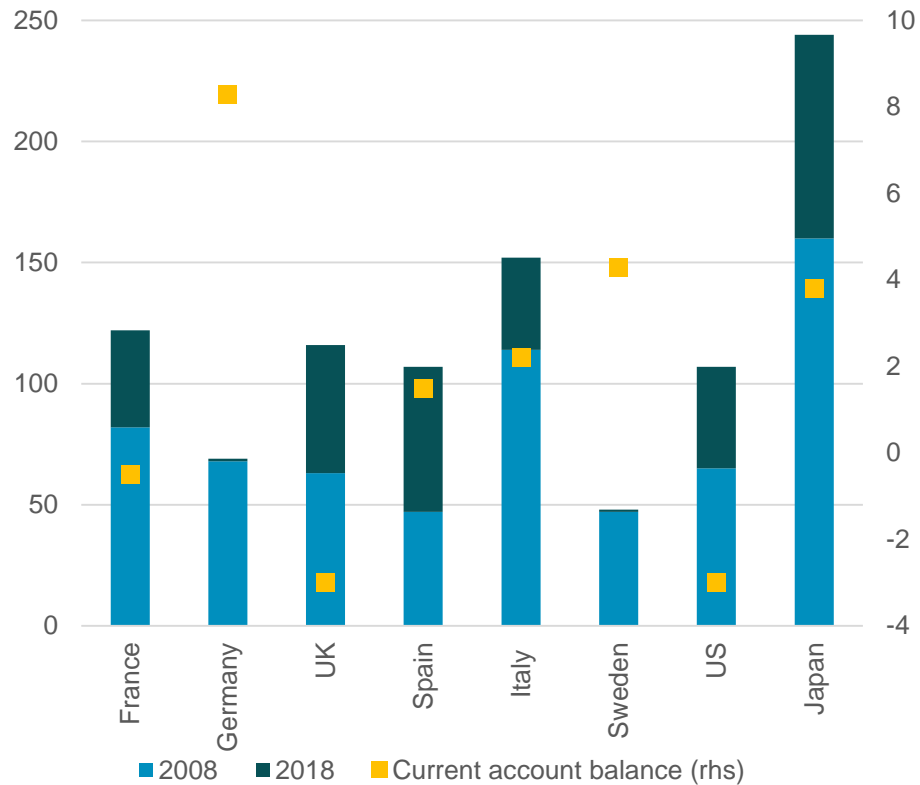
Contrary to 2017, national dynamics across Europe are starting to show an increasing divergence. Spain, Sweden, Austria, Ireland and Poland show relatively strong and steady growth. France and Benelux are also performing well, meaning the largest concern remains for the Italian economy. Here, the economy has failed to grow for the first time in four years and fears of permanent stagnation are rising, given the current political tensions. At this junction, it is vital to distinguish variances at a city and national level.

On a positive note, the Eurozone region's unemployment rate has shrunk to a decade-low of 8.1%. This number disguises major differences at a country and city level, but the pace of job creation looks healthy. Both the PMI and the EU's Economic Sentiment indicators look set to fall as we enter 2019, but whilst trade wars are dampening manufacturing, services are holding up relatively well.

The major legacies of the GFC, namely cheap credit and political populism, will influence the Eurozone for years to come. The Eurozone's future potential growth rate of only 1.2%, mirroring output for the past decade, is far lower than the 1.8% in the decade prior to 2008. While credit availability is improving, it is unlikely to be as free-flowing as during the pre-crisis years, hindering investment and the efficiency of capital allocation in the economy. High unemployment among the young working-age cohort, combined with a shrinking working-age population (despite increases in the retirement age), will only be partly offset by further increases in the participation rate and structural and labour market reforms.

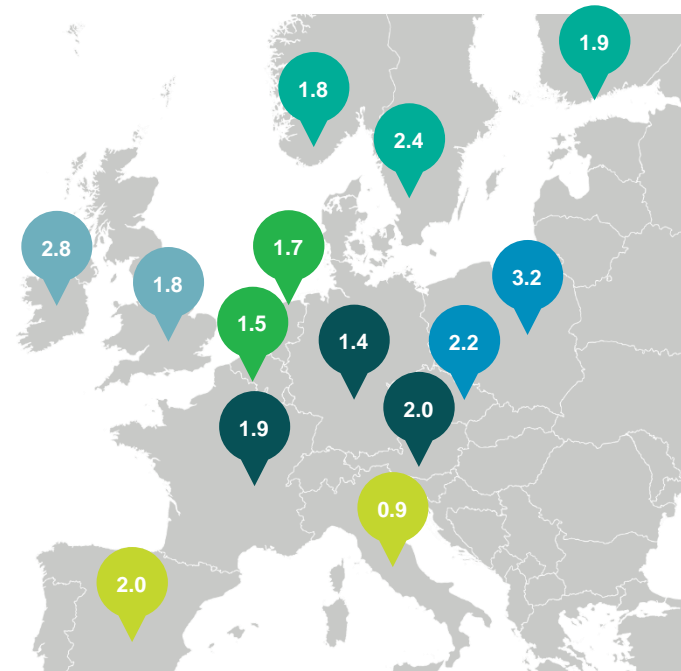
# State of play *continued*

Fig.1: Government debt and current account balance, as % of GDP



Source: MacroBond, Q4 2018.

Fig.2: Five-year (2017-2022) GDP forecasts, % p.a. annualised



Source: Oxford Economics, Nuveen Real Estate, Q4 2018.  
Note: Forecasts cannot be guaranteed.

# Offices

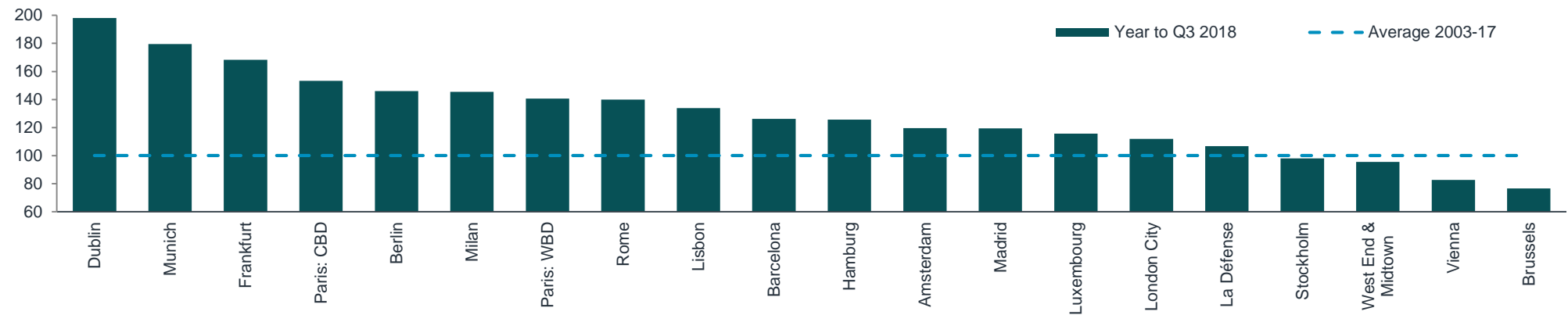
## *Muted speculative building meets a supportive cycle*

Many European office occupier markets are benefiting from momentum in rental growth, supported by healthy rates of leasing and limited supply pipelines. Fig.3 shows gross take-up of space as a percentage of stock for each office centre, relative to the long-run average. Only Vienna and Brussels are struggling, while Dublin, Germany's Tier 1 cities and the sub-markets of Paris are booming. Strong domestic labour market fundamentals underpin this promising backdrop for rental growth, notwithstanding a race for space among flex space operators. According to figures by JLL, flex space grew by 29% in 2017, reflecting new openings of 600,000 sq m in 20 markets. Full service brands are driving this aggressive growth, a trend that is expected to continue in coming years. Prime rental levels have been exceeded in some instances as operators compete for space; Berlin and Madrid providing good examples. In terms of overall demand, flex space caters more for existing tenants, so is unlikely to enlarge the overall size of the leasing market.

Operators are able to offer competitively priced space through higher densification and shared services. JLL data shows how small traditional leasing transactions in Amsterdam have been displaced by flex space take-up particularly since 2016. Going forward, larger corporates are expected to increasingly engage in 'core and flex' models. While it will be interesting to see how flex space fares when the business cycle becomes less supportive, for now it is clear that the recent trends will continue, helping to support momentum in rental growth. Growth prospects should be further enhanced by the improved supply-side discipline relative to previous real estate cycles. Fig 4 shows the amount of speculative space currently under construction as a percentage of stock and, for most markets, this is likely to be conducive to further rental uplift. Even in Central London and Central Paris, the speculative pipeline is only elevated in specific districts (for example Paris WBD, London City and Docklands).

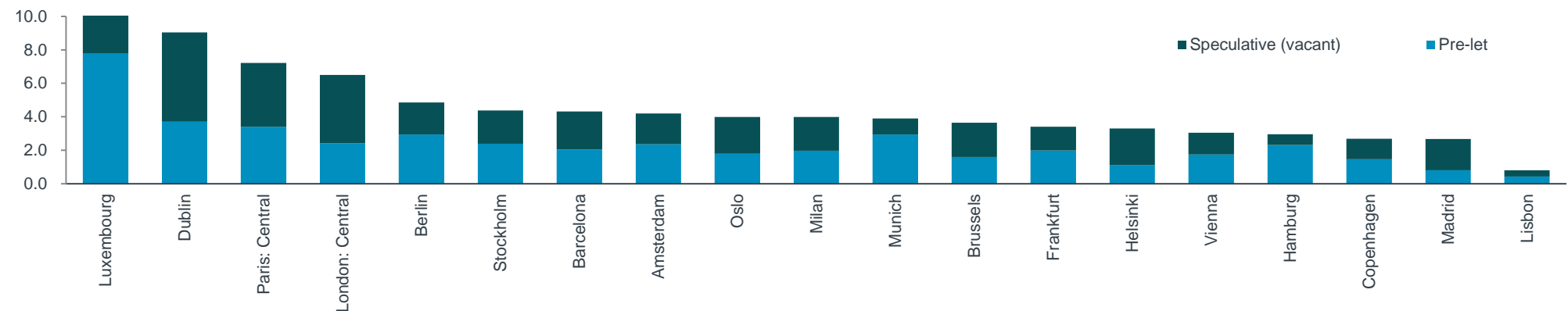
# Offices continued

**Fig.3: Rolling annual take-up vs. long-run average**



Source: PMA, Autumn 2018.

**Fig.4: Current space under construction as % of total stock**



Source: PMA, Q3 2018.

# Offices

## *Rental momentum continues apace for many centres*

In 2018, continued growth has been evident in Berlin, Frankfurt, Munich, Amsterdam, the Nordics and across the Southern European cities of Barcelona, Madrid, Lisbon, Rome and Milan. In remaining cities, rents, including London, were largely stable where widespread earlier fears that Brexit uncertainty would lead to a contraction in headline rents appears to have been unfounded.

In terms of future growth, we are mindful that rental levels are already in excess of the previous cycle peak in Stockholm, Amsterdam and German Tier 1 cities, limiting the scope for rapid growth in these centres. Despite this, we feel Amsterdam, in particular, has benefited from positive structural change (lower obsolescence) and could see rents shift to a notably higher level. Cities we expect to do best in the next five years also include Paris, where underlying rents have been relatively static in recent years. The market equilibrium is now highly supportive of growth and we anticipate the CBD will be the biggest beneficiary in the short term. Elsewhere, Spanish cities are expected to recover lost ground and narrow the gap with the rental levels experienced prior to the GFC.

Trends for rising densities imply more effective use of space in future, in part encouraged by the increasing prevalence of flex operators. Most markets should see growth decelerate from 2020. However, London City could prove an unlikely exception. Low levels of speculative building since the Brexit referendum indicate that Grade-A space could be in short supply by 2020 and we might see a resumption of modest headline growth, even off current relatively high levels.



*Rental growth continued to gain momentum across many markets in 2018; elsewhere, rents were broadly stable.*

*Future growth is expected for most cities in the short term, with the exception of London; Paris CBD and Amsterdam look particularly well positioned over the next five years, along with Spanish cities.*

*London City could return to modest growth by 2021 as Grade-A availability tightens.*



# Offices *continued*

Fig.5: Expected rental growth, five-year annualised % p.a. (Q3 2018-Q3 2023)



# Retail

## *Will Europe follow U.K. lead?*

The European retail sector saw falling investor sentiment and negative headlines throughout the course of 2018, a trend which will continue into next year albeit at different rates across individual countries. It is the UK that has, and will, continue to face the most challenging retail headwinds, with shopping centre rents falling in 2018 and further declines averaging 4-5% for the sector, expected into 2019. Continued political and economic uncertainty and potential interest rate rises will put downward pressure on UK consumers. The UK retailer has struggled with rising rates and wage costs, and CVAs/retail failures increased throughout 2018. It is likely this trend will continue if the UK sees a lacklustre Christmas trading period. Retailers whose profit margins are already challenged and face increasing competition from new online brands will struggle. Despite challenges, strong retail sales growth is projected over the next five years and surprisingly the UK market outperforms with consumers enhanced propensity to spend pushing up retail sales projections, which contrasts against the weaker occupier market story.

In general, low unemployment and stable consumer sentiment means traditional variables will remain supportive of European retail. However, it is the wider structural changes which are having a greater impact on performance. Online retail sales are capturing the largest part of forecast growth with European online sales growing 11% over the last 12 months and, whilst the bad news has focused more on the UK (and the US), European retail markets are not immune to the declining sentiment witnessed in the UK. Footfall growth is being challenged across many European markets with dominant shopping centres witnessing falls in footfall yet spending levels remaining stable, highlighting a more specific reason to shop. On average retail rents remained flat over the course of 2018 but retailer demand is declining as they put the brakes on portfolio expansion plans and focus on omni channel strategies leading to increased void rates and implying limited rental growth pressure in 2019. Struggling retailers are present across Europe with examples including major players such as C&A, Stefanel, Fossil, Desigual and MS Mode.

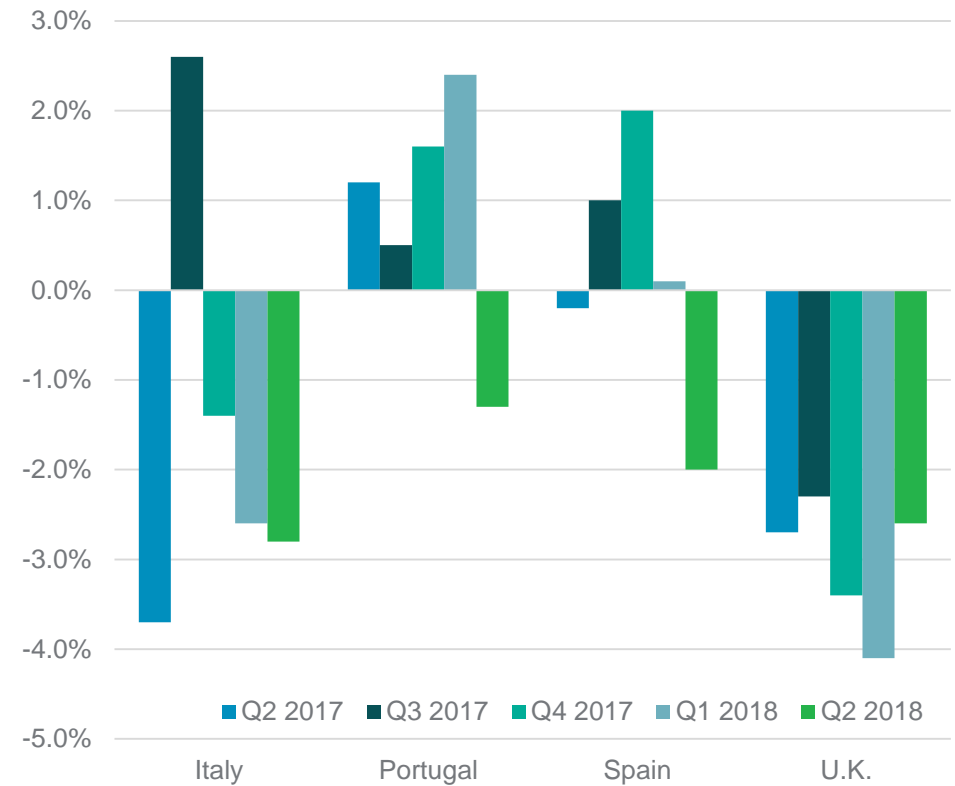
# Retail *continued*

**Fig.6: Historic and forecast total retail sales growth (current pricing), % p.a.**



Source: Oxford Economics, Nov 2018.

**Fig.7: All retail quarterly y-o-y footfall growth, % p.a.**



Source: Shopper Trak, Q3 2018.

# Retail continued

## Country and retail segment variance

Retail rental growth across 2019 is expected to be strongest in Spain and Portugal where rents remain below their cyclical peak and markets are experiencing a later recovery. Germany and France will underperform as rental values are high and online penetration is above the European average, with online sales growing at 8% and 11% respectively. The retail sector is highly fragmented with differences not only occurring across countries but more so varying between different retail segments. In terms of defensive and resilient retail, we favour outlet malls which benefit from growing tourism markets and high value customers attracted to these schemes. The outlet sector appeals to major retail and luxury brands which are expanding and looking to increase their market share. Also, the lower outlet exposure of many brands implies they have not over expanded in the past and the outlet occupier base is therefore under less pressure to reduce large legacy store estates than mainstream retailers. We like the tenant and landlord operator model which means more cohesion is found in this sector than in full price shopping centres.

The grocery sector also provides resilient retailing, which is expected to remain less exposed to online. With online grocery retail sales expected to reach 9% by 2025 this is significantly below the retail sales penetration rate which is expected to be closer to 25% to 30%. Whilst the online story may be more robust, we also need to bear in mind the overexpansion of grocery stores in many locations and the growing dominance of the discounters, which have seen aggressive expansion across Europe over the last five years. Although we believe the grocery sector remains relevant, we do not envisage a large rental growth story for the sector as competitive tension to bid rents up will remain low. Many supermarket owners benefit from inflation-linked leases.

Shopping centres are experiencing the most challenging retail background, demonstrated by the significant discounts seen in the public market. While the best assets will continue to be must-have locations for retailers, the level of capex required to keep assets relevant will erode potential total returns over the medium-term.



*U.K. continues to face most challenging headwinds with average rents falling 5% in 2019.*

*European markets are not immune to structural changes and will see weaker rental pressure next year; prime rents most likely to remain flat.*

*Investing into resilient retail will need a closer understanding of both consumer and asset characteristics.*

*Retail pricing will correct across Europe, with better opportunities to access the market in 12 months time.*

# Retail *continued*

Retail segment	Key characteristics
Luxury high street/major city	Expensive core markets/tourism upside but enhanced volatility/stronger retail demand
Outlet malls	Good track record/strong operator model/more transparent/location risk/reliance on car
Food stores	Convenience/regular visits/less online exposure/risk of over supply
Transport retail	High footfall/low spend/convenience/food and beverage
Retail park	Convenience/online adjacencies/value and family orientated/reliance on car
Shopping centres	Most variation in terms of offer and performance/locations with too much space = loss of rental tension
High street/small towns	Population decline/unmanaged unattractive locations with increased social issues
Department store	Less relevant to today's consumer/oversized/greater online competition

# Logistics

## *Going from strength to strength?*

Logistics will follow retail and offices with the 10-year period of yield compression coming to an end, however a change of direction is not yet on the horizon for the sector, as medium-term rental growth expectations and the long term outlook remain strong. The wave of e-commerce, re-tooling of supply chains and modernisation of logistics premises rolls over Europe fuelling demand at all levels and across geographies. 2019 will continue to see strong demand, not just in key locations, but also in ever smaller nodes of the European network. As a result, tenant incentives will become less generous and headline rents are set to increase, albeit at a moderate pace. Fierce price competition between logistics service firms, in the wake of rising labour costs limits rental growth potential. In addition, high capital values on completed projects and the fragmented developer market in Europe leads to competitive rents for new buildings.

The main task for investors in 2019 will be to distinguish between long term value and late cycle froth. Long leases to strong covenants in peripheral locations are often traded at small yield discounts in the current market, suggesting non-sustainable long-term capital values. While the logistics market has genuinely rerated, the long period of rising values for all types and locations seems to mislead some inexperienced capital into believing that logistics can defy fundamentals. Emerging hostility towards global trade and trade conflicts risk distorting trade flows and curtailing growth in trade volumes, which had been taken for granted over the last 25 years.

Sentiment indicators show that some market participants are concerned. International supply chains and trade flows getting diverted and disrupted would have a negative impact on logistics space, in particular key trading hubs such as Belgium, the Netherlands, Germany or Italy. In 2019, there is a growing risk that trade activity could slow, dampening demand for logistics space. Disruptions, like a no-deal Brexit, could put immediate pressure on some locations, while suddenly increasing demand in other places.



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*Fundamentals for logistics to occupier and investment markets remain very strong into 2019.*

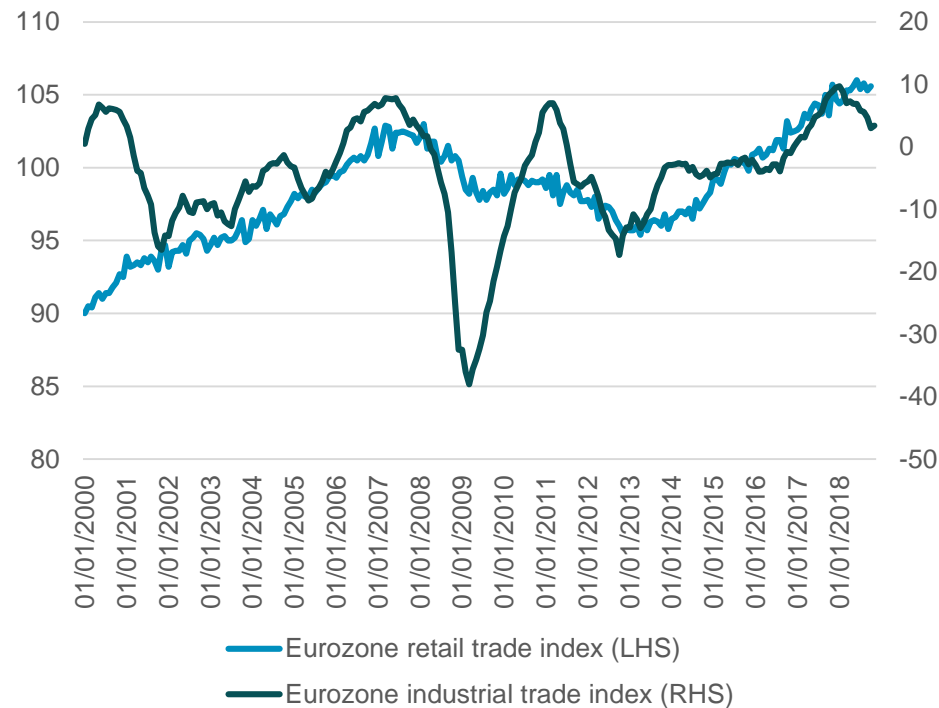
*Many secondary locations will become popular with 3PLs and developers.*

*Labour shortages across many key locations could hold back growth and intensify the use of technology and robotics.*

*Trade wars pose a risk to demand and may alter location preferences without much time to adapt.*

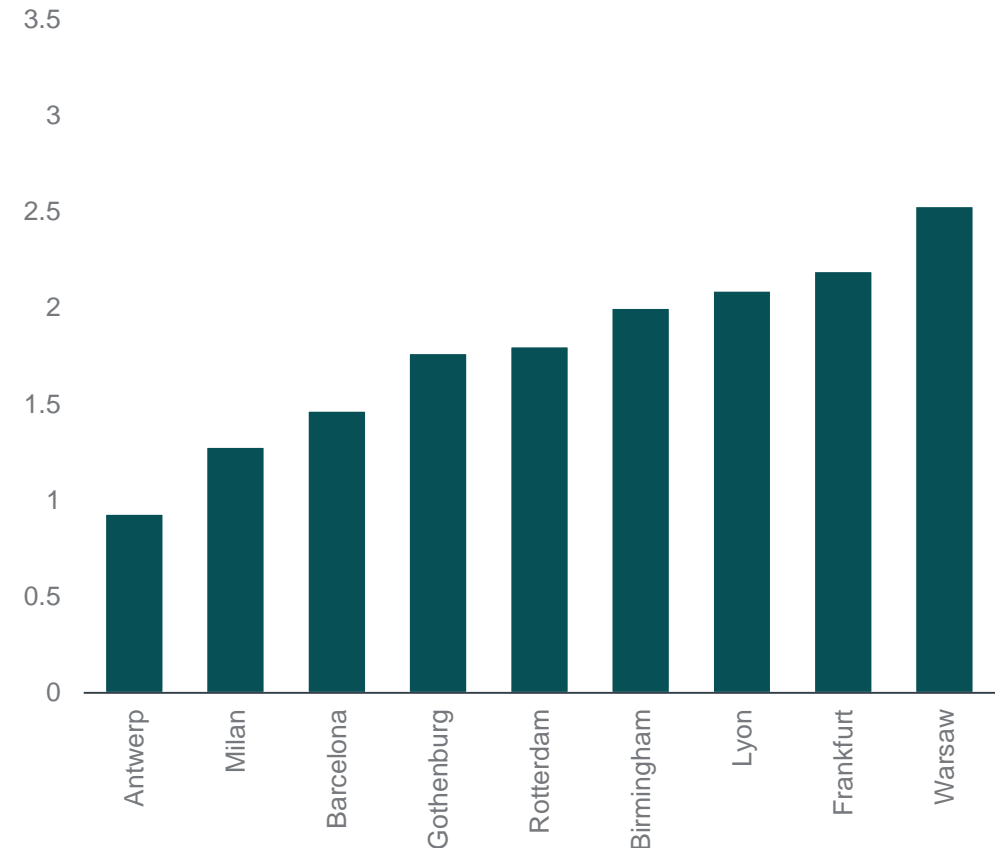
# Logistics continued

Fig.8: Manufacturing and retail sentiment, %



Source: Macrobond, Nuveen Real Estate, Q4 2018.

Fig.9: Rental growth % p.a. annualised (calendar years 2018-2022)



Source: Nuveen Real Estate, Q4 2018. Note: Forecasts cannot be guaranteed.

# Investment

## *Markets may move into the slow lane in 2019*

European property markets were benefiting from a perfect storm over the last couple of years, with both yield compression and rental growth driving returns. Inward yield shift has come to an end in the US and run out of road in Europe. While we don't expect an imminent rise in cap rates, there will be no additional support from capital markets. Real estate capital values may still rise further in 2019 due to the rental cycle continuing, albeit also at a somewhat slower pace compared to 2018.

Logistics is set to be the best performing mainstream sector with healthy rental growth and even some further yield shift driving returns. However, it will be non-established sectors such as student housing or other subsectors in the living space, which are poised to perform best overall. These sectors are supported by new technology and demographics, as well as first mover advantages for investors which already have exposure to these segments. The worst performing sector is expected to be retail due to the continuing shift from bricks and mortar to online retailing.

From a cyclical perspective, we recommend to focus on cities with strong growth still to come in the current cycle, good examples are Paris, Berlin and Madrid. However, we find it more important to focus on cities which are set up well for long-term gains. The European cities we favour for 2019 have not changed. Cities which have improved their competitiveness recently are Frankfurt and Luxembourg as beneficiaries of Brexit, Lisbon as Portugal emerged in better shape from the economic crisis, and Amsterdam establishing itself as an international hub, for example, winning the European Medical Agency from London. Late in the cycle, we avoid highly cyclical cities, particularly if they have a history of overbuilding. Oslo, Warsaw and Dublin are prime examples for this category. We would also steer clear of cities lacking reform efforts on a local or national level. The main cities which remain on the avoid list are Budapest, Athens and cities in Southern Italy.

It is easier to talk about risks than opportunities in the late cycle. The strong reform agenda in France will need some time to work through the system and have a visible effect. However, from mid-2019, France could surprise on the upside.



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*After a period of strong yield compression real estate is entering a phase of waning support from financial markets.*

*Broad based rental growth (expect retail) will continue to support value growth in 2019, albeit growth rates probably have peaked in 2018 in most markets.*



# Investment *continued*

	Yield trend	
	5 years	10 years
Austria	↑	↑↑
Belgium	↑	↑↑
Britain	↑	↑
Czech Republic	→	↑
Finland	↑	↑↑
France	↑	↑↑
Germany	↑	↑↑
Italy	↑↑	↑↑
Netherlands	↑↑	↑↑
Poland	→	↑
Portugal	↑↑	↑↑
Spain	↑↑	↑↑
Sweden	↑↑	↑↑

Source: Nuveen Real Estate, Q4 2018. Note: Forecasts cannot be guaranteed.

## Headline views: Risks and opportunities

### Economy



### Occupier markets



### Yields



### Politics



Source: Nuveen Real Estate, Q4 2018.

# Investment styles

## *2019 SWOT analysis*

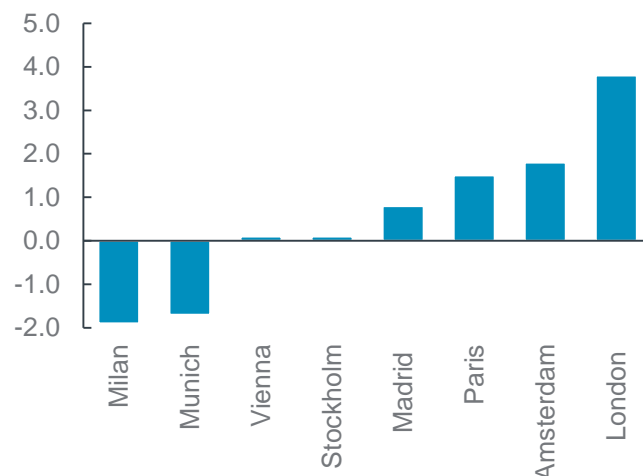
Strengths	Weaknesses
<ul style="list-style-type: none"><li>• High asset prices are a global financial market phenomenon. Real estate is well placed compared to other sectors.</li></ul>	<ul style="list-style-type: none"><li>• Medium-term return outlook is very muted as yield compression runs out of road.</li><li>• Upheaval in the retail sector weighs down overall real estate perception and returns.</li></ul>
Opportunities	Threats
<ul style="list-style-type: none"><li>• Fast-changing environment for real estate supports new sectors emerging.</li><li>• Pockets of strong rental growth remaining for 2019 and 2020.</li></ul>	<ul style="list-style-type: none"><li>• Ultra-low yields make potential outward yield shift especially damaging to returns.</li><li>• Global economy is slowing down while Europe is facing a number of homegrown risks.</li></ul>

# Investment styles *continued*

## Core strategies

Leaving aside asset management initiatives, core returns solely depend on rent and yield movements. Yield compression has run out of road in Europe and investment markets are poised to move in the opposite direction from 2019. Even a soft landing, implying measured outward yield shift, would hurt returns quite significantly from current ultra-low cap rates. In addition, the rental cycle is expected to slow down from 2020, providing a diminishing cushion for capital values.

**Fig.10: Prime office total returns, % p.a. (Q3 2018-Q3 2023)**

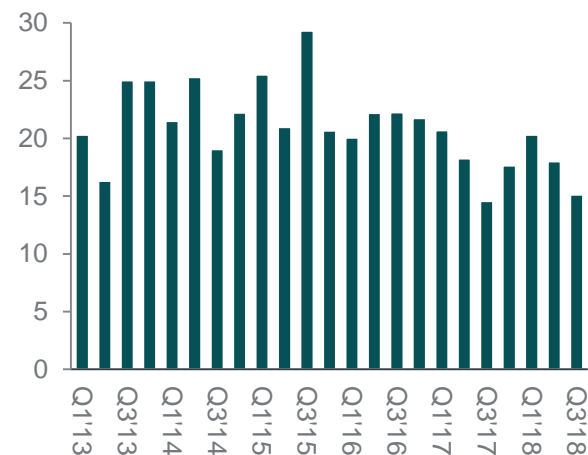


Source: Nuveen Real Estate, Q4 2018.

## Enhanced strategies

The biggest opportunity for investors who have more appetite for risk lie outside traditional sectors. City planning increasingly favours mixed use developments, which also gives rise to a variety of new concepts in the living space. Similarly, the logistics sector is branching out into adjacent spaces such as data centres and chilled logistics. Developing a foothold into such niches with long-term support from megatrends has the potential to create value independently from cycles.

**Fig.11: Retail share of all property investments in Europe, %**

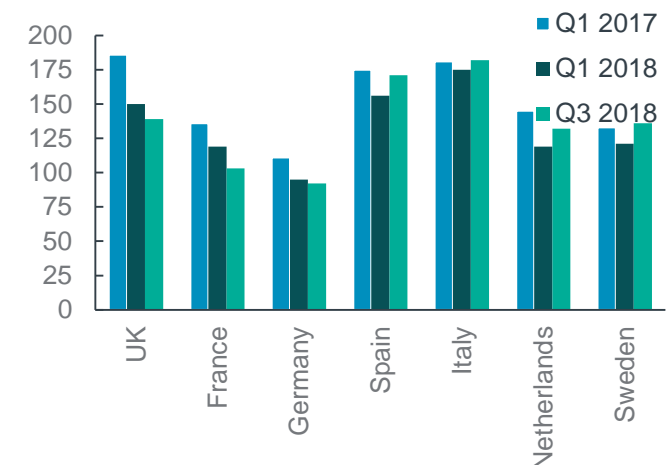


Source: RCA, Q4 2018

## Debt strategies

With the cycle increasingly mature, downside risk is the main consideration for investors. Therefore, debt looks good value and investment interest is shifting from equity to debt for a number of players. However, continental European opportunities are somewhat limited as countries, such as Germany are overbanked, and others, like Italy, lack the legal framework to attract investors.

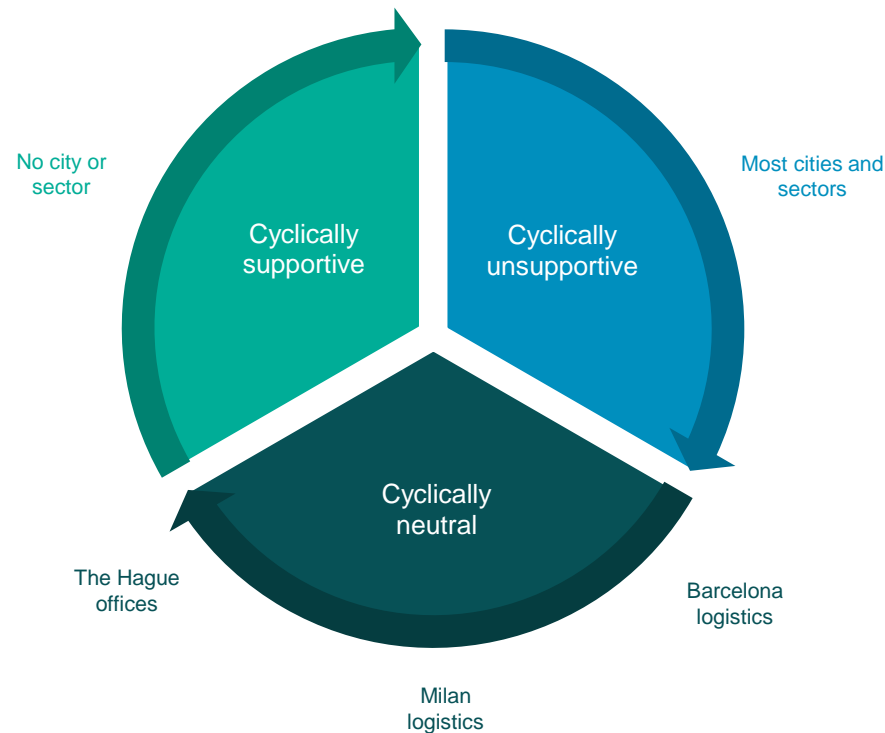
**Fig.12: Bank margins (5 years debt), bps**



Source: Nuveen Real Estate, Q4 2018

# Cyclical city recommendations: a level playing field

Fig.13: Short-term city selection



Source: Nuveen Real Estate, Q4 2018.

Fig.14: Key market themes



Source: Nuveen Real Estate, Q4 2018.



*The soft landing reported in the United States should encourage European investors to slow down and stick to quality, rather than chasing yields.*

*Late cycle, no local market is expected to be a standout performer, therefore investors should focus on long-term value, thematic and defensive quality of assets.*

*Long-term convictions need to take precedent over cyclical considerations.*

*Think European cities*

# Investment: Alternative history

## *Losing interest in rates?*

For some time now, all eyes of real estate investors have been on interest rates. The impact of monetary tightening on cap rates in the US is being closely watched and speculation mounts as to what this may mean for other global real estate markets. The narrative runs that the US appears on track for a 'soft landing' of real estate values. If this scenario materialises, Europe should follow in their footsteps with over a two year delay.

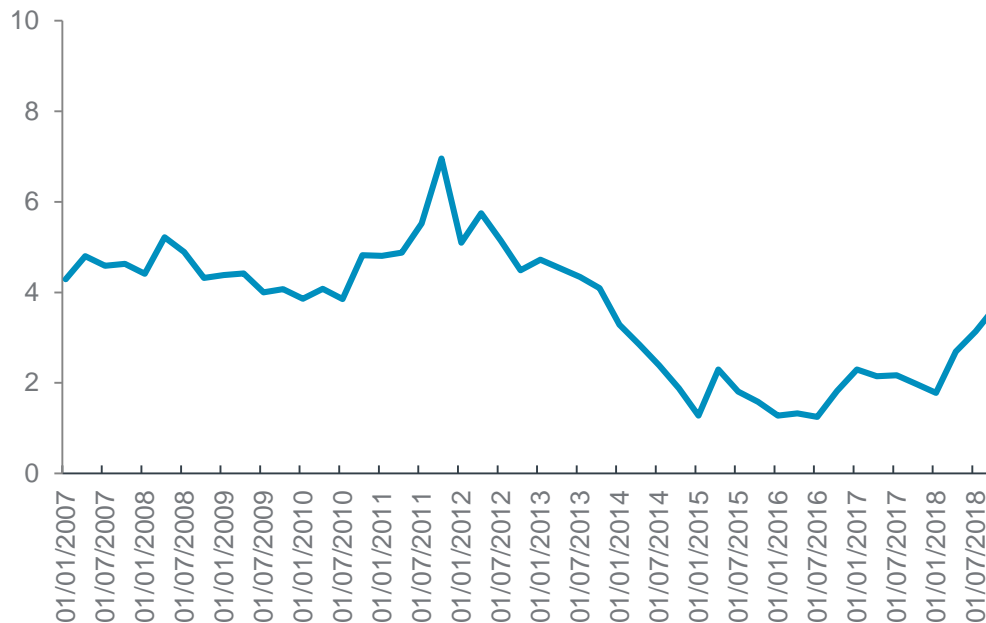
Most pundits forecast a very modest rise in property yields, reflecting the relatively high yield gap and the fact that consensus forecasts do not foresee a recession or any major downturn in occupier markets (in the past property yields never increased in absence of a recession and occupier market downturn). Moreover, most investors seem to be moderately leveraged and over the last few years financing has been agreed with very long durations. US treasury yields rising above the 3% mark has had a very limited impact on cap rates due to occupier market fundamentals remaining strong. Based on the US evidence, European benchmark bond yields (currently around 0.5%) would have to rise quite substantially before significant upward pressure on cap rates becomes inevitable. In fact, mainstream forecasts predict Eurozone benchmark government bonds to peak below 3% in this cycle. Assuming that European real estate cap rates remain stable at today's level, the expected increase in bond yields would reduce the yield gap (or property risk premium) to around the long term average, suggesting only a mild correction of property yields is on the horizon.

The main condition for this benign conclusion to the post-GFC period is that the economy maintains a healthy growth path. Unfortunately, in the last couple of months a number of cracks have appeared in the global economy. Emerging markets have come under pressure, namely Turkey, the sugar rush resulting from tax cuts in the US may have peaked, tech stocks have been brought under more scrutiny and the trade standoff between the US and China is rippling through the global economy. The latter is having an impact on Chinese GDP growth and has started to dent business sentiment indicators in the European export industry. A mix of these factors and dysfunctional domestic politics have brought growth in Italy, Europe's fourth largest economy, to a standstill, while Brexit lingers as a risk not only for the UK, but for European growth in general. Global stock markets have reacted with volatility and expectations are less rosy overall. While none of these risks alone would be sufficient to derail the economy, an unfortunate combination of them may prove to be a tipping point that leads to a contraction.

In such a case, real estate would have to shift gear again. The emphasis would move back to occupier markets after a period when the real estate industry took falling vacancies and rising rents almost for granted. The good news is that a slowdown or shallow downturn could be weathered easier than previously as space under construction is relatively modest in the majority of markets. More importantly, slowing economic activity would be accompanied by lower interest rates for an extended period, supporting yields for core assets.

# Investment: *Alternative history continued*

Fig.15: Italy 10-year government bond yield



*A soft landing of financial markets supported by healthy economic growth remains the main scenario for Europe*

*A slowdown in growth implying a further postponement of monetary tightening remains less likely, but as the odds have shortened, this risk should not be ignored*

Source: MacroBond, Nov 2018.

# City to watch

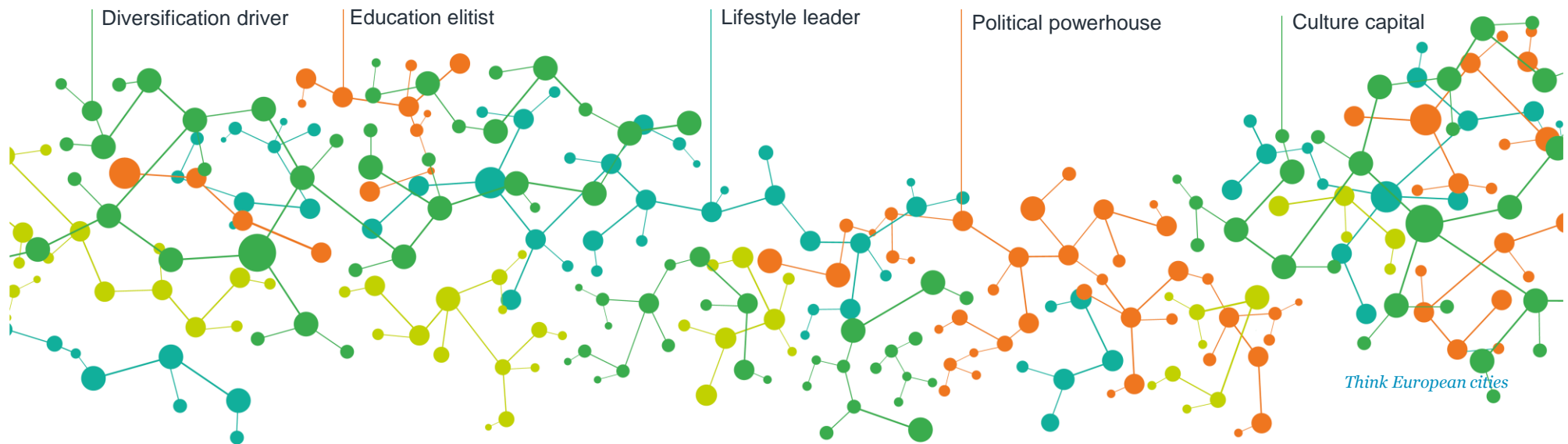
## Vienna

Vienna is the federal capital of Austria and was the capital of the Habsburg dynasty and home to the Holy Roman Emperors. From here, they dominated middle Europe for nearly 1,000 years. The Habsburgs transformed Vienna into a multinational city of music, culture and ideas, of palaces and churches, of coffee houses, courtesans, and conquerors. They created an empire that included South America, Spain, Italy and much of Central Europe. The influx of immigrants from around the empire transformed the city into a crossroads of creativity. Napoleon, Mozart, Freud, Klimt and Stalin all played their part. Today, Vienna is the country's cultural, economic, and political centre and one of the wealthiest regions in the European Union. It has a population of just under two million and attracts around seven million tourists a year. The larger metropolitan area makes up nearly one third of Austria's population. In 2001, the city centre was designated a UNESCO World Heritage Site.

Vienna offers the highest quality of life of all cities worldwide, topping the 2018 Quality of Living Ranking by Mercer for the ninth time in a row. The high level of public safety and security, Vienna's well-structured public transport network and

the large variety of cultural facilities and leisure activities were the main reasons why the capital dominated the ranking. The Economist also found Vienna, a long-running contender to the title, to be the most liveable city worldwide in its latest Liveability Index – the first time a European city has topped the rankings. Vienna is the only city in the European Union which has hosted one of the four headquarters of the United Nations for over 30 years and is also the seat of several other international organisations and institutions, such as the OSCE and OPEC. As the seat of about 40 international organisations, around 320 bilateral and multilateral diplomatic representations with c.3,800 diplomats and more than 6,000 international officials, Vienna is a hub of international diplomacy. Vienna is also one of the world's top destinations for international congresses and conventions and in the second half of 2018, Vienna's meetings industry will be dominated by Austria's presidency of the EU Council with more than 300 EU Council meetings taking place in Vienna. Since the fall of the iron curtain in 1989, Vienna has expanded its position as a gateway to Eastern Europe, with 300 international companies, such as Hewlett Packard, Henkel and Siemens basing their Eastern European headquarters in the Vienna region.

**Fig.16: Vienna DNA - every city has a unique personality**



# Appendix

## Financial Data

GDP	2016	2017	2018	2019	2020	2021	2022	2023	Average p.a. growth (2017-2020)	Average p.a. growth (2017-2022)
Austria	1.5	2.7	2.8	2.0	1.9	1.8	1.7	1.6	2.2	2.0
Belgium	1.5	1.7	1.4	1.5	1.6	1.6	1.5	1.3	1.5	1.5
Finland	1.9	2.8	2.7	1.8	1.6	1.9	1.6	1.3	2.0	1.9
France	1.1	2.3	1.6	1.7	1.7	1.6	1.6	1.5	1.7	1.6
Germany	1.9	2.5	1.8	1.6	1.5	1.2	1.1	0.9	1.6	1.4
Greece	0.0	1.3	2.0	1.8	2.2	2.4	2.5	2.6	2.0	2.1
Ireland	5.1	7.2	6.0	2.5	2.4	2.2	2.2	2.1	3.4	2.8
Italy	1.1	1.6	1.1	0.9	0.9	0.8	0.8	0.7	1.0	0.9
Luxembourg	3.1	2.3	3.6	3.3	3.1	3.1	3.0	2.7	3.4	3.2
Netherlands	2.1	3.0	2.8	1.7	1.5	1.4	1.4	1.4	2.0	1.7
Portugal	1.5	2.8	2.1	1.7	1.4	1.1	0.9	0.8	1.7	1.4
Spain	3.3	3.0	2.5	2.3	2.1	1.7	1.4	1.2	2.3	2.0
<b>Eurozone</b>	<b>1.8</b>	<b>2.5</b>	<b>2.0</b>	<b>1.7</b>	<b>1.6</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.7</b>	<b>1.6</b>
Czech Republic	2.5	4.5	2.9	2.7	2.3	1.8	1.7	1.6	2.6	2.2
Denmark	1.7	2.3	1.5	2.2	1.8	2.5	2.4	2.1	1.8	2.1
Norway	1.0	2.4	1.6	1.9	1.9	1.9	1.8	1.6	1.8	1.8
Poland	2.6	4.6	4.6	3.2	3.1	2.7	2.6	2.5	3.6	3.2
Sweden	3.1	2.4	2.6	2.6	2.4	2.2	2.2	2.1	2.5	2.4
United Kingdom	1.8	1.7	1.3	1.5	2.0	2.2	2.1	2.0	1.6	1.8
<b>European Union</b>	<b>1.9</b>	<b>2.5</b>	<b>2.0</b>	<b>1.8</b>	<b>1.8</b>	<b>1.7</b>	<b>1.6</b>	<b>1.5</b>	<b>1.9</b>	<b>1.8</b>

Source: Nuveen Real Estate, Oxford Economics, Q4 2018. Note: Forecasts cannot be guaranteed.

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# Appendix

## *Financial Data*

Inflation	2016	2017	2018	2019	2020	2021	2022	2023	Average p.a. growth (2017-2020)	Average p.a. growth (2017-2022)
Austria	0.9	2.1	2.0	1.6	1.5	1.7	1.9	1.9	1.7	1.7
Belgium	2.0	2.1	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0
Finland	0.4	0.8	1.2	1.7	1.6	1.8	1.8	1.8	1.5	1.6
France	0.2	1.0	1.9	1.5	1.4	1.6	1.6	1.7	1.6	1.6
Germany	0.5	1.7	1.9	1.8	1.8	2.0	2.1	2.1	1.9	1.9
Greece	-0.8	1.1	0.8	0.0	0.1	1.1	1.8	1.8	0.2	0.6
Ireland	0.0	0.3	0.8	1.8	1.8	1.9	1.9	1.9	1.4	1.6
Italy	-0.1	1.2	1.4	1.4	1.5	1.7	1.8	1.9	1.4	1.6
Luxembourg	0.0	2.1	1.5	1.7	1.8	2.0	2.0	2.0	1.7	1.8
Netherlands	0.3	1.4	1.7	1.8	1.9	2.0	2.0	2.0	1.8	1.9
Portugal	0.6	1.4	1.2	1.5	1.7	1.8	1.8	1.7	1.5	1.6
Spain	-0.2	2.0	1.8	1.7	1.7	1.7	1.8	1.8	1.7	1.7
<b>Eurozone</b>	<b>0.2</b>	<b>1.5</b>	<b>1.8</b>	<b>1.6</b>	<b>1.6</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.7</b>	<b>1.7</b>
Czech Republic	0.7	2.4	2.3	2.1	1.9	2.0	2.0	2.0	2.1	2.1
Denmark	0.3	1.1	1.1	1.2	2.1	2.0	1.9	1.9	1.4	1.6
Norway	3.6	1.9	2.7	2.5	1.8	1.9	1.9	1.9	2.3	2.1
Poland	-0.6	2.0	2.0	2.1	2.1	2.4	2.5	2.5	2.0	2.2
Sweden	1.0	1.8	1.8	1.9	2.0	2.0	2.0	2.0	1.9	1.9
United Kingdom	0.6	2.7	2.5	1.9	1.6	1.6	1.7	1.9	2.0	1.9
<b>European Union</b>	<b>0.3</b>	<b>1.7</b>	<b>1.9</b>	<b>1.8</b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>	<b>2.0</b>	<b>1.8</b>	<b>1.8</b>

Source: Nuveen Real Estate, Oxford Economics, Q4 2018. Note: Forecasts cannot be guaranteed.

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# Appendix

## Financial Data

Interest rates (%) year end	2016	2017	2018	2019	2020	2021	2022	2023
Eurozone	0.05	0.05	0.05	0.25	0.50	1.00	1.25	1.50
Czech Republic	0.05	0.50	1.00	1.75	2.25	2.50	2.75	2.75
Denmark	0.05	0.05	0.50	0.25	0.50	1.00	1.25	1.50
Sweden	-0.50	-0.50	0.00	0.50	1.25	2.00	2.50	2.75
Norway	0.50	0.50	0.50	1.00	1.50	2.00	2.50	3.00
United States	0.50	1.50	2.25	2.50	2.75	3.00	3.25	3.25
United Kingdom	0.25	0.50	0.75	1.25	1.75	2.00	2.25	2.50

Exchange rates	2016	2017	2018	2019	2020	2021	2022	2023
€/£	1.17	1.14	1.13	1.13	1.15	1.18	1.20	1.20
\$/€	1.11	1.20	1.15	1.25	1.25	1.25	1.25	1.25
DKr/€	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
NOK/€	9.29	9.60	9.40	9.20	9.08	9.04	8.98	8.91
SKr/€	9.47	9.64	10.25	10.11	9.73	9.36	9.03	8.95
Zloty/€	4.36	4.26	4.25	4.21	4.15	4.12	4.09	4.07
Koruna/€	27.0	26.3	25.6	25.2	24.7	24.3	24.0	23.8

Source: Nuveen Real Estate, Oxford Economics, Q4 2018. Note: Forecasts cannot be guaranteed.

# Appendix

## *Financial Data*

10-year bonds (year end)	2016	2017	2018	2019	2020	2021	2022	2023
Austria	0.4	0.6	0.8	1.3	1.8	2.1	2.5	2.8
Belgium	0.5	0.6	0.7	1.4	2.1	2.5	2.9	3.2
Czech Republic	0.5	1.6	2.1	2.7	3.0	3.1	3.2	3.3
Denmark	0.3	0.5	0.5	0.9	1.4	2.0	2.5	3.1
Finland	0.4	0.6	0.7	1.1	1.6	2.0	2.3	2.6
France	0.7	0.8	0.8	1.2	1.8	2.2	2.7	3.1
Germany	0.1	0.4	0.7	1.1	1.5	1.9	2.2	2.6
Greece	7.1	4.1	4.2	4.5	4.6	4.7	5.1	5.4
Ireland	0.8	1.1	1.2	1.5	1.9	2.3	2.7	3.0
Italy	1.8	2.0	2.7	3.8	4.3	4.7	5.1	5.3
Luxembourg	0.4	0.5	2.0	2.2	2.5	2.7	2.9	3.0
Netherlands	0.4	0.5	0.6	1.0	1.6	2.0	2.3	2.6
Norway	1.7	1.7	1.9	2.4	3.0	3.7	4.4	4.5
Poland	3.6	3.3	1.9	2.5	3.3	3.8	4.3	4.6
Portugal	3.8	1.9	3.2	3.2	3.4	3.7	4.1	4.3
Spain	1.3	1.5	1.4	1.8	2.4	2.9	3.4	3.9
Sweden	0.5	0.8	0.7	1.2	1.8	2.4	2.8	3.1
United Kingdom	1.3	1.3	1.5	1.9	2.5	3.0	3.3	3.5

Source: Nuveen Real Estate, Oxford Economics, Q4 2018. Note: Forecasts cannot be guaranteed.

# Contact us

**Alice Breheny**

Head of Research

T: +44 20 3727 8122

E: [alice.breheny@nuveenglobal.com](mailto:alice.breheny@nuveenglobal.com)

**Michael Keogh**

Director of Research, Europe

T: +44 20 3727 8160

E: [michael.keogh@nuveenglobal.com](mailto:michael.keogh@nuveenglobal.com)

**Haoran Wu**

Research Analyst, Europe

T: +44 20 3727 8231

E: [haoran.wu@nuveenglobal.com](mailto:haoran.wu@nuveenglobal.com)

**Stefan Wundrak**

Head of Research, Europe

T: +44 20 3727 8226

E: [stefan.wundrak@nuveenglobal.com](mailto:stefan.wundrak@nuveenglobal.com)

**Angela Goodings**

Director of Research, Europe

T: +44 20 3727 8147

E: [angela.goodings@nuveenglobal.com](mailto:angela.goodings@nuveenglobal.com)

**Andy Schofield**

Director of Research, Europe

T: +44 20 3727 8203

E: [andy.schofield@nuveenglobal.com](mailto:andy.schofield@nuveenglobal.com)

**Maria Grubmueller**

Research Associate

T: +44 20 3727 8311

E: [maria.grubmueller@nuveenglobal.com](mailto:maria.grubmueller@nuveenglobal.com)

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