



2018

COPENHAGEN  
PROPERTY  
MARKET REPORT

*Sadolin* | ALBÆK



## As good as it gets?

The Greater Copenhagen commercial and investment property market is thriving against the backdrop of sustained economic growth in Denmark. Growing exports combine with a surge in private investments and consumer spending to create new jobs; real estate vacancy rates are decreasing in all segments, and rents are uptrending.

On top of this, interest rates remain exceptionally low, with short-term rates in negative territory and 10-year government bond yields of a mere 0.5%. Supported by its highly efficient mortgage financing system, Denmark offers inexpensive property financing. Irrespective of downtrending net initial yields, the positive gap between property yields and financing rates remains wide.

In 2017, property transaction volumes broke all previous records, up by 30% relative to the previous peaks of 2006 and 2016, to more than DKK 88bn. International investors accounted for 54% of the transactions, marking another new record. Still, fairly-priced Copenhagen property assets offer strong and competitive returns relative to other property markets and asset classes. However, competition for prime and secondary assets alike has driven down yields, and as interest rates will not stay low for time and eternity, risks are rising.

This 2018 market report by Sadolin & Albæk offers an overview of key economic trends and of the Copenhagen commercial property market, including occupational and investment market information as well as details on transactions across sectors and submarkets. The market report has been compiled to guide you in decisions involving commercial and investment property in Greater Copenhagen. This year, we have included a feature on Aarhus, where demand for housing in particular is at an all-time high. This opportunity is being tapped into by both domestic and international investors.

For more than half a century, Sadolin & Albæk has been a leading commercial and investment property adviser in Denmark. Including our affiliated companies, property asset management company Keystone Investment Management as well as property and facility management company Taurus, we count some 100 professionals.

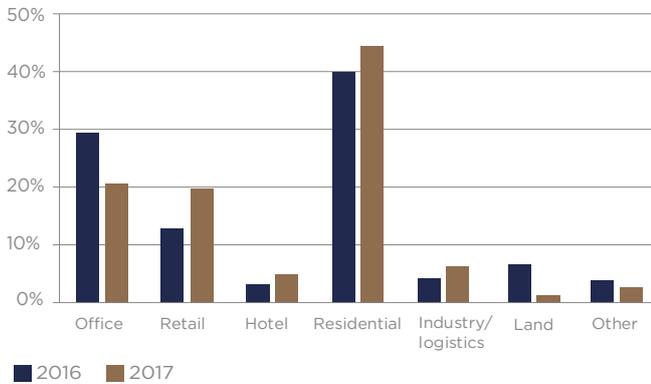
We are dedicated to maintaining our position as a second-to-none commercial property adviser, with one goal: To add value to the business and success of our clients.

Copenhagen, February 2018

Peter Winther, Partner and CEO

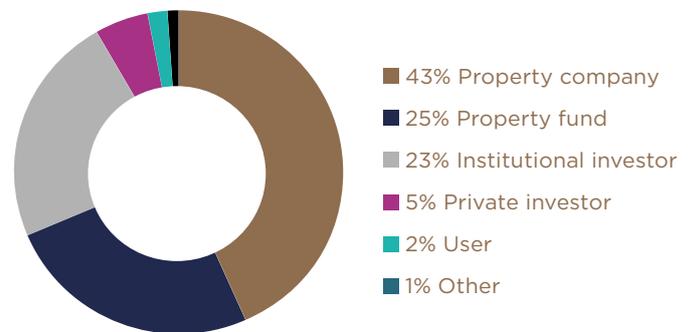
# The Danish property market at a glance

## Residential continues to head the field



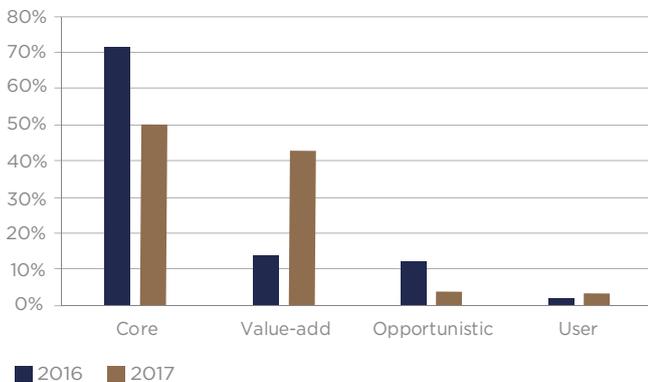
Note: Transaction volume by segment, Denmark.  
Source: Sadolin & Albæk

## Professional investors dominate



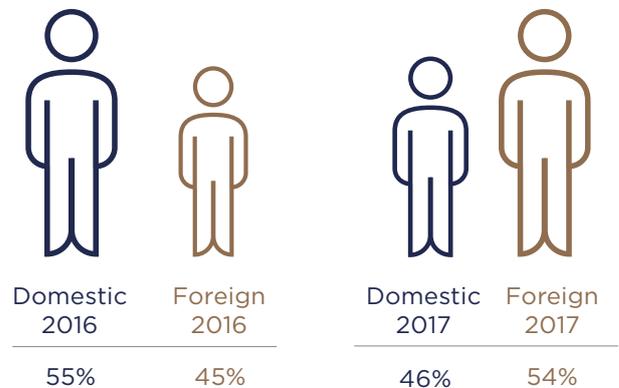
Note: Transaction volume by investor type, Denmark.  
Source: Sadolin & Albæk

## Significant increase in value-add investments



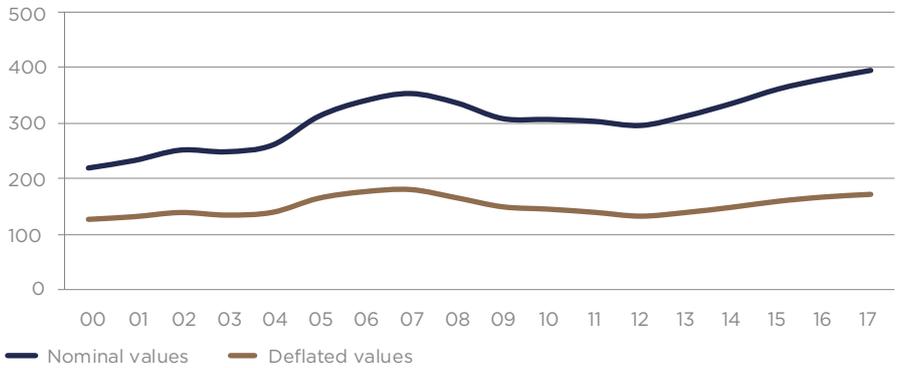
Note: Transaction volume by investment type, Denmark.  
Source: Sadolin & Albæk

## International investors take the lead



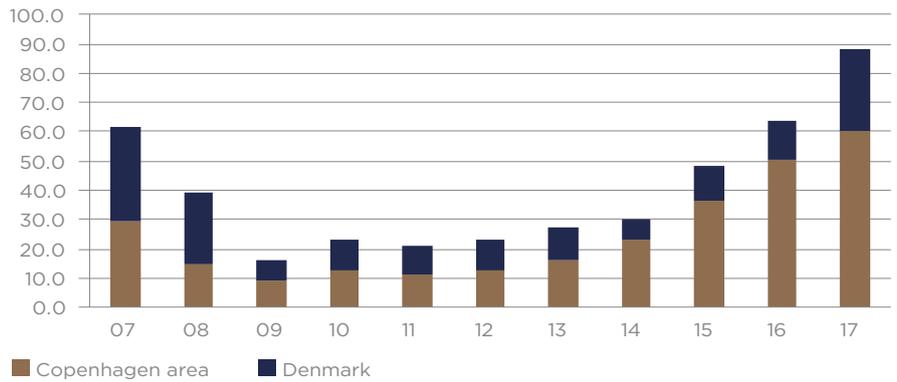
Note: Transaction volume by investor origin.  
Source: Sadolin & Albæk

### Real commercial property prices remain below 2007-level



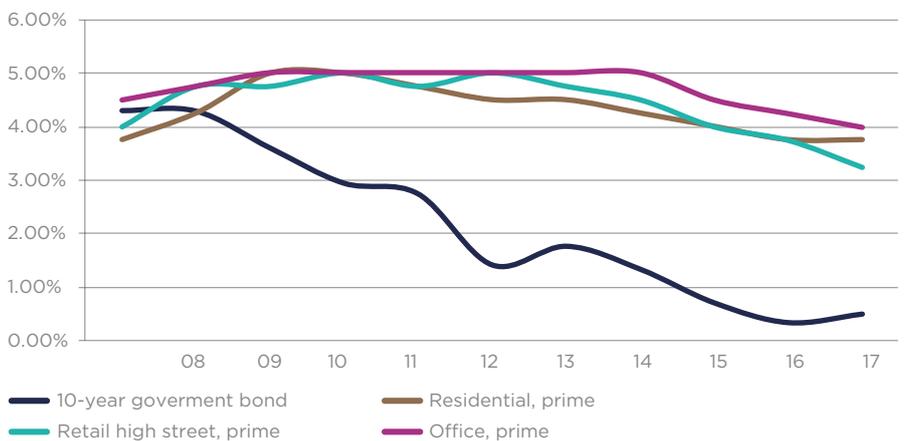
Note: Sadolin & Albæk property price index (index 100 = Q3 1984).  
Source: Sadolin & Albæk

### Transaction volume at all-time high, rest of Denmark catching up



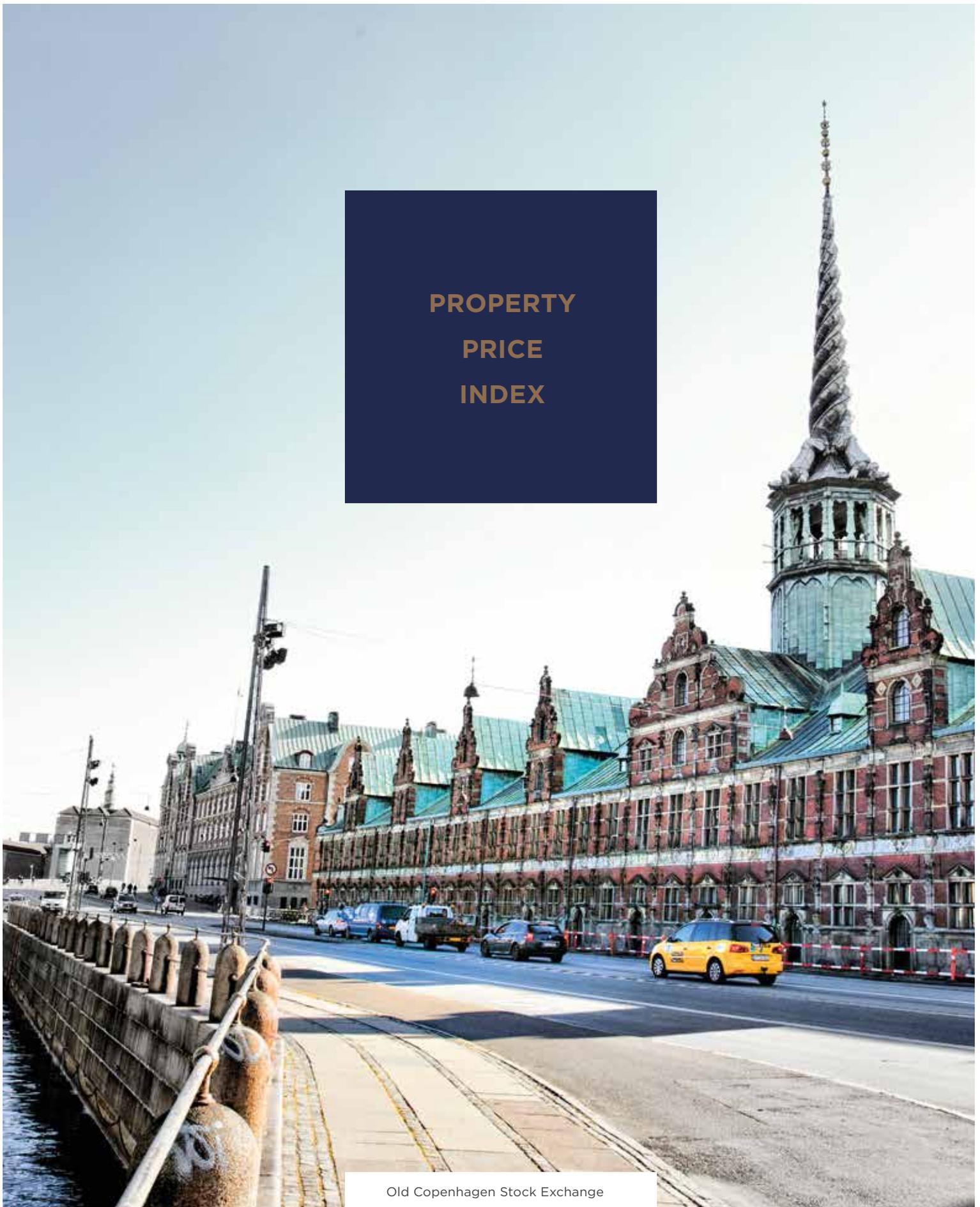
Note: Transaction volume, Denmark (DKK bn).  
Source: Sadolin & Albæk

### Commercial property continues to offer attractive returns



Sources: Eurostat and Sadolin & Albæk

**PROPERTY  
PRICE  
INDEX**



Old Copenhagen Stock Exchange

## 2018: Another solid year for commercial property

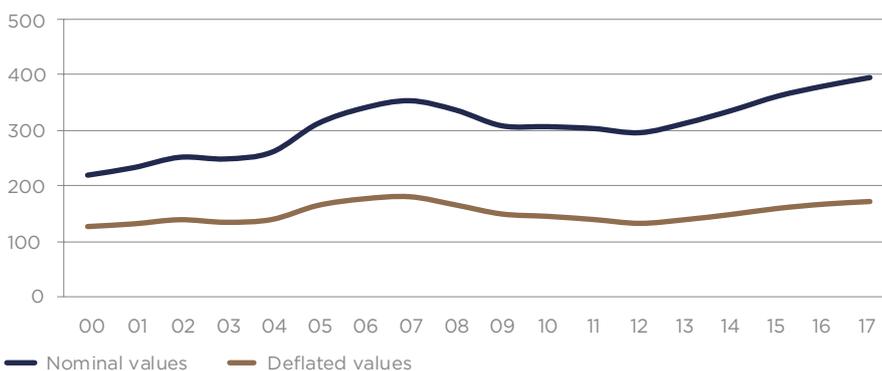
For the fifth year running, Greater Copenhagen commercial property prices continued to climb in 2017. According to the Sadolin & Albæk property price index, Greater Copenhagen commercial properties yielded a total average return of 8.8% in 2017, on a par with the long-term average, resulting from slight compression of income return to around 4.8% and capital growth of 4.0%.

Driven by a long period of historically low interest rates, massive placement requirements and a shortage of equally attractive investments opportunities, transaction volume in the property investment market soared to an all-time high of more than DKK 88bn in 2017.

The 4.0% capital growth seen in 2017 was driven largely by yield compression and significant recovery in the occupational markets. Income return requirements compressed by some 10 bps in 2017, corresponding to capital growth of approximately 2.0%. As the increase in the net price index (NPI) stood at only 0.5% in 2016, around 1.5 pts of capital growth is attributable to improvements in the occupational markets, mainly uptrending rents in the logistics/industrial segment and lower Greater Copenhagen office vacancy rates.

Having climbed for five years running, commercial property prices have, in nominal terms, moved well beyond the previous peak level recorded in 2007. Factoring in inflation, however, Copenhagen commercial property prices remain some 5% short of 2007 prices.

In real terms, Copenhagen commercial property prices remain 5% below 2007-level



Note: Sadolin & Albæk property price index (index 100 = Q3 1984).

Source: Sadolin & Albæk

Sustained uptrend in Greater Copenhagen commercial property prices documented by five consecutive years of capital gains.

### 8.8%

Total average return on commercial property in 2017.

### 10 bps

Commercial property sector income return requirement compression in 2017.

## Property vs. stocks and bonds

When assessing the performance of Copenhagen commercial property, the return to risk reward offered by commercial real estate assets compared to other asset classes is a factor to consider. We have compared the performance of commercial property to that of stocks and bonds by analysing total return indices for each of the asset classes, i.e. including reinvested income yields for the respective asset classes. For a gross index of the Danish stock market, we use total return data compiled by MSCI, and for bonds we use Nordea's 7-year benchmark return. For the total return on commercial property, we use the Sadolin & Albæk property index, in which total return is comprised of average net initial yields and capital growth.

Following a sluggish 2016, the stock markets rallied to unprecedented highs in 2017 as the MSCI Denmark Gross Index saw a surge of 19.3% as the year wore on. In contrast, bond markets are still struggling with historically low and stable interest rates, reflected in relatively poor bond returns, accumulating to 0.21% at year-end 2017.

Since 2000, the total return on stocks has on average outperformed commercial property and bonds by approximately 340 bps and 750 bps, respectively. Accordingly, in this period, commercial property has produced an average total return outperforming Nordea's 7-year benchmark by some 410 bps.

The average return on stocks exceeds the average returns on property and bonds, but at the expense of significantly higher return volatility. When calculating risk, measured as the standard deviation on each time series, the total return on stocks proves to carry more than four times the risk of commercial property in an analysis of time series dating back to 2000. Computing the Sharpe's ratio, a measure of risk-adjusted returns, for the three time series indicates that commercial property has significantly outperformed both stocks and bonds over the past 18 years, indicating a significant illiquidity premium on commercial property investments.

## 2018 – another solid year for investment property

Against the backdrop of a sustained rally in property prices, with annual average capital growth of 6.0% in the last five years, we predict that capital growth will be more moderate in 2018. For the past five years, capital growth has been driven mainly by substantial yield compression across all segments of the investment property market. We believe that this trend will ease off somewhat in 2018. Except for slight yield compression in the logistics segment, we believe that yields will remain flat over the next 12 months.

We expect prospects of rate hikes to slow or stop further yield compression, although the outlook for the occupational markets remains bright, supported by favourable trends in Danish economy.

Total property returns in the Greater Copenhagen commercial market are projected to be in the 6-7% range in 2018. However, it is possible that income return requirements will see slight compression of around 5 bps to the 4.75% mark on average, yielding a

Risk-adjusted commercial property returns outperform returns on stocks and bonds.

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Total return on commercial property investments in 2018 is estimated at around 6-7%.

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Stable income return expected throughout 2018, with expectations of some yield compression in the logistics segment.

capital growth contribution of around 1.0%. Overall, favourable trends in the occupational markets are expected to continue in 2018, with rent increases in the logistics segment and in some office segments. However, as other segments remain structurally challenged, we are fairly conservative in our assessment of the net effect of occupational market recovery on capital growth. In addition, capital growth will be supported by an inflationary uptrend in 2017, prompting a 1.2% increase in NPI.

### Model and approach

For both the Sadolin & Albæk property price index (capital growth) and the net initial yield calculations, we have used a hedonic multiple regression analysis based on empirical analysis of data collected from almost 4,600 property sales and property valuations in the Greater Copenhagen area since 1985, all involving Sadolin & Albæk. The model covers all types of commercial property, but fixed implicit prices are applied for the various property characteristics, mainly location, use, state and condition/quality, suitability/rationality and economies of scale, as a corrective measure to account for the differences between individual properties.

In this context, the return applied is the average return, which denotes the most likely return or the return that investors may expect in a random year on the basis of historical returns. The average return should not be mistaken for the expected

compound interest on investments or the geometrical average used to measure the compound return on an investment. The risk is measured by the standard deviation of the yearly returns, that is, the average deviation from the mean return. The risk measurement applied here thus provides information on the extent to which the return fluctuates around the expected average return.

### Positive capital growth five years straight



Note: Total return, income return and capital growth for commercial property in the Greater Copenhagen area.

Source: Sadolin & Albæk

### Commercial property continues to outperform bonds



Note: Historical returns on commercial property, stocks and bonds (Index 100 = 2000).

Sources: MSCI, Nordea and Sadolin & Albæk

### Commercial property investments best-in-class risk-adjusted returns

	2017	2000-2017		Sharpe's ratio
	Return	Mean return	Risk	
MSCI Denmark, Gross Total Return	19.3%	13.1%	25.0%	0.37
Nordea benchmark, 7-year bond	0.21%	5.6%	5.1%	0.62
Commercial property, Greater Copenhagen <sup>1</sup>	8.8%	9.7%	6.3%	0.69

Note: Average return and risk on commercial property, stocks and bonds.

Sources: MSCI, Nordea and Sadolin & Albæk

<sup>1</sup>Please note that the Sadolin & Albæk property price index is based on observations recorded throughout the whole year and therefore the return computed is an average across the year compared to the average across the previous year.

An aerial photograph of Copenhagen, Denmark, showing a dense urban landscape with numerous buildings, a prominent church with a tall green spire, and a canal in the foreground. A dark blue rectangular box is overlaid on the upper left portion of the image, containing the text 'INVESTING IN DENMARK' in gold, uppercase letters.

# INVESTING IN DENMARK

Copenhagen city

# European hotspot and strong growth engine



Denmark's capital, Copenhagen, was named the most liveable city in the world by magazines Metropolis and Wallpaper in 2016. Similarly, in three out of four annual surveys in recent years, Danes were ranked as the happiest people in the world, based on high scores on e.g. GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and freedom from corruption<sup>1</sup>.

Dating back to year 1043, Copenhagen offers an exceptionally rich history of architecture and culture combined with modern city living with outstanding restaurants, cafés and shopping. The city has seen sustained tourism growth for more than seven consecutive years, with an annual tourist count of 10+ million putting Copenhagen in the Scandinavian top-league.

## Denmark's premier growth centre

Located on the island of Zealand and at the very heart of the Øresund region, Copenhagen is the foremost growth centre of the Capital Region of Denmark, comprising 29 municipalities and 1.8 million inhabitants in total. This region is expected to see population growth of some 18% by 2045, corresponding to 317,000 new residents.

Strong population growth is a significant driver in the regional housing and labour markets. In terms of educational level, the Capital Region of Denmark has a high ranking too, with 41% of the region's residents having completed medium- to long-cycle education relative to the national average of 32%. Danish GDP per capita exceeds the EU average by roughly 25%. In Copenhagen alone, GDP per capita exceeds the national average by 41%, making the city the unrivalled driver of Danish economic growth. Supported by these strong fundamentals, Greater Copenhagen offers ideal framework conditions for attractive property investments.

## The place to do business

The 2017 World Bank survey gave Denmark top ranking as a place to do business in Europe, citing Copenhagen as the main growth locomotive. In addition, Denmark is one of the most digitalised countries in the EU. In combination with a highly skilled labour force and political stability, this makes Greater Copenhagen a European hotspot. As Denmark has one of the most flexible job markets in the world and a minimal corruption rate, the Danish investment climate is one of the most favourable in the world.

Copenhagen named the most liveable city in the world.

2017 World Bank survey gives Denmark top ranking as a place to do business in Europe.

<sup>1</sup>Source: "World happiness report 2017", UN

In fact, a 2017 benchmarking report measuring cities' ability to foster, attract and maintain talent, the "Global Cities Talent Competitiveness Index" (GCTCI) gave Copenhagen top-scores based on high quality of life, range of career opportunities and strong infrastructure.

**Heavy infrastructure investments**

On completion of the Copenhagen Metro expansion scheme, adding a circle line, "Cityringen", and a line from Nordhavn (north harbour) to Sydhavnen (south harbour), scheduled for commissioning in 2019 and 2023, respectively, urban infrastructure will improve substantially, connecting the newly developed city districts with the rest of Copenhagen.

Scheduled for commissioning in the second half of 2024, the new Copenhagen Light Rail along the Ring Road 3 corridor is believed to foster new urban growth areas, attracting long-term investments and influencing future settlement patterns.

**Triple-A rating**

Supported by Copenhagen's status as the premier growth centre, Denmark is perceived as a safe-haven investment market thanks to strong framework conditions, reflected in Denmark's AAA rating by S&P. Compared to other European countries, Denmark offers highly attractive risk-adjusted returns and low-volatility market rent levels. In addition, leveraged investors have the opportunity to boost effective yields due to low transaction and lending costs offered by the highly efficient Danish mortgage system.

**GDP and consumer spending almost at pre-crisis levels**

Danish economic growth momentum is strong: Danske Bank estimates Danish GDP growth at 2.0% in 2017, driven mainly by exports and consumer spending.

Consumer confidence has almost rebounded to pre-crisis level, with 1.7% growth in consumer spending according to a Dansk Bank forecast for 2017. Strong momentum in the labour market, real wage growth and increasing housing prices are the main drivers of consumer spending. Inflation is estimated at 1.2% in 2017, up by 0.9 pts on 2016, thus exceeding the anticipated level. As a result, we have seen a slight erosion of household purchasing power, curbing consumption growth.

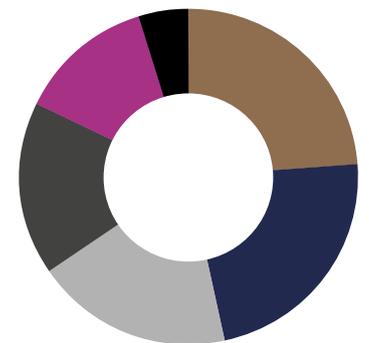
**Skilled labour in short supply**

Employment levels have made a strong recovery, driven mainly by job growth. The Danish unemployment rate remains relatively stable, estimated at 4.3% in 2017.

Companies have been known to report of difficulties in finding available skilled and qualified staff, with labour shortages therefore possibly threatening to dampen the economic upturn. Due to the low unemployment rate, qualified labour has become a sought-after resource, exacerbating wage pressure in several business sectors.



**Copenhagen residents highly educated**

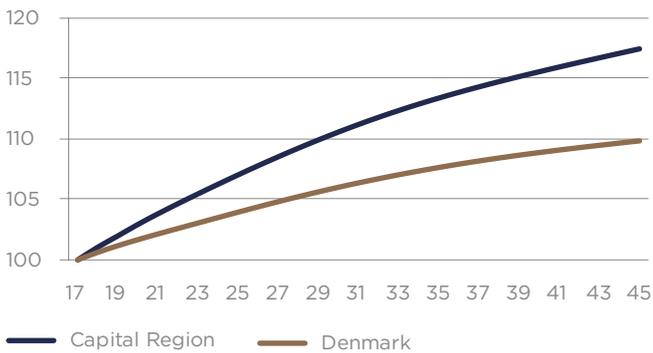


- 24% Vocational education
- 23% Basic school (9-10 grade)
- 19% Short-cycle higher education
- 17% Long-cycle higher education
- 13% Upper secondary school
- 5% Bachelor/medium-cycle higher education

Note: Rounded figures.  
Source: Statistics Denmark

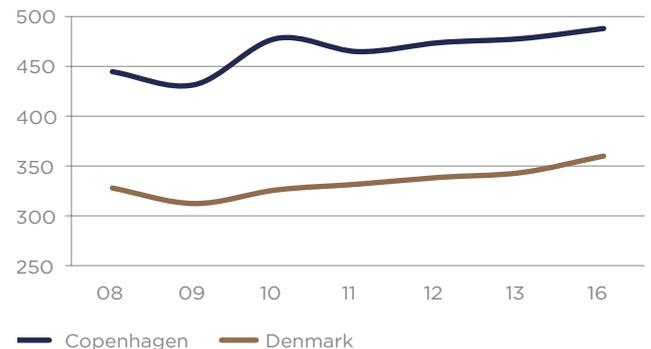


### Continued urbanisation trend



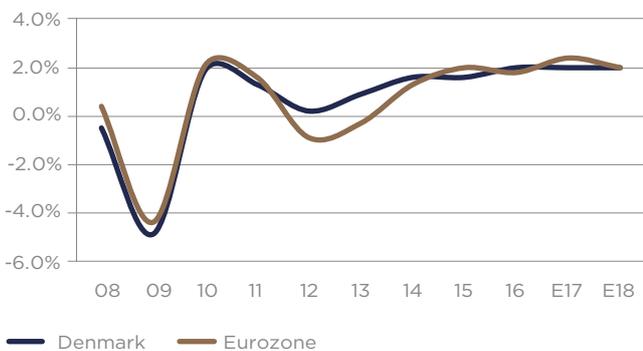
Note: Population forecast (index 100 = 2017).  
Source: Statistics Denmark

### Copenhagen: A strong growth engine



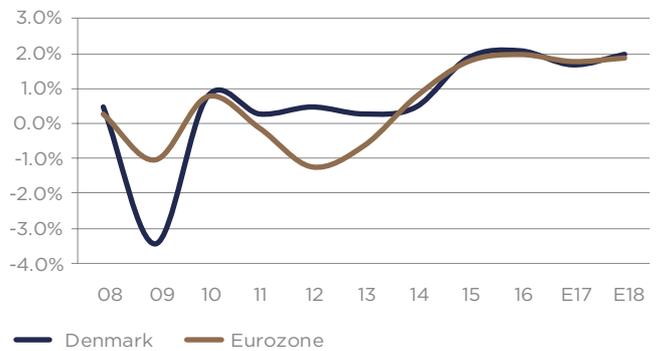
Note: GDP per capita, DKK '000.  
Source: Statistics Denmark

### Steady increase in Danish GDP growth



Note: Growth in real GDP (y/y).  
Sources: Eurostat, Statistics Denmark and Danske Bank

### Danish consumer spending stable



Note: Growth in consumer spending (y/y).  
Sources: Eurostat, Statistics Denmark and Danske Bank

### Low interest rates and low inflation

The DKK-EUR peg ties the interest rates determined by the Danish central bank, Danmarks Nationalbank, to those of the ECB. In view of Denmark's large current account surplus and the strong demand for Danish government bonds, it is plausible that Danish interest rate levels will remain lower than those of the ECB for a significant length of time, even when the ECB scales down its bond purchase programme in 2018. Danske Bank does not foresee any Danish rate hikes until the ECB raises its rates. However, Danske Bank expects moderate increases in long-term interest rates before 2019 in the eurozone as well as in Denmark.

In 2017, the Danish benchmark yield, defined as the yield on a 10-year government bond, increased from 0.30% to 0.49%. By comparison, the short-term interest rate dropped from -0.24% to -0.31%.

### Political stability

In 2016, Denmark topped the list of the world's least corrupt countries for the fourth year in a row in the annual 'Corruption Perceptions Index', ranking countries based on several factors, including public sector corruption and transparency in politics.

The political system in Denmark is characterised by stability and consensus, with major political agreements only rarely being reversed in case of change of government. In the latest general election (2015), the four oldest parties – dating back to 1870-1916 – altogether obtained 54% of votes, emphasising the strong element of continuity in Danish politics.

The low corruption rate and general transparency of Danish society contribute to the strong brand value of Denmark.

### Property transaction volume at DKK 88bn in 2017

Transaction volume in the Danish investment property market totalled DKK 88bn in 2017, marking an all-time high and a strong 39% increase relative to the pre-crisis volume of DKK 66bn recorded in 2006.

For the third consecutive year, investments in residential properties accounted for the largest share of total investment volume, namely 45%, whereas office and retail property investments each accounted for around 20%. Transaction activity in the market for industrial property has picked up substantially compared to 2016, driven mainly by Blackstone's acquisition of a secondary industrial portfolio from M7 Real Estate.

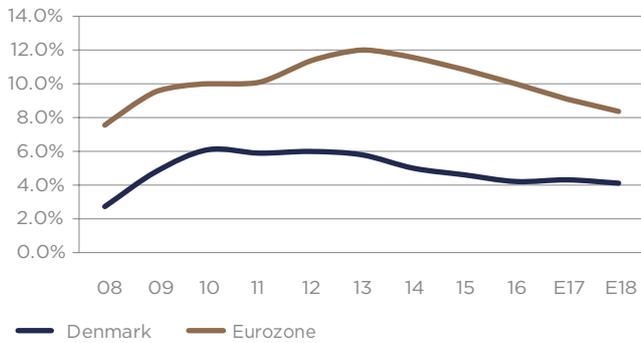
### International investors accounted for 54%

International investors have consolidated their positions in the Danish investment property market: In terms of volume, they were involved in around 54% of overall property investments in 2017, up from 45% in 2016. The predominance of international investors is more evident in the segment involving transactions with a volume in excess of DKK 500m, in which they account for more than 68% of transaction volume. International investors such as Heimstaden, Niam, Blackstone and Patrizia have been



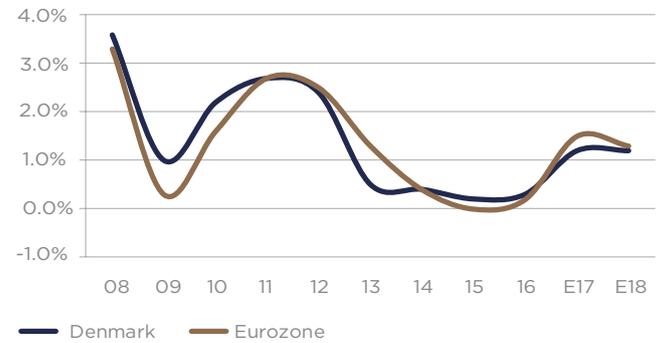
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### Danish unemployment rate at structural low



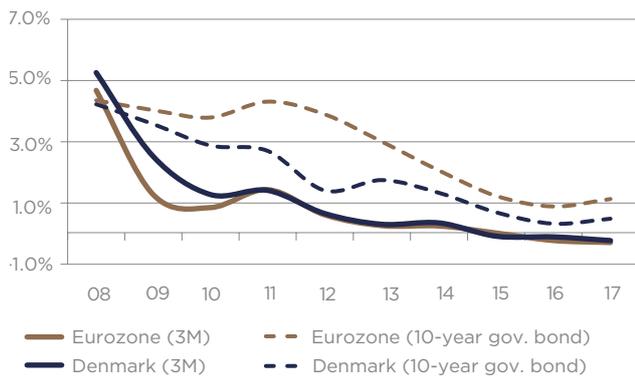
Sources: Statistics Denmark, Eurostat and Danske Bank

### Danish inflation edging up



Sources: Eurostat and Danske Bank

### Historically low interest rates



Note: Short-term interest rates (3M) and 10-year government bonds.  
Source: Eurostat



### Macroeconomic key indicators: Continued upturn in Danish economy

Year	GDP <sup>1</sup>	Unemployment <sup>2</sup>	Consumer spending <sup>1</sup>	Exports <sup>1</sup>	Inflation <sup>1</sup>	Public debt <sup>3</sup>	10-year swap yield <sup>4</sup>
<b>Denmark</b>							
2017	2.0%	4.3%	1.7%	3.6%	1.2%	36.0%	1.06%
2018	2.0%	4.1%	2.0%	2.7%	1.2%	35.1%	1.45%
2019	1.9%	4.0%	2.5%	2.6%	1.4%	33.9%	na%
<b>Eurozone</b>							
2017	2.4%	9.1%	1.8%	4.8%	1.5%	88.1%	0.91%
2018	2.0%	8.4%	1.9%	3.7%	1.3%	87.2%	1.20%
2019	1.8%	8.0%	1.9%	3.4%	1.4%	85.2%	na%

<sup>1</sup>Growth (% y/y), <sup>2</sup>% of workforce, <sup>3</sup>% of GDP, <sup>4</sup>End-year.  
Sources: Danske Bank og Eurostat

particularly active in the Danish investment property market, contributing to a strong internationalisation trend and increased market transparency, thereby making the market more attractive from an investment perspective.

### Value-add assets are attracting mounting investor demand

A breakdown of transaction volume by investment profile shows a decline in the share of core investments in recent years, with prime core assets being in short supply. Core assets are typically fully let investment property assets associated with low risk and high cash-flow security. In 2017, 50% of transaction volume involved core properties, a sharp drop from the 2016 level of 72%. Whereas the share of value-add investments rose from 13% to 43%. Value-add assets are typically associated with weaker and more uncertain cash flows and a potential for operational improvements subject to proactive asset management.

In recent years, Greater Copenhagen has seen the highest proportion of property investment activity in terms of volume. In 2017, the figure was 51% compared to the 2016 level of 79%. Investors have started to look further afield to other large cities such as Aarhus, Aalborg and Odense in pursuit of higher returns as Copenhagen yield requirements have compressed.

### Investment market outlook remains bright

We believe that the record-breaking transaction volume of 2017 may well be topped. Institutional investors have consolidated their position in the market, and domestic pension funds are strategically opting to allocate more investment capital to so-called alternative investments, including property investments.

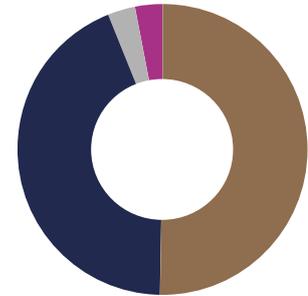
As a result, we foresee sustained strong investment demand for investment properties, fronted by institutional investors. Considering the undersupply of residential properties situated in prime locations, we expect an increase in the demand for development projects. In addition, we believe that demand will increase for efficient office properties in secondary locations as well as assets with redevelopment potential due to spill-over demand resulting from the lack of supply in the Copenhagen market for prime office properties.

In the retail segment, Copenhagen high-street assets are expected to spearhead transaction activity, but prime shopping centres are coming to the fore, with the attractive risk-adjusted returns in this segment whetting investor appetite. The outlook for the industrial and logistics segment is bright too, with investment activity driven by an increasing number of sale & leaseback transactions.

### Danish pension funds expected to increase exposure to property

Relative to GDP, Danish pension wealth is the largest in the world. In 2016, total private pensions savings equalled 209% of Danish GDP, a dramatic increase from the 2006 level of 136%. Traditionally, domestic pension funds have allocated between 5-10% of capital to property investments.

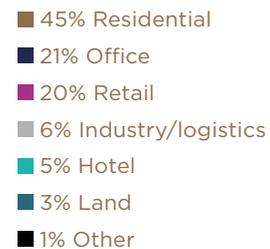
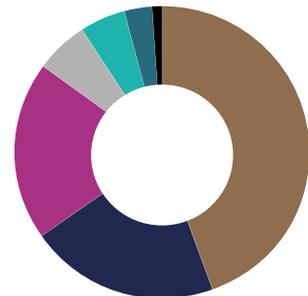
### Increased focus on value-add assets



Note: Transaction volume by investment type. Rounded figures.

Source: Sadolin & Albaek

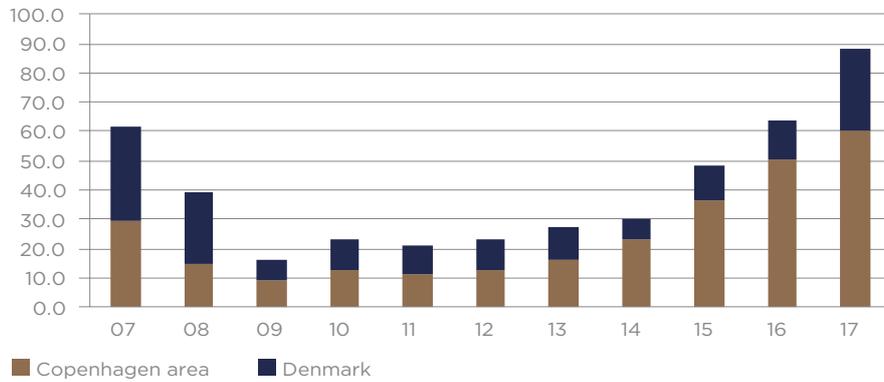
### Residential assets remain the most coveted



Note: Transaction volume by asset type. Rounded figures.

Source: Sadolin & Albaek

### Transaction volume all time high, rest of Denmark catching up



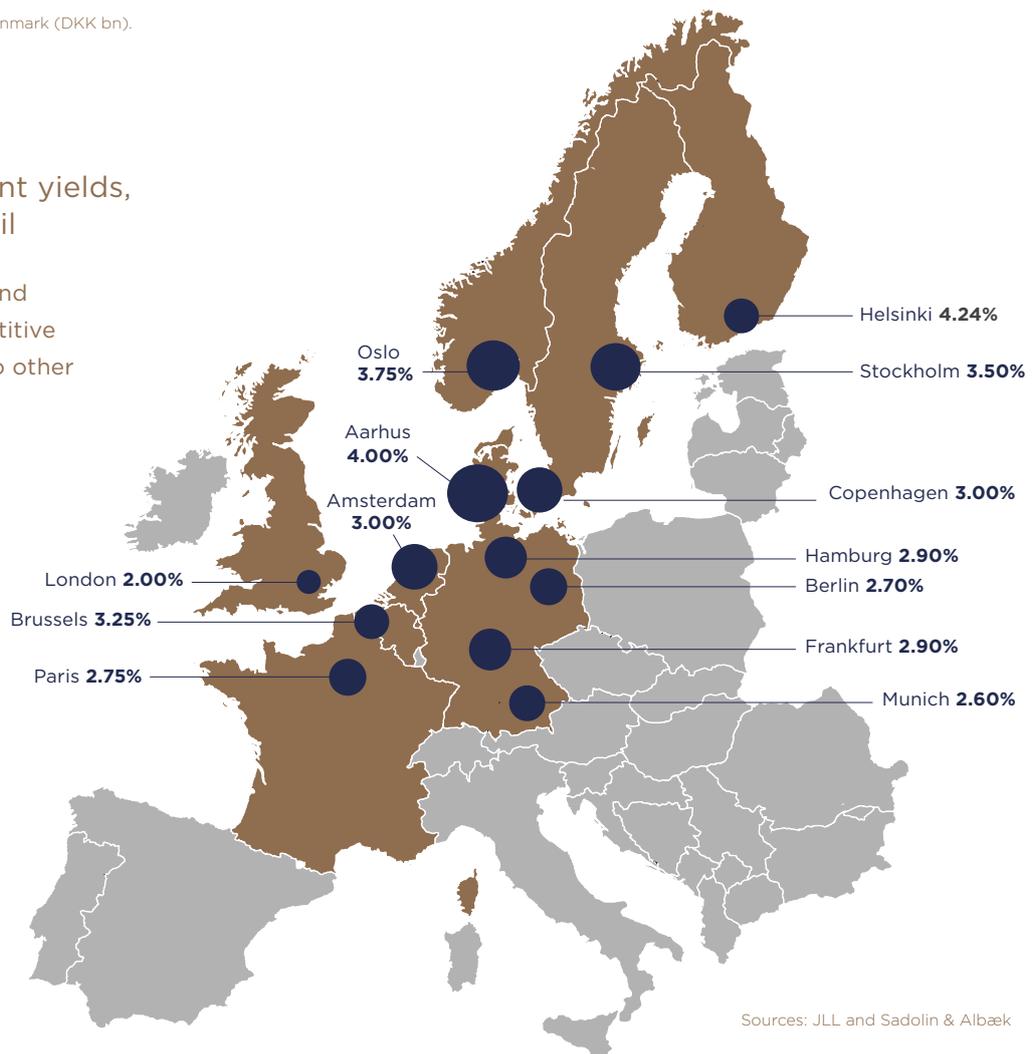
Note: Transaction volume, Denmark (DKK bn).  
Source: Sadolin & Albæk

### Transaction volume

Transaction volume in the Danish investment property market totalled DKK 88bn in 2017, marking an all-time high and a strong 39% increase relative to the pre-crisis volume of DKK 66bn recorded in 2006.

### Prime investment yields, high-street retail

Both Copenhagen and Aarhus offer competitive returns compared to other European cities.



Sources: JLL and Sadolin & Albæk



Historically, domestic pension funds have adopted different approaches to property investments. In recent years, we have seen a shift in the risk preferences of major pension funds. In response to fiercer competition and limited supply of core assets, pension funds have increasingly zoomed in on the value-add segment in pursuit of higher returns.

Recent years of stockmarket turbulence and low returns on low-risk liquid assets such as bonds have incentivised investors in general and pension funds in particular to allocate more capital to alternative investments, including investment properties as such assets are considered to offer long-term attractive risk-adjusted returns.

In the past, domestic pension funds predominantly invested in core assets in prime Copenhagen locations. However, judging by transaction activity in 2016 and 2017, there has been a shift in strategy. We now see domestic pension funds accepting exposure to different segments, moving further out the risk curve and making investments in assets such as residential building plots, hotels and old-stock residential properties, typically requiring proactive, hands-on asset management.

Looking ahead, we expect domestic pension funds to allocate more capital to property investments. PFA, one of the largest pension funds in Denmark, has stated that it intends to allocate 12-15% of investment capital to property investments. Other domestic pension funds are believed to follow suit over the next five years.

Adding up the figures stated in the 2016 balance sheets of the five largest pension funds, total investments amount to a grand total of DKK 1,635bn. An increase in allocations from a share of 5-10% to 12-15% would imply an additional property investment volume of DKK 80-120bn.

Holding this together with international institutional appetite for Danish investment assets, we expect that climbing interest rates will have only limited effect on property yields.

## The Danish mortgage system

The Danish mortgage system probably offers one of the world's most efficient and reliable models of property financing, designed to work in favour of both borrowers and bond investors as well as the economy in general. It is based on flexibility, transparency and low costs due to market-based prices and advantageous prepayment terms. Compared to European commercial banks in general, Danish mortgage banks showed their resilience during the financial crisis of 2008-2009 by increasing mortgage lending.

## Mortgage lending in practice

In Denmark, the mortgage financing market is characterised by exceptionally low financing costs and a highly transparent cost structure due to a unique balance principle. Danish mortgage banks grant loans which must be secured by a mortgage on a real property, allowing for loan-to-value (LTV) ratios of up to 60-80% of the property's "as-is" value, depending on asset type and the debtor's credit rating. Danish mortgage banks offer financing at fixed or floating rates with a maturity of up to 30 years.



Denmark offers highly attractive risk-adjusted returns and low-volatility market rent levels.





OFFICE

Hovedvejen 107, Glostrup

# Vacancy rates reveal market polarisation



## Demand and supply mismatch

Today, the focus of Danish businesses is increasingly shifting from cost-effectiveness to growth. In Denmark in general, and in Greater Copenhagen in particular, economic growth has prompted a recovery in the office property market. With the favorable trend predicted to continue in the coming years, businesses are increasingly prepared to invest as they plan ahead for expansion, which, all other things being equal, requires more office space. Businesses typically tend to rent more office space than they immediately require in anticipation of sustained growth. We believe that a great many businesses are contemplating whether to relocate to larger premises to secure future expansion possibilities.

In absolute figures, the number of full-time equivalents (FTEs) rose by approximately 12,500 between Q3 2016 and Q3 2017 in the Capital Region of Denmark. Like in 2016, job growth is driven mainly by office-intensive sectors, including 'Information and communications', 'Trade and transport' and 'Other business services' (categories used by Statistics Denmark). In 2017, this was a strong value driver in the office market, triggering a sharp downtrend in office vacancy rates.

## Declining vacancy rates

Economic prosperity and brisker office market activity have a direct impact on vacancy statistics. In 2017, the Copenhagen proper office vacancy rate declined from 7.8% in Q1 to 5.7% at year-end, marking an eight-year low. Similarly, the vacancy rate in Greater Copenhagen, excluding the Copenhagen proper, is now at a six-year low, standing at 9.5% at start-Q1 2018, down from 10.8% in Q1 2017.

This arguably indicates that the existing supply of office premises is sufficient to meet the demands of the businesses considering a relocation. However, we do not believe that this is accurate. In fact, we are aware of several medium-sized and large businesses that find it very difficult to find office premises that meet their requirements in terms of e.g. building design and layout, functionality, location, cost-effectiveness and sustainability/green tech, etc.

Because office premises in the older building stock generally fail to meet the long-term demands of modern office tenants or are offered at non-competitive asking rents,

## Need for more office space as employment rises



Note: FTE growth, Capital Region of Denmark, Q3 2016 to Q3 2017. \*) Other includes Finance and insurance, Real estate, Public administration, Manufacturing and Agriculture and other unspecified business activities.

Source: Statistics Denmark

they are more vacancy prone. As a result, the Copenhagen office market is becoming particularly polarised in terms of vacancy rates and re-letting periods.

In the short term, the current pipeline of new office space is not expected to match the unregistered demand of businesses. This could potentially drive Copenhagen top rents over DKK 2,000 per sqm, excluding taxes and operating costs, in the course of 2018 or 2019. Longer term, however, the availability of extensive development opportunities, especially in some of the relatively new districts of Copenhagen, including Nordhavn, Ørestad, Ny Ellebjerg and Scanport, may serve to curb major rent hikes as office development activity gains momentum.

**Paradigm shift in occupational demand**

In recent years, we have seen a gradual shift towards more flexible workstyles, breaking away from the traditional “one employee, one desk” philosophy. This shift seems to be gaining momentum for various reasons. Firstly, businesses expect an increasing number of their future employees to be contractors or temporary workers, signifying a marked shift from previous, more static hiring regimes. Secondly, technological advances have accelerated, making it increasingly easy to work away from the office, for instance when on the go, from home or in small project-related office facilities. As a result, the required workplace area has become gradually smaller as workflows are becoming increasingly team-based and flexible.

Recently, we have for example seen MSD relocate from Ballerup to move closer to Copenhagen, in the process reducing its area requirement by approximately 40% by introducing flexible workspaces. Similarly, Microsoft introduced more flexible space-utilisation when designing its new head-office premises in Lyngby, thereby reducing its overall area requirement by around 25%.

**Talent race and demanding employees**

Also, a more demanding workforce and fierce competition for talent have made businesses renew their ways of thinking and operating to accommodate the needs of their employees. As the line between work and play has become more blurred, businesses have started to adapt to a new reality. The new generation of graduates and workers is more entrepreneurial, more focused on career advancement, less loyal towards their employers and has a higher preference for working in an urban inner-city setting. Apart from valuing sociability and flexibility, this generation has a strong preference for easy access to public transport; parameters which businesses are now to a greater extent than before factoring in when they search for new premises.

For instance, Danish consultancy firm Valcon recently relocated its head office from Hørsholm to Copenhagen, citing the long travel time associated with its former location as a substantial drawback to recruiting new talent and staff.

**Indoor climate and flexibility**

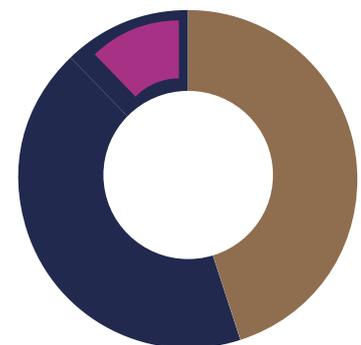
As the office letting market has grown more dynamic, tenant parameters when choosing new lease premises have developed substantially too. In the past,

**Plummeting vacancy rates**



Source: Ejendomstorvet.dk

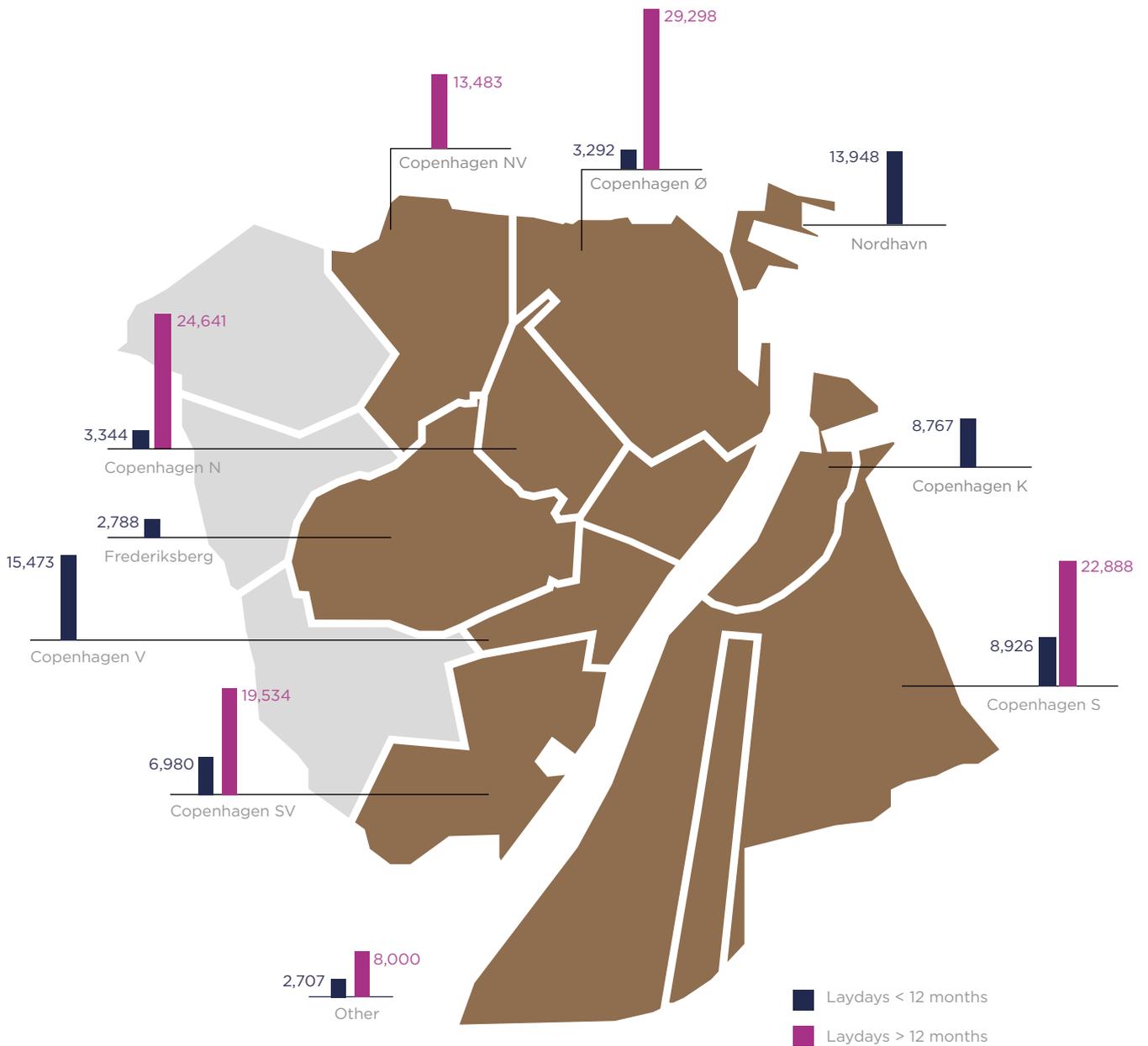
**Modern, large lease units associated with very low vacancy risk**



- 45% Units < 2,000 sqm
- 55% Units > 2,000 sqm
- 12% Units > 2,000 sqm Built after 2005

Note: Current supply of available lease units. Sources: Ejendomstorvet.dk and Sadolin & Albæk

### Strong absorption rates in prime office districts



Note: Current supply of available lease units of 2,000+ sqm. Supply quoted in sqm space.

Sources: Ejendomstorvet.dk and Sadolin & Albæk.

tenants focused on factors such as price, location and unit size, but today's tenant requirements are much more varied and diverse.

In order to pinpoint the elements demanded by tenants in their pursuit of new premises, Sadolin & Albæk conducted two major interview-based surveys in 2017 (targeting tenants with 0-49 employees and 50+ employees)<sup>1</sup>. Broadly speaking, we found that the perfect corporate setting relies on a combination of multiple value drivers. The interviewees in fact ranked eight factors on average (out of 24 possible) as "very important" for their choice of lease premises. In this context, it is remarkable to note that indoor climate was claimed to be the most important determinant, but the tenants also gave high scores to flexible lease terms and confidence in the landlord.

### Flexible office hotels on the rise

The stronger demand for flexibility has fed through to the market for office hotels and similar concepts. These office facilities have been widely accepted as a viable alternative to traditional office leases. This is supported by the fact that an increasing number of businesses opt in favour of office hotels. In connection with our interview-based tenant surveys, one in five businesses indicated a "strong" or "fairly strong" interest in relocating to an office hotel.

### Costs less important in economic upturn

However, the cost of the lease premises remains a key determinant, in particular for small businesses. Conversely, major businesses have a greater preference for e.g. sustainability, flexibility in terms of up- or downsizing the lease premises as well as satisfactory shared facilities.

As a rule, the need for sustainability and similar parameters is cyclical today: During an economic upturn, the focus tends to be less on overheads, leaving room and leeway for a stronger focus on non-financial values. We expect this to change, with sustainability becoming a constant determinant for the choice of office premises. This ties in with the need to attract and retain highly skilled and well-educated employees, who today increasingly embrace notions of sustainability and social responsibility.

Excellent access to public transport, defined as being within close proximity of a metro or S-train station, was rated as another important value driver for both sub-segments. As a result, we expect to see increased segmentation in locations formerly considered equally attractive, as the scheduled opening of new metro stations and lines in the years ahead will define the ability to attract new businesses. For instance, we believe that the new metro station in the Nordhavn district will greatly benefit the immediate neighbourhood, giving it a competitive advantage over e.g. Tuborg Nord.

### Reduced reletting costs for basic products

As today's office tenants are demanding greater flexibility, adopting an increasingly agile approach to space utilisation and functionality, developers and landlords must rethink their basic products accordingly.

The perfect corporate setting relies on a combination of multiple value drivers.

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During an economic upturn, the focus tends to be less on overheads, leaving room and leeway for a stronger focus on non-financial values.

<sup>1</sup>The surveys are part of a recurring annual surveys of the Copenhagen office letting market, targeting a representative selection of office tenants.

## Indoor climate, landlord and price important to both small and large tenants ...

0-49 employees



50+ employees



## ... Access to public transport another important value driver

0-49 employees



50+ employees



Note: The results do not add up to 100% as the respondents were given 24 reply choices in total. Base = 600 surveyed. 375 respondents in the 0-49 employees category, 225 in the 50+ category. All interviews were conducted as telephone interviews by Megafon A/S on behalf of Sadolin & Albæk and It's A Fact ApS. Source: Sadolin & Albæk

However, it is possible to cater to many of these requirements in the early development phases by giving more attention to fittings and space planning. Reconstruction works and alterations, in particular those involving installations, to satisfy new tenants' demands are costly and require substantial investment, unless already factored in at the time of construction. For instance, a stable indoor climate requires well-functioning installations, operational not only in the planned setup but also in potential future setups, if substantial investments in rearrangements are to be avoided.

### Costly refitting of inflexible spaces

So far, developers have tried to reduce potential reconstruction costs to a bare minimum by providing new office buildings with flexible space utilisation, where room divisions and interior layout may relatively quickly and at low cost be adjusted to match the requirements of new tenants. However, due to insufficient focus on the flexibility and scalability of mainly installations, we see relatively new buildings, completed only 10-15 years ago, which may already be labelled functionally obsolete. It is a very costly affair to update such buildings to meet modern tenant demands.

The upgrade of KMPG's new head office at Dampfærgevej on the Copenhagen waterfront serves as an example of such cost-intensive reconstruction, with the most costly items including rearrangement/repair of installations and a change of ceiling height. In the new Microsoft head-office premises in Lyngby, however, installations,

etc. were scaled up specifically to allow for adjustments to match new and more flexible use of office space. The over-dimensional design makes it possible to minimise the costs of future lease alterations to match a different setup, up- or downscaling measures, etc.

When investing in new properties, investors are wise to have stronger focus on the long-term risk associated with the expiry of non-terminability periods and possible reletting. This focus may well increase the level of investment in the interior layout and fitting up of new buildings. However, this makes it possible to achieve substantial savings in term of reduced reconstruction and fit-up costs in connection with a future change of tenant.

### **Revival of speculative newbuilding in the office market?**

In view of today's red-hot office occupational market, we are starting to see a revival of speculative office newbuilding. Motivated by the current economic growth momentum, an increasing number of businesses are searching the market for office premises as they are often not able to put their expansion plans on hold for the duration of the 12-24 months typically required to build a new office building.

Since the financial crisis, developers and investors alike have been averse to speculative building, although the office occupational market has been recovering for years. In recent years, several speculative newbuilding schemes have experienced difficulties, mainly due to aggressive pricing, inferior locations or outdated space planning. These speculative schemes may well have failed to match actual tenant demand, but they have contributed to a pool of hard-won experience for future developers and investors to draw on, which we believe will be reflected in future speculative newbuilding.

Many developers still recall the fear of being stuck with an empty building without tenants. Nevertheless, we expect the prevailing market situation with low vacancy rates and moderate rent increases to whet developers' appetite and tolerance for risk. In today's market, demand is largely focused on well-located and moderately priced up-to-date office properties in the 2,000+ sqm range. This is also the office segment that we expect future office newbuilding to target.

We foresee that Copenhagen districts like Ørestad and Ny Ellebjerg as well as suburban districts along the Ring Road 3 corridor will offer some of the best conditions for speculative newbuilding, the latter locations in particular being characterised by an outdated and functionally obsolete office stock. Ørestad and Ny Ellebjerg, however, offer development opportunities in close proximity of Copenhagen and excellent accessibility. In addition, office rent levels in these districts remain affordable compared with prime Copenhagen market rents.

Nevertheless, we do not anticipate speculative newbuilding to become as prevalent as in the pre-crisis years, when almost 40% of new office space was constructed on speculation.

Many developers still recall the fear of being stuck with an empty building without tenants. Nevertheless, we expect the prevailing market situation with low vacancy rates and moderate rent increases to whet developers' appetite and tolerance for risk.

# In focus: Serviced offices

In the office market, the stronger tenant focus on flexible lease terms and conditions has fuelled the demand for serviced offices in so-called office hotels.

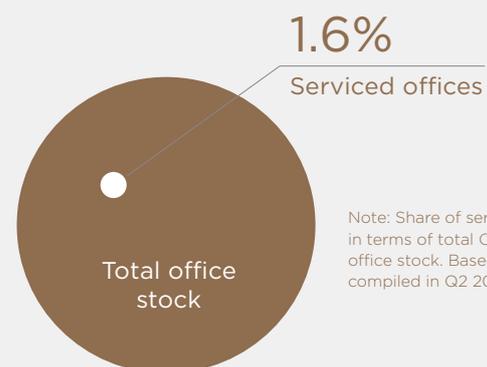
Short minimum contract periods and better up- and downscaling possibilities are among the main factors that attract businesses to office hotels. Similarly, office hotels offer the possibility of reducing workplace area requirements as common facilities such as reception services, conference rooms, staff dining room, etc. are shared with other tenants. Although the rent levels in serviced offices may seem high, in particular small businesses and startups find office hotels appealing because they incur lower overhead costs, all other things being equal.

So far, the Copenhagen market for office hotels is relatively small compared to the more mature markets of e.g. London and New York, where office hotels command a market share of 3-5%. However, we have seen an increase both in the number of office hotels and office hotel users in Copenhagen; a trend that we expect to continue, driven by multiple variables.

Small businesses are increasingly setting up shop in office hotels as the focus on flexibility and the ease of up- and downscaling premises to suit area requirements and control rental cost are becoming key parameters. The generally low Copenhagen office rent levels relative to those of comparable major cities have so far served to slow the growth in the Copenhagen market for office hotels, as businesses generally have a stronger incentive to limit area requirements when office rents are high. So far, high rents have therefore not been a key driver of the demand for office hotels in Copenhagen. However, if Copenhagen office rents start to climb we would not be surprised to see the office hotel market gain an increasing market share.



Despite strong growth, serviced offices continue to account for a small share of Copenhagen office stock.



Note: Share of serviced offices in terms of total Copenhagen office stock. Based on data compiled in Q2 2017.

### Prime office investment supply outstripped

The office investment property market continues to thrive as current economic growth is supporting momentum in the occupational market.

Although Danish fundamentals continue to improve, the yearly aggregate office transaction volume dropped from 2016 to 2017. It is worth bearing in mind that the decline in transaction activity ties in with a profound supply/demand imbalance in the office market, with the annual transaction volume being defined mainly by whatever assets are offered for sale. In conclusion, we see no imminent signs of weakening investor demand, although the decline in transaction volume could be argued to indicate otherwise.

In 2016, international investors gained a strong foothold in the Danish office property market, accounting for more than 50% of the total transaction volume. Domestic investors reclaimed the lead in 2017, however, and were involved in three of the five largest transactions measured in terms of volume. Nevertheless, international investor appetite seemingly remains unabated. The root cause of their smaller share of transactions in 2017 was the year's lower availability in the market for high-volume office portfolios, which is their preferred type of office property investment.

Whereas high-volume property transactions abounded in 2016, including head-office sales on behalf of Danske Bank and Nykredit, this sub-segment experienced limited activity in 2017. However, locations on the outskirts of Copenhagen saw brisker transaction activity, with some transactions standing out in particular, bearing witness to the fact that investors increasingly recognise their potential: Danica's sale of a major office portfolio to Wihlborg's and SEB's divestment of the vast office complex of Teknikerbyen in individual sub-portfolio sales to PensionDanmark and a joint venture of Sampension and Kristensen Properties, respectively.

Key transactions in Copenhagen included the acquisition by Nordic real estate fund management company Genesta of Kalvebod Brygge 32 in autumn 2017. Despite its central waterfront location, the property sold in virtually vacant possession and thereby at a substantial vacancy risk. This transaction would not have been feasible just a few years ago, but the current buoyant occupational market and substantial competition for assets in central locations, made the investment opportunity gain traction.

The largest single asset transaction in 2017 was the sale of the EY head office at Flintholm to the Danish Building and Property Agency (Bygningstyrelsen). Although labelled a sale and leaseback transaction, the sale involved an element of owner-occupation longer term, as the agency expects several of its departments to relocate to the building when EY has completed construction of its new head office on a neighbouring site.

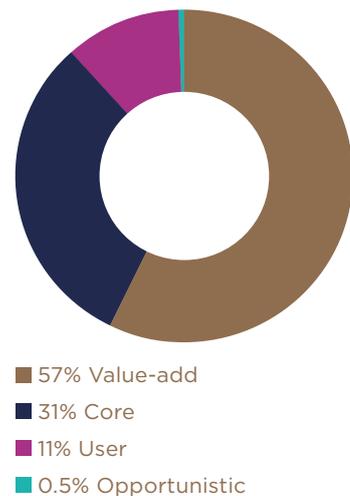
We believe that the key determinants for the acquisition were flexible space-utilisation, making it possible to adjust to organisational changes swiftly and at low cost, as well as excellent access to public transport. The transaction served to exemplify the mounting demand for flexible and efficient office space.

### Domestic investors retake the lead



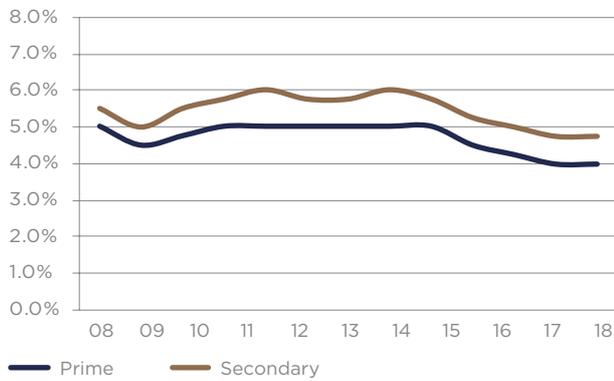
Note: Office transaction volume by investor origin.  
Source: Sadolin & Albæk

### Value-add on the rise



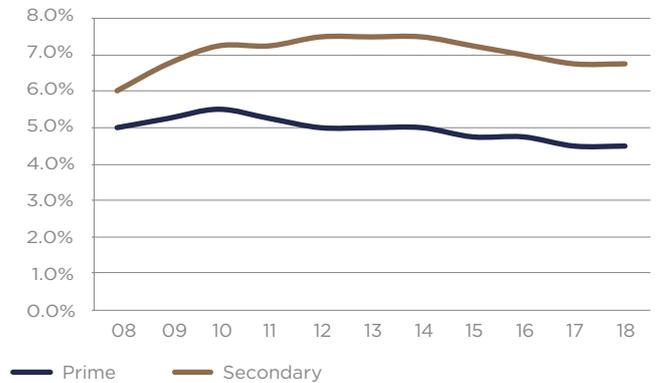
Note: Office transaction volume by investment type, rounded figures.  
Source: Sadolin & Albæk

### Stagnating yields in the Copenhagen CBD



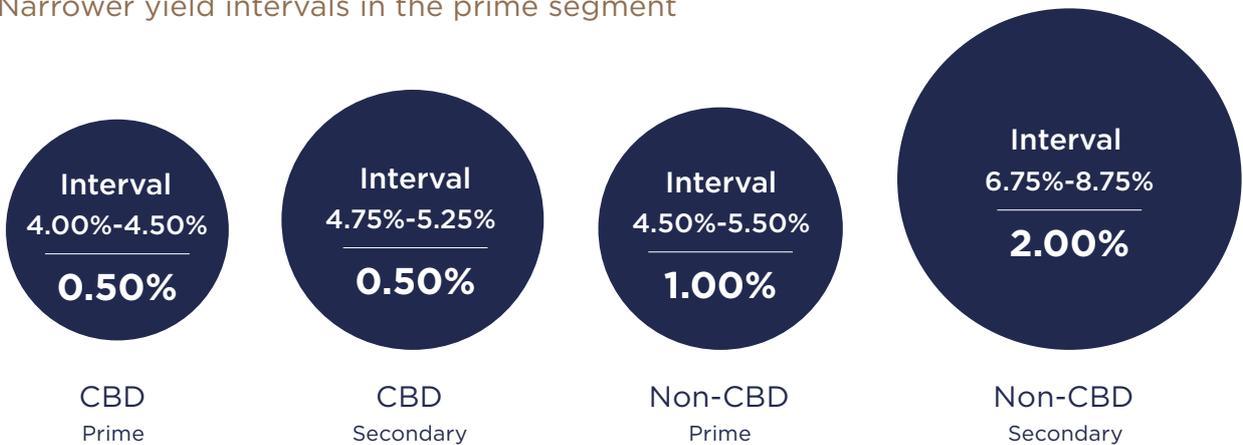
Note: Net initial yields, Copenhagen CBD.  
Source: Sadolin & Albæk

### ... and in the non-CBD



Note: Net initial yields, Copenhagen non-CBD.  
Source: Sadolin & Albæk

### Narrower yield intervals in the prime segment



Source: Sadolin & Albæk

### **Climbing market rents may drive yields below the 4.00% mark**

Massive placement requirements are driving demand, in particular for prime office assets. As such assets are in relatively weak supply, the office segment has seen yield compression since 2013. Prime yields on CBD office properties dropped to an all-time low of 4.00% in 2017, driven mainly by downtrending vacancy rates and a brighter outlook for Danish economy.

We expect this low level to continue in 2018, but it cannot be ruled out that the market will see a few office property transactions trade at yields below the 4.00% mark, should circumstances warrant it. The fact that recent years' stagnating trend in rent levels might have ended, with prospects of short-term increases in top rents, could put yields under downward pressure.

### **Will demand spill over to other markets?**

Due to the prevailing record-low net initial yields on prime office properties, investors increasingly tend to move further out the risk curve to achieve attractive returns. We therefore expect investors to zoom in on and compete for properties in the vicinity of Copenhagen. This shift is supported by improving market conditions, including declining vacancy rates and stronger growth momentum, but also represents spill-over demand from the central Copenhagen office market, where undersupply, high prices and fierce competition prevail.

Favourable trends in the occupational market serve to make investors more risk-tolerant, today more readily investing in partly vacant or functionally obsolete properties, always provided the properties meet certain criteria. In the market outside Copenhagen, such criteria include easy access by both public and private transport, as connectivity has become a key parameter supported by recent years' tenant relocation trend away from properties with poor accessibility.

Like 2016, 2017 saw domestic pension funds in particular zooming in on office markets outside Copenhagen. In accordance with its investment strategy, PensionDanmark continued to acquire properties in decentralised locations. Similarly, Sampension and Industriens Pension increased their exposure to this segment in 2017.

All in all, we anticipate sharper price increases percentagewise in the secondary market than in the prime market over the next couple of years, and mainly in areas benefitting from good accessibility and mature office markets. Properties in more decentralised locations are not expected to benefit from spill-over effects on the same scale.

Prime yields on CBD office properties dropped to an all-time low of 4.00% in 2017.

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Nyhavn 63A-D, Copenhagen K



Bredgade 38, Copenhagen

The office investment property market continues to thrive as current economic growth is supporting recovery in the occupational market.



Nørregade 6, Copenhagen K

## Key lease transactions, Copenhagen CBD, office

Property	District	Landlord	Tenant	Sqm
Amerika Plads 29	Nordhavn	Jeudan	Maersk	15,850
Kalvebod Brygge 43	Kalvebod Brygge/Havneholmen	Castellum	Genmab	3,675
Niels Hemmingsensgade 24	Pedestrian District	PFA	Unity	3,355
Kalvebod Brygge 45	Kalvebod Brygge/Havneholmen	Castellum	BASF	2,500
Rådhuspladsen 45, 2 floors	City Hall and Central Station District	ERF Copenhagen no. 2	Gallup	2,275
Nansensgade 19	City Hall and Central Station District	Castellum	American Express-GBT	1,450
Sundkrogsgade 21	Nordhavn	Danica Ejendomsselskab	Bird & Bird	1,420
Göteborg Plads 1 (Portland Towers)	Nordhavn	ATP Ejendomme/PFA/PensionDanmark	Delacour	1,100
Adelgade 12, 1 fl. (Turbinehuset)	Rosenborg District	ATP Ejendomme	AndCo	1,205
Grønningen 1, 2 floors	Frederiksstaden	Esplanaden Ejendomsselskab	Wibroe Duckert & Partners	1,095
Bredgade 42	Frederiksstaden	Jeudan	Birger 1962	990
Møntergade 1-5	Rosenborg District	Ejendomsselskabet Vognmagergade 11	Ddb Copenhagen	910
Sundkrogsgade 7	Nordhavn	KLP	Thylander Gruppen	840
Industriens Hus/Vesterbrogade	City Hall and Central Station District	Conf. of Danish Industry	Balder Danmark	648

Source: Sadolin &amp; Albæk

## Key investment transactions, Copenhagen CBD, office

Property	District	Seller	Buyer	Sqm	Price*	Yield**
Portfolio (8 prop.)***	Multiple	Thylander Gruppen and Iver C. Weilbachs Fond	Jeudan	27,000	670	na
Rådhuspladsen 4 et al.	City Hall and Central Station District	Alm. Brand Ejendomsinvest	Standard Life Investment	14,000	590	4.00%
Kalvebod Brygge 32	Kalvebod Brygge/Havneholmen	DSB Ejendomme	Genesta	27,645	520	na
Vesterbrogade 9B	City Hall and Central Station District	Jyske Bank	Jeudan	10,105	258	3.75%
Nyhavn 63A-D	Frederiksstaden	Private investor	Triangelhus	2,870	117	3.75%
Rigensgade 11	Frederiksstaden	Awapatent	Jeudan	2,565	101	4.00%
Axeltorv 1	City Hall and Central Station District	Nordea	Landbrug & Fødevarer	5,415	100	5.25%
Vestergade 4-6	Pedestrian District	CPM Invest	Copenhagen Capital	2,240	66	4.50%
Nørregade 6	Pedestrian District	Hovedstadens Ejendomsselskab	Jeudan	1,885	61	4.25%
Nyrogade 12	Pedestrian District	Realkreditrådet	Karberghus	1,456	51	na
Bredgade 38	Frederiksstaden	Private investor	COPI	1,740	51	4.00%

\*) Prices quoted in DKK million (rounded figures) \*\*) Yield in this context denotes estimated direct yield (approximate figure) \*\*\*) Portfolio sale

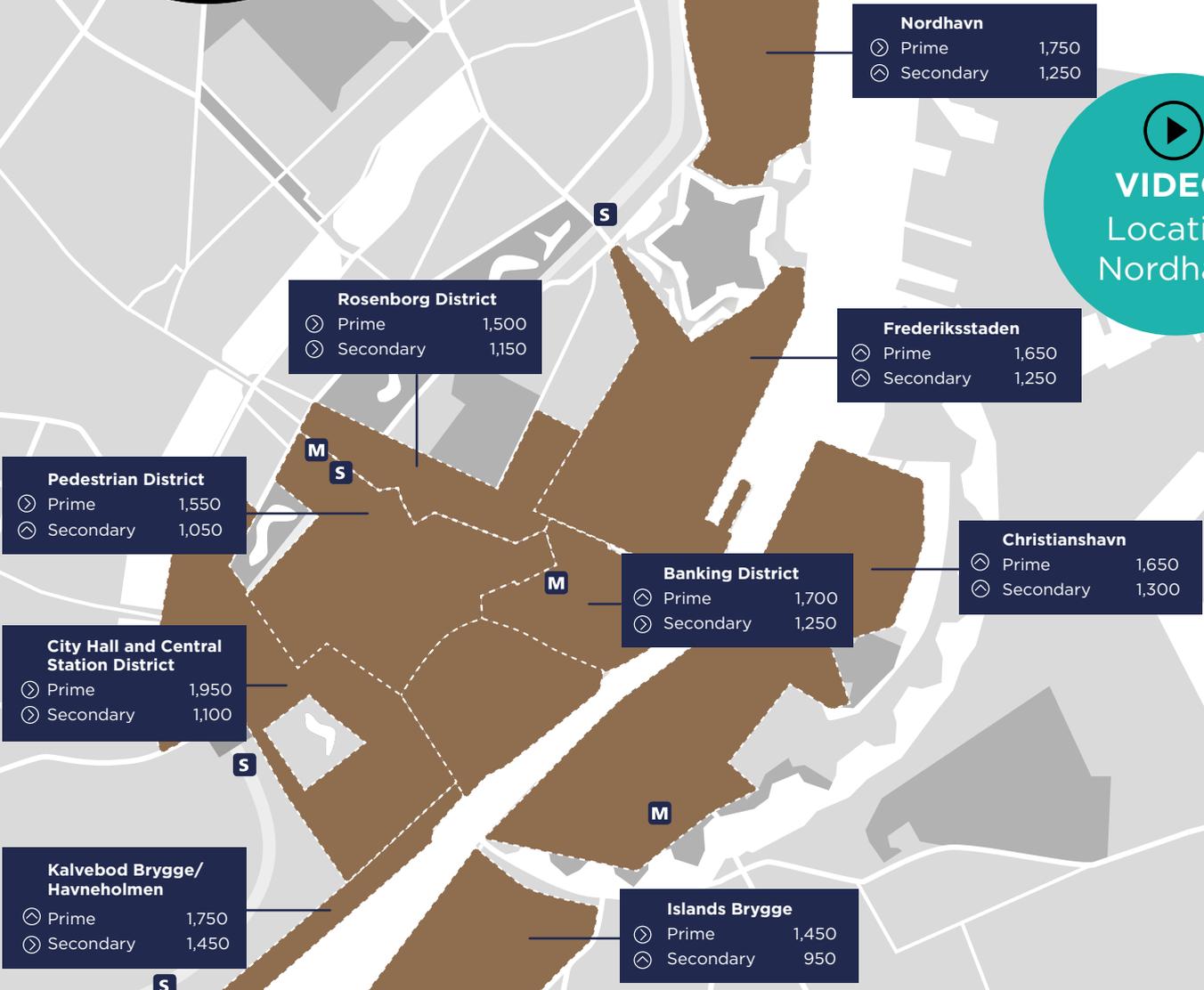
Source: Sadolin &amp; Albæk

**LOCATIONS**  
Office  
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Typical office rent levels, Copenhagen CBD

Note: DKK per sqm p.a. excluding operating costs and taxes.

**VIDEO**  
Location Nordhavn



**VIDEO**  
Location Ørestad

- Market expectation
- Metro station
- Train station

## Key lease transactions, Copenhagen non-CBD, office

Property	District	Landlord	Tenant	Sqm
Gl. Køge Landevej	Valby	DIP and JØP	City of Copenhagen	33,000
Klausdalsbrovej 601, Build. 3	Herlev/Ballerup	NRP	Nets	21,800
Bredevej 2	Birkerød/Allerød	PKA	NNE Pharmaplan	10,665
Tuborg Boulevard 12	Hellerup	PKA	Ascendis Pharma	7,340
Vesterlundvej 14	Herlev/Ballerup	Property company Vesterlundvej	Brunata	5,835
Tuborg Boulevard 12	Hellerup	PKA	Lundgrens	3,985
Roholmsvej 19	The west corridor	Castellum	Iveco Danmark	3,960
Hovedvejen 2	The west corridor	Nordea	Verisure	3,830
Ny Carlsberg Vej (Dypilon Hus)	Valby	Dades	Arkitema Architects	3,790
Emdrupvej 28	Østerbro	Barfoed Group	Abvie	3,050
Ørestads Boulevard 114	Amager/Ørestad	Solstra Capital	Novo Nordisk	2,590
Bregnerødvej 144	Birkerød/Allerød	Petersea 60	NKT Photonics	2,345
Vibeholms Alle 20	The west corridor	na	NKT	2,340
Gammel Kongevej 60, 2 floors	Frederiksberg	Dades	Ordnung	2,220
Lautrupvang 1	Herlev/Ballerup	Schneider Electric Danmark	Formpipe Software	2,170
Rued Langgaards Vej 6-8	Amager/Ørestad	C.W. Obel Ejendomme	Exerp	2,080

Source: Sadolin &amp; Albæk

## Key investment transactions, Copenhagen non-CBD, office

Property	District	Seller	Buyer	Sqm	Price*	Yield**
Portfolio (Project Falcon, 15 prop.)***	Multiple	Danica	Wihlborgs Fastigheter	164,160	1,800	6.50%
Portfolio (Project Pinetree)***	Multiple	Danica	na	88,250	1,600	4.25%
Osvold Helmuths Vej 4	Frederiksberg	EY	Bygningsstyrelsen	53,700	1,085	4.50%
Goldschmidt portfolio (11 prop.)***	Multiple	M. Goldschmidt Holding	Lægernes Pension	50,000	900	5.00%
Porcelænsøen 16-20 and 24-28	Frederiksberg	Niam	Kløvern	19,300	620	4.00%
Teknikerbyen 15-45	Virum	SEB Pension	PensionDanmark	26,000	490	5.00%
Tuborg Havnevej 19	Hellerup	PKA	Novo Nordisk	8,910	420	na
Gl. Køge Landevej	Valby	Lundbeck	DIP and JØP	33,000	378	4.75%
Bjerregårdsvej 10	Valby	Edlund Ejendomme	Blackstone	7,780	211	4.50%
Linnes Alle 2	Taastrup	Hedeselskabet	PensionDanmark	6,880	179	na
Marielundvej 46A	Herlev	Cromwell	Rent Estate	23,480	na	na
Amerikavej 15	Copenhagen V	Private investor	Lægernes Pension	10,715	163	na
Trekronergade 126	Valby	HD Ejendomme	C.W. Obel Ejendomme	8,225	129	na
Ny Carlsberg Vej (Dypilon Hus)	Valby	Carlsberg Byen	Dades	4,560	na	4.25%
Amerikavej 21	Copenhagen V	Ejendomsselskabet Amerikavej 21	Lægernes Pension	7,260	129	na
Bryggerens Plads 17	Copenhagen V	Carlsberg Byen	Ecco Holding	3,030	126	na
Teknikerbyen 13 et al.	Virum	SEB Pension	Sampension/Kristensen Properties	21,365	122	na
Peter Bangs Vej 24-26	Frederiksberg	De Forenede Ejendomsselskaber	Pensam	5,345	117	5.00%

\*) Prices quoted in DKK million (rounded figures) \*\*) Yield in this context denotes estimated direct yield (approximate figure) \*\*\*) Portfolio sale

Source: Sadolin &amp; Albæk

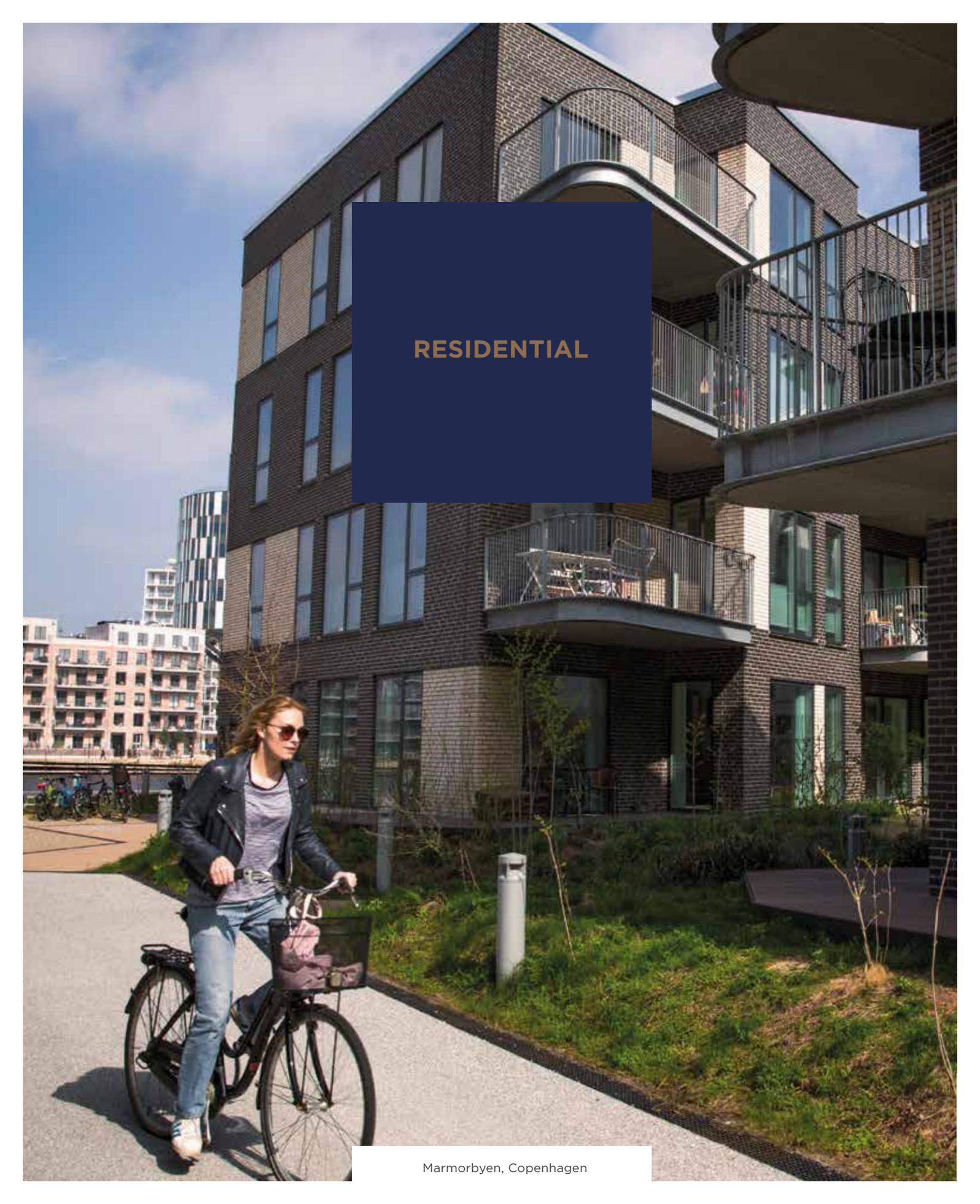
## Typical office rent levels, Copenhagen non-CBD

Note: DKK per sqm p.a. excluding operating costs and taxes.

**LOCATIONS**  
 Office  
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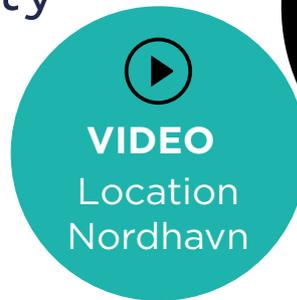
- Market expectation
- Airport

A photograph of a modern, multi-story residential building with a dark brick facade and large windows. The building features curved balconies with metal railings. In the foreground, a woman wearing a black leather jacket, sunglasses, and blue jeans is riding a black bicycle with a basket on the front. She is on a paved path next to a landscaped area with green grass and small trees. In the background, other residential buildings and a blue sky with light clouds are visible.

**RESIDENTIAL**

Marmorbyen, Copenhagen

# Growth and uncertainty in a buoyant market



The Copenhagen residential market saw another year of surging prices on the back of a pronounced supply-demand imbalance, but the price level itself may just be a factor in limiting future growth as affordability concerns and increased regulation come into focus.

## Supply and demand gap set to stabilise

Historically, the Copenhagen market has been characterised by strong population growth and an undersupply of residential space, a mismatch that has been especially pronounced in recent years. With seemingly unbroken population growth and a construction sector operating near full capacity, the prospects of improving the supply/demand imbalance have been bleak. Building on the budding signs seen in 2016, 2017 marked the year when abating population growth truly manifested itself in forecasting models.

## Changing demographics and population growth

Nevertheless, the population forecast for Copenhagen remains impressive, exceeding the national average growth rate by more than 14 percentage points over a 20-year period. By 2040, Copenhagen is predicted to house some 155,000 new residents, corresponding to 22% population growth, driven mainly by young families and the elderly. This underlines two important demographic trends: An increasing number of young families are choosing to stay in Copenhagen instead of moving to the suburbs as was previously the norm. Similarly, but at the other end of the age spectrum, many old age pensioners also have a strong preference for central living, including access to public transport. Typically selling their single-family houses or villas in the suburbs to move to rental accommodation in central city districts, today's elderly mostly enjoy good health and have a strong appetite for the city's cultural offering.

Nevertheless, demand has tapered off. In 2015, an influx of some 190,000 new residents was predicted within the next 20 years (i.e. 40,000 more than forecast today), and what is more interesting, the source of Copenhagen's new residents has changed.

## Housing prices and migration patterns correlated

While births and net immigration figures have seen a steady increase throughout the period, from 2006 to 2016 migration patterns show a clear correlation with housing prices: During times of increasing prices, net migration turns negative as inhabitants are

Net migration turns negative as high prices affect demand patterns.

Central building rights becoming scarce, predicted to support rent increases in the prime segment longer term.

Prime-to-average rental gap has narrowed even more in 2017 but is showing signs of widening.

Core investment market dominated by international market players.

essentially priced out of the city. The net migration between Copenhagen and the rest of Denmark already turned negative in 2015, dipping further into negative territory in 2016. The municipalities surrounding Copenhagen receive a large share of the migration, with the trade-off between access to the city and price levels generally becoming more pronounced. In fact, migration to the rest of the Capital Region of Denmark from Copenhagen is at an all-time high. We expect this pattern to continue as these areas provide a more affordable alternative to Copenhagen, while still within commuting distance.

### Record-breaking residential construction

In 2017, residential construction activity continued at a steady pace, responding to the surge in demand. An estimated 400,000 sqm was completed in 2017 in the city of Copenhagen, marking a milestone as the volume of completions now exceeds the pre-crisis high of 365,000 sqm. We have previously argued that, due to capacity limits, the construction sector would be under strain to deliver more than 375,000 sqm p.a., but increased utilisation of foreign labour and allocations from other segments in the development sector have facilitated this record-breaking high. However, it is unlikely that the scale of completions will rise much further in the coming years as residential development outside the Capital Region of Denmark is starting to pick up along with a substantial pipeline of public projects.

### Affordability strong driver in new supply planning

New supply is curbed by overall planning restrictions, stipulating an average residential unit size of 95 sqm in the City of Copenhagen. The objective is to secure a more diverse offering of housing as the old building stock typically comprises smaller units. Since 2015, planning regulations have also allowed the City of Copenhagen to demand up to 25% allocation of social housing in new planning areas in an effort to provide more affordable housing. In late 2017, the lord mayor of Copenhagen proposed that the scheme be expanded, offering an additional DKK 500m subsidy in return. If implemented, this could raise the total expected added supply to some 10,000 social housing units in the next decade. In addition, the lord mayor recently hinted at the possibility of relaxing unit size restrictions, which could diversify new supply and ease affordability concerns in new developments. We predict that affordability will set the political agenda in 2018, impacting planning provisions.

### Central development space in scarce supply

In the past, the municipal urban development company, By & Havn, was the prime supplier of building rights for new residential development in Copenhagen as it owned most of the major development sites, the largest ones being situated in the districts of Ørestad, Sydhavnen (the south harbour) and Nordhavn (the north harbour). The first two areas are all but completed, having added an estimated 1 million sqm of residential space so far. Although Nordhavn is still under development, in 2017 the supply of residential space was increasingly sourced from private development sites, such as the F.L. Smidth site, Amager Strandpark and the Carlsberg City District (Carlsberg Byen) – all of which are redevelopments of former industrial sites. On the other hand,

## Danish market at a glance

### Ownership housing ratios, 2017



All Denmark



Copenhagen

50%

19%

Source: Statistics Denmark

### Building stock: 30 million sqm

### Share in multifamily buildings: 86%

### Average flat size: 76 sqm

Source: Statistics Denmark

## 2017 in review

### Added supply: 400,000 sqm (est.)

### Change in demand: +465,000 sqm (est.)

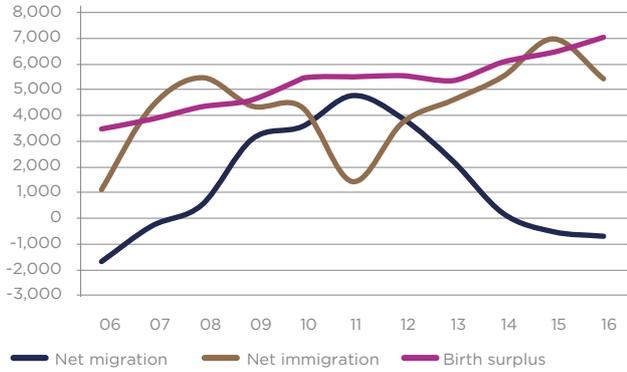
### Rental growth: 2.50%

### Owner-occupied flat price growth: 12%

Note: Figures cover City of Copenhagen.

Sources: Statistics Denmark and Sadolin & Albæk

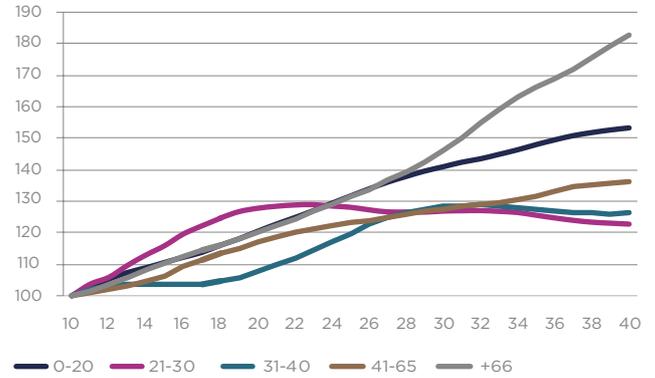
### Net migration turns negative as population growth is largely supported by immigration



Note: Breakdown of population growth (no. of people), Copenhagen and Frederiksberg.

Source: Statistics Denmark

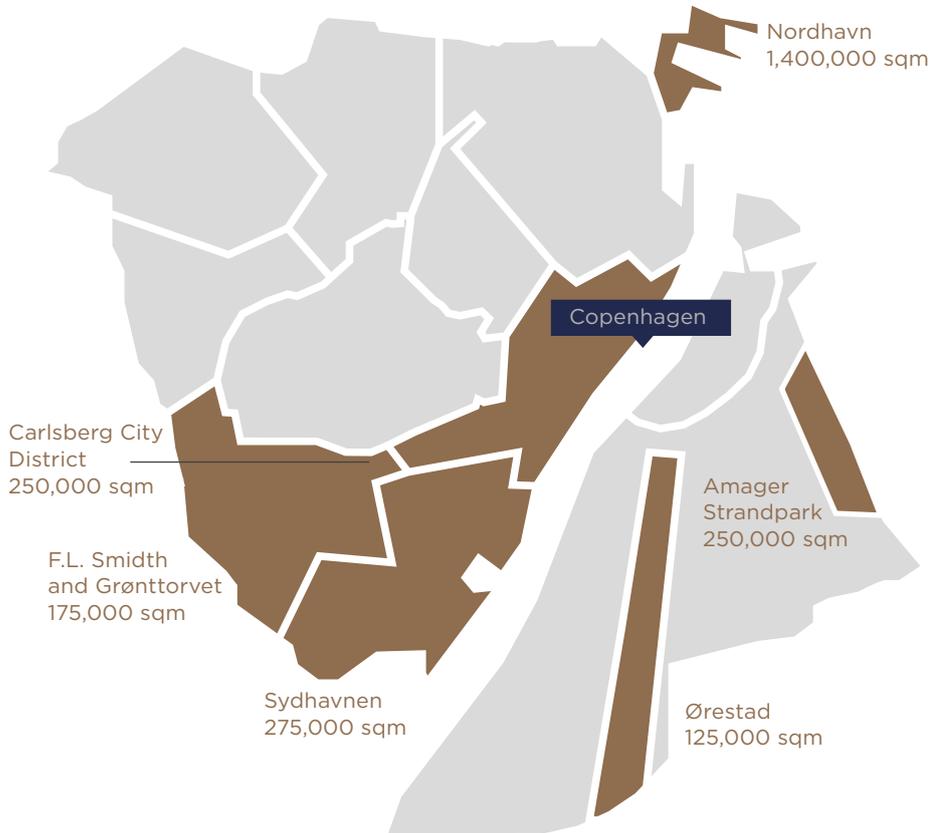
### Structural change in population forecast



Note: Population growth by age groups, 2010-2014 (no. of people), Copenhagen. (index 100 = 2010)

Source: Statistics Denmark

### Supply pipeline of building rights is limited in view of current population forecast



**Total remaining  
2,475,000 sqm**

Site	Development start	Development end
Nordhavn	2013	2050
Ørestad	2000	2021
F.L. Smidth and Grønttorvet	2011	2022
Sydhavnen	2004	2025
Amager Strandpark	2006	2022
Carlsberg City District	2012	2024

Note: Estimated remaining building rights in sqm, City of Copenhagen.

Sources: By & Havn, City of Copenhagen, Carlsberg Byen and Sadolin & Albæk

the previously popular office-to-residential conversion trend in the CBD has tapered off, mainly because of an office occupational market recovery and rising construction prices.

The future source of supply is largely tied to the Nordhavn development site which significantly exceeds all privately owned sites. As By & Havn controls these building rights, the supply will gradually be released at a somewhat predictable pace. However, the total supply of building rights with residential planning in place is moderate and will, at the given construction activity, only accommodate six years' of projected population growth. New areas that may contribute to future supply include Refshaleøen and part of Amager Common (Amager Fælled), although associated with a considerable element of uncertainty. We expect the longer-term shortage of central development sites to put an upwards pressure on prices in Copenhagen as supply opportunities become scarcer. The price strain may qualify industrial areas in the surrounding municipalities for residential redevelopment, mimicking the trend seen in the Valby and Vanløse districts.

### Favourable supply/demand dynamics support price hikes

Supply/demand dynamics have proved to be a strong driver of price hikes in the housing market. Indeed, over a 5-year period, rental prices have risen by roughly 20% and 40%, respectively, for prime and secondary housing, while average ownership prices have increased by 70%. As we predicted in our 2017 market report, rental growth slowed to some 2.50% in 2017, well below the 3.75% CAGR seen in the last decade. The ownership market once again defied most predictions and soared to an unprecedented high.

### Ownership market remains healthy

The Copenhagen ownership market has attracted considerable attention in the past year. From Q3 2016 to Q3 2017, average prices of owner-occupied flats in the City of Copenhagen and Frederiksberg increased by 12% and 9%, respectively. As prices have surged by 70% and 64% in Copenhagen and Frederiksberg since Q3 2012, various analysts and politicians have voiced concerns about a pending housing market bubble, which concerns may seem pertinent given the recent drop in residential prices in other Scandinavian capitals.

In 2017, the spill-over demand from the Copenhagen market also boosted ownership prices in the surrounding municipalities. Most areas saw price rallies in the 10-15% range, driven by both asset appreciation and new construction activity. The latter has served to increase the quality of the housing stock and, by extension, the price level. Taking into account current migration patterns, we expect these markets to see further increases in the years ahead.

### Healthy market depth and liquidity despite steep growth figures

Although the growth figures seem to indicate an overheating market, market depth and liquidity remain healthy. On a quarterly basis, the number of owner-occupier flats sold in Copenhagen and Frederiksberg averaged some 1,560 from Q3 2016 to Q3 2017, thereby exceeding the 5-year average by 6%, and resale periods were five days shorter.

## City of Copenhagen



Average price per sqm

**DKK 38,800**



Average sales period

**63 days**

## City of Frederiksberg



Average price per sqm

**DKK 43,500**



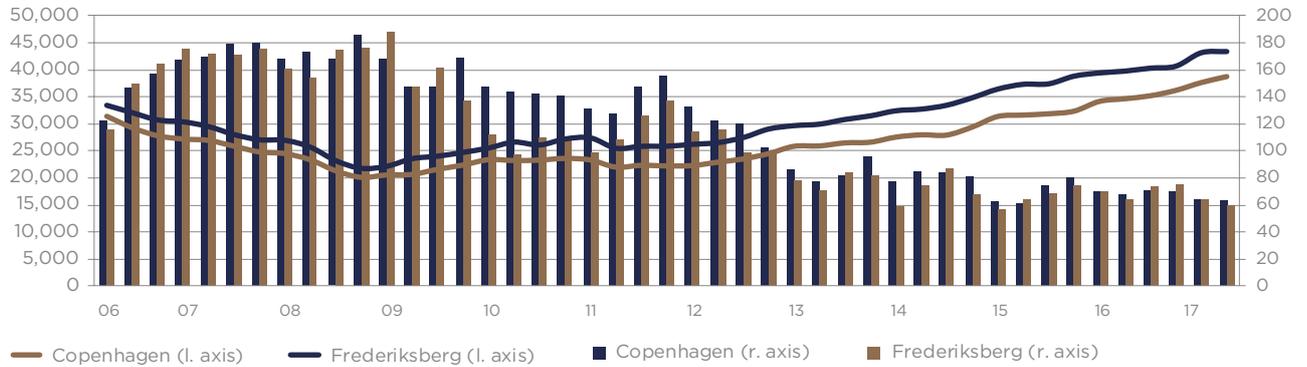
Average sales period

**59 days**

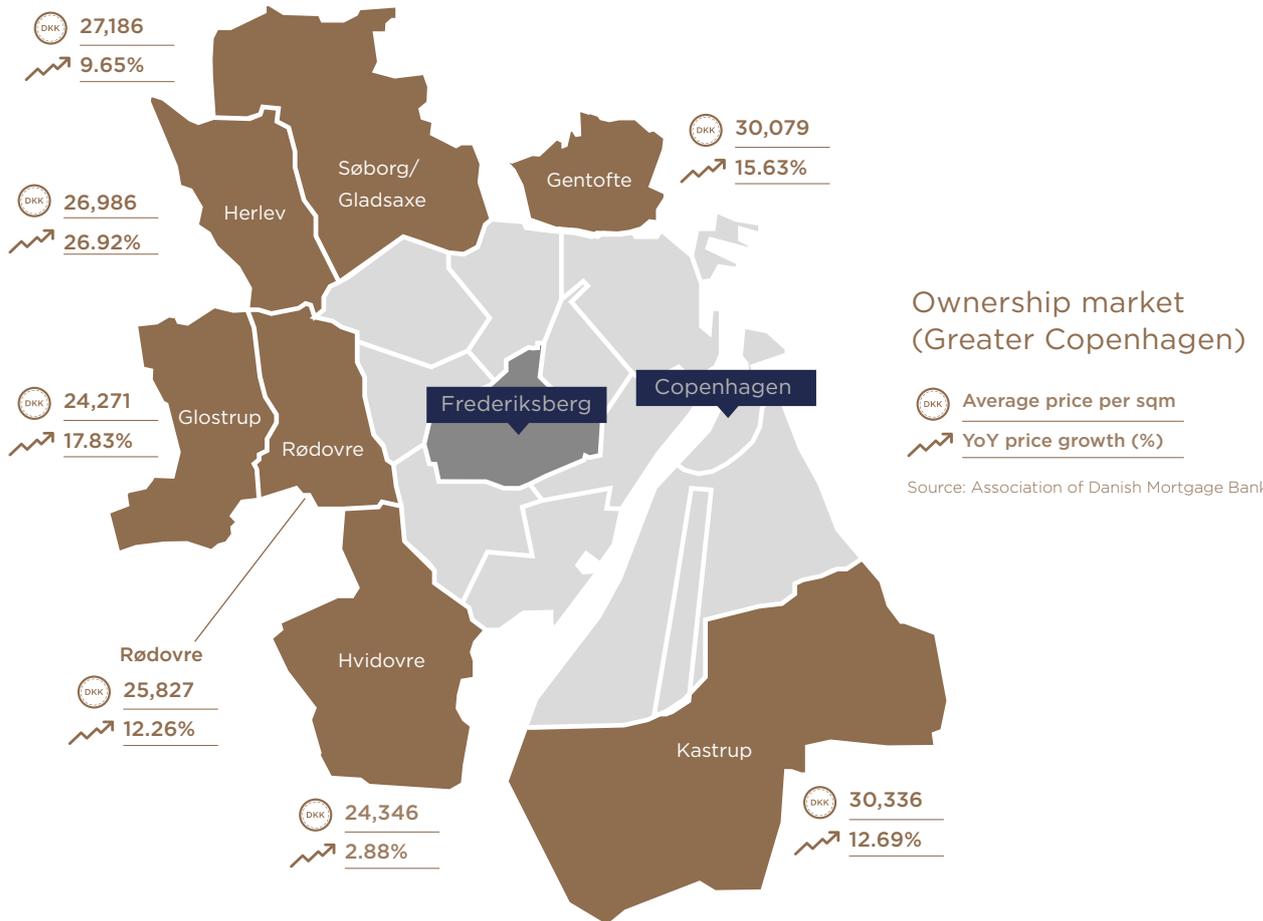
Note: Average realised sales prices of owner-occupied flats and average resale periods in laydays, Q3 2017.

Source: Association of Danish Mortgage Banks

### Ownership market remains liquid



Left: DKK per sqm. Right: Days on market. Source: Association of Danish Mortgage Banks



Source: Association of Danish Mortgage Banks

Although the current appreciation rates seem steep, it should be noted that the growth rates preceding the most recent housing market bubble were much higher, i.e. 20-40% p.a. We believe that the current price hikes are driven by record-low interest rates, rising real wages and a structural housing undersupply, rather than speculation.

The Danish FSA has become increasingly focused on financing options as a key driver of price hikes and the systemic risk they may pose. Like previous years, 2017 introduced further regulation of the Danish mortgage banking sector. Effective from 2018, mortgage banks are required to limit their high-risk loan portfolios (a high-risk loan being defined as a variable interest rate or interest-only loan held by a household with a debt more than four times its annual income) to 15% of the total loan portfolio value. According to FSA estimates, the current ratio averages 35%. In addition, the Danish Government has abolished the housing tax freeze introduced in 2002 effective from 2021.

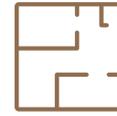
Although previous regulations have done little to limit price hikes, we expect the new measures to be more effective, as they will force mortgage banks to be selective with their loan commitments and incentivise more homeowners to opt for mortgages with amortisation and fixed interest rates. In addition, the abolishment of the housing tax freeze is bundled with a property tax reform that should facilitate more accurate valuations of owner-occupied flats, ensuring increased consistency with market values and thereby reduced price volatility. Today, virtually all owner-occupied flats are taxed on the basis of 2002 public valuation figures, which significantly undershoot actual market values in Copenhagen where price hikes have been most pronounced.

In spite of the regulatory measures, we predict that supply/demand fundamentals will remain sufficiently strong to justify uptrending prices in most districts. We estimate that the housing cost burden is still sustainable and leaves rooms for price increases. We also believe that these fundamentals should somewhat cushion the market against sudden price drops triggered by future rate hikes, although growth would likely stagnate.

### Rental growth stunted as market tightens

In 2017, the residential letting market remained seemingly robust, characterised by few or virtually no vacancies and strong demand. However, prospects of substantial rent hikes weakened as the gap between prime and secondary market rents narrowed, causing affordability constraints to become more pronounced.

The demand profile and demographics of the rental market are the root causes that curb rental growth. Broadly speaking, residential tenants are either long-term or short-term tenants. The former category includes households that prefer the flexibility associated with rental housing, e.g. young families, old-age pensioners freeing up home equity or groups without the financial means to enter the housing market, the latter of which predominates this category. Short-term tenants typically demand a predefined lease duration, e.g. expats and households in the process of entering the housing market. These tenants are typically less price sensitive as the need for flexibility outweighs the higher housing burden compared to the ownership market.



Prime  
market rent  
**DKK 2,000**  
per sqm



Prime to  
average rental  
spread **15%**

Source: Sadolin & Albæk

## Affordability poses a structural barrier

Postal code	District	Rental market		Ownership market, fixed rate		Ownership market, variable interest rate	
		Average household	Couples	Average household	Couples	Average household	Couples
1000-1499	Copenhagen K	67%	39%	62%	36%	44%	25%
2000	Frederiksberg	62%	36%	53%	30%	38%	22%
2100	Copenhagen Ø	64%	37%	54%	31%	39%	23%
2200	Copenhagen N	62%	36%	53%	31%	38%	22%
2500	Valby	57%	33%	44%	25%	32%	18%
2720	Vanløse	56%	32%	43%	25%	32%	18%

Note: Percentage of disposable income allocated towards housing costs.

Sources: Statistics Denmark, NASDAQ OMX Nordic, Association of Danish Mortgage Banks and Sadolin & Albæk

The primary dark horse in the market for rental housing seems to be the risk that affordability concerns will significantly curb rental growth. As prime rent levels for a substantial share of newly built flats have reached DKK 15,000-20,000 per month, the risk certainly seems real. We have put together a comparative analysis model that expresses housing cost as a share of disposable income (the housing burden). We analyse comparable rental units of 100 sqm in six key districts across Copenhagen, applying our current market rent estimates.

We were also interested in examining the housing burden in the ownership market to see whether it differs a lot from that of the rental market. To calculate the cost, we have applied our pricing assumptions for the districts and the cost of financing under standard assumptions, allowing for the value of tax relief for interest costs on housing loans. We then added expenditures relating to land and property value taxes, allocations to owners' association and maintenance.

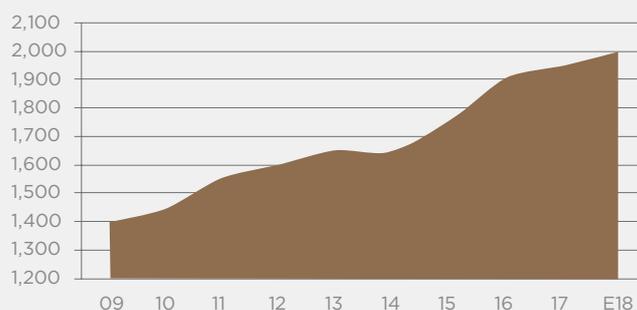
We reference two groups: the average household (1.99 people) and couples – the latter representing two adults with and without dependent children. The couples have a significantly higher average income due to dual income and a larger share of families with children, which benefit from seniority compared to the average household. The average household also includes a much greater share of the very large number of students that live in Copenhagen.

The table clearly illustrates the significant burden that average households are facing in many Copenhagen districts, especially considering that some districts are characterised by below-average income levels. In fact, using average incomes across all

districts overstates the housing burden in prime locations and understates it in secondary locations. Depending on district and mortgage type, the spread in the housing burden in the rental market versus the ownership market is as high as 25 ppts. The fact that flexibility comes at a relatively high cost dampens the demand from voluntary tenants, and the high burden limits the prospects of rental growth in the market for involuntary tenants.

In a historical context, however, the ownership burden is high but not alarmingly so. In Q2 2006, when the housing market was peaking, the housing burden for the then average household was e.g. 88% for a fixed-rate loan in the Copenhagen Ø (Østerbro) district. As the number of high-income residents is growing, we are confident that the prevailing urbanisation trend supports fair increases in ownership prices in all Copenhagen districts.

## Abating prime rental growth



Note: DKK per sqm p.a.

Source: Sadolin & Albæk

### Prime rental market supported by short-term tenants

We increasingly see long-term tenants being priced out of central Copenhagen. Indeed, we now estimate that some development areas are facing absorption periods of some 3-6 months following completion, relative to virtually no vacancies in the past. It follows that the prime rental market is supported by short-term tenants in particular, which is a relatively narrow segment. Conversely, there is a vast number of people who are unable to enter the housing market, and this trend continued in 2017 as rallying ownership prices and regulations of the mortgage market failed to benefit a large cross-section of Copenhagen residents. Combined with an overall surge in the demand for Copenhagen housing, these dynamics have driven up prices significantly in the mid-price segment.

### Gap between prime and secondary rental market

With prime rents stagnating and secondary rents climbing, the spread between the two has narrowed to an all-time low. For example, the current gap between the rents commanded in Valby and Nordhavn is 15% while the gap in ownership prices in these districts is just shy of 60%. This mismatch poses a structural threat to housing market dynamics, exposing the ongoing desperate struggle for housing in Copenhagen.

We see several future market developments that would allow the rent spread to widen. Primarily, the room for appreciation seen in the ownership market should lower the housing burden spread between rental and ownership housing. By lowering the opportunity cost, the central Copenhagen market characterised by voluntary long-term tenants should allow for higher rent levels. We also expect the rental spread to widen, as secondary rental markets in the suburbs of Copenhagen offer more development opportunities than the prime market, which translates into stagnating secondary rents and uptrending prime rents, at least in the long term.

### Red-hot investment market

In 2017, the investment market for residential properties continued to improve on most metrics, allowing the market to retain its position as the most preferred market segment with an estimated 45% share of total transaction volume, corresponding to an estimated volume of DKK 39bn. Greater Copenhagen transactions accounted for some 68% of the total residential investment volume, underpinning the strong liquidity in this market. In spite of high investor demand, prime yields remained around the 3.75% mark. As prospects of continued substantial rent hikes seem increasingly uncertain, however, capital values in 2017 benefitted from increasing rent levels throughout the year.

On certain assets, prime yields are approaching levels as low as 3.50%. This applies to stabilised properties subject to cost-regulated rent as rental growth prospects are less susceptible to affordability concerns. This is due to the "utility value" rent concept, offering a significant discount to market rent. We also believe that rental properties located in relatively weak ownership submarkets may benefit from the uptrending ownership prices, as the prime-to-secondary spread for ownership housing is likely to narrow in the coming year - as opposed to the trend envisioned for the rental market. Should the ownership market improve enough for a divestment case to exceed the value of a buy-and-hold strategy, investors may be willing to pay a yield discount, as reflected



Residential  
investment volume:  
**DKK 39bn**

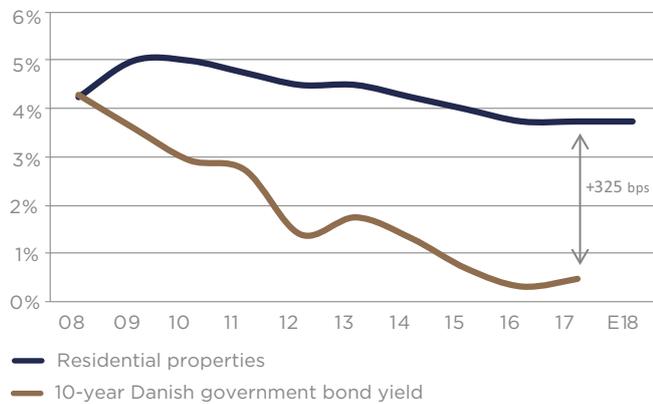
Residential share:  
**45%**

Foreign investor share:  
**70%**

Prime yield:  
**3.75%**

Source: Sadolin & Albæk

## Prime yields have stabilised



Sources: Danmarks Nationalbank and Sadolin & Albæk

in the capital gain potential. In the next 12 months, we therefore expect the highest-and-best use valuations of several residential properties to change scope from a buy-and-hold to break-up scenario.

## Intensified competition for core assets

In 2017, the investment market was characterised by one overriding phenomenon: The competition for core assets intensified as foreign market players dominated the segment, driving domestic market players further out the risk curve. Active in most segments of the property market, the new international players make direct investments, e.g. via property companies and funds, or together with investment managers, a strategy used mostly by institutionals. In 2017, the most active foreign investors in terms of estimated total acquisition volumes were Heimstaden (DKK 10.1bn), Blackstone (DKK 3.2bn) and Akelius (DKK 1.3bn). Heimstaden is a good example of the strong investment appetite displayed by foreign investors: Heimstaden has made acquisitions in a number of different segments, ranging from the high-end residential turnkey development of Scherfigs Have (DKK 680m), situated in the affluent Østerbro district, the old-stock cooperative housing society of Hostrups Have (DKK 1.7bn) in central Copenhagen, to a portfolio of terraced housing, etc. across Denmark, the Marigold Portfolio (DKK 2.9bn). In total, foreign investors accounted for 70% of the total residential acquisition volume, up from 51% in 2016.

## International investors dominate

Most of these new international investors operate in multiple markets and across borders, with moderate home country bias, allowing them to zoom in on markets that offer the most favourable risk-adjusted returns. They tend to have a strong preference for high-volume transactions and a higher willingness to pay portfolio premiums. For the same reason, they are very active in the market for turnkey projects because they allow them to achieve a sufficient volume of relatively low-complexity assets. Foreign investors especially covet the low interest rates and favourable mortgage system in Denmark,



Hulgaards Have, Copenhagen NV



Schades Have, Copenhagen S

enabling them to secure attractively levered income returns. Against the backdrop of Denmark's favourable framework conditions and strong fundamentals, we expect interest from international investor to continue unabated in 2018.

In spite of record-high allocations to residential assets, domestic institutional investors struggled to compete as international investors dominated the core segment in 2017. Instead, they moved further out the risk curve, and the year saw several ventures that pushed the boundaries of the traditional investment sphere. Pension funds discarded turnkey investments in favour of development schemes as the profitability of the former began to falter due to yield compression and higher underwriting levels of rents. In addition, pension funds were seen to increasingly invest in the financing of residential developments. For instance, pension fund PKA provided a DKK 4.2bn loan for the development of the Carlsberg City District and AP Pension provided a DKK 1.4bn loan for the development of Enghave Brygge in the Sydhavnen district (the south harbour). According to the Danish FSA, the six largest pension funds have increased their direct lending activity from DKK 44bn in 2012 to DKK 106bn in 2016, including both property financing and corporate loans.

As the immediate supply of development sites in Copenhagen is drying out, pension funds are searching for investment opportunities in all parts of the country. Some pension funds have entered into partnership funds targeting mid-sized cities and some are undertaking development in these areas. We expect increased risk-tolerance as placement requirements remain high and competition for prime assets remains fierce.

In 2017, the gap between utility-value rent and market rent began to narrow. We predict that this trend will continue in 2018, driven by a more professional market in which investors are more inclined to appeal rent tribunal decisions to the more liberal city court and the compounding effect of a steadily growing number of letting comparables. We believe that investors are already preparing for this new scenario, underwriting higher utility-rent values going forward and applying exit yields as low as 3.50% on current levels of utility rent.

## The old housing stock of Copenhagen

Broadly speaking, special rent control provisions apply to some rental housing in Copenhagen, and other large Danish cities, namely residential rental flats taken into use before 1992, collectively also referred to as the "old housing stock". According to our estimates, old-stock housing accounts for some 80% of Copenhagen housing, in certain central districts even 90%.

In principle, the rent must not exceed the cost of operating the property plus a small fixed yield. However, the rent control provisions allow for individual units to be lifted from cost-based rent to utility-value rent subject to comprehensive modernisation. Utility-value rent is based on comparable modernised units, and tenants may contest the rent level before a rental tribunal. From a landlord's perspective, modernisation schemes are potentially lucrative as utility-value rents are typically only some 20% below market rent level, making it possible to demand large rental increases, typically in the DKK 700-1,200 per sqm p.a. range.

The business plan for old-stock properties is therefore based on the rent potential that may be achieved if unmodernised flats are modernised, which can take place as tenants vacate. The net initial yields of such properties are subsequently low as current rental income is much lower than the future projected cash flows stemming from modernised flats. It is not uncommon to see net initial yields as low as 1.5-2.0% for properties in attractive locations with large rent potential.

So-called value-add investors have traditionally been the most active investors in old-stock housing as churn rates, utility values and modernisation cost estimation are associated with substantial uncertainty. Investments in such assets require proactive asset management. In recent years, however, old-stock housing has become "mainstream", appealing to a wider range of investors with different risk profiles. Especially investors with long investment horizons are showing a stronger appetite for the segment, as the liquidity and market risks associated with churn rates in a typical 5-7 year holding period are largely eliminated. In addition, the risk profile of a cost-regulated property is much lower than the profile of new stock, allowing for competitive risk-adjusted returns relative to the bond market, even at very low net initial yields. The segment is also free of any immediate affordability concerns as utility-value rent remains well below market rent and as the old housing stock includes smaller average unit sizes than the new stock.

## Key investment transactions, residential

Property	District	Seller	Buyer	Sqm	Price*	Yield**
Portfolio (Project Marigold)***	Multiple	Ares Management	Heimstaden	151,000	2,900	4.50%
Hostrups Have	Frederiksberg C	Bankruptcy estate	Heimstaden	64,790	1,690	1.75%
Project Green	Copenhagen S	Bach Gruppen	Heimstaden	30,000	1,200	4.00%
Marmorbyen	Nordhavn	By & Havn and Pensam	Patrizia	27,895	na	3.25%
Multiple (Core III)	Multiple	Core Bolig	Patrizia	23,690	900	3.75%
Ø-huset	Copenhagen S	Skanska	Heimstaden	27,400	880	4.50%
Dieselvej and Cylindervej 11	Copenhagen SV	Pensam, KPC and Sjælsø Management	Heimstaden	21,475	790	4.25%
Scherfigs Have	Copenhagen Ø	Pensam and Consort	Heimstaden	12,800	680	3.75%
Godthåbsvej 74 etc.	Greater Copenhagen and Frederiksberg	Bankruptcy estate	Akelius	21,155	482	1.00%
Portfolio of 4 properties***	Multiple	SEB	Core Property Management	34,915	551	na
Bjerglandsbyen	Brønshøj	RHB Development	Heimstaden	11,235	380	4.25%
CMNRE Amagerbrogade (11 properties)***	Copenhagen S	CapMan	Akelius	14,760	370	4.14%
Q-Ejendomme (50% share)***	Multiple	Q Apartments Group	Velux Fonden et al.	24,000	na	3.50%
Vester Voldgade/H.C. Andersens Boulevard***	Copenhagen V	Capital Investment	Blackstone	na	338	na
Amager Boulevard 114	Copenhagen S	Jeudan	DIS	8,775	335	3.25%
Project Homeland	Multiple	Private investor	Niam	22,265	332	4.75%
Holckehus/Rio Bravo	Copenhagen V	Limited partnership	Capital Investment	na	314	na
SFR Portfolio***	Copenhagen and Frederiksberg	Svend Falk-Rønne	Blackstone	11,470	300	3.50%
Preben Kaas' Vænge 1	Frederiksberg	Wind Ejendomme and Step United	Heimstaden	8,240	300	na
Bagsværdlund	Bagsværd	Calum	Heimstaden	9,000	270	na
Islevgård Allé 5	Rødovre	Rescale	Koncenton	10,205	258	4.75%
Poul Bundgaardsvej 2 and Axel Strøbyes Vej 1	Valby	Europa Capital	BVK	9,000	309	4.00%
Dambakken 7-63	Birkerød	Ejendomsselskabet Dambakken	Core Property Management	6,585	170	3.75%
Kjeld Langes Gade 10	CBD	Kærskifte Holding	Cooperative founded	5,500	162	3.50%
Multiple (Project Clare)***	CBD	Remien Ejendomme	Heimstaden	5,320	155	3.50%
Skovkvarteret (Ørestad Syd)	Copenhagen S	Tetris	Heimstaden	5,000	150	4.50%

\*) Prices quoted in DKK million (rounded figures) \*\*) Yield in this context denotes estimated direct yield (approximate figure) \*\*\*) Portfolio sale.

Source: Sadolin & Albæk

A woman with long dark hair, wearing a beige trench coat, is looking down at a blue and white striped garment. She is in a retail store, with other people and clothing visible in the blurred background. A dark blue square with the word "RETAIL" in gold capital letters is overlaid on the image.

RETAIL

## International shopping and tourist destination



A booming tourist industry, growing consumer confidence and a general shift in consumer patterns have served to consolidate Copenhagen's position as an attractive and international shopping destination. Featuring a popular and well-developed high-street market, a flourishing restaurant scene, well-established shopping centres and a broad range of traditional retailers, Copenhagen today offers both domestic and international brands, highly acclaimed restaurants and a trendy metropolitan setting.

The retail composition of many Copenhagen districts has changed markedly in recent years, driven by a shift in consumer patterns and demographics as well as the continued influence of new trends. These drivers, including a growing tourist industry, the advance of e-commerce, a shift in consumer spending in favour of leisure- and luxury-related spending as well as increased focus on the shopping experience, are expected to continue to define the retail mix in Copenhagen in the next 12 months.

### Tourism drives high-street luxury brand presence

According to Statistics Denmark and World Travel & Tourism Council (WTCC), Copenhagen and Denmark in general have seen a sharp increase in tourism over the past decade, which has translated into an increase in the industry's overall contribution to Danish GDP. The increase in tourism has affected the Copenhagen high street in particular, with luxury brands greatly strengthening their position with a string of shop openings in 2015-2017, taking advantage of the fact that tourists generally tend to spend more money. As a result, newcomers to the upper end of the high-street market are mainly international luxury brands with a strong emphasis on quality and the shopping experience in general. However, flagship stores of various domestic retail brands remain a prominent feature of the high street with fierce competition for the best locations. Despite the intense competition, the rental growth observed at prime locations in recent years seems to have tapered off as most of the high-end players in the market have already established a presence.

Due to the strong demand for shops at prime high-street locations, virtually all retail units with flagship qualities were snapped up in 2015-2017. Bearing in mind the average lease term of a newly signed lease, prospective newcomers to the prime high-street market are left with limited choices in the short to medium term. They have therefore started to zoom in on retail units off the traditional high street. For instance, this spring

Copenhagen offers both domestic and international brands, highly acclaimed restaurants and a trendy metropolitan setting.

Due to strong demand for prime high-street locations, virtually all retail units with flagship qualities were snapped up in 2015-2017.

Chanel is opening a flagship store at Kongens Nytorv in an area otherwise known as a hotspot for cafés and restaurants. On the other hand, the shop lies close to five-star Hotel d'Angleterre, which may potentially benefit sales, and enjoys high visibility and excellent interior layout potential, which are clearly qualities associated with flagship stores.

The redevelopment of the Danske Bank head office at Holmens Kanal also deserves mention: Over the next 5-10 years, there are plans to transform it into a new and attractive mixed-use residential and retail location, with the development of retail units based on the "Nordic Design Village" concept.

On scheduled completion of the Copenhagen Metro expansion scheme in 2019, Kongens Nytorv will become a highly central hub, further strengthening its position from a retail perspective. In strictly geographical terms, the city's pedestrian high-street area has traditionally rendered little room for expansion, but with Kongens Nytorv coming into play this seems to be changing.

We therefore believe that the future Copenhagen high-street market will include the area that holds the Magasin department store and Hotel d'Angleterre, extending the high street by a T-shaped addition. By today's definitions, the high street ends at Østergade, at Kongens Nytorv.

As Copenhagen has become an international shopping and tourist destination, Copenhagen Airport has expanded its retail mix quite considerably, adding both domestic and international brands to its offering. To accommodate increased passenger traffic, the airport is expanding both transit and gate areas, with the terminal 2 transit area scheduled for completion this summer. Expanding by some 4,000 sqm, this transit area will accommodate 28 new shops and eating places, etc. With these initiatives, the airport continues to promote Copenhagen as an attractive shopping destination.

**Surge in F&B**

More than anything, recent years' trends in the Food & Beverage (F&B) industry have seriously changed the Copenhagen retail landscape. New data from national trade association HORESTA and Statistics Denmark show that Danes spend an unprecedented amount of money on dining out. In combination with the increase in tourism and international recognition of the Danish restaurant scene, this has boosted the demand for retail units suitable for café or restaurant operations. In Copenhagen, a great many F&B and leisure-oriented shops have mushroomed in many parts of the city, gradually spreading to other Greater Copenhagen locations, incl. shopping centres.

**Food courts on the rise**

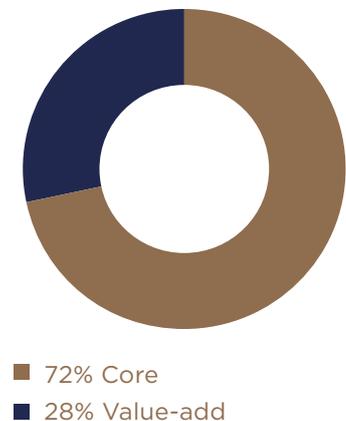
Along with the boom in the F&B industry, Copenhagen has seen food courts and markets as well as street food vendors and peddlers springing up across the city in the last couple of years, creating new hotspots. "Torvehallerne" at Israels Plads was among the first, followed by "Copenhagen Street Food" on the island of Papirøen, "Halvandet" on the island of Refshaleøen, and "Westmarket" in the district of Vesterbro. These food

**One single transaction defines investor origins in 2017**



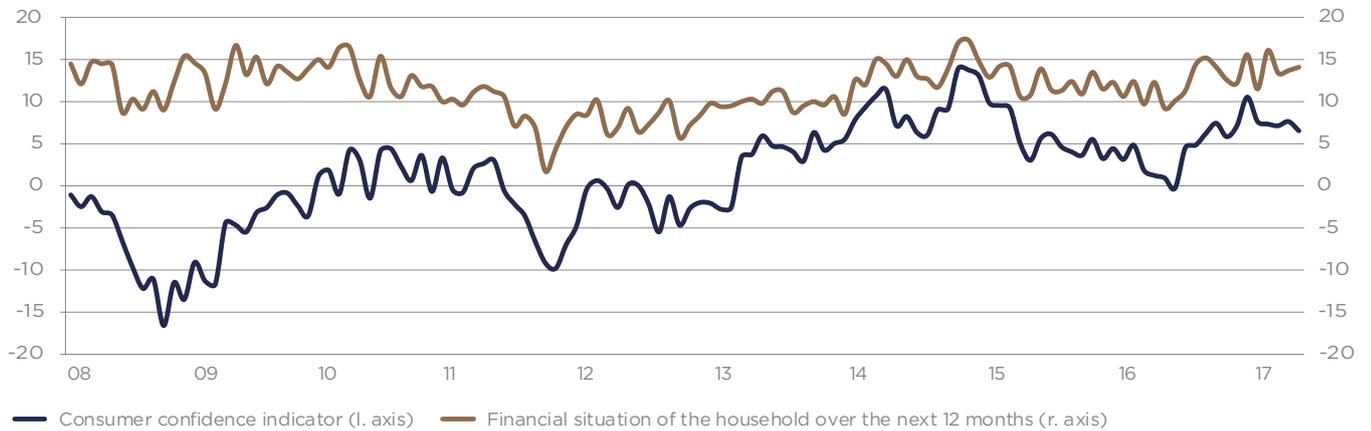
Note: Retail transaction volume by investor origin. Source: Sadolin & Albæk

**Core investments continue to push out value-add and opportunistic investments**



Note: Transaction volume by investment type. Source: Sadolin & Albæk

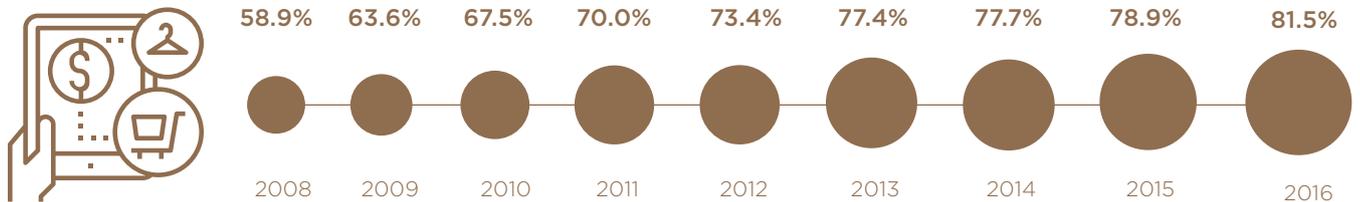
### Consumer confidence is rebounding



Note: Consumer expectations (net figures) according to indicator and over time. Financial situation in this context means Danish households' own perception of their future financial situation.

Source: Statistics Denmark

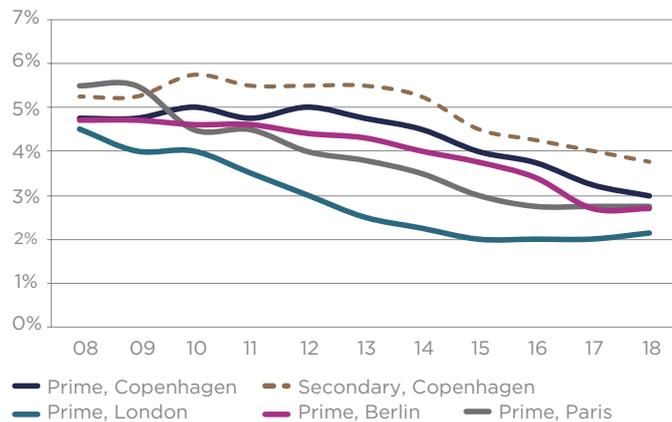
### Danes love online shopping



Note: Share of individuals aged 16-74 ordering goods or services online, Denmark.

Source: European Commission, Digital Scoreboard

### Yield spread is narrowing



Note: Net initial yields, high-street retail.

Sources: Sadolin & Albæk and JLL

courts are expected to remain a prominent feature of Copenhagen longer term. However, Copenhagen Street Food, although immensely popular, closed down at year-end 2017 as the fixed-term ground lease expired. Papirøen (or Christiansholm as is its real name) is earmarked for redevelopment into a mixed-use residential/culture-oriented area. But arrangements for new food courts are already in motion, with an off-shoot of the Copenhagen Street Food concept opening at Refshaleøen this spring, focusing on street food, culture and entrepreneurial ventures. In November 2017, a new food court, "Tivoli Food Hall", opened at Tivoli Gardens in central Copenhagen as part of an expansion scheme.

Indeed, food courts are expected to become a common feature of most parts of Copenhagen longer term. This summer, a new food court with some 30-35 market stalls is scheduled to open in the building complex known as Boltens Gaard, near Kongens Nytorv. This initiative is expected to revitalise Boltens Gaard, which was formerly a nightclub and music venue.

In the district of Frederiksberg, behind Frederiksberg City Hall, there are also plans to establish a food court similar to Torvehallerne. In addition, a Copenhagen Street Food-style market is in the pipeline below the raised expressway of Bispeengbuen, today a deserted wasteland. Like "Halvandet" at Refshaleøen, the project on the drawing board for Bispeengbuen serves as an example of how street food and leisure-oriented space may revive secondary or even tertiary locations.

### **Fierce F&B competition is taking its toll**

Despite the favourable effect on the Copenhagen retail market, including a decline in vacancy rates, the boom in the F&B industry has also greatly intensified competition. In take-away shops and from mobile food carts, fast food is available at affordable prices. As a result, more traditional restaurants and eating places are facing stronger competition for customers. According to HORESTA statistics, the F&B sector has seen an increase in the number of bankruptcies in recent years. Previous analyses by consulting firm Deloitte have shown that 20% of Copenhagen restaurants faced financial difficulties. In the final months of 2017, the street-food market in the highly popular old meatpacking district, "Kødbyens Mad & Marked", was forced out of business due to various unprofitable activities. By the same token, several stallkeepers at "WestMarket" have been struggling with faltering sales. We therefore recommend continued monitoring of this segment in the years ahead in order to understand the profitability of concept and location.

### **E-commerce is gaining market share**

E-commerce outperforms all other segments of the retail market in terms of growth, with total online sales having boasted double-digit growth rates for the past eight years. In 2016, aggregate Danish online sales reached an all-time high of more than DKK 100bn, with the sale of physical goods accounting for 37% (source: DIBS). 2017 may turn out to be another record-breaking year, with prospects of aggregate online sales to the tune of DKK 115bn. In addition, according to the database of the European Commission, 81.5% of the Danish population aged 16-74 shopped online in 2016, reflecting a steady upward

The boom in the F&B industry has greatly intensified competition, with a surge in food courts, etc.

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In 2016, aggregate Danish online sales reached an all-time high of more than DKK 100bn, with the sale of physical goods accounting for 37%.

trend since 2006. In this respect, Denmark is in the EU outrivalled only by Great Britain. In view of the EU ranking Denmark as the most digitalised country in Europe in its “Digital Economy and Society Index”, all precursors for sustained e-commerce growth are in place.

**Some traditional shops close, e-commerce showrooms open**

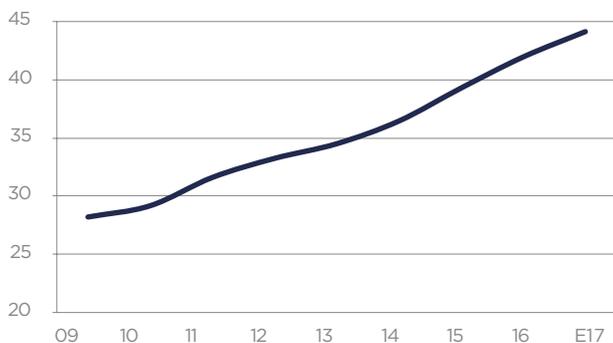
Although Danes only do around 15% of their goods shopping online according to Dansk Erhverv, the boom in e-commerce is taking its toll on traditional retail shops. The items most frequently bought online are clothes and shoes, home electronics and beauty products, including cosmetics, making it difficult for traditional shops to retain sales momentum. This applies to private retailers as well as large and small retail chains with operations in the same product lines. As a result, we have seen multiple shop closures, especially in small local markets. At end-2017, even the international giant H&M announced that it intends to close a string of shops due to faltering sales. In addition, the thriving of e-commerce has caused online businesses to set up physical showrooms where customers may examine the goods before ordering them online from home.

Webshops may in fact foster the online equivalent of showrooms, i.e. webrooms, where customers examine product details online, before going to a physical shop to do their shopping.

**Physical shops and webshops co-exist**

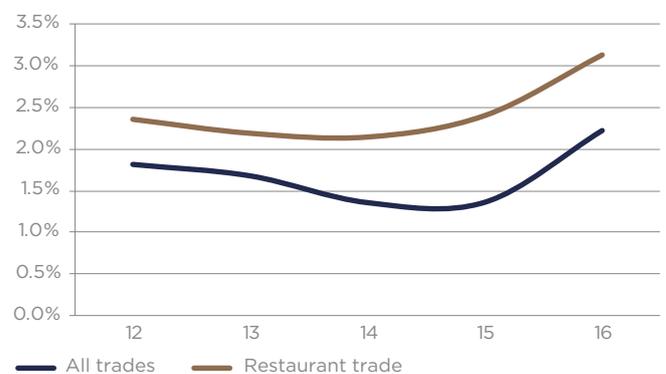
Nevertheless, it could be argued that the effect of e-commerce on traditional retailing is not unequivocally negative. Although retail vacancy rates were edging up in Copenhagen and environs in 2017, we are in fact aware of some instances where physical shops and webshops co-exist much rather than outright compete. Webshops may in fact foster the online equivalent of showrooms, i.e. webrooms, where customers examine product details before going to a physical shop to do their shopping. In addition, an increasing number of businesses, in particular in the home electronics sector, have introduced click-and-collect services, where customers order online and pick up their purchases in a physical shop. The other way around, physical shops are supporting online sales as they give customers the possibility of returning goods purchased online. However, in physical shops it is also possible to order items that may be sold out from the shelves, for direct

**Turnover in F&B sector is growing**



Note: Denmark, DKK bn.  
Sources: Statistics Denmark and Sadolin & Albæk

**Increased F&B competition takes it toll**



Note: Number of bankruptcies (%), Copenhagen.  
Sources: Statistics Denmark and HORESTA

delivery at home. Traditional shops therefore add a greater element of flexibility to business operations. For instance, the webshop Boozt.com is opening a flagship store at Købmagergade in 2018. In spring 2017, it opened a shop in the RO's Torv shopping centre in Roskilde.

Moreover, it should not be ignored that the boom in e-commerce is feeding through also to the logistics property market as businesses operating online are required to have up-to-date and efficient storage and distribution channels. All other things being equal, this increases the demand for functional and well-located storage and logistics facilities.

### Customers define the future scope of retail

As society becomes increasingly digitalised, consumer patterns are transforming, adapting to the new and added sales channels. Similarly, trends such as increased customer focus on F&B may greatly affect the demand for retail space in terms of unit size and functionality. This imposes much higher and different demands on retailing, but, most importantly, it is all about presence and having the right products, meeting the customers where they are, whether online, in the physical shop or through other sales channels, e.g. social media.

We therefore believe that consumers are increasingly defining the scope of retailing. This is already evident in the strong focus on the holistic shopping experience, leaving its mark everywhere, on the Copenhagen high street market and in shopping centres.

### Yield compression affects investor composition

High-street transactions continue to drive the Copenhagen retail investment property market. Supported by a healthy retail occupational market, solid Danish fundamentals and strong tourism, high-street properties remain attractive investment assets despite substantial yield compression in this segment. In 2012-2017, the net initial yield on prime high-street property plunged from 5.00% to 3.25%, and we currently see a further downtrend, with yield requirements as low as 3.00%. Indeed, the market has seen multiple transactions involving net initial yields just below the 3.00% mark. As a result, the investor composition in the high-street market has changed dramatically.

Previously, a mix of domestic and international investors used to be active in both the core and value-add segments of the high-street investment market. In 2017, however, international investors headed the field as they were involved in nearly all high-street transactions. Similarly, the proportion of value-add and even opportunistic investments is on the decline, with core investments on the rise. The shift in investor composition and risk profiles partly ties in with the fact that value-add international investors in particular, in keeping with their exit strategies, have started to re-sell (to core investors) "dry" high-street assets with no more value-add potential. However, it is also partly due to the fact that core investors have reduced their yield requirements to be able to compete for assets. Prime yields have therefore dropped to a low that effectively rules out value-add investors.

Supported by a healthy retail occupational market, solid Danish fundamentals and strong tourism, high-street properties remain attractive investment assets despite substantial yield compression in this segment.

The shift in investor composition and risk profiles partly ties in with the fact that value-add international investors in particular, in keeping with their exit strategies, have started to re-sell (to core investors) "dry" high-street assets with no more value-add potential.



Nygade 6, Copenhagen

## Higher returns than in other European cities

Yield compression in the Copenhagen high-street market has caused the majority of domestic investors to exit this segment and zoom in on other locations or segments. International investors, however, remain active as Copenhagen high-street assets still produce attractive returns relative to other European cities, including Berlin, Paris and London. Nevertheless, the yield gap has become much narrower in recent years, today standing at a mere 25-75 bps.

The Copenhagen high-street property market remains highly liquid, which continues to attract new investors. In 2017, Richemont Group was one of these newcomers, acquiring a prominent building at Amagertorv 19 in the second half of the year. In addition, we still see Copenhagen high-street properties being redeveloped to be resold to core investors. Broadly speaking, prime high-street properties continue to attract more investor demand than secondary properties.

However, in view of the sharp yield compression and the diminishing yield spread vis-à-vis other high-street markets, the high-street segment may arguably be nearing a saturation point. This is supported by the fact that the fast rate at which prime high-street rents at Strøget have increased in recent years is now gradually slowing.

Nevertheless, in our opinion the high-street investment property market still has investment potential. Bearing in mind investors' substantial placement requirements along with attractive financing options, high-street properties still represent solid investment opportunities. However, in the next couple of years we expect to see yields holding stable, ending the yield compression of 2012-2017.

Broadly speaking, the retail property investment market outside Copenhagen is considerably less liquid and characterised by sluggish transaction activity and high yield requirements, reflecting a higher NOI risk. However, in 2017, activity was brisk in the shopping centre segment driven by this segment's attractive risk-adjusted returns relative to other retail assets in and around Copenhagen. In addition, shopping centres generally offer great value increase potential provided their owners know how to secure the right line up of retail, leisure and F&B to suit changing shopping patterns. We believe that this segment will attract mounting investor demand in the years ahead.

## Typical retail rent levels

		Market expectations	
		2018	2018
Copenhagen high street (upper end)	Area up to 100 sqm	16,000 - 24,000	↻
	Area 100-300 sqm	14,000 - 24,000	↻
	Area 300+ sqm	11,500 - 18,000	↻
Copenhagen high street (lower end)	Area up to 100 sqm	7,500 - 14,000	↻
	Area 100-300 sqm	6,800 - 13,000	↻
	Area 300+ sqm	5,000 - 10,000	↻
Copenhagen Latin Quarter/ Ny Østergade/ Grønnegade	Area up to 300 sqm	3,400 - 9,000	↻
	Area 300+ sqm	2,800 - 6,500	↻
Copenhagen other central city districts	Area up to 300 sqm	1,300 - 4,200	↻
	Area 300+ sqm	1,200 - 3,200	↻
Greater Copenhagen high street	Area up to 100 sqm	1,300 - 6,000	↻
	Area 100-300 sqm	1,200 - 5,500	↻
	Area 300+ sqm	950 - 3,300	↻
Regional shopping centres	Anchor food	950 - 1,800	↻
	Anchor non-food	900 - 2,100	↻
	Area up to 100 sqm	1,800 - 8,000	↻
	Area 100-300 sqm	1,400 - 5,600	↻
	Area 300+ sqm	1,000 - 4,600	↻
Local shopping centres	Anchor food	900 - 1,800	↻
	Area up to 100 sqm	950 - 4,400	↻
	Area 100-300 sqm	950 - 3,500	↻
	Area 300+ sqm	700 - 2,900	↻
Big box properties	Area 300+ sqm	750 - 1,800	↻

Note: DKK per sqm p.a. excluding operating costs and taxes.  
Source: Sadolin & Albæk



# In focus: Shopping centres

Just like other segments of the Danish retail market, the shopping centre segment is undergoing a transition these years, with several shopping centres readjusting concepts and offerings to match new and ever-changing customer patterns.

Denmark has a total of 114 shopping centres with a GLA of 5,000+ sqm, most of them located near major towns and cities. Geographical distance is seemingly becoming less of an issue to shopping centre customers, provided the shopping centres manage to deliver a varied and resilient offering of shops, including F&B (food & beverage) and necessity-driven retail like grocery stores, and exciting leisure experiences to out rival the local high street.

Shopping centres accounted for 24% of the total retail spend in 2016, and their market share is expected to increase in the years ahead, driven by a general change in shopping patterns in favour of an attractive mix of shopping, F&B and leisure opportunities, in short the overall “shopping experience”.

## User experience key to retaining business

The ongoing transition process in the Danish shopping centre market is expected to prevail for some years to come. In the past, shopping centres were characterised by a fairly one-sided focus on the mix of traditional retail tenants, with no or a limited number of leisure activities. The growth of e-commerce has transformed the retail landscape, however, in the process changing shopping patterns and requiring shopping centres to upgrade to attract and retain both customers and retailers. We believe that the future of shopping centres lies in the merging of user experience, technology and design.

Indeed, several shopping centres have endeavoured to reinvent their concepts and offerings, investing in add-on activities such as F&B which has become a key shopping experience ingredient. For instance, Frederiksberg Centret has expanded in recent years, enhancing its F&B selection and parking conditions. Similarly, Rødovre Centrum is undergoing a 5,000 sqm expansion scheme, with the first stage opening in autumn 2017 and the second being scheduled for completion in April 2018. Overall, the expansion involves several F&B units, some 25 new retail units and 600 parking spaces.

In addition, shopping centres have generally increased their line up of leisure activities, including indoor play centres, cinemas, fitness centres, etc. F&B remains the strongest and most sought-after non-retail component overall, whereas leisure activities are developed mainly in the biggest (regional) shopping centres.

Field's is currently rethinking its general concept to include a trampoline park, scheduled to open in spring 2018. This will increase the non-retail component of Field's

## 24%

Shopping centre share of total retail spend in 2016.

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The Capital Region of Denmark has the highest concentration of shopping centres. Of the total number of shopping centres in Denmark, 39% are located in this region, equivalent to 46% of total GLA.

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Transaction activity in the shopping centre segment reflects stronger investor demand from abroad.

to some 20%. IKEA has announced plans to open a new home furnishings outlet next to Fisketorvet Copenhagen Mall in 2020, similarly adding a new component to the local area and providing a more varied retail offering. In addition to traditional F&B and leisure activities, regional shopping centres in general see an increase in lettings to professionals or other tenants offering services and activities catering to the local community, including clinics, dentists, chemists, florists, etc., which generate regular footfall.

Digitalisation is a buzzword in the global retail sector and is predicted to become an important diversifying factor in the coming years. According to polls, technological advances improve customer satisfaction, and social media platforms facilitate smoother communications, engaging customers through compelling content online, which combine with loyalty programmes to create a bond. Shopping centres are therefore forced to embrace digitalisation and their new role as customer-oriented providers of a holistic shopping experience.

### Interest from international investors

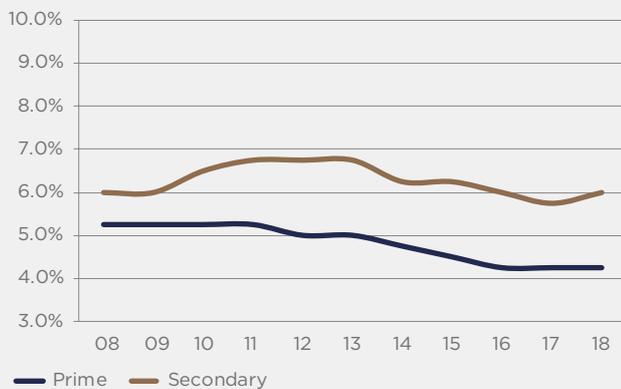
Broadly speaking, the Danish market for prime (regional) shopping centres has traditionally been dominated by domestic institutionals pursuing long-term investment strategies. As a result, such assets have been offered only rarely in the market. However, the stronger international investor demand for Danish retail assets has spilled over to the shopping centre market,

with some 20% of Danish shopping centres today being owned by international investors. Attracted by the favourable risk-adjusted returns offered in Denmark, international investors are expected to retain an appetite for the Danish market. Investments in the largest shopping centres in particular typically require financially strong investors that are prepared to invest in upgrade schemes. International investors with specialist know-how fit this profile.

Net initial yield requirements in the prime shopping centre segment are estimated at some 4.25%. Secondary and local shopping centres are attracting less demand, becoming increasingly illiquid assets. Investor activity in this segment is typically driven by value-add investors, reflected in net initial yields as high as 6.00-7.00%.

The largest property transaction in 2017 took place in November: At a total price of DKK 6.9bn, ATP acquired a 50% share of 16 shopping centres, entering into co-ownership with Danica. The transaction underpins the demand for well-run shopping centres as well as the need for continuous upgrade schemes in this sector, which was one of the reasons for co-ownership cited by Danica. International investment manager BlackRock invested in Næstved Storcenter, Denmark's 9th largest shopping centre, in November 2017. The investment was considered a value-add investment, and BlackRock used the opportunity to announce its plans to expand operations in the Nordics.

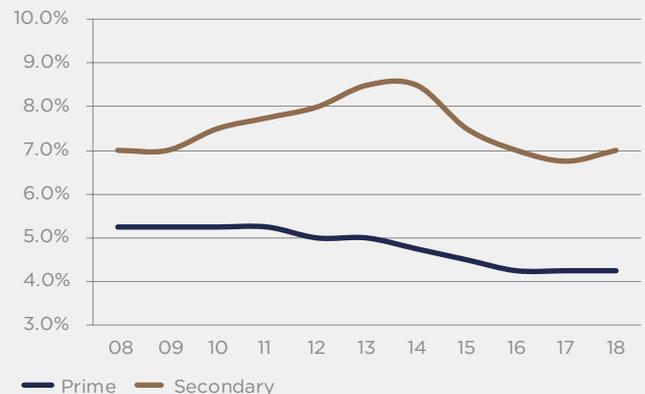
### Continued interest in regional shopping centres retains the prime yield at 4.25%



Note: Regional shopping centres typically offer a wide range of retail brands and attract customers from a wider catchment area. Net initial yields, regional shopping centres, Copenhagen.

Source: Sadolin & Albæk

### Widening yield spread between prime and secondary local shopping centres



Note: Local shopping centres typically cater to the local community and have grocery anchors. Net initial yields, local shopping centres, Copenhagen.

Source: Sadolin & Albæk

## Key lease transactions, central Copenhagen, retail

Property	Landlord	Tenant	Sqm
Vesterbrogade 2D	Ejendomsselskabet Norden	Old Irish Pub	1,480
Frederiksberggade 38	Standard Life	Sportmaster (SDK Sport II)	1,440
Axel Towers	ATP Ejendomme	Dalle Valle	865
Strandgade 85	Bonava Danmark	KP 85	800
Gammel Kongevej 116	Property company	MASH Frederiksberg	730
Dronningens Tværgade 21	Private investors	Bazaar	610
Gråbrødre Torv 16	Private investors	The Jane	580
Strandgade 83	Bonava Danmark	Føtex Food (Dansk Supermarked)	525
Købmagergade 39	Private investors	Boozt.com	500
Købmagergade 37	PFA Ejendomme	Asics	390
Esplanaden 7	Property company	Lilly Brudekjoler	320
Axel Towers	ATP Ejendomme	Joe & The Juice	220
Vimmelskiftet 36	BVK	Trend Accessories	165
Dronningens Tværgade 52	PFA Ejendomme	Peryton IVS	160
Bredgade 67	Forvaltnr Skt. Ansgars Kirkes Menighed	YEAH YEAH	150
Kronprinsensgade 9	Private investors	ECCO	140

Source: Sadolin &amp; Albæk

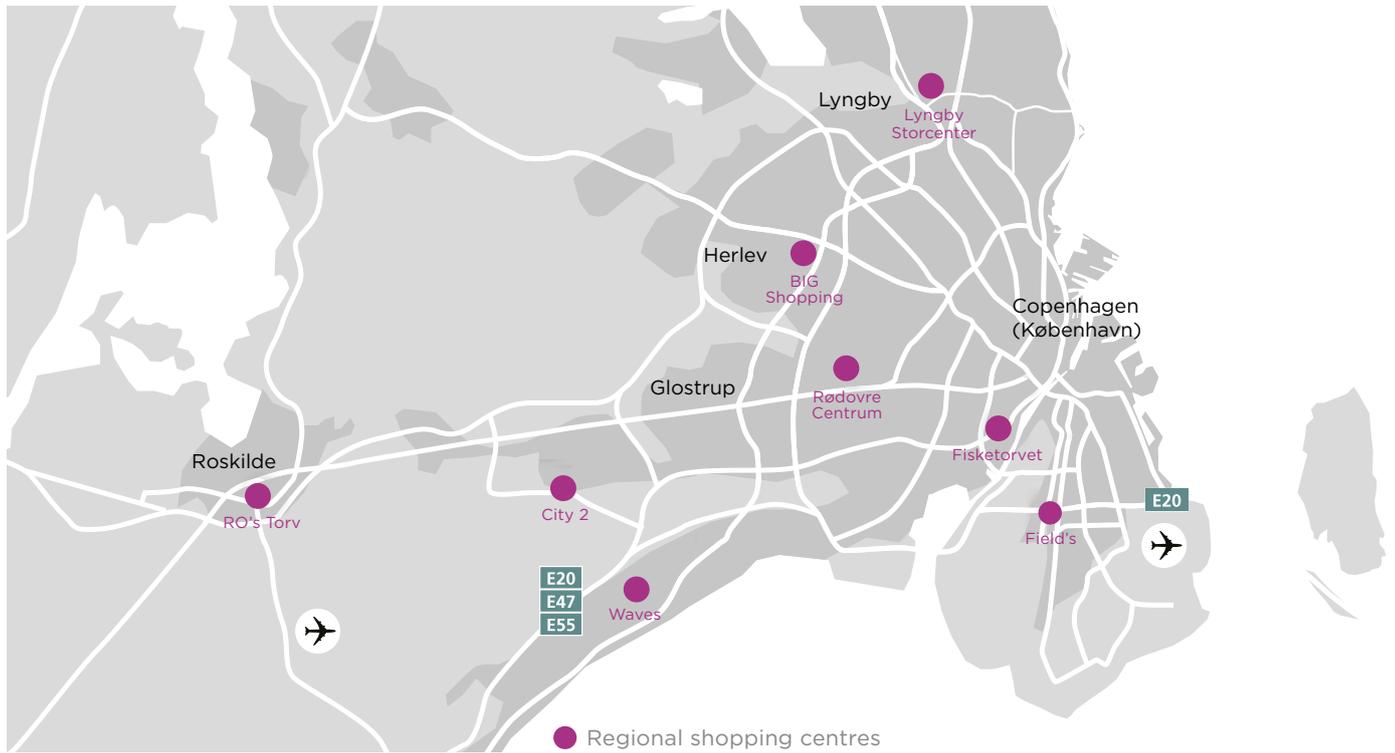
## Key investment transactions, Greater Copenhagen, retail

Property	District	Seller	Buyer	Sqm	Price*	Yield**
16 shopping centres (Project Ocean)***	Multiple	Danica Pension	ATP Pension	400,000	6,900	na
7 shopping centres (Project Peach)***	Multiple	NREP	Stepstone	74,000	1,550	6.25%
High-street portfolio (5 properties)***	CBD	Avignon	Hines	11,675	885	3.25%
Supermarket portfolio (Peach II - stand alone grocery stores)***	Multiple	NREP	na	24,000	520	6.50%
Købmagergade 7, 29, 32 & 41, et al.	CBD	Meyer Bergman	Hines	3,535	460	3.25%
Vimmelskiftet 39-41	CBD	Limited partnership	CBRE Global Investors	2,730	242	4.00%
Amagertorv 19	CBD	LILLY Ejendomme	Richemont	2,370	222	3.75%
Nygade 6	CBD	Private investor	Hovedstadens Ejendomsselskab	1,900	na	3.25%
Lyngby Hovedgade 63	Kongens Lyngby	KPC	PensionDanmark	4,150	158	5.25%
Købmagergade 7	CBD	Maigaard & Molbech	Meyer Bergman	1,070	125	4.25%
Frederiksborggade 7	CBD	Marylebone Asset Management	Quadoro Doric Real Estate	14,200	91	3.25%
Gallerierne 1 et al.	Hillerød	BRF Kredit	Private property consortium	20,065	na	na
Tårnby Torv 3	Kastrup	Dansk Supermarked	AP Ejendomme	8,945	75	6.50%

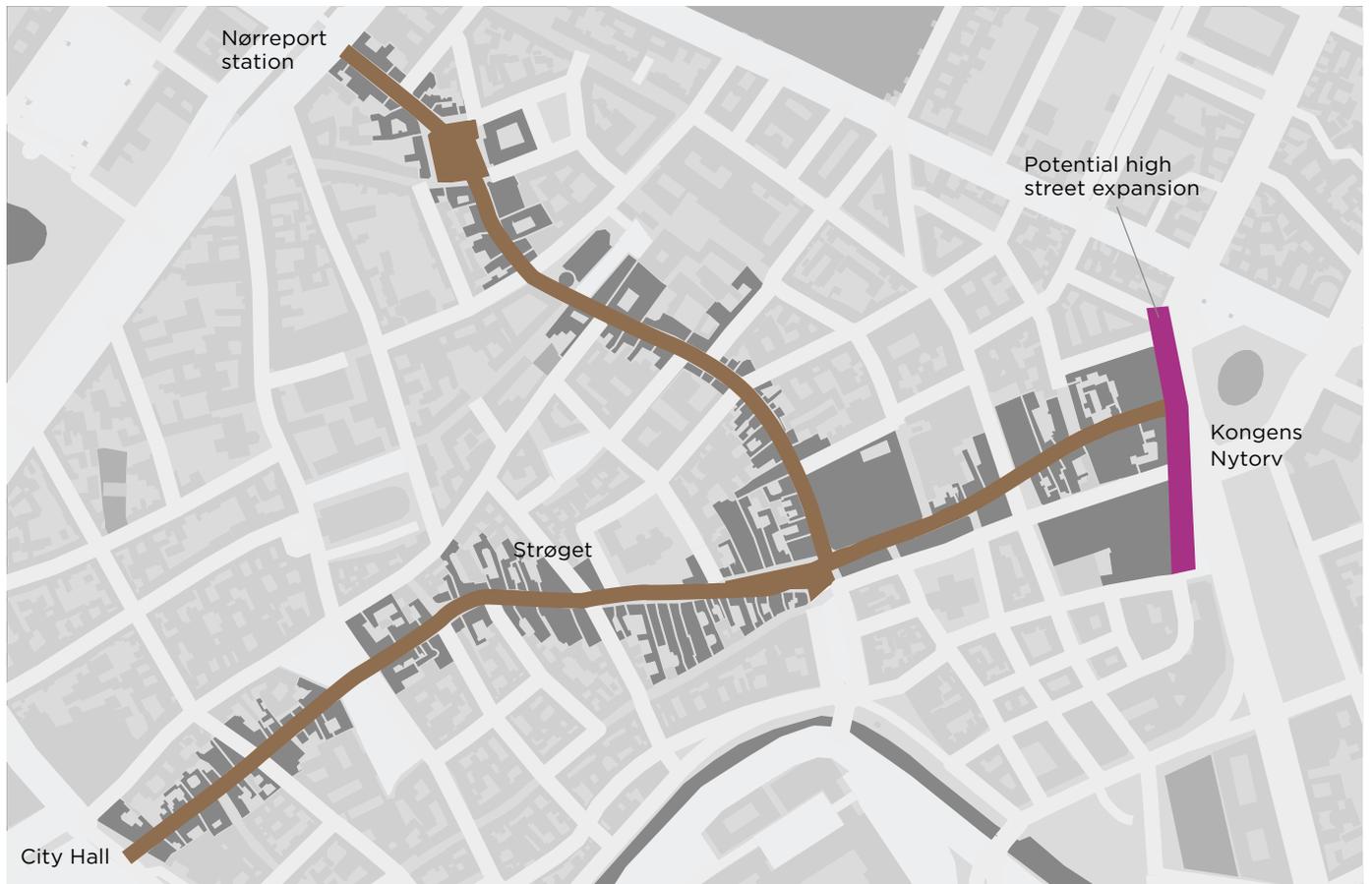
\*) Prices quoted in DKK million (rounded figures) \*\*) Yield in this context denotes estimated direct yield (approximate figure) \*\*\*) Portfolio sale

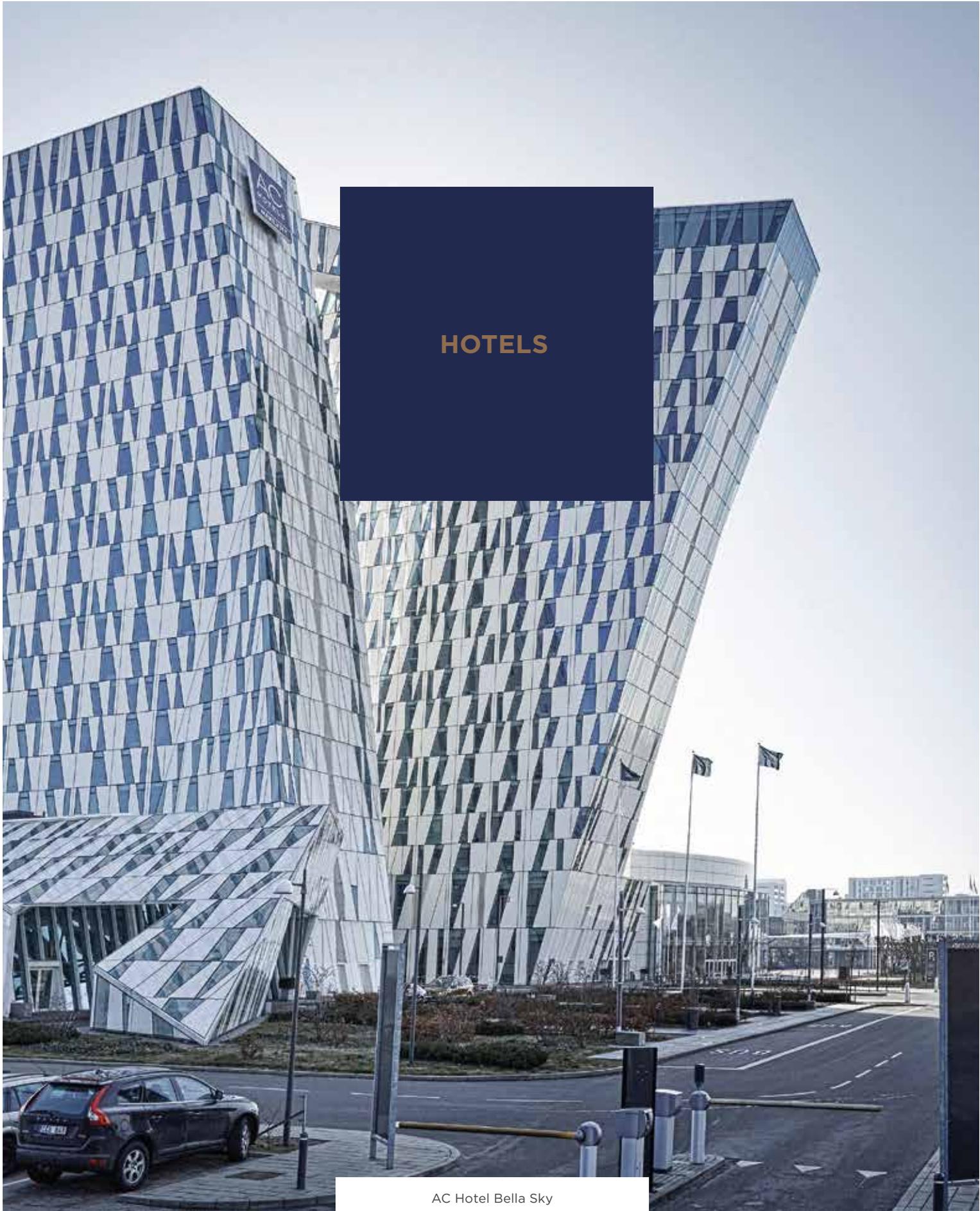
Source: Sadolin &amp; Albæk

## Regional shopping centres



## Copenhagen high street





**HOTELS**

AC Hotel Bella Sky

# Booming Copenhagen hotel market

The Copenhagen hotel market continues to expand, resulting in a number of new developments and expansions. Having become more liquid, the hotel investment property market has seen yield compression due to mounting investor demand.

## High-growth market

The growth momentum in the Danish hotel market has been strong in recent years, in Copenhagen in particular. This is clearly reflected in hotel performance, KPIs, reporting exceptionally favourable developments in occupancy rates, average room rates (ADR) and revenue per available room (RevPAR).

As both operators and investors have become fully aware of the favourable market trends, several new hotel operators plan to enter the Copenhagen market. Similarly, the market has seen several transactions involving existing hotel properties.

## Tourism drives demand

Recent years' hotel demand has been fuelled mainly by a marked increase in tourism, with leisure-related bednight growth being the main driver of occupancy rates ahead of a more moderate business-related bednight growth. With prospects of a sustained boom in tourism and strong trends in the global economy, there is no indication that demand will weaken short to mid term.

In 2016, the number of bednights in Copenhagen proper totalled 6.93 million, equivalent to an almost 66% increase since 2009. We expect the 2019 figure to be some 7.7 million, corresponding to an increase of 84% since 2009.

Apart from substantial domestic demand, visitors from the United States, the Great Britain, Italy and China are predominantly driving leisure-related hotel demand growth. Neighbouring countries in the Nordics, Norway and Sweden, account for a large market share, although demand seems to be weakening. From an operator or investor perspective, this shift in demand is worth bearing in mind when planning ahead.

## Demand value drivers are going up

In the Copenhagen hotel market, several fundamental value drivers indicate sustained demand growth in the leisure segment in particular, including:

## 7.2 million

Total bednights in the city of Copenhagen 2017.

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Hotel transaction volume has never been higher, as new investors and operators continue to enter the market.

■ **Infrastructure:** Copenhagen Airport is expanding and it recently cut airline taxes. This means more flight routes, more passengers and more affordable fares. Furthermore, Copenhagen benefits from efficient infrastructure, including the Copenhagen Metro.

■ **City brand:** Known as the capital of the country inhabited by the happiest people in the world, Copenhagen has great tourist appeal. In addition, Danish culture, especially novels and films (Nordic noir) have served to put Denmark and Copenhagen on the map. Similarly, Copenhagen's superb culinary scene is attracting people from all over the world.

■ **Safety:** So far, Copenhagen has not been the target of any large-scale terrorist attacks and crime rates are extremely low.

■ **Framework conditions:** Some European cities, like Amsterdam and Barcelona, are flooded by tourists and their inhabitants have therefore started to question and oppose tourism growth. This has prompted politically motivated restrictions on hotel newbuilding.

■ **Emerging markets:** Today, China is probably the best example, but India and several South-American countries may also contribute to future growth in leisure-related demand.

Although hotel operators have competition concerns over e.g. Airbnb and the effects of online travel agents (OTAs) and booking portals, there are so far no signs of these having any significant impact on operator bottom lines.

In terms of business-related demand, the outlook for hotels in the MICE segment<sup>1</sup> is bright too.

■ Denmark tops the World Bank's "Ease of doing business index".

■ Unemployment is low and economic growth accelerating. Rising employment levels are correlated with mounting business activity, increasing business-related hotel demand.

■ Copenhagen is widely recognised as a strong conference city. In fact, the city has been named the world's best performing city for meetings and conferences<sup>2</sup>.

### Substantial capacity growth predicted to boost supply

Favourable market conditions have made many established hotel chains expand operations. By the same token, several international chains are looking to enter the Copenhagen market. As a result, the market has a substantial pipeline that will dramatically increase supply within the next three or four years.

According to Statistics Denmark, Copenhagen proper today offers some 15,700 hotel rooms in total. Factoring in the number of rooms in the pipeline, this corresponds to an increase in supply of some 80% from 2009 to 2020. Held up against the projected 84% growth in demand in 2009-2019, supply seems to largely match and meet recent years' accumulated market demand.

### USA accounting for highest bednight growth

USA	9.44%
Great Britain	8.87%
Denmark	7.56%
Italy	6.38%
China	4.68%
France	2.05%
Germany	1.85%
Norway	-3.05%
Sweden	-3.67%

Note: Copenhagen bednights by guest origin. CAGR 2013-2016.

Source: Statistics Denmark

<sup>1</sup>MICE = Meetings, Incentives, Conferences and Exhibitions.

<sup>2</sup>Source: Air Travel Intelligence Company OAG, January 2016.

### Long lease agreements are driving yield compression



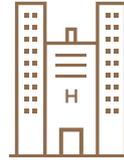
4.25%-5.00%

Fixed lease - Long



5.00%-6.50%

Fixed lease - Short

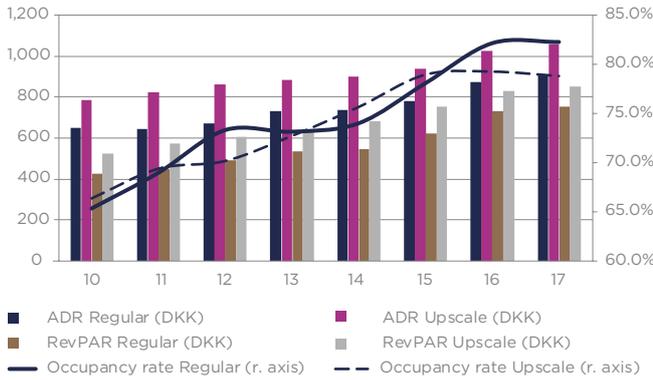


6.25%-8.00%

Management contracts

Source: Sadolin & Albæk.

### Golden days in the Copenhagen hotel market



Note: The "Upscale" category includes 4- and 5-star hotels, discounting outliers such as Hotel d'Angleterre and Nyhavn 71. "Regular" denotes 2-or 3-star hotels.  
Source: Benchmarking Alliance

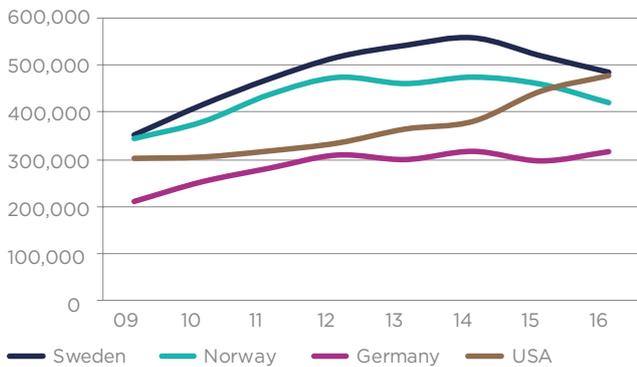
### Annual net rent per room (DKK)

Area	Low	High
CBD, upscale	90,000	135,000
CBD, regular	60,000	95,000
Outside CBD, upscale	75,000	110,000
Outside CBD, regular	45,000	75,000

Note: The table reflects average rents per segment (fixed leases) and does not include outliers such as luxury hotels like Hotel d'Angleterre or extremely low-priced hostels.

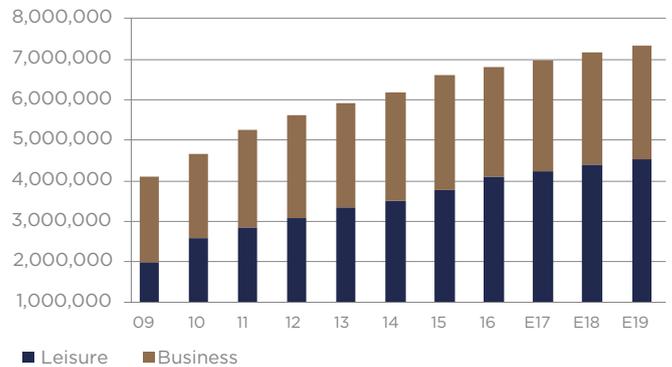
Source: Sadolin & Albæk

### Shifting markets - tourism growth driven by long-distance travellers



Note: Hotel demand (bednights) by origins, Copenhagen proper.  
Source: Statistics Denmark

### Prospects of sustained hotel demand



Note: Bednight growth, Copenhagen proper, including forecast.  
Sources: Statistics Denmark and Sadolin & Albæk

The current pipeline seems to indicate that the new supply will be varied, featuring a relatively diverse mix of concepts and brands. Furthermore, we see an increase in operator demand for so-called long-stay concepts, involving small-sized hotel apartments for long-term rent.

### Outlook remains bright

The record-breaking supply pipeline may give rise to speculation that the uptrend in hotel KPIs may be tapering off. Analysing the added supply, however, it seems to largely fill capacity shortfalls to meet recent years' mounting demand. As a result, only a limited measure of cannibalisation is expected among the new hotels. At the moment, we therefore see no major risk of any structural oversupply in terms of Copenhagen hotel rooms.

Obviously, competition will become more intense, imposing stricter demands on hotel operators. Similarly, KPIs are expected to come under pressure in the next three to five years, although we believe that the most important KPI, RevPAR, will edge down only slightly.

With occupancy rates in excess of 80%, hotels are practically as fully booked as can be. Furthermore, when occupancy rates are this high, price elasticity incentivises operators to achieve higher turnover levels by increasing room rates at the expense of a slight decline in occupancy rates. We therefore expect hotel operators to raise rates (ADR) over the next 12 months before the greatest proportion of added capacity hits the market. There is little doubt that the fiercer competition will slow the pace of growth in hotel KPIs and weaken average performance, presumably only temporarily over the next three to five years. After that, the market is expected to stabilise.

Because of the favourable trend in KPIs, hotel market rents have been climbing.

### More investors and rising transaction volume

In the period from December 2016 to December 2017, the Copenhagen hotel transaction volume was at an all-time high of approximately DKK 4.85bn, reflecting an increase in both the size and number of hotels traded last year.

The ranks of investors in the hotel market have swelled considerably too. Just a couple of years ago, domestic pension funds were averse to hotel property investments. However, yield compression in other prime property segments, along with the fact that hotel operators more readily accept long-term lease agreements as opposed to management agreements, have made investors view hotel investment properties as much more attractive investment opportunities, offering highly competitive risk-adjusted returns.

In 2017, several international investors, including KEVA, Balder and Midstar, entered the Danish hotel investment property market. Both pension funds, property companies and operator chains are active investors in the hotel market.

### Prime yield estimates in Europe's mature markets (hotels let on long leases)



**4.00%**

Barcelona



**3.75%**

London



**3.50%**

Paris

Note: In the most mature hotel investment markets, it is much more common for investors to acquire hotels on management contracts rather than fixed lease agreements.

Source: JLL

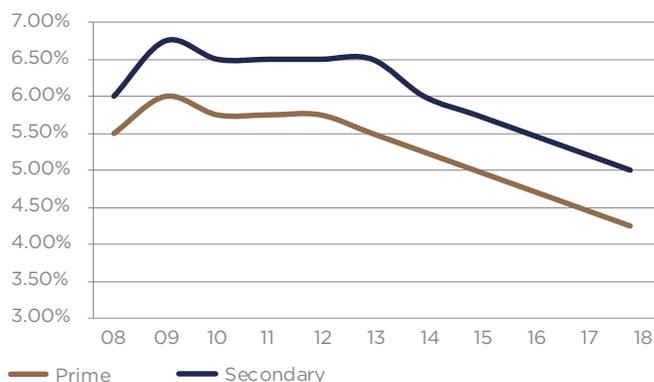
## Hotel KPI forecast for 2018-2019

KPI		2017	E2018	E2019
Occupancy rate	Regular	82.3%	81.4%	80.2%
	Upscale	78.8%	77.6%	76.5%
ADR (DKK)	Regular	901	930	925
	Upscale	1061	1100	1095
RevPAR (DKK)	Regular	753	750	746
	Upscale	848	850	837

Note: ADR = Average Daily Rate. RevPar = Revenue Per Available Room. DKK, excl. VAT.

Sources: Benchmarking Alliance and Sadolin & Albæk

## Downtrending yield requirements on hotels let on lease agreements



Note: Net initial yield requirements, Copenhagen hotels let on lease agreements carrying non-terminability periods of 15+ years.

Source: Sadolin & Albæk

## Pipeline: Initiated and announced hotel projects in Copenhagen

Hotel	District	Type	Expected opening	Concept	No. of rooms
Scandic, Kødbyen	Copenhagen V	New	2018	Upscale	370
Citizen M, Dagmarhus	Copenhagen V	New	2018	Affordable luxury	230
Moxy Hotel	Sydhavnen	New	2018	Affordable luxury	204
Copenhagen Hospitality College	CBD	New	2018	na	150
Hotel Falconer, Scandic	Frederiksberg	Expansion	2018	Regular - MICE	137
Charlottehaven	Copenhagen Ø	Expansion	2018	Apartments	37
Brøchner Hotels, Bremerholmen	CBD	New	2018	Luxury boutique	31
CABINN, Kalvebod Brygge	CBD	New	2019	Low price	1,200
WakeUP Kalvebod Brygge	CBD	New	2019	Low price	585
WakeUP, Borgergade	CBD	Expansion	2019	Low price	250
Hotel Scandiagade	Sydhavnen	New	2019	na	250
Hotel Ottilia, Brøchner Hotels	Carlsberg City District	New	2019	Boutique	156
Comfort	Airport	New	2020	Airport hotel	500
Comwell, Nordhavn	Nordhavn	New	2020	Upscale - MICE	500
Project Green	Copenhagen S	New	2020	Upscale	416
Postterminalen, Nordic Choice	CBD	New	2020	Upscale	380
Scandic, Scanport	Airport	New	2020	Airport hotel	357
Scandic, Kalvebod Brygge	CBD	New	2021	Upscale	632
New hotel	Sydhavnen	New	na	na	approx. 450
Copenhagen Gate	Nordhavn	New	na	na	400
Tobaksbyen, Gladsaxe	Lyngby/Gladsaxe	New	na	Regular - suburban	350
Hotel on Redmolen	Nordhavn	New	na	Upscale	approx. 300
<b>In total</b>					<b>7,885</b>

Sources: HORESTA and Sadolin & Albæk

## Key transactions, Copenhagen hotels

Hotel name	District	Seller	Buyer	Sqm	Price*	Yield**
AC Hotel Bella Sky	Copenhagen S	Bella Solstra	Wenaasgruppen	41,834	1,600	4.75%
Marriott	CBD	Bella Solstra	ATP Ejendomme/ PensionDanmark	25,866	1,100	4.50%
Comwell Trælstholmen, Nordhavn	Nordhavn	KPC	AP Pension and KEVA	25,145	775	5.00%
Hotel Plaza, Mercur Hotel, Hotel Richmond & Star Hotel***	CBD/Copenhagen V	Hotel Property Group	Balder	29,308	760	na
Quality Airport Hotel Dan	Airport	European Properties	Midstar	10,491	265	5.60%
Grand Hotel	CBD/Copenhagen V	Arp-Hansen Group	Midstar	7,145	225	na
Bertrams Guldsmeden	Copenhagen V	na	Thylander Gruppen	1,618	55	na

Note:

\*) Prices quoted in DKK million (rounded figures)

\*\*\*) Yield in this context denotes estimated yield (approximate figure)

\*\*\*) Portfolio sale

Source: Sadolin & Albæk.

### Strong appetite for hotel property investments

Strong hotel market performance and mounting demand from operators and investors alike have driven down yield requirements in recent years. While yields are downtrending on hotels let on fixed lease agreements with long non-terminability, investors are more averse to investing in more cyclical hotel assets let on management agreements.

In Copenhagen, yield requirements therefore largely hinge on the operator and the structure of the lease agreement of the individual hotel property.

Brisker transaction activity provides a more liquid market. Accordingly, with the increasing number of institutionals entering the hotel segment, the hotel property investment market will become more mature and transparent. Provided the outlook for this market segment continues to be bright, investors may start treating hotel investments more like infrastructure investments. As a result, they will impose higher demands on hotel operators but also invest more readily in hotel assets let on management agreements.



AC Hotel Bella Sky

In 2017, we saw the biggest single-property hotel transaction recorded in Copenhagen as the AC Hotel Bella Sky was acquired by Norwegian investor Wenaasgruppen.



Marriott Hotel



Grand Hotel Copenhagen

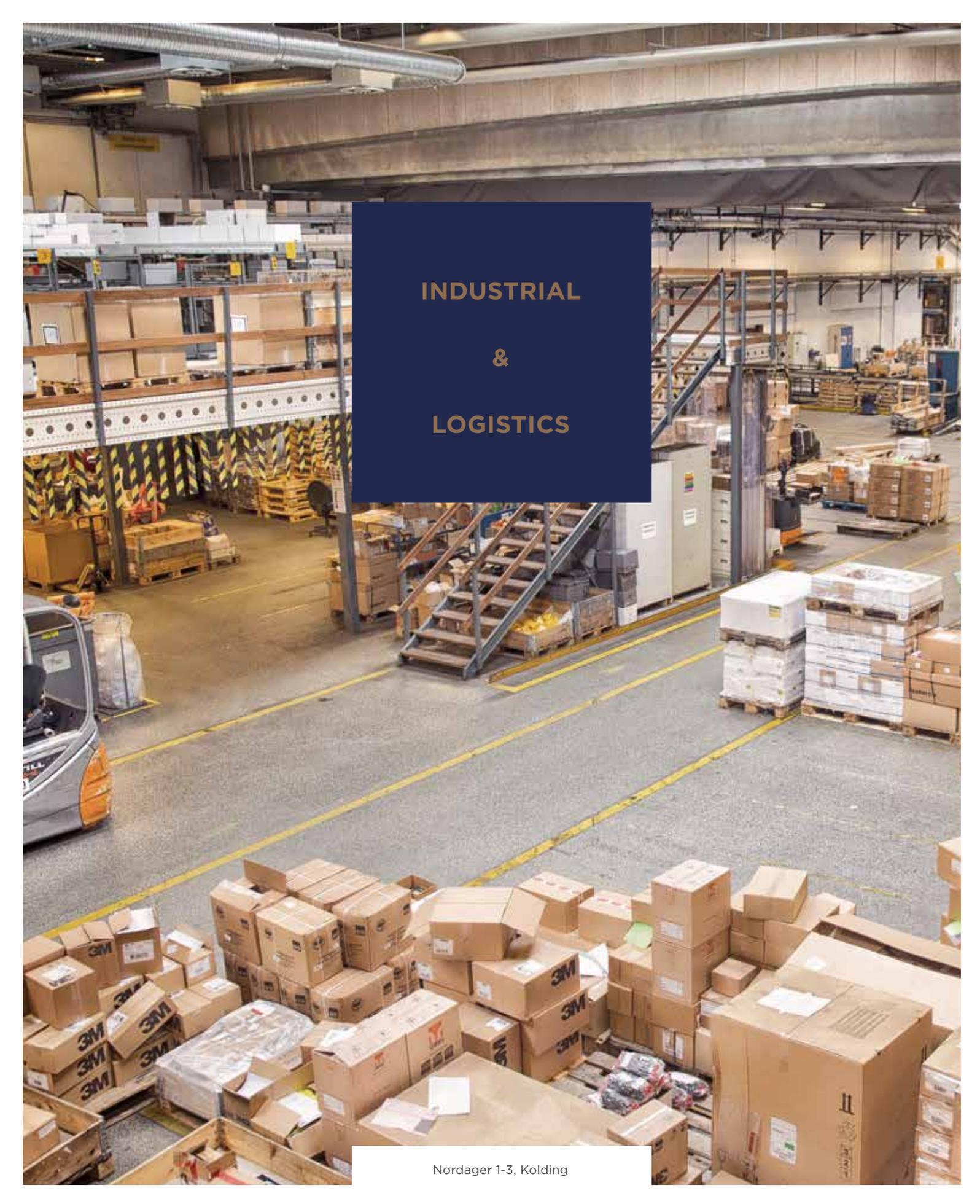


AC Hotel Bella Sky

Strong hotel market performance and mounting demand from operators and investors alike have driven down yield requirements in recent years.



Comwell, Nordhavn



INDUSTRIAL  
&  
LOGISTICS

Nordager 1-3, Kolding

# Flexible and modern properties in demand



## Industry and logistics in transition

Along with the rest of the Western world, Denmark is part of a year-long transition process from a predominantly industrial to a knowledge-based society. Increasing urbanisation and the high educational level in the Danish population in general support this megatrend. Having seen a steady decline for several years, the number of employees in the Danish industrial sector has now levelled off, whereas employment figures in the sector's Danish-owned subsidiaries abroad has been climbing.

## Post-crisis stabilisation in Danish industry

High production costs are the root cause of the decline in industrial workplaces, mainly because of labour-cost constraints in labour-intensive industries. Nevertheless, the number of Danish industrial workplaces has stabilised since 2014, mainly because of Danish economic recovery and growth in exports, at end-2017 slightly exceeding pre-crisis level. Since 2010, industrial capacity utilisation has been hovering around the 80% mark. As the Danish industrial sector has yet to reach full capacity utilisation, it does not automatically follow that increased industrial output will spur the demand for industrial property.

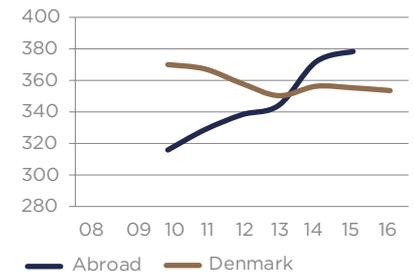
## Fewer vacancies due to increased activity

Irrespective of the industrial sector's unutilised capacity as well as downtrending or stagnating employment figures, however, overall Greater Copenhagen industrial/logistics vacancy rates dropped from 3.6% to 3.0% as 2017 wore on, thereby continuing the downtrend of 2016. Vacancy rates are seen to decline in industrial/logistics markets across the country as a manifestation of brisker activity in this segment. Broadly speaking, demand centres on up-to-date, readily operational storage and logistics facilities. Such properties are typically relatively standardised products, built to meet the same predefined requirements. In contrast, purely industrial and production facilities are typically built to suit the demands of a specific end-user, rendering them more difficult to re-let.

## High efficiency and automation levels

In 2016 and 2017 alike, the production index of the industrial sector has shown increasing output levels, irrespective of employment trends. In other words, the higher output is

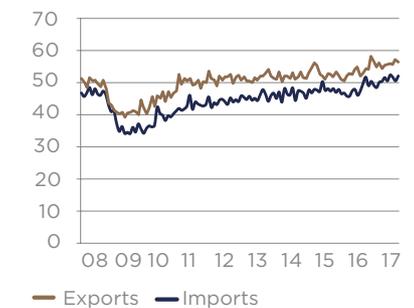
## Decreasing to stagnant number of industrial workers in Denmark



Note: Number of employees in the industrial sector in Denmark and in Danish companies abroad, ('000).

Source: Statistics Denmark

## Increasing trend in Danish exports and imports



Note: Imports and exports, seasonally adjusted foreign trade, DKK bn.

Source: Statistics Denmark

attributable to higher efficiency standards and automation levels, with robotics etc. taking over processes formerly done manually. Similarly, the index value increase tallies with Danske Bank's 2017 GDP growth forecast of 2.0%. Furthermore, the outlook for the production index is positive as the 2018 forecast for GDP indicates sustained growth of 2.0%.

In 2015, IFR (International Federation of Robotics) named Denmark one of the most highly automated industrial countries in the world (factoring out the car industry), exceeded only by Japan and South Korea. As industrial automation accelerates, Denmark enhances its competitive edge, making it possible to maintain and develop a strong Danish industrial sector.

### Return to insourcing production

In recent years, we have seen Danish businesses insource production previously outsourced to facilities abroad, as businesses increasingly opt to retain and enhance high-tech production in Denmark. As the general existing building stock is fairly outdated and unable to meet the demands associated with such high-tech production, we foresee some new construction activity in this segment.

### Transport sector on the rebound

According to Statistics Denmark, the transport sector saw a 15% decline in FTEs in 2008-2013, followed by an increase. Today, transport sector employment has bounced back, standing 10% below the level recorded in early 2008.

Despite employment growth in the transport sector, 2017 saw a slight decline in the volume of transported goods and logged distance in kilometres relative to 2016. Both figures plummeted after the onset of the financial crisis in 2008, but have since stabilised, and especially the volume of goods has rebounded to pre-2008 levels.

### Greater Copenhagen transport sector prospers

Looking only at the volume of goods transported by road in Greater Copenhagen in 2015-2016, we see an increase of some 7% in the volume transported from Greater Copenhagen and 0.7% in the volume transported into Greater Copenhagen. Relative to the volumes recorded in 2008, these figures reflect increases of 36% and 32%, respectively. The increasing volume of goods transported by road has fuelled demand, driving down vacancy rates and increasing rent levels in Greater Copenhagen.

### South corridor ideal for new logistics developments

In this context, the south corridor, stretching from Høje-Taastrup to Køge, offers ideal development sites with easy motorway access (E20), connecting to Copenhagen, the rest of Zealand, Funen, Jutland as well as Sweden and Germany. In addition, the corridor's local plan provisions are fully aligned with today's demands, facilitating the development of top-modern logistic facilities. Local authorities are business-friendly, some earmarking sites for logistics newbuilding. The Municipality of Køge is offering multiple plots of land as logistics development sites. Pharmaceutical company Nomeco

The amount of goods transported to and from Copenhagen made up a considerable part of total transported goods in Denmark in 2016



24% of 177K tons



67% of 1K tons



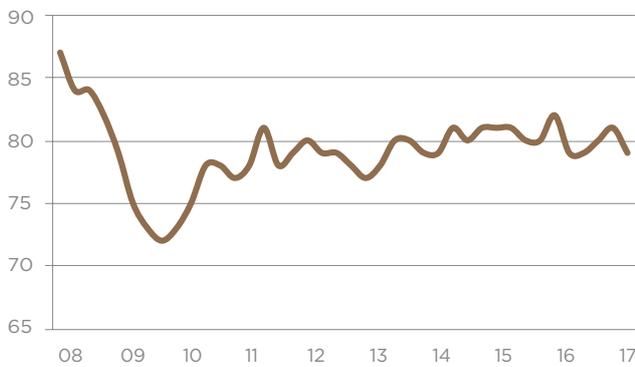
93% of 0.2K tons



16% of 13K tons

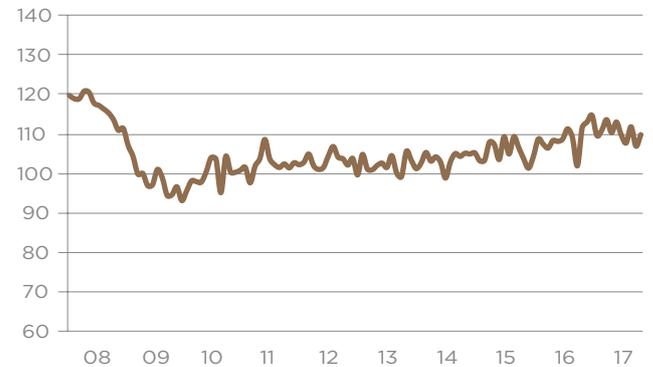
Source: Statistics Denmark

### Industrial capacity utilisation continues to hover around 80%



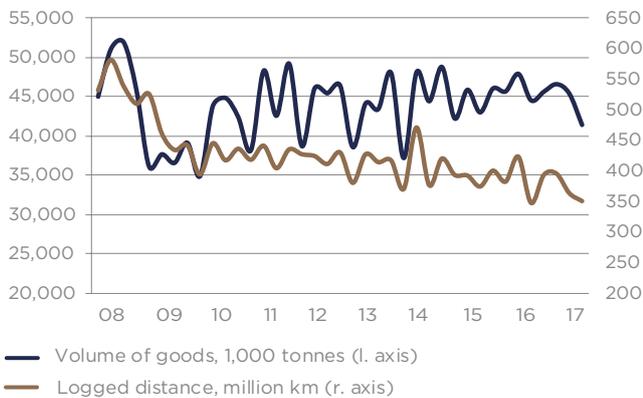
Note: Capacity utilisation (%), Danish industry.  
Source: Statistics Denmark

### Stable increase in Danish industrial output levels



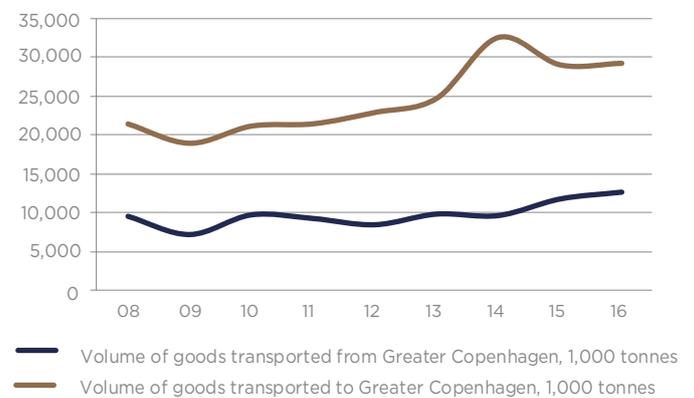
Note: Production index, Danish industry (index 100 = 2010).  
Source: Statistics Denmark

### Volume of goods in Denmark at pre-crisis levels whilst logged distance is declining



Note: Volume of goods vs. logged distance in kilometres, Danish road transport.  
Source: Statistics Denmark

### Goods to and from Greater Copenhagen are increasingly transported by road



Note: Volume of goods transported to and from Greater Copenhagen by road.  
Source: Statistics Denmark

has snapped up one such site for the development of a state-of-the-art distribution hub to serve the entire Scandinavian market. Construction is ongoing, with completion scheduled for 2018.

### Online shopping supports positive logistics development

The growth in e-commerce is part of the reason for the increase in transported goods: On a national level, online sales are predicted to hit a high of DKK 115bn in 2017, up by 14% relative to 2016, marking a continued upward trend. This shows that e-commerce has become a fully integrated part of people's shopping patterns. Nevertheless, online sales of physical goods account for only 37% of total online sales today, whereas travels and other services account for 63%. We expect further growth in online sales, supported by the 2017 logistics survey and poll prepared by FDIH. According to the poll, three in four webshops expect to distribute twice as many parcels in three years' time.

Today's online sale of goods is raising the efficiency standards required of the so-called last mile distribution, estimated to account for some 25-30% of aggregate factory-to-consumer freight costs. We expect to see stricter demands for quick delivery in future, with last-mile distribution becoming an even weightier parameter. The mounting volume of goods sold online today not only includes bargain hunts for specialty goods such as home electronics and clothes, etc., but also daily groceries from businesses with a digital business platform. As the latter are available mainly in major towns and cities, today's online grocery sales in these locations are five times higher than the national average .

### Last mile distribution centres to ensure quick delivery

The demand for quick delivery within prearranged time slots is essential in respect of groceries, but quick delivery is also a quality parameter applied to traditional specialty goods, where the customer can track the movement of the ordered article from storage to home via track-and-trace functionality. Because of this development, centrally located distribution facilities near large housing districts in the Copenhagen area are expected to attract stronger demand, but so are facilities designed for the delivery of groceries, where the layout effectively supports the flow right from goods delivery by truck over picking of items and loading onto vans for delivery to end-user. This requires more staff on-site than traditional logistics facilities, translating into higher demands in terms of parking facilities and access to public transport.

Although already in short supply, well-located logistics properties facilitating the efficient handling of goods for last mile distribution will attract increasing demand in the years ahead. In terms of goods delivery to the dense urban districts stretching from Ring Road 3 to the city centre, several existing business areas are poised to become part of the future transport structure. These include areas at Ejby Industrivej, Mileparken, Smedeland, Midtager and not least Avedøre Holme. For instance, Aarstiderne and Nemlig.com, grocery retailers with a digital business platform, have settled in Hvidovre and Brøndby, respectively. In 2015, Nemlig.com established

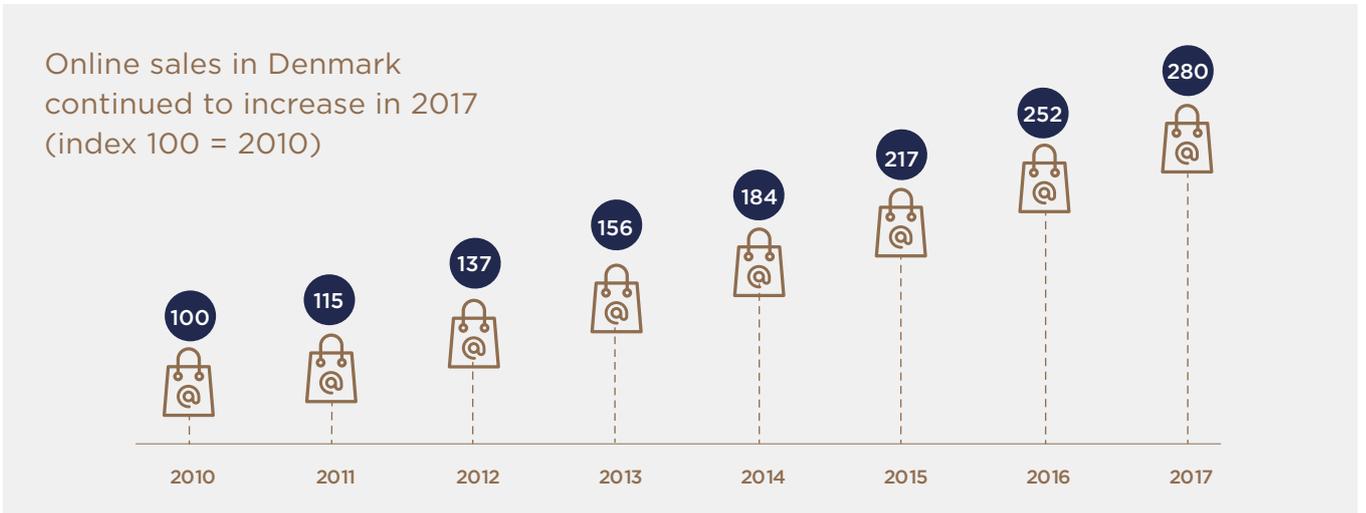
**DKK 42.5bn**  
physical goods sold  
through e-commerce  
channels in 2017.

**15%**  
of goods are online sales.

**25-30%**  
last mile costs as share of  
total transport costs.

**> READ MORE**

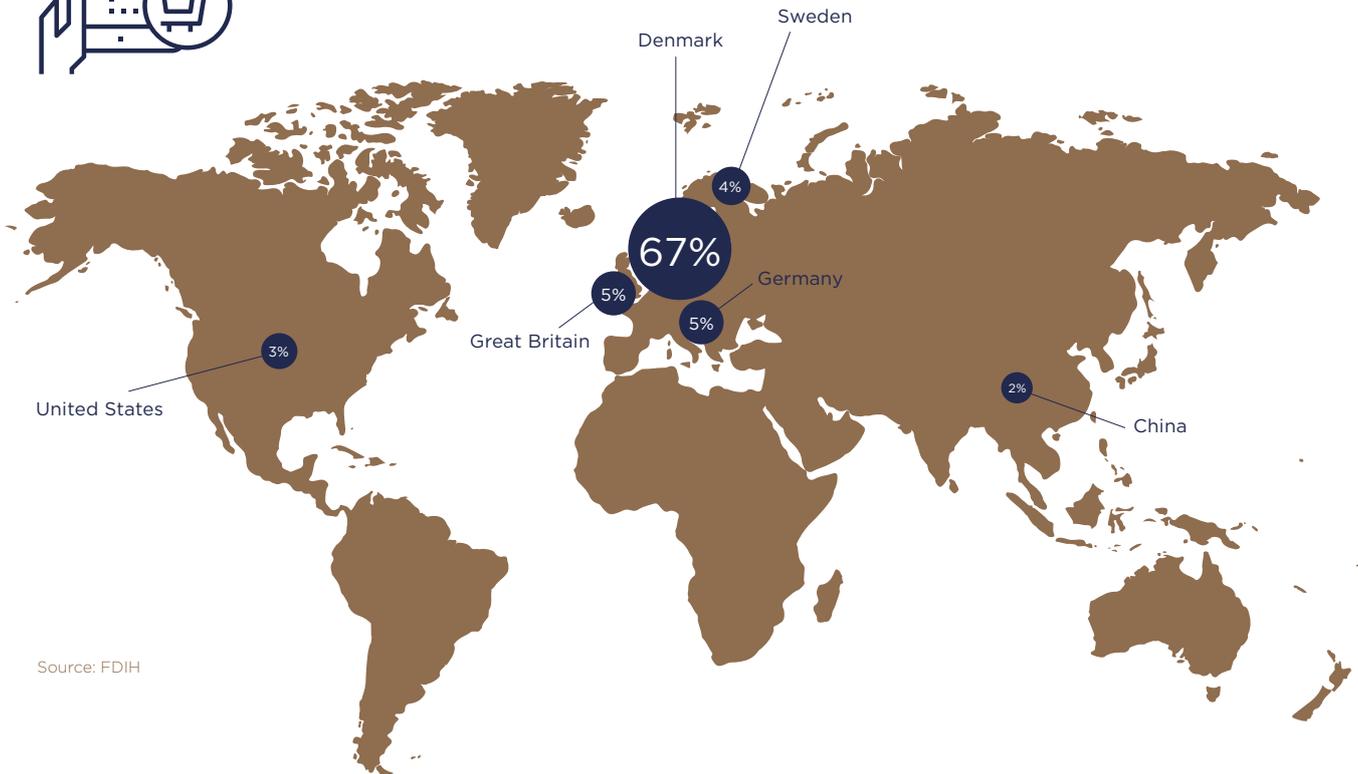
Last mile distribution  
in Sadolin & Albæk's  
newsletter



Note: Turnover e-commerce in Denmark. Estimated online sales.  
Source: FDIH



### Online-shopping patterns: Most sales still sourced from Denmark



Source: FDIH

## The south corridor is a top-performance industrial and logistics location

	Birkerød/Allerød/ Hillerød	Ballerup/Måløv	Brøndby/Glostrup/ Herlev	The south corridor	Avedøre	Amager/Kastrup
Location	●	●	●	●	●	●
Efficiency	●	●	●	●	●	●
Infrastructure	●	●	●	●	●	●
Demand	●	●	●	●	●	●

● Top performance   ● Above-average performance   ● Average performance   ● Below-average performance

Note: The strength profiles of individual industrial areas are based on performance scores based on four selected framework criteria.

Source: Sadolin & Albæk

a 34,000 sqm grocery storage facility, the largest of its kind in Scandinavia, to accommodate the mounting demand from Copenhagen customers.

The favourable trends in the industrial and logistics markets, including mounting occupational demand and resulting decline in vacancy rates, have translated into stable and slightly uptrending rent levels for both prime and secondary properties at Brøndby/Glostrup, Ballerup, Avedøre Holme and Amager/Kastrup.

### Modern facilities in demand

Broadly speaking, the quality of the existing stock varies, and demand mainly centres on up-to-date and well-located logistics facilities with easy access to major arterial roads. In addition, the market for logistics facilities continues to be characterised by a high level of owner-occupation. As a result, available data may not reflect actual vacancy rates. Old and worn-down logistics facilities that fail to meet user demands in terms of location, flexible space, ceiling height, ramps and turning space are particularly vacancy prone. As a result, traditional logistics facilities with an ancillary office unit at the front and production/storage at the back attract little demand. The same applies to the built-to-suit production facilities common in this segment as they may be difficult to re-let, hence associated with some vacancy risk, exacerbated by the fact that it is rarely possible to achieve a rent that covers the cost of comprehensive refurbishment and conversion schemes.

### Limited speculative development

Irrespective of the decline in vacancy rates, rent hikes, yield compression and a relatively high proportion of outdated facilities, the market for logistics properties has so far seen speculative newbuilding only on a limited scale, as construction costs still exceed property market values based on market rent/yield calculations unless taken into account in a long lease. As a result, development schemes are typically launched by the end-user or hinge on a pre-let agreement being in place with a long-term, financially strong tenant.

For newly completed facilities, the contractual rent will often exceed the market rent during the lease term to produce a satisfactory return relative to construction costs. End-users therefore often prefer to get involved in the development phase, especially as they are currently able to achieve favourable financing at interest rates far lower than the yield requirements of a third-party investor. Access to favourable financing has also made

Frederiksværk

E47  
E55

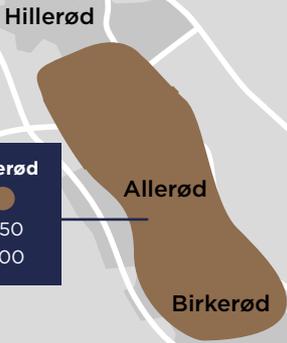
### Typical industrial/ logistics rent levels

Note: DKK per sqm p.a., excluding  
operating costs and taxes.

**Birkerød/Allerød/Hillerød**

Score: ●

- ⌚ Prime rent 450
- ⌚ Secondary rent 300



Hørsholm

Frederikssund

**Ballerup/Måløv**

Score: ●

- ⌚ Prime rent 450
- ⌚ Secondary rent 300



Lyngby

**Brøndby/Glostrup/Herlev**

Score: ●

- ⌚ Prime rent 500
- ⌚ Secondary rent 325



Copenhagen  
(København)

**The south corridor**

Score: ●

- ⌚ Prime rent 575
- ⌚ Secondary rent 325



E20  
E47  
E55

E20



**Avedøre**

Score: ●

- ⌚ Prime rent 525
- ⌚ Secondary rent 350

**Amager/Kastrup**

Score: ●

- ⌚ Prime rent 1,000
- ⌚ Secondary rent 350



E20

E47  
E55

Køge

**LOCATIONS**

Industrial & logistics

[Read more](#)

- ⌚ Market expectation
- ✈ Airport

operational and financial leases attractive for many businesses that view their facilities as long-term assets but would like to free up capital tied in property assets.

**Great international investor demand**

As the market for industrial/logistics property remains characterised by owner-occupation, this segment traditionally lags behind other segments of the property market in terms of transaction activity. Broadly speaking, investor demand is increasing in the segment, fronted by international investors with specialist market know-how, typically targeting big-ticket assets or portfolios. However, such high-volume single properties or portfolios are in short supply in Denmark. Institutionals are also displaying appetite for the segment, but they generally invest via specialised funds. This was the case in April 2017, when NREP set up a fund comprising 49 up-to-date logistics assets in the Nordics with a total value of some EUR 1.1bn, intending to expand longer term. Investors in the fund set-up include domestic pension funds PFA Pension, DIP, JØP and Lægernes Pension. Other important market players in the segment include M7 Real Estate, Blackstone, Standard Life and M&G.

**High yield levels offer attractive returns**

In today’s market trading at yields of 5.75-6.25% or higher, prime industrial/logistics properties offer highly attractive returns relative to other asset classes in terms of secure and strong cash flow. Like other investment property markets, the markets for prime and secondary industrial/logistics assets have seen yield compression for some years now. Currently, the prime industrial/logistics yield is approximately 5.75% on Greater Copenhagen properties let on long leases (10+ years) and 6.75% on properties let on short leases. Yield requirements are therefore largely on a par with the yields observed prior to the onset of the financial crisis in 2008.

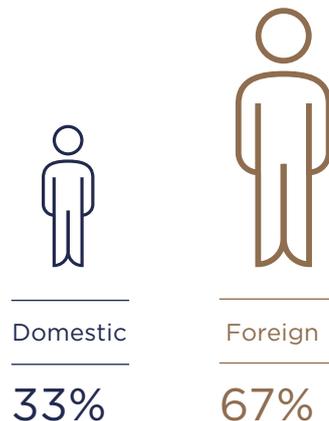
**Popular sale & leaseback transactions – further potential**

A significant share of current transaction activity is driven mainly by sale & leaseback transactions, allowing companies to focus on their core business and free up capital tied in property assets. In addition, they want to achieve greater flexibility by not owning the premises they operate from, pursuing an “asset light strategy”. Many of them are also aware of the fact that well-located and fully let investment properties currently fetch historically high prices, making this the perfect time to divest. For instance, in 2017, Lemvigh-Müller successfully divested three mixed-use logistics/production facilities, and DK1 Logistics a logistics facility in Køge. Although we have seen an increase in the number of sale & leasebacks, we believe that the market harbours great potential for more transactions of this type. We foresee a continued increase in sale & leasebacks as flexibility and core business focus remain weighty parameters for businesses.

**Sustained activity and moderate yield compression**

We predict that prime industrial/logistics assets offered for sale in 2018 will see a further decline in prime yield requirements, although less pronounced than in recent years. The anticipated continued, but more moderate, yield compression in this segment is driven by the bright outlook for Danish economy, which has manifested itself in downtrending

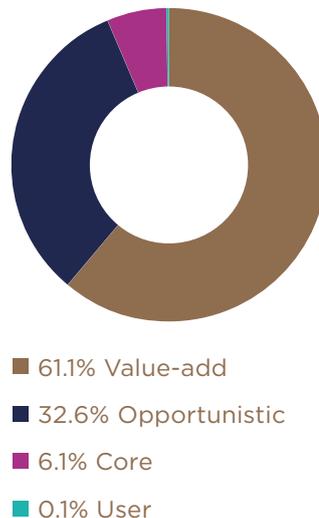
**Foreign investors with specialist know-how dominate**



Note: Industrial/logistics transaction volume by investor origin.

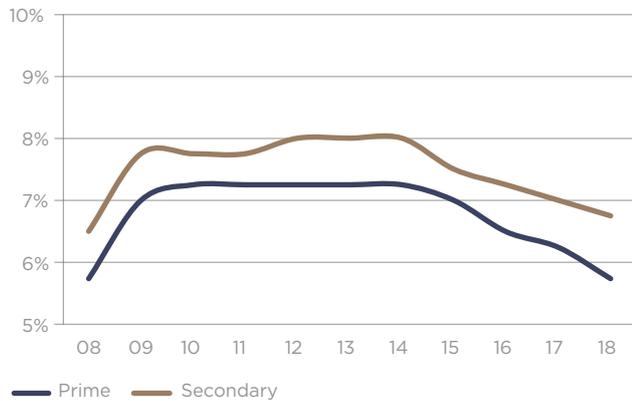
Source: Sadolin & Albæk.

**Transaction volume dominated by value-add and opportunistic investments**



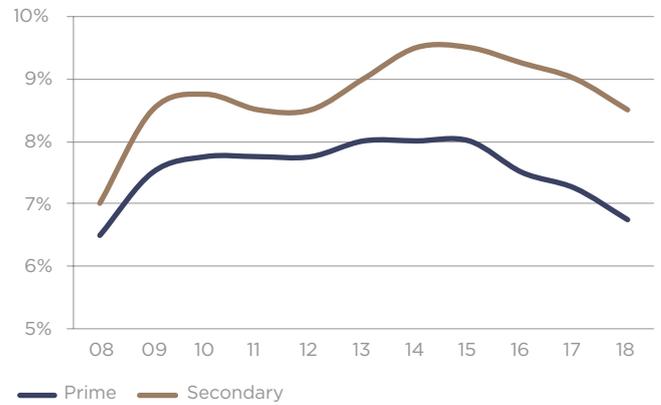
Source: Sadolin & Albæk

Decreasing net initial yields on properties let on long industrial/logistics leases



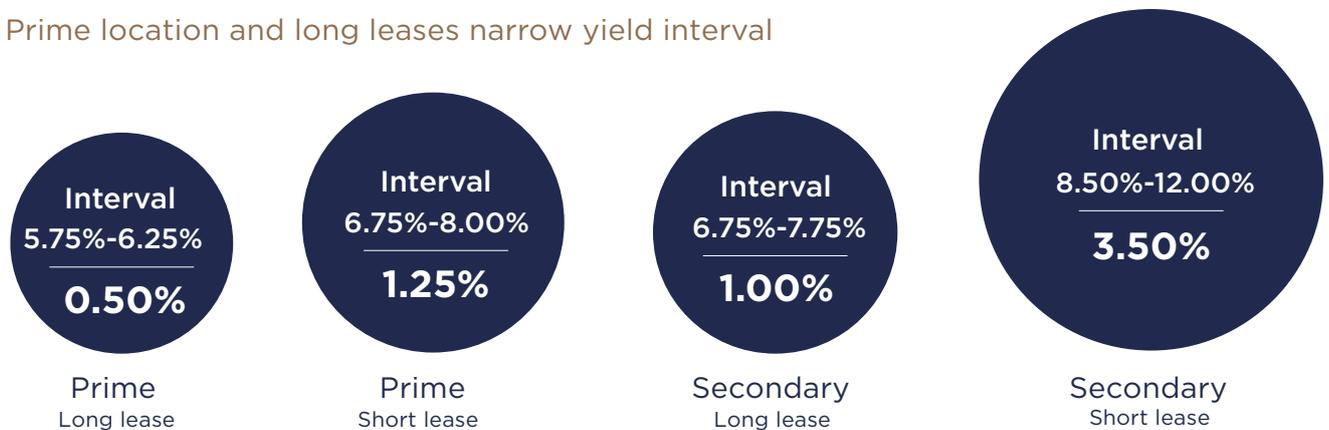
Note: Net initial yields, industrial/logistics long lease, Copenhagen.  
Source: Sadolin & Albæk.

Decreasing net initial yields on properties let on short industrial/logistics leases



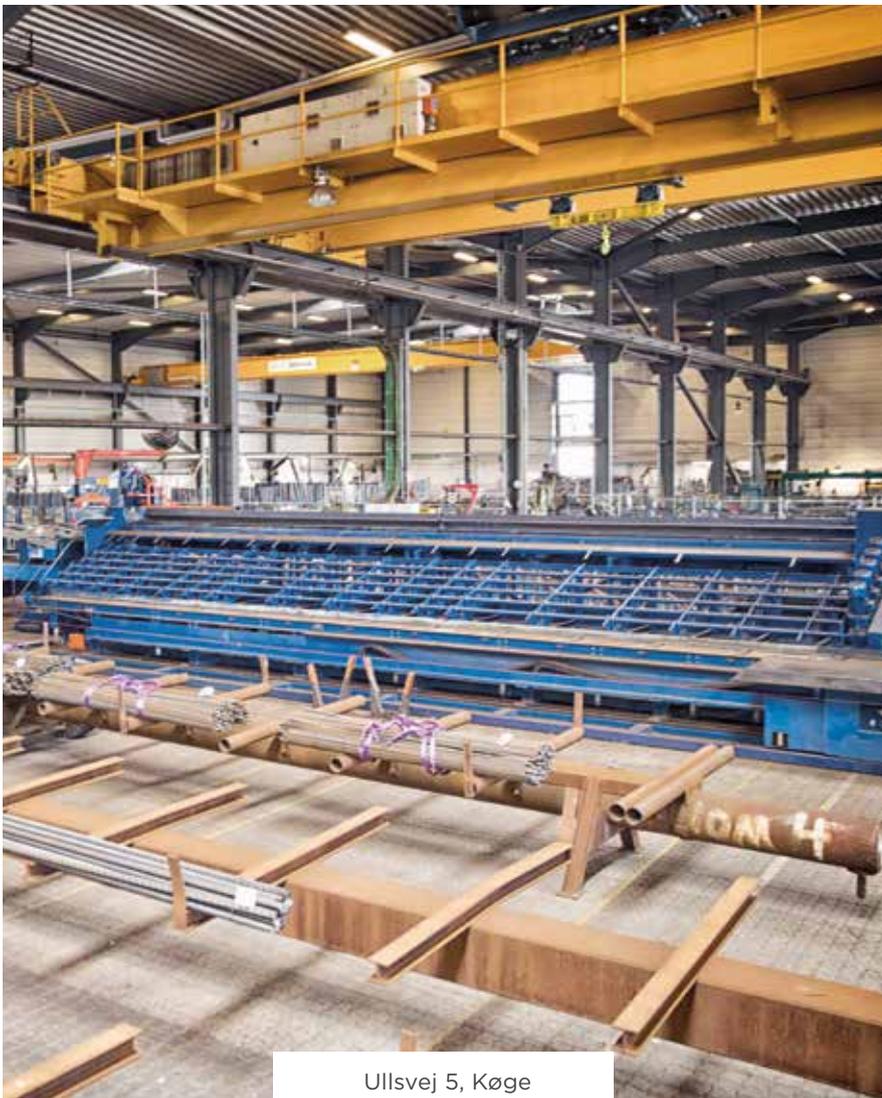
Note: Net initial yields, industrial/logistics short lease, Copenhagen.  
Source: Sadolin & Albæk.

Prime location and long leases narrow yield interval



Note: Net initial yield based on contract duration and location.  
Source: Sadolin & Albæk

vacancy rates and stable or uptrending rent levels in the occupational market. Furthermore, even when factoring in the predicted slight decline in net initial yields, prime industrial and logistics properties let to strong-covenant tenants on long leases will continue to produce attractive returns compared to e.g. a yield requirement of 4.00% or lower on prime office properties. Generally speaking, office assets are considered more attractive and secure than industrial/logistics assets, but if a top-modern, well-located industrial/logistics asset is offered for sale at 100% occupancy and with a strong-covenant tenant on a long lease, the current 175 bp gap between the prime industrial yield versus the prime office yield seems excessive; an investor will still make a highly competitive investment at a yield requirement of 5.75%. Overall, we therefore foresee sustained activity in the industrial/logistics investment property market.



Ullsvej 5, Køge

## Key transactions

At start-2018, the mounting demand for sale & leaseback transactions was clearly underpinned by M7 Real Estate's acquisition of ten industrial/logistics assets with a total volume of DKK 520m. Situated in Greater Copenhagen, Funen and the Triangle Region, the majority of the properties were sold in a sale & leaseback transaction involving a weighted leaseback period of six years.

In 2017, key transactions included M7 Real Estate's portfolio sale of 25 secondary, mixed-use industrial/logistics facilities to Blackstone at a price of approximately DKK 900m, reflecting an estimated net initial yield of almost 9.00%. As part of the transaction, M7 retained the asset management of the portfolio.

The year also saw the Lemvigh-Müller sale & leaseback transaction, involving the sale of three assets in Køge, Odense and Kolding to MEP Industrial Centre at a price of DKK 441m, reflecting a weighted yield requirement of just below 7.00%.

Also in a sale & leaseback transaction, NREP acquired a Køge logistics facility of 31,000 sqm with future expansion by 12,145 sqm space, with DKI Logistics as tenant.

## Key lease transactions, Greater Copenhagen, industrial/logistics

Property	District	Landlord	Tenant	Sqm
Herstedvang 2B	Brøndby/Glostrup	Cromwell Property Group	Saint Gobain	13,000
Taastrupgårdsvej 28	The south corridor	F F Capital	Semler Retail	10,945
Priorparken 833	Brøndby/Glostrup	Prysmian Denmark	Copenhagen Metro Team	8,170
Stamholmen 175	Avedøre	FoodService Danmark	Soft Ambrosia	7,550
Telegrafvej 8-10	Ballerup/Måløv	Fokus Asset Management	Godshotel & Transport	7,080
Tempovej 10	Ballerup/Måløv	Biblioteksmedier	Focus Products	3,280
Bjarkesvej 5	Birkerød/Allerød	I/S Bjarkesvej 5	Labogene	2,950
Islevdalsvej 148	Brøndby/Glostrup	Cromwell Property Group	Inkpro	1,995
Blokken 37	Birkerød/Allerød	Property company Klingeberg 2-4, Slagelse	Admad Grafisk International	1,240
Kornmarksvej 2	Brøndby/Glostrup	Britt Yde Tillisch	Group Buy	1,065
Vallensbækvej 44	Brøndby/Glostrup	Limited partnership	Vallensbæk Auto- og Marineservice	1,045

Source: Sadolin &amp; Albæk.

## Key investment transactions, Greater Copenhagen, industrial/logistics

Property	District	Seller	Buyer	Sqm	Price*	Yield**
Project DaRE (25 prop.)***	Multiple	M7 Real Estate (Oaktree)	Blackstone	347,355	900	9.00%
Multiple***	Multiple	Nordania Leasing et al.	M7 Real Estate	117,000	520	na
Jernholmen 49	Avedøre	Solstra Capital Partners	U.P.S. Danmark	29,380	110	na
Værftsvej 10	The south corridor	Private investor	NREP	31,000	na	na
Tonsbakken 12	Brøndby/Glostrup	CoolGray	CapMan	12,500	136	6.75%
TCR (Vilhelm Lauritzens Allé)	Amager/Kastrup	MG Real Estate	Pareto Securities	4,750	100	6.00%
Ejby Industrivej 4 and Fabriksparken 11-15	Brøndby/Glostrup	Kaupthing HF	Nordea Ejendomme	20,000	93	na
Rørmoesevej 2D	Birkerød/Allerød	Atlas Ejendomme	3C Sjælland	4,240	51	na
Stamholmen 165	Avedøre	Private investor	AKF Holding	9,000	na	na
Stamholmen 93	Avedøre	10-4	European Tour Productions	6,985	33	na
Rødovrevej 247A	Brøndby/Glostrup	Boelt Holding	AKF Holding	4,715	31	8.00%
Midtager 9-11	Brøndby/Glostrup	Stilling Ejendom	Limited partnership	8,205	29	na
Park Allé 363	Brøndby/Glostrup	Tulipanparken, Brøndby	Wihlborgs	3,890	24	na
Baldersbuen 10	The south corridor	E Michaelis & Co.	Mega House Ejendomme	6,255	24	na

\*) Prices quoted in DKK million (rounded figures). \*\*) Yield in this context denotes estimated direct yield (approximate figure). \*\*\*) Portfolio sale.

Source: Sadolin &amp; Albæk.



**SPECIAL  
FEATURE:  
AARHUS**

Aerial view of central Aarhus

## Surge in foreign investor demand



In 2017, transaction activity was not concentrated only in Copenhagen, the year also saw multiple high-volume investments in other parts of Denmark, most notably in Aarhus, Denmark's second-largest city. In Aarhus, both domestic and foreign investors have shown a particularly strong appetite for residential property. Because of the strong investor focus on this segment, we have included a brief introduction to the Aarhus investment property market with an emphasis on residential.

### **Aarhus University: Catalyst for development**

The City of Aarhus is Denmark's second-largest municipality with approximately 340,000 inhabitants, some 270,000 of whom reside in Aarhus proper. Aarhus is known foremost as a university city, with Aarhus University outranking all other Danish universities in terms of student uptake in 2017.

Extending to more than 400,000 sqm space, the university campus enjoys a central Aarhus location, housing virtually all university faculties as well as large-scale public grounds. Aarhus University has already secured room for expansion by taking over a neighbouring property of more than 100,000 sqm.

Along with the city's many other educational institutions, Aarhus University serves as a catalyst for the city's development, every year drawing in thousands of new students, both fostering and retaining a highly educated pool of labour.

### **Students drive strong population growth**

In recent years, the City of Aarhus has seen a surge in population growth in the order of some 5,000 new residents annually. As illustrated in the migration map on p. 85, Aarhus attracts newcomers from the entire western part of the country, with Aarhus in fact outperforming Copenhagen in terms of domestic net migration, driven predominantly by educational institutions.

With a student population ratio of about 15%, Aarhus stands out as a remarkably young city with a strong overrepresentation of 20-29-year-olds compared with Denmark in general.

2017 saw strong demand from abroad, with international investors acquiring more than DKK 2bn worth of property in the Aarhus residential market.

Aarhus is a centre for growth, in 2016 outranking all other Danish cities in terms of net migration.

As an important university city, Aarhus attracts a high proportion of young residents. This is reflected in the city's demographic composition and housing demand.

The strong population growth is one of the reasons why the City of Aarhus has invested in a light rail. With the first stage connecting Odder south of Aarhus and Djursland north of the city, the light rail provides the suburbs of Aarhus with top-tier public transport to the Aarhus city centre and the central station, allowing for an easy commute, just like the S-trains in Greater Copenhagen. In many respects, Aarhus resembles Copenhagen, just on a smaller scale, as both cities benefit from strong population growth, relatively young residents and a rich business community.

### Housing market imbalances

The population boom has exacerbated the Aarhus housing market supply and demand imbalance, driving up residential market rent levels, especially in inner city districts and near educational institutions, as the majority of newcomers are students. However, we believe that residential market rents have now reached a structural level and that the upward pressure on market rents will ease on account of the volume of residential completions in Aarhus in the years ahead.

Because of the strong demographics, the Aarhus market, in particular for residential rental property, has seen an increase in the demand from domestic and international institutional investors.

### More than DKK 2bn investments by international investors

Transaction volumes clearly reflect the stronger investment demand from abroad; in 2017, Sadolin & Albæk mediated the sale of Aarhus residential assets worth some DKK 2bn to international investors alone. For instance, Swedish Heimstaden entered the Aarhus market by acquiring a property portfolio formerly held by US capital fund Ares. Similarly, German investors were represented on the buy-side in the acquisition of 164 residential units in Åbyen at Åbyhøj (Catella Wohnen), and most recently the acquisition of 340 residential units at Bryggervej, Risskov, as well as almost 200 residential units at Triangeln (pension fund BVK via CapMan).

The growing demand has caused yield compression in this segment, with Aarhus yields largely matching Copenhagen yields.

### Strong focus on turnkey assets

The above-mentioned Åbyen and Bryggervej transactions illustrate the strong foreign investor appetite for turnkey assets. Situated in close proximity of educational facilities and the city centre, both are former commercial estates purchased for residential conversion and turnkey sale.

We believe that this type of asset will continue to play a key role in the Aarhus property market for some years and that foreign investor demand will remain unabated too, no doubt driven by the city's strong fundamentals and, by extension, exceptionally low residential vacancy risk.

That being said, the Aarhus property market is fairly inhomogeneous, requiring some knowledge of the local marketplace.

### Aarhus top ranking in terms of net migration 2016

	Aarhus	Copenhagen <sup>1</sup>
Net migration	859	-704
Birth-rate surplus	2,426	7,029
Net immigration	1,752	5,416
<b>Population growth</b>	<b>5,037</b>	<b>11,741</b>

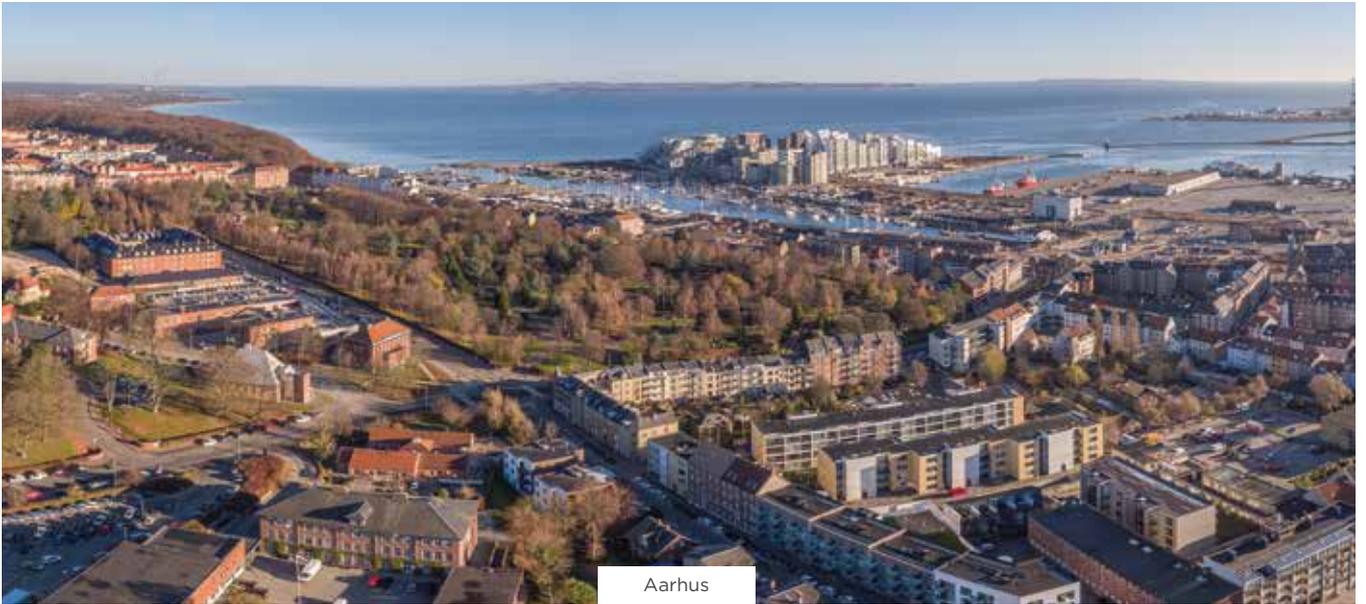


Net migration 2016,  
Aarhus **859**



Net migration 2016,  
Copenhagen<sup>1</sup> **-704**

<sup>1</sup>Including Frederiksberg  
Source: Statistics Denmark



Aarhus



Frue Kirkeplads 1, Aarhus

The Aarhus investment property market has seen an increase in the demand from domestic and international institutional investors.



Gebauersgade



Risskov Brynet

### Disparities between different districts

Like Copenhagen, Aarhus features various districts with distinctive characteristics and sub-districts. However, it is important to remember that Aarhus and Copenhagen differ in terms of site area, with the City of Aarhus in fact taking up five times more land than the City of Copenhagen and the City of Frederiksberg combined. As a result, the population density is much lower in Aarhus.

Aarhus is encircled by ring roads, which largely define the city's residential districts, while the innermost ring road O1 largely defines the city centre, DK-8000 Aarhus C, characterised by the highest population density and a predominance of residential high-rise buildings. In addition, this district is known for its landmarks and attractions, including the ARoS art museum, the vibrant café life along the stream of Aarhus Å, the high street and the university campus.

Today, the areas between ring road O1 and ring road O2 predominantly feature open low-rise buildings, with former commercial estates being converted into high-rise/high-density housing, e.g. at Søren Frichs Vej, Katrinebjergvej and Bryggervej. Just outside ring road O2 lie multiple large-scale business districts, such as the Skejby office area, the new university hospital and minor urban districts of Aarhus.

The population boom has caused "inside-out" urban development in the sense that the city is fanning out to previously non-residential districts, bringing with it the high building density and tower blocks characteristic of inner city districts.

### Different development paces

Housing in the Aarhus city centre commands the highest prices, and only a few kilometres outside the city centre and ring road O1, the levels are lower. For instance, in Viby J the ownership prices of one-family and terraced houses are on average 50% below the prices fetched in Aarhus C.

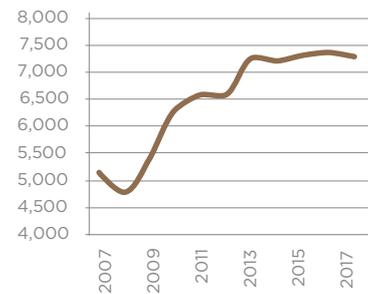
Despite the spread in housing prices in the City of Aarhus, the surrounding municipalities continue to see a net migration from Aarhus thanks to their lower price levels and development opportunities in terms of open low-rise newbuilding. In addition, urban districts outside the City of Aarhus, e.g. Hørning and Hinnerup, benefit from a railway link to central Aarhus.

As a result, the Aarhus property market is developing at two different paces, with brisk activity in central Aarhus and environs where housing demand and prices are high and with moderate activity in more peripheral locations. However, activity in the city centre to some extent spills over to the neighbouring districts, exactly like in Copenhagen, where favourable trends feed through to the surrounding municipalities, partially due to pricing constraints in the inner-city areas.

### Understanding today's demand is key

It is important to bear in mind what drives the demand for housing in the city centre and various districts of Aarhus.

### Continued increase in student uptake at Aarhus University



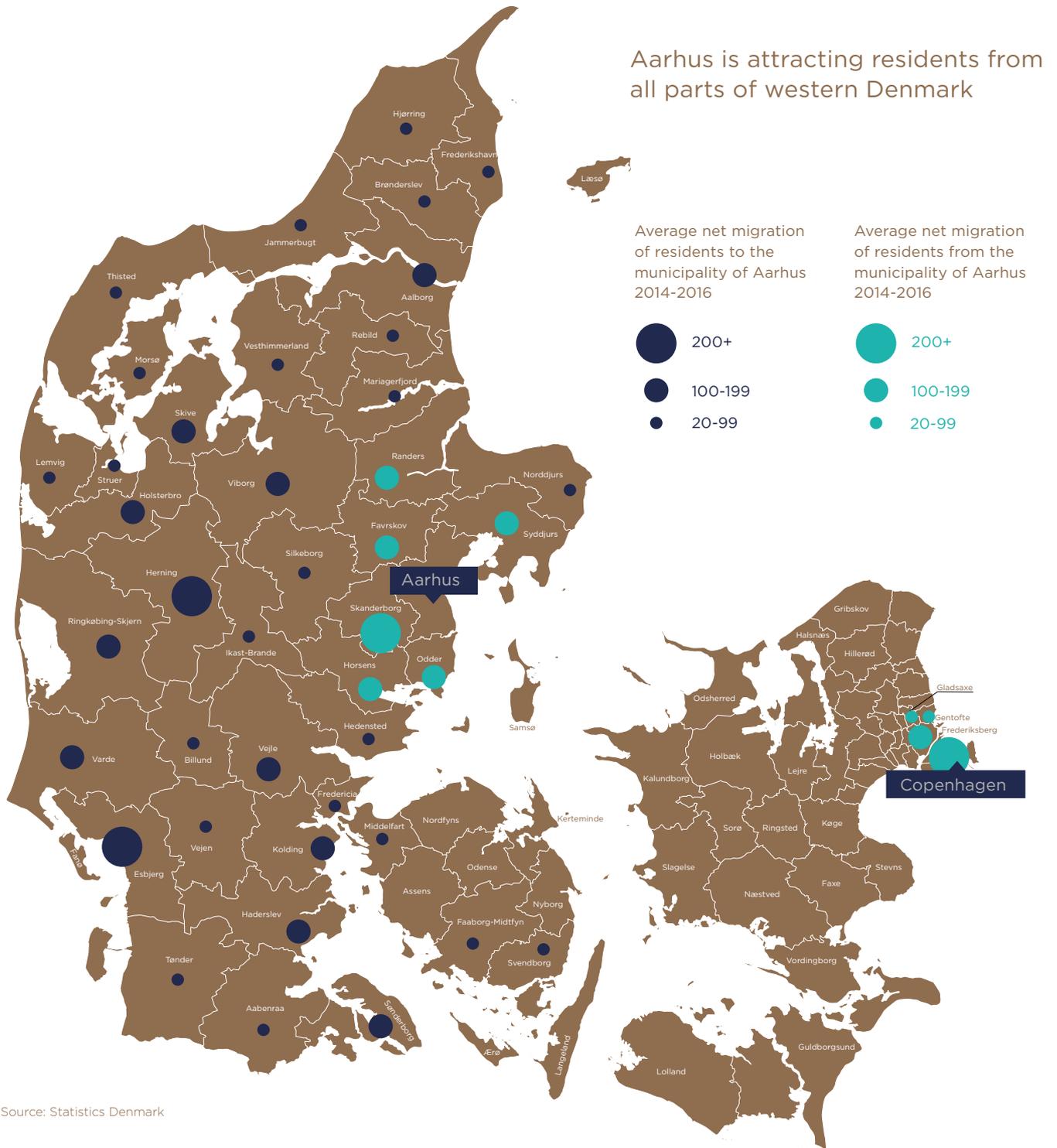
Source: Aarhus University

Broadly speaking, Aarhus is attracting new residents from most other Danish municipalities.

In 2014-2016, the City of Aarhus only saw an outflow of residents to Greater Copenhagen as well as surrounding and nearby municipalities, including Skanderborg, Horsens, Favrskov, Odder, Randers and Syddjurs.

In 2016, the 24-28-year-olds and the 0-2-year-olds were especially prone to move, indicating that in particular young graduate families with infants and small children tend to leave the City of Aarhus.





Unlike Copenhagen, for instance, the Aarhus market for large rental flats is relatively small. The large flats are difficult to let mainly for two reasons. Firstly, demand is driven largely by the young and students that value a low rent over plenty of space. Secondly, newly built large flats often command a monthly rent that — even with fixed-rate mortgages with instalments — exceeds the housing burden associated with the ownership of single-family or terraced housing in relatively short proximity of the city centre.

However, it is possible to let flats, also for co-habitation by several students, provided the right space planning is in place. Nevertheless, the fact that landlords typically demand a three-month deposit and three months' prepaid rent as security, in addition to advance payment of the first monthly rent, that is, continues to be a barrier. Consequently, the tenant is faced with having to pay seven times the monthly rent in total up-front, which exceeds what most students can afford.

This by no means implies that there is no market for other than small sharing-friendly student housing. Large flats may also be let in Aarhus, but should the market be flooded with a supply of large flats, it will be difficult to achieve a high absorption rate, especially if the flats fail to be sharing-friendly at that. Developers have been known to be forced to establish an additional room in newly built, large family flats in order to meet today's demands.

Overall, it is essential not to underestimate the diverse demographic composition in central Aarhus and the fact that new developments impact tenant demand. Development schemes involving family flats therefore require careful planning in terms of interior layout, location, pricing and quantity.

### Positive outlook for residential properties

As illustrated in the migration map on p. 85, there is a net population outflow from Aarhus to the surrounding municipalities, fronted presumably by young graduates with dependent children.

The opening of the new light rail in December 2017 may well help to reduce this outflow, because the more peripheral parts of the City of Aarhus are provided with top-tier public transport, ensuring swift and easy access to the city centre.

In this context, the development areas outside the city centre could well come into play as new residential areas. Areas in close proximity of a light-rail station, e.g. Lisbjerg and the Lystrupvej area, are interesting as they may all serve as sites for greenfield developments or conversion of old commercial facilities. In these areas, we expect space-efficient, relatively small-sized family housing to be in demand. Demand is seen to be fronted by young families in search of up-to-date dwellings with room to grow, close to city life in Aarhus.

Similarly, we see demand for small studio flats/bedsits, knowing that Aarhus University has increased its annual student uptake from some 5,000 to 7,000. As a result, the number of university graduates has started to increase, in 2016 standing at some 6,100 and in 2017 at 5,900, reflecting an increase of about 2,000 students annually relative to 2013.

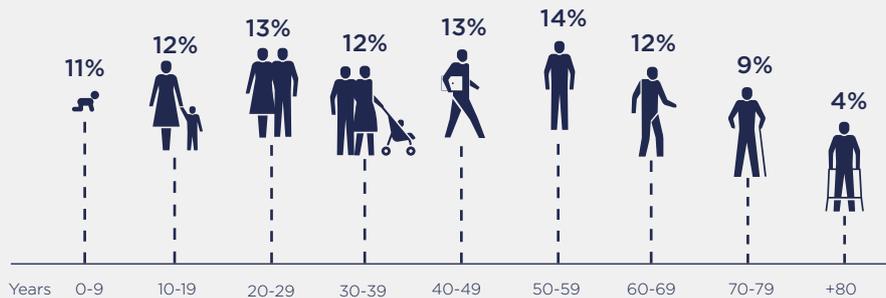


Aarhus city centre

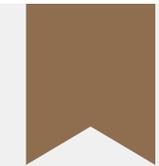
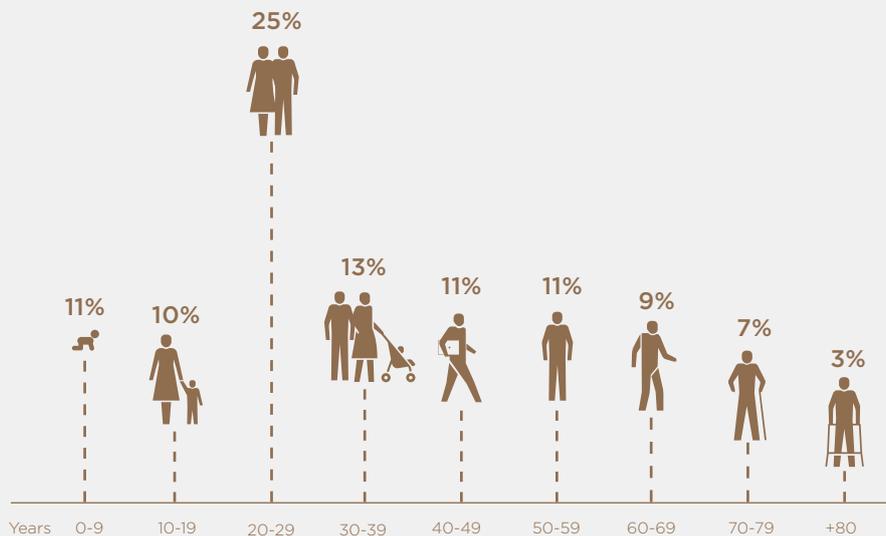
Combined with higher uptake numbers at the other educational institutions in general, this has fuelled the demand for student-friendly housing. We believe, however, that many new graduates will have the sufficient financial means and inclination to rent a flat on their own, whereas some students will continue to demand studio flats/bedsits if not prepared to co-habit with other students in large flats or in residence halls. Furthermore, the increasing number of single-person households will fuel the demand for centrally located studio flats in Aarhus, in particular in the city centre but also in the development areas near the light rail outside ring road O2.

However, we still maintain that the virtually insatiable appetite for small, sharing-friendly flats near educational institutions and the city centre will continue.

### Demographics in Denmark



### Demographics in Aarhus



### Skewed age composition

The age composition in Aarhus is rather skewed compared to Denmark in general.

25% are in the age range of 20-29 years, which is almost twice the national average. This is mainly due to the various educational institutions, attracting thousands of new students year after year.

Currently 52,000 people study in Aarhus, which corresponds to 15% of the inhabitants.

The skewed demographic composition has a great impact on the residential rental market.

Sources: Statistics Denmark and City of Aarhus

# Market practices

Agents' fees and legal fees are typically subject to negotiation in Denmark and are highly case-dependent. As for acquisition costs, it should be noted in particular that the Danish transfer tax rate is only 0.6%, in eastern Denmark (including Copenhagen) payable by buyer, in western Denmark split 50:50 between the parties.

Information provided in the table below is intended for guidance only and reflects "typical market practice" as far as commercial and residential leases are concerned.

## Typical lease practices, Denmark

Commercial leases		Residential leases	
Rent quoted in <sup>1</sup>	DKK per gross sqm p.a.	Rent quoted in <sup>9</sup>	DKK per gross sqm p.a.
Floor areas	Gross external	Floor areas <sup>10</sup>	Gross external
Lease term <sup>2</sup>	Negotiable	Lease term <sup>11</sup>	'For time and eternity'
Breaks <sup>3</sup>	Negotiable	Breaks	None
Rent payment	Monthly or quarterly in advance	Rent payment	Monthly
Deposit <sup>4</sup>	4-6 months	Deposit and prepaid rent <sup>4</sup>	3-6 months
Basis of rent adjustment <sup>5</sup>	NPI	Basis of rent adjustment <sup>12</sup>	NPI
Frequency of rent adjustm.	Annual	Frequency of rent adjustm.	Annual
Rent review <sup>6</sup>	Every 4 years	Rent review <sup>13</sup>	Every 2 years
External repairs	Landlord	External repairs	Landlord
Internal repairs	Tenant	Internal repairs	Negotiable
Common areas <sup>7</sup>	Tenant (via S/C)	Common parts	Landlord
Building insurance	Tenant insures content Landlord insures building	Building insurance	Landlord
Property taxes	Tenant	Property taxes	Landlord
Subletting	Negotiable	Subletting <sup>14</sup>	Yes, 2-year max.
Right of assignment	Negotiable	Right of assignment	Yes, in a swap
Restoration (Hand-back) <sup>8</sup>	Yes	Restoration	Negotiable
Pre-emption	Negotiable	Pre-emption <sup>15</sup>	Danish Rent Act

### Notes

**1.** Exclusive of VAT, 25%. **2.** An initial non-termination period of 3-10 years is customary, upon expiry of which the lease may be terminated at 6-12 months' notice. The landlord is only entitled to terminate the lease under special circumstances, cf. sections 61 and 62 of the Danish Business Lease Act. It is important to note that in Denmark the expiry of the non-terminability period is not identical with lease expiry but simply denotes the date when the parties are entitled to terminate a lease at the stipulated notice. **3.** Against penalty **4.** Not in escrow. **5.** NPI = Net Price Index, minimum and maximum annual increase as per agreement. **6.** A review of the rent to market rent may be applied for by either party every four years but is not compulsory. **7.** S/C means Service Charge. **8.** The typical tenant restoration obligation is to put the premises back to the original condition when leased. **9.** Not subject to VAT, 25%. **10.** For multi-let properties including a proportionate part of common parts, including stairs, lifts, etc. **11.** The tenant typically entitled to terminate the lease at 3 months' notice. **12.** Applicable to buildings occupied after 31 Dec. 1991 subject to agreement. Rules on cost regulated rent control ("omkostningsbestemt husleje") may apply to buildings occupied prior to this date. **13.** Utility value review may be applied for by either party every two years. This mechanism applies if the lease is not governed by the rules of cost regulated rent control, cf. (11). **14.** Alternatively 50% of the rooms in the flat if not more than 2 persons live in each room. The total number of residents may not exceed the number of rooms. **15.** Existing tenants in residential properties governed by the Danish Rent Act may have a pre-emption right to acquire the property in case of a direct or indirect sale.

# Definitions

<b>CAGR</b>	Compound Annual Growth Rate
<b>CBD</b>	Central Business District
<b>Core property</b>	Property associated with low risk in all respects
<b>ECB</b>	European Central Bank
<b>EUR</b>	Applied rate of exchange EUR/DKK 7.4469, based on closing rates as at 18 January 2018
<b>FTE</b>	Full-time equivalent. An FTE designates the hours worked by one employee on a full-time basis
<b>GDP</b>	Gross Domestic Product
<b>GLA</b>	Gross Lettable Area
<b>KPI</b>	Key Performance Indicator
<b>Net initial yield (%)</b>	First year stabilised return on investment (less deposits, less transaction cost) based on rental income less operating costs. Yield figures compiled by Sadolin & Albæk are quoted at year end
<b>Opportunistic property</b>	Property with a substantial potential for added value, but associated with high risk, e.g. land sites producing no cash flows or high-risk development projects
<b>na</b>	Data not available or undisclosed
<b>NPI</b>	Net Price Index
<b>ppts</b>	Percentage points
<b>Prime rent</b>	Refers to the best rent achievable in a top-quality building at locations that are considered top locations relative to their specific use (office, retail, industrial, residential). Commercial rents are quoted in DKK per sqm p.a., exclusive of taxes and operating costs
<b>Prime yield</b>	The net initial yield on a prime property in a prime location. For commercial properties this entails a 10-year lease with a financially strong tenant
<b>Secondary yield</b>	The net initial yield on a good standard property in a good secondary location. For commercial properties this entails let on a standard (3-5-year) lease with an average quality tenant
<b>Secondary rent</b>	Refers to the best rent achievable in a good standard building at locations that are considered secondary relative to their specific use (office, retail, industrial, residential). Commercial rents are quoted in DKK per sqm p.a., exclusive of taxes and operating costs
<b>S&amp;P</b>	Formerly Standard & Poor's (rating agency)
<b>Value-add property</b>	Property with a potential for added value, e.g. through redevelopment and proactive management, but associated with much higher risk than core property

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## About Sadolin & Albæk

### Sadolin & Albæk is a market-leading commercial property adviser and agent.

We constantly strive to be recognised for our unrivalled skills, integrity, qualified and dedicated staff as well as for providing professional and accommodating client services. In Denmark as well as abroad, we draw on in-depth and comprehensive market knowledge. Coupled with our long-standing industry experience and cutting-edge analytical tools this helps us to create value for our clients.

We make every effort to maintain these high standards of quality and service in all aspects of our business, when assisting our clients with commercial lettings, commercial property valuations, property investment strategies or transactions involving major commercial and investment properties. Sadolin & Albæk strives to be the foremost and largest supplier of value-based solutions in the market for commercial and investment properties.

We create value for our clients: We are always highly focused on growing our clients' potential for achieving their goals, whether higher profitability or efficiency, increased or reduced exposure to real property, higher returns or reduced risk.

We deliver efficient and innovative solutions: We identify the best possible and viable solutions for our clients, and we are not averse to new ways of thinking and new approaches.

International alliance with strong partner: We work closely with JLL, our alliance partner with more than 70,000 employees in 80 countries worldwide. Thanks to this partnership, we are able to assist our Danish clients in international markets, too.

Sadolin & Albæk is a member of RICS, the Royal Institution of Chartered Surveyors, internationally acclaimed for its high valuation standards and practices.





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