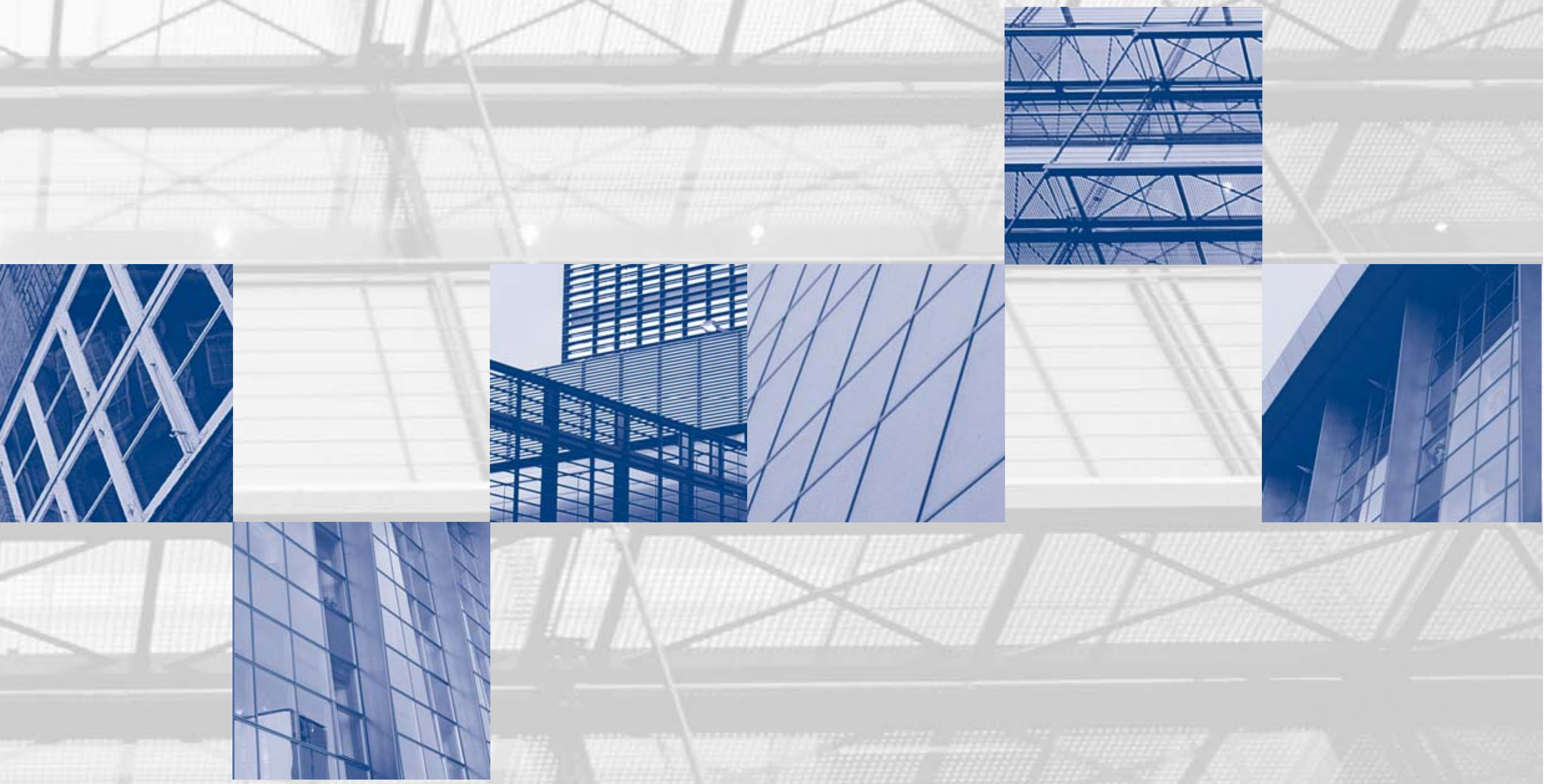
PROPERTIES VS. STOCKS AND BONDS
RISK AND RETURN



Sadolin | ALBÆK

Contents

Introduction

In the effort to spread risk, any investor aims at achieving a diversified portfolio. Thus, the vulnerability of portfolios is reduced and return becomes more stable. As a result, it makes sense that institutional investors are mostly active in several investment markets at once.

Stocks and bonds are the assets that primarily appeal to institutional investors. Commercial property usually comprises less than 10 per cent of their portfolios.

The investment choice is challenged by the different nature of the assets. It is necessary to compare the assets on common grounds to create an overview of how these assets perform. In order to compare security investments with commercial property investments it is necessary to consider investments as long-term.

In appreciation of these differences Sadolin & Albæk has endeavoured to analyse the return and risk of stocks, bonds and commercial property since 1986. The aim is to create a common source of reference that enables analysts to review portfolio choices in a long-term context.

Commercial property has yielded a compound return of 9.9 per cent since 1986, whereas mortgage-credit bonds have yielded 8.1 per cent. For the stock market, the KFX-index – only established in 1989 - has since 1990 yielded a compound return of 10.7 per cent, whereas commercial property yielded 8.7 per cent in the same period.

The return alone lacks the component of risk. When including the element of risk, an explanation of the differences in return is given. The risk of commercial property is seen to be low. In fact, commercial property yields a higher return that the low risk requires. Bonds involve a lower risk than commercial property, whereas stocks have more than double the risk of commercial property.

If you have any queries concerning this report or any other property-related issue, Sadolin & Albæk is at your full disposal.

Copenhagen, May 2002
Sadolin & Albæk • ONCOR International

Investment overview

Information crucial for profitable investment decisions

Any investment decision must be accompanied by a comprehensive analysis of the assets in question. It is imperative when establishing expectations of future returns to have a fundamental insight into market developments as well as into the factors determining asset performance.

When buying a stock for instance, the expectations of future return is closely linked to the future performance of the company issuing the stock.

Similarly for investment property it is crucial for the investor to compile sufficient and correct information on market developments to facilitate strategic investment decisions. Whether buying or selling, the necessity of knowing the right price can make the difference of the asset performing satisfactorily.

The net initial yield at a given point in time formally comprises all information about future market developments, e.g. the discount structure. Thus the net initial yield will always reflect the market terms for the determination of price when it is estimated. If the discount structure remains unchanged, there will be no corrections of prices, because the return generated on income from rent levels will reflect the exact present value of the property.

Prices will only change when the discount structure changes to compensate for the lack of market coherence in the net initial yield. And discount structures can only change if the market is given information that was not available previously when the net initial yield was negotiated. The value of information is reflected directly in price developments.

Consequently, information is key in relation to investment decisions. The accuracy and detail of information can determine the profitability of the investment.

When considering the expected pay-off of an asset, it is of course necessary to consider the cash flow that the investor requires from the investment in question. The difference in cash flow generated by various assets is significant.

The Danish investment market

The Danish bond market is among the largest and most efficient in the world

The bond market in Denmark plays a significant role and is by far the largest component in the security market traded at Copenhagen Stock Exchange (XCSE). Around 90 per cent of turnover market value in securities at the XCSE can be attributed to bond trade.

The reason is to be found in the institutions for Danish mortgage finance as residential housing investments are financed through bond issues. In fact, this financing method is so prevalent that the Danish bond market is among one of the largest in the world when measuring in relation to population size.

Asset turnover on primary tradable assets

	1997	1998	1999	2000	2001
			Billion DKK		
Commercial property					
- *Denmark*	23	26	26	29	27
- *Greater Copenhagen*	12	13	13	15	13
Stocks on XCSE	310	448	469	836	591
Bonds on XCSE	6 834	8 152	6 928	5 620	5 483

Sources: Copenhagen Stock Exchange, Statistics Denmark and Sadolin & Albæk's estimate

This, however, in no way means that the Danish stock market is of no importance. In 2001, XCSE recorded a turnover on stock trade of DKK 591 billion. The Danish stock market is especially well represented in the pharmaceutical, biotech and shipping industries.

The derivative market is not particularly well developed, although the possibility to trade options and futures has been provided by XCSE since 1989 on the FUTOP.

Institutional investors' security funds are significant players in the investment markets

Institutional investors' security funds are significant players in the investment markets in general. However, private investor interest has increased in conjunction with the bull markets of recent years. Institutional investors are similarly active in the property investment market, but private investors, often in the form of tax-driven limited partnerships, the so-called *kommanditselskaber (K/S)*, are just as significant players in the Copenhagen property investment market.

The Greater Copenhagen property market generates around half of total domestic property-related turnover annually, which over the latest years is estimated to be a little under DKK 30 billion. The moderate turnover figure for property assets when compared to that of other assets reflects the differences in liquidity between the assets. One particular security can trade several times through the

course of a year whereas one property under normal circumstances only trades once over the course of several years.

The property market

The Danish tax system distinguishes between various types of property investors, and the various segments in the investment market hence have an individual approach to property investments.

All income and capital gains for domestic institutions are subject to a tax rate of 15 per cent, whereas the general corporate tax rate of 30 per cent is levied on *property companies*. Institutional property investments via property companies are subject to double taxation. As a result, institutions prefer more tax efficient structures as direct investments or indirect investments via investment vehicles with tax transparency.

Pension funds and life insurance companies

The largest domestic pension funds and life insurance companies are *ATP, PFA* and *Danica* (part of *Danske Bank*), all with property portfolios worth DKK 9 billion or more. Other important institutions are insurance companies *Tryg Insurance* (part of *Nordea Group*), *Codan* and *Topdanmark*, and a substantial number of medium-sized pension funds, generally with property assets of between DKK 1.5 billion and DKK 6 billion.

Most of the institutions consider themselves underweight in property

In general, Danish institutionals currently concentrate on prime investment properties, especially in the office sector, with a secure long-term cash flow. Most of the institutions consider themselves underweight in property, even after the substantial losses incurred on the stock market in 2001.

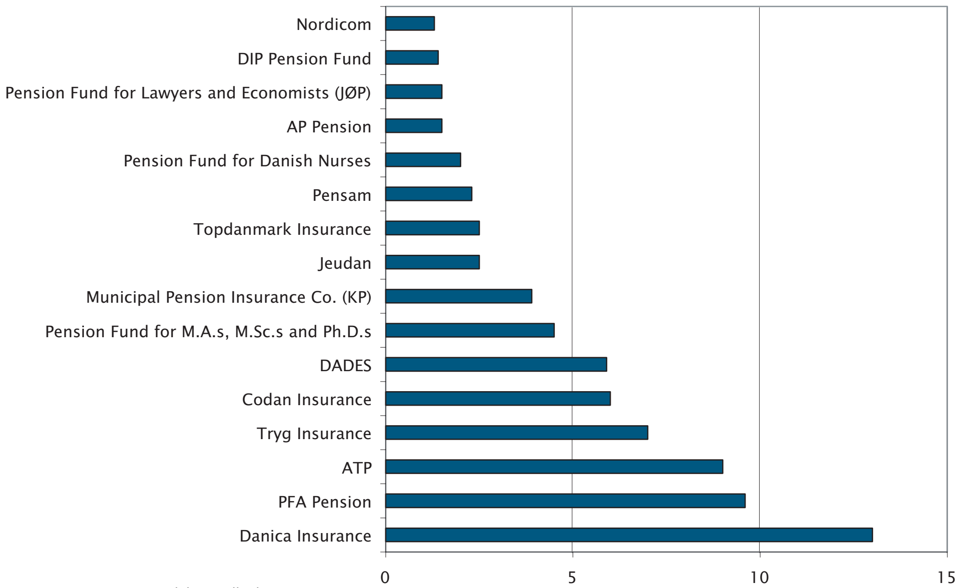
Property companies

The stocks of listed property companies suffer from low liquidity and limited institutional interest

Properties of a secondary nature, often with a potential for increasing values by active management, are currently in demand, especially from property companies or private investors.

The previously dominant listed property company *Ejendoms-Selskabet Norden* was taken private by a consortium of institutions in early 2001, and the company is currently selling off all assets. New dominant players are *DADES*, which in 2001 expanded its portfolio to DKK 6 billion, and listed companies *Jeudan* and *Nordicom*. The shares of listed property companies, however, suffer from low liquidity and limited institutional interest.

Property holdings in DKK billion, institutions and property companies



Source: Sadolin & Albæk

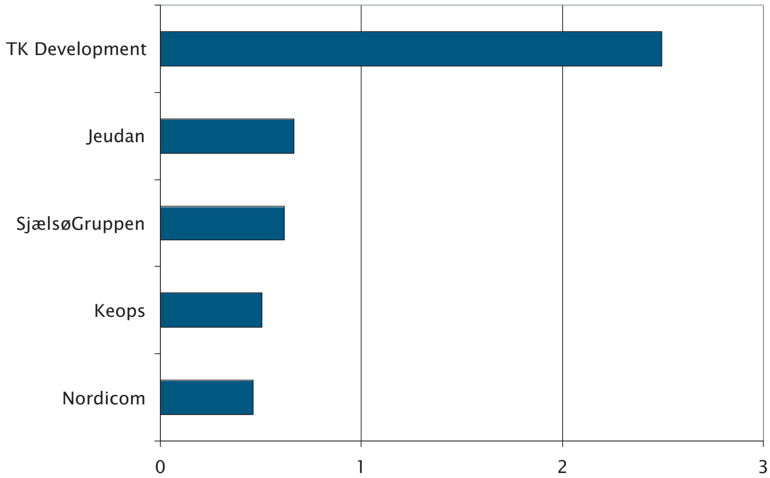
Private investors

Private investors generally tend to focus on properties with tax deductibility

Private investors generally tend to focus on properties with tax deductibility, i.e. properties used for retail, industrial, warehousing, education and hotel purposes.

Although some investors invest individually and have quite substantial portfolios, a substantial part of this market is structured via limited partnerships, so-called *kommanditselskaber (K/S),* where up to 10 individual investors acquire a property in a single-purpose partnership. Such partnerships are mostly initiated and managed by specialised companies, the two largest being *Keops InvestorPartner* and *EjendomsInvest,* both of whom have assets of between DKK 4 and 5 billion under management.

Market capitalisation in DKK billion, listed property companies and developers



Source: Sadolin & Albæk

Developers

Today, the significant property developers in Denmark are the large construction companies *MT Højgaard,* and the two Swedish owned construction companies *NCC* and *Skanska*.

The most significant developers in Denmark are MT Højgaard, NCC and Skanska

The most important specialised developers are listed companies *TK Development*, focusing on retail and offices, and active in Denmark, Sweden and eastern Europe, *SjælsøGruppen*, a purely domestic developer specialising in office property, and *Keops.*

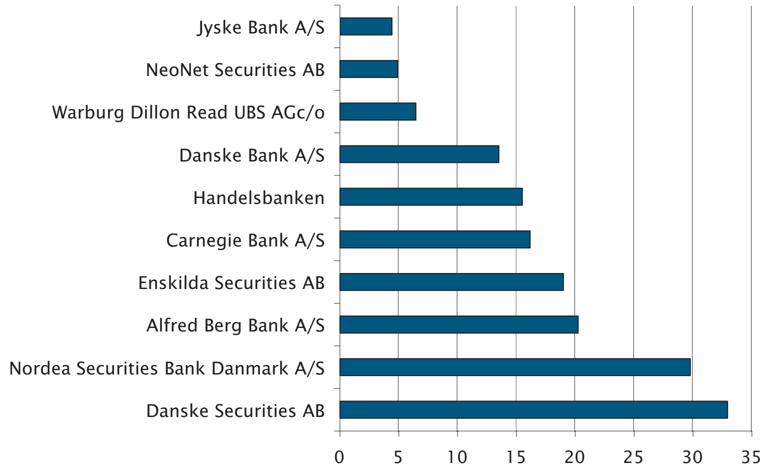
The security market

Copenhagen Stock Exchange (XCSE) is the only stock exchange in Denmark. However, NOREX that connects the stock exchanges of Copenhagen, Stockholm, Oslo and Reykjavik has accomplished to create a powerful alliance, minimising equity trade incoherences in the Scandinavian region.

The largest market players are Danske Bank and Nordea

The largest market players are by far the two banks *Danske Bank* and *Nordea*. The large proportion of banks found among the most significant traders at XCSE is of course a result of investors trading through banks. Institutional investors may not be the most active market players but they undoubtedly hold the largest market share of securities.

XCSE market share, 1st quarter 2002



Source: XCSE

The stock market

The *KFX-index* comprises the 20 most traded stocks and is reviewed every 6 months. The index was started on 3 July 1989 with the value of 100.

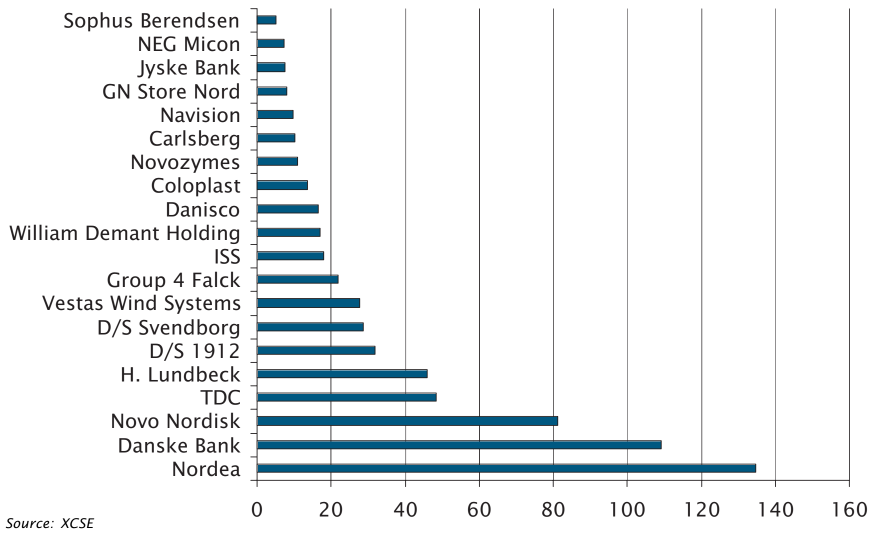
Among the most noteworthy companies currently in the index can be mentioned *TDC*, a telecommunications company. *TDC* was until 1994 publicly owned but has after privatisation proved very adept in competing with companies such as Swedish Telia and French Orange.

Stocks in *Danske Bank*, the largest Danish bank, are similarly quoted among some of the most significant stocks in the index. Other banks quoted in the index are *Nordea* and *Jyske Bank*. Overall, the two companies with the highest market capitalisation are found in the financial sector, viz. Nordea and Danske Bank.

Novo Nordisk and *H. Lundbeck* represent the Danish pharmaceutical industry in the index. Novo Nordisk has a market value of just over DKK 80 billion.

The biotech industry is an industry not represented in the index. Nevertheless, this industry has been very successful in Denmark and stock analysts expect this industry in particular to prosper in Denmark in the years to come. This development is emphasised by the location of US pharmaceutical giant *Biogen* just north of Copenhagen.

Market capitalisation in DKK billion, KFX-index companies



Source: XCSE

Demand from investors inspired XCSE to create a new index in 2000, the so-called *KVX-index*. This index comprises so-called growth stocks. These stocks are all in the pharmaceutical, telecommunications, biotech or information technology sectors.

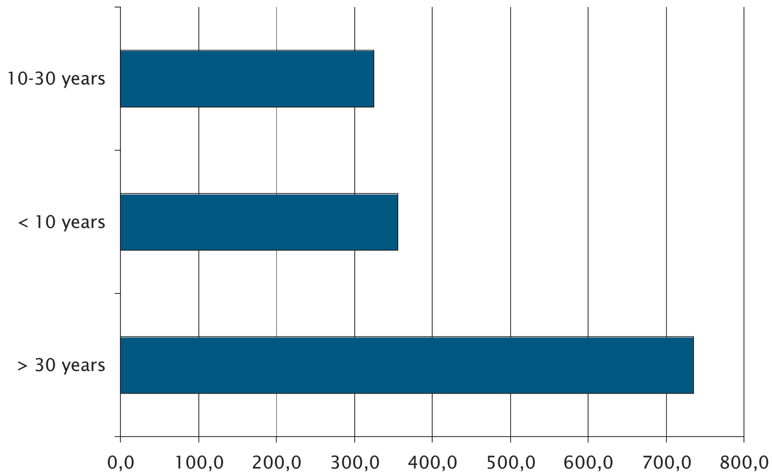
The bond market

The market for mortgage-credit bonds is by far the largest in the bond market in general. The bonds are issued in relation to residential housing financing.

There has been a great tradition for this kind of financing method in Denmark, just as there have been a great many institutions in the business of issuing these bonds. However, the current trend is that these activities are concentrated on ever fewer companies. Among the largest mortgage-credit institutes are *Realkredit Danmark, Nykredit, Totalkredit, BRFkredit* and *Nordea Realkredit.* All of these are by *Moody's* rated between Aaa and Aa2.

Moody's Investor Service in August 1999 upgraded the rating of Danish government bonds from an Aa1 rating to the highest rating, Aaa. Moody's argued that the Danish economic and fiscal policies were very stable in spite of Denmark opting out of the Euro currency. *Standard & Poors* followed suit, upgrading their financial credit rating from AA+ to the highest rating, AAA, in February 2001.

Mortgage-credit institutes' issued securities broken down by term to maturity



Source: Danish National Bank

Property performance overview

Sadolin & Albæk property indices

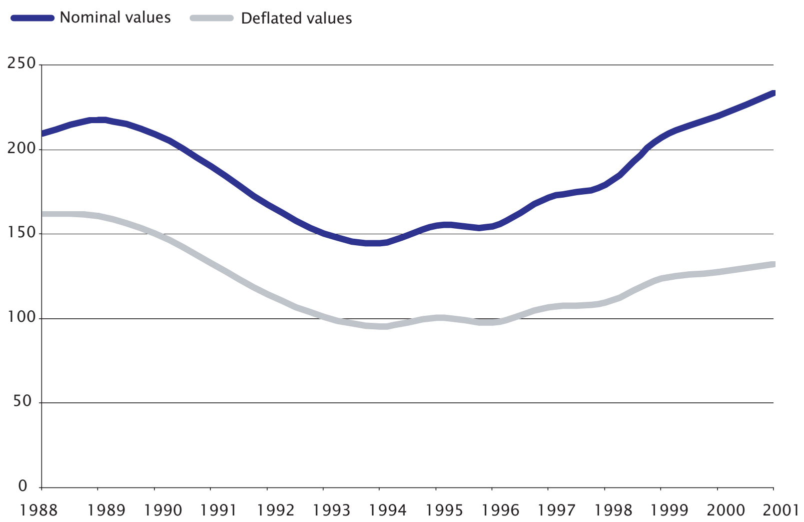
Sadolin & Albæk has since the mid-1980s systematically registered valuations and sales of commercial property. The result is a comprehensive database that facilitates econometric estimations on property investment performance.

Sadolin & Albæk has since the mid-1980s registered valuations and sales of commercial property

The properties in the database are all located in the Greater Copenhagen area. The database is unique in Denmark in the sense that it comprises all relevant characteristics on the included properties. This structure enables detailed calculations on relevant key figures in time series.

The database has for years been the foundation for the *Sadolin & Albæk property price index* that is published annually in Sadolin & Albæk's *Greater Copenhagen property market report*. The Sadolin & Albæk price index is hedonic as it estimates the average price level under the consideration of the properties' unique characteristics through multiple regression analysis.

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



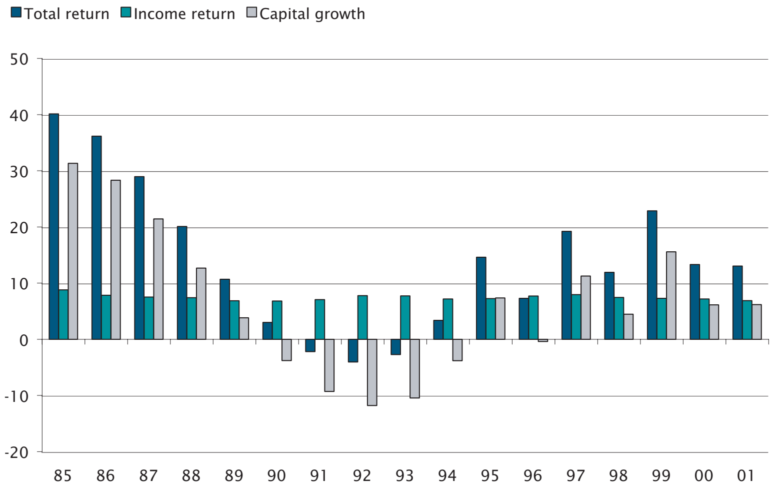
Source: Sadolin & Albæk

Correspondingly, Sadolin & Albæk has developed a hedonic index for net initial yields on properties in the Greater Copenhagen area. This has been constructed on the basis of the same database as the price index, facilitating immediate comparisons between the two.

Net initial yields have historically been stable. The highest average, 9.16 per cent, was recorded in 1985. Around this period significant capital growth was similarly evident with growth rates of around 20 - 30 per cent, reflecting a strong bull market with substantial institutional activity and an aggressive attitude to property and development financing by domestic banks.

In the first half of the 1990s, capital growth was negative for five consecutive years. So, after net initial yield averages of 7.00 per cent in 1990, yields started their upward trend once more. Prices only stabilised in mid-1993 when the economy started to pick up.

Total return, income return and capital growth (in %) for commercial property in the Greater Copenhagen area



Source: Sadolin & Albæk

In the latter part of the 1990s, activity was boosted by high demand. Today, new construction has helped ease off structural pressure. There is great availability of new construction space particularly in the area around the Copenhagen harbour front.

In 2001, average commercial property prices increased by 6.2 per cent in the Greater Copenhagen area. This level matched the increase in 2000, which was 6.1 per cent. The increase slightly exceeded the expected level, owing to a very strong commercial property market during the first six months of 2001. The commercial property market eased off during the latter half of 2001.

Commercial property prices expected to stabilise in the coming years

We expect the increase in commercial property prices to stabilise in the coming years. First and foremost, the regional process is expected to lift domestic and international demand for commercial property in the area, resulting in moderate price increases.

Sadolin & Albæk's *calculation of total return, capital growth and income return* for commercial property in the Greater Copenhagen area from 1985 to 2001 reveals a stable total income growth on property investments.

In 2001, the average income return was 6.9 per cent. Combined with a price increase/capital growth of 6.2 per cent, the total return was approximately 13 per cent in 2001. Since 1985, income return has ranged between 6.8 and 8.8 per cent, whereas capital growth has fluctuated between -11.8 and 31.3 per cent. From 1985 to 2001, total return was only negative for three consecutive years, i.e. from 1991 to 1993, whereas the average level of total return has been 14.6 per cent since 1995.

The property investment market continues to show a great degree of stability with prime yields just above the 6 per cent bracket. Falling interest rates and the highly volatile stock market have fuelled investor appetites, especially for properties let on long-term leases, which offer a highly attractive cash flow compared with other assets.

Such market conditions offer opportunities and challenges, but could potentially also involve substantial risk. Some sectors and sub markets will outperform the general market, while others will definitively be left behind.

Commercial property sectors

The statistical requirements for any estimation of price and yield developments through the hedonic multiple regression model are quite extensive. Thus, the Danish property market does not offer sufficient data to facilitate estimates broken down on commercial property sectors, i.e. office, industry and retail.

Nonetheless, we believe that the in-depth market knowledge of Sadolin & Albæk enables us to evaluate the developments.

Office property

The office property market in Copenhagen is the largest commercial property market segment in Denmark. Thus developments can be seen to follow overall commercial property cycles for both capital growth and income return.

Relatively stable increases in prices over the past decade

The past decade's relatively stable increases in price growth have been the result of a positive macroeconomic climate. Office property performance is greatly determined by regional human resource levels and economic activity in general.

Greater Copenhagen has a solid and highly educated workforce, a strong concentration of companies within the IT sector, telecommunications, the pharmaceutical industry and biotechnology. At the same time, Copenhagen has a large concentration of universities and research institutions. The structural conditions influencing long-term office property performance create a positive outlook on expectations for the office market in Greater Copenhagen.

In the short and medium term, several factors seem to indicate that the market is weakening somewhat. The economy has slowed down due to the relatively weak domestic market and stagnant private consumption. Also, the development in several significant export markets, especially in the USA and Germany, should be taken into account and may cause concern.

The risk of rising vacancy rates resulting from the economic slump will make investors focus more and more on a property's current vacancy situation and the short and long-term re-letting potential. In addition, the property investment market has also been affected by the international crises in the IT and telecommunications industries as well as the rather heavy supply of new property in recent years.

Nevertheless, we believe that several of Denmark's most important institutional investors are still underweight in property relative to their portfolio targets. In this connection, the relatively poor performance on the stock markets and low bond rates have made cash flows from well leased investment property look still more attractive.

Institutional investors still underweight in property relative to their portfolio targets

Similarly, we have recorded growing interest from international property investors, although no major acquisitions have been concluded so far. This may be explained by the fact that investors considering investments in the Danish property market are frustrated by the low supply of investment properties and portfolios.

Industrial property

Industrial property prices are normally more volatile than office property prices. Industrial property normally trades at net initial yields that are marginally higher than for office property, i.e. from 125 up to 200 bp higher. This is a direct consequence of lower rental growth in this sector. This obviously reveals itself as volatility in prices when the information about the discount structure at a given point in time alters, subsequently forcing investors to re-valuate present value estimates of their industrial property investments.

The long-term determinants of industrial property valuation are of course indirectly macroeconomic and regional indicators. A detailed insight into these relationships enables analysts to evaluate industrial property correctly.

Short-term indicators for industrial property investments are influenced by other factors. The vast part of the 14 million sqm industrial stock in the Greater Copenhagen area is, at least in an international context, of a secondary nature, developed between 1960 and 1980.

The transition of industry in the region from traditional production to high-tech and distribution will render a considerable share of this space functionally obsolete, and increasing vacancy will put secondary rents under pressure.

Transition of industry from traditional production to high-tech and distribution

On the other hand demand for modern distribution facilities remains strong especially along the so-called south corridor, comprised by the area between Høje Taastrup and Avedøre west of Copenhagen. Furthermore, a strong expansion in the biotech sector

boosts construction activity of new state-of-the-art production facilities in the Greater Copenhagen area.
Industrial and warehouse premises as well as sites ready for development are scattered throughout the region.

Retail property

Historically volatile prices. However, past decade has seen stable growth

Though retail property prices historically have shown some signs of volatility, the past decade has offered a stable upward trend. In the 1990s, retail outlets in the peripheral Greater Copenhagen areas have been improved and within the CBD area strong developments in the shopping centre segment have been the result. Retail growth rates are the highest among all property segments.

Net yields for high-street retail property are from 25 to 75 bp lower than for office property. This is because the investors expect retail property to involve lower risk than other types of property, as vacancy traditionally is low. Furthermore, rental growth is assumed to be fuelled by the lack of development opportunities in high-street locations.

In the short term, falling interest rates have given tax-driven limited partnerships *(kommanditselskaber)* a greater incentive to invest in the retail investment market, both the high-street and the retail warehouse markets. Such partnerships generally work with a very high leverage, making financing costs a key concern.

Domestic institutions unable to benefit from the same tax depreciation possibilities are demanding higher yields and are thus being more or less pushed out of these markets, save the market for property with an investment volume in excess of DKK 150 million.

International investors, who have previously been active in the high-street markets, are currently selling out to limited partnerships. Some of these have instead turned to the shopping centre market, which is considered to offer better opportunities for adding value by active management.

Prime yields have remained unchanged in all segments of the market, but secondary yields have edged slightly downwards. The development in the secondary market reflects the vast demand for retail properties on the part of tax-driven partnerships focusing on stable income streams and low financing costs rather than the potential for value adding active management.

Investment market returns

Securities and property have very different liquidity

Any cross sectional analysis between the security market and the property market is complicated by the different nature of the assets. Although both types of assets have income as well as capital growth, their different liquidity will effect the term of investment for either of the assets.

Typically, it takes 3 to 9 months to trade any major investment property, whereas benchmark securities for stocks and bonds under normal circumstances can be traded instantaneously. Thus, property investments and securities investments will never be perceived as direct substitutes. Any comparison between property and securities investments will presuppose the investment decision to be long-term.

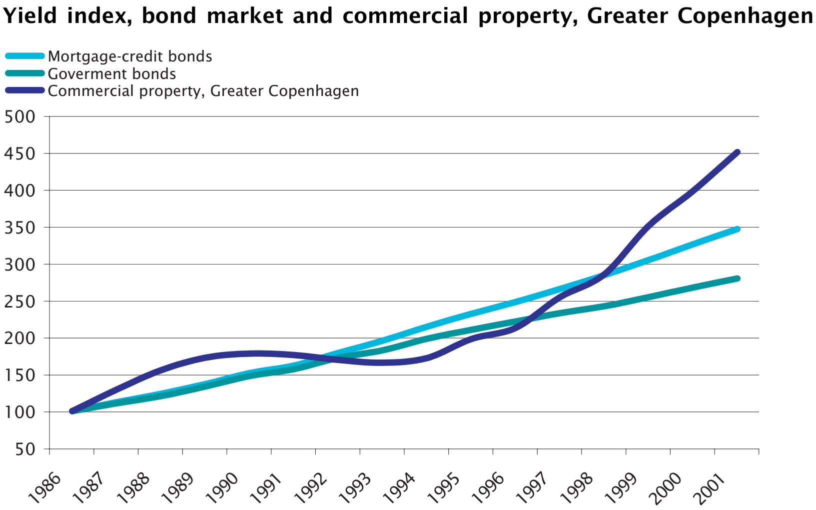
In the Danish investment markets the return on different assets over the last 16 years varies considerably. This applies between different kinds of assets as well as within the same kind of asset. For stocks we present comparative developments after 1990, because data for the leading stock indices domestically as well as abroad are only available for this period.

Commercial property has shown better performance than mortgage-credit bonds

In terms of returns only, commercial property has since 1986 performed better than both mortgage-credit bonds and government bonds. Mortgage-credit bonds have had an average compound interest rate of 8.1 per cent over the period whereas government bonds have had a compound interest of 6.6 per cent. Commercial property has yielded a compound return of 9.9 per cent p.a.

In Sadolin & Albæk's opinion, most of the return increases on commercial property in recent years may be attributed to return increases on retail property. However, the development in office property returns has been more stable throughout the entire period.

The spread between mortgage-credit bonds and commercial property in compound interest rate terms is 180 bp. As a result, commercial property yielded 100 per cent higher returns than mortgage-credit bonds over the period considered. In total the mortgage-credit market has yielded a return of approximately 350 per cent over the same period of time. Commercial property investment in the Greater Copenhagen area has yielded a return of 450 per cent since 1990. From the early 1990s to 1994 prices were falling, but outside this time span steady increases have been observed.



Source: Sadolin & Albæk

A repetition of the performance seen in the early 1990s is not likely any time soon, even when entering the lower part of the business cycle. In the early 1990s, extensive speculation in new construction for office use was not founded in actual demand. The result was reduced commercial property returns.

Stock market provides the highest return in time

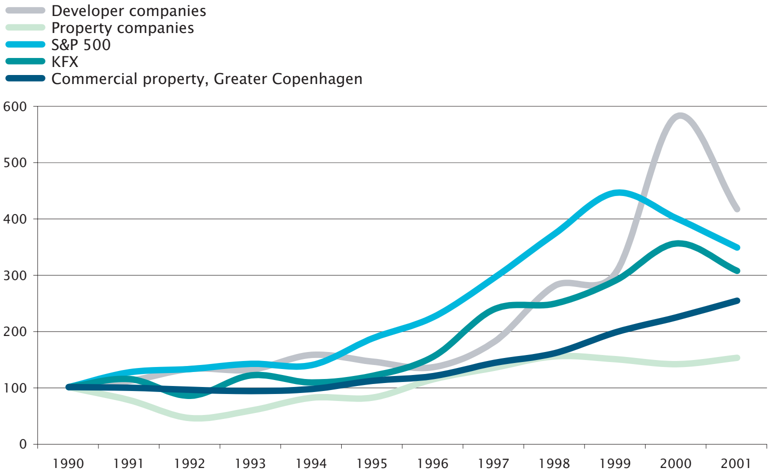
The stock market provides the highest return over a long period of time. Since 1990 an investment qualifying for the KFX portfolio has yielded a return just above 300 per cent. This figure reflects a compound interest growth rate since 1990 of 10.7 per cent, which is 200 bp above that of commercial property. In total, the KFX-index yielded a return that was 50 per cent higher than the return on commercial property and thus 65 per cent higher than the return on mortgage-credit bonds in the same period of time.

Since 1990 property investments have yielded a return of 250 per cent, which corresponds to a compound interest of 8.7 per cent p.a. This is somewhat lower than the figure recorded in the period from 1986 to 2001 and may be explained by negative returns on commercial property in the early 1990s.

Property company stocks exhibit lower returns than commercial property

It is widely believed that stocks in property companies perform better than singular property investments, because market knowledge in the investment companies is distributed to the investor. Risk is also thought to be lower for this type of investment. However, as we will illustrate below, the latter assumption is not correct.

Yield index, major stock indices and commercial property, Greater Copenhagen



Sources: XCSE, Standard & Poors and Sadolin & Albæk

Also, the first assumption seems to have just as limited justification when looking at time series data. The performance of domestic property companies is seen to be significantly inferior to commercial property performance. Property companies have yielded a mere 3.9 per cent compound interest rate growth since 1990, i.e. 480 bp lower than commercial property. Thus, property companies cannot be considered a satisfactory substitute for direct property investments in the Greater Copenhagen area.

Developer company stocks have yielded the highest return

Stocks in developer companies have yielded the highest return of any of the assets reviewed. Several developers have performed very well as a result of an expanding new construction market, driven by favourable price movements. Thus, developer company stocks in Denmark have experienced considerable growth. Compound interest was 13.8 per cent between 1990 and 2001 and thus considerably above the KFX-index as well as the Standard & Poors index *S&P 500* that showed a 12.0 per cent compound interest growth p.a.

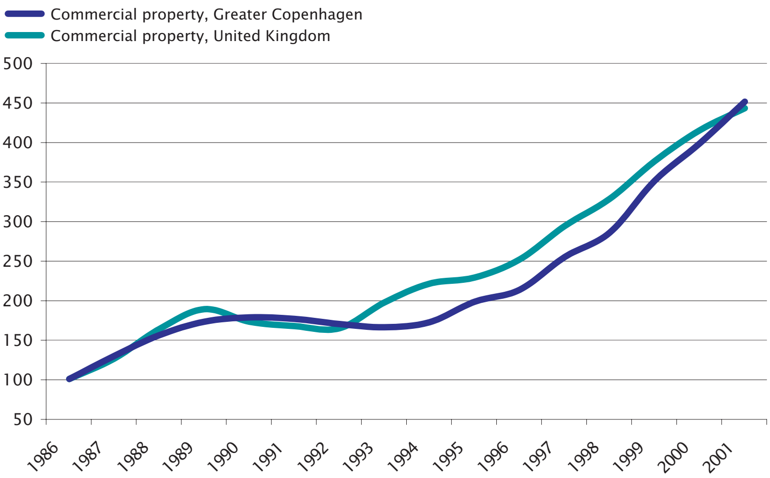
When including the period from 1986 to 1990, however, developer company stocks have not yielded a similarly high return on average. Thus, for this particular type of stock results are very sensitive to whether or not the analysis includes the late 1980s.

Greater Copenhagen commercial property returns follow those of the UK

Putting the Greater Copenhagen property market performance into an international perspective is difficult as far as the time series considered here is concerned. Only the British company *Investment Property Databank* has comparable time series data for a similar period of time for the UK.

It becomes evident that the Greater Copenhagen commercial property market performs in line with the markets in the UK. Greater Copenhagen developments can even to a certain degree be seen to follow the developments in the UK.

Yield index, commercial property UK and commercial property Greater Copenhagen



Sources: IPD, Sadolin & Albæk

Risk analysis

Return is unequivocally connected to risk

However important the actual return on an investment may be, it is the expected return that determines the investment choice. The uncertainty of the determination of the expected return can be categorised as risk. In other words, the more volatile a return is expected to be, the higher risk it represents.

As compensation for the uncertainty of the future return the investor requires a premium in order to accept risk, i.e. an investor will require a higher expected return proportionate to the risk associated with the given asset.

As a result, the concept of return is unequivocally connected to the concept of risk. Only when including risk in the considerations, will it be possible to map the investors preferences in the market.

The concept of risk

Risk can be described in a number of ways. However, it is convenient to categorise risk as follows:

The first category is represented by the risk of a return that accrues from the random volatility of the return: this is called *diversifiable risk*. Another way to look at diversifiable risk is to say that it is risk that cannot be explained by market variations. Investors can avoid diversifiable risk by diversifying their portfolios.

The second category is risk on a return that can be seen as recurring and perpetual: this is called *systematic risk*. This is the kind of risk that investors can be fortunate or clever enough to anticipate. Both types of risk lead investors' strategic portfolio choices.

The technology of the *Capital Asset Pricing Model (CAPM)* enables analysts to calculate both types of risk. The CAPM stipulates that the risk of an asset is compensated in proportion to its return. Thus, there is a linear relationship between risk and return. This linear relationship is called the *Security Market Line.* Any asset return on this line is rewarded for its risk in accordance with the market compensation. Any asset return that lies beneath the line is not compensated for its risk. Conversely, asset returns above the line perform better than the market compensation for their risk.

By applying the CAPM, Sadolin & Albæk has calculated the market compensation for risk on a portfolio consisting of the stocks that have been included in the KFX-index in the period from 1986 through 2001 and have been quoted on the stock exchange in this period, mortgage-credit bonds and the return calculated on the basis of the Sadolin & Albæk price index. In addition, we have included an index on the returns of domestic property companies and an index with developer companies.

The CAPM uses historical returns to measure the volatility of an asset in comparison to a benchmark portfolio. The extent to which the asset's volatility coincides with the variations in the benchmark portfolio is measured by the so-called β-*values*. A β-value of one indicates that the given asset fluctuates in sync with the benchmark portfolio. β-values exceeding one indicate greater fluctuations than the benchmark portfolio and thus greater risk. Conversely, β-values below one will signify an asset with a risk less than average. The β-values are measures of systematic risk.

Our benchmark portfolio consists of the most important domestic tradable assets in the period considered. Thus, the benchmark portfolio can be taken as yet another benchmark for the investment market as a whole.

Cross sectional analysis of risk

Over the course of more than 16 years, the data capture the performance in historical bull as well as bear markets for all investment markets. Thus, the analysis should reflect the entire business cycle.

In this time span, commercial property yielded a return of 9.9 per cent p.a. Commercial property pay-off volatility in relation to the market was limited and the systematic risk thus moderate. Hence, the risk of commercial property is rewarded lower than stocks and higher than bonds.

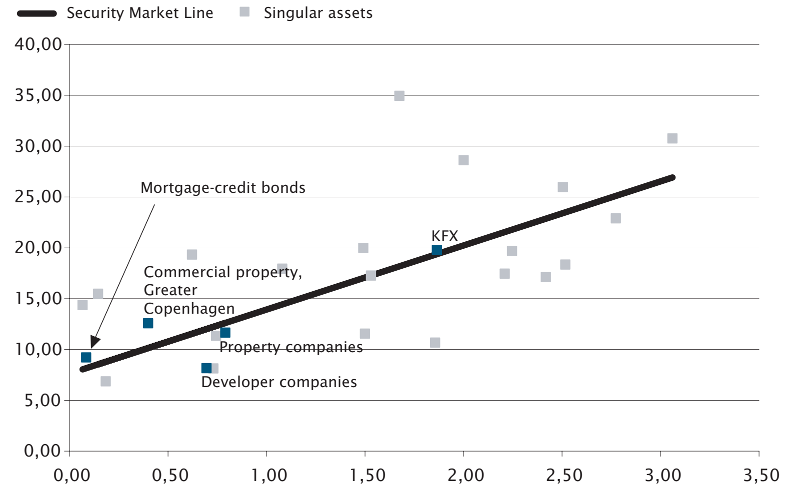
With a β-value of 0.4 Commercial property return increase by 40 bp when the benchmark portfolio increases by 100 bp.

Mortgage-credit bonds' risk and return are congruent with SML

The risk of mortgage-credit bonds is - as one would expect - comparatively low. The large proportion of fixed income dividends from these bonds, combined with their relatively limited capital gain, results in a cash flow with a very stable pay-off. Consequently, the risk is low.

Conversely, the high pay-offs and the volatile cash flows generated by most stocks can be seen as a compensation for a relatively high-risk exposure. Neither of these results is surprising for investors operating in these markets.

Security Martket Line (1986-2001)



Source: Sadolin & Albæk

For all types of assets their consistency with the market compensation for risk is reflected in their congruency with the Security Market Line (SML). Thus, their returns, risky or not, are rewarded in accordance with market compensation levels.

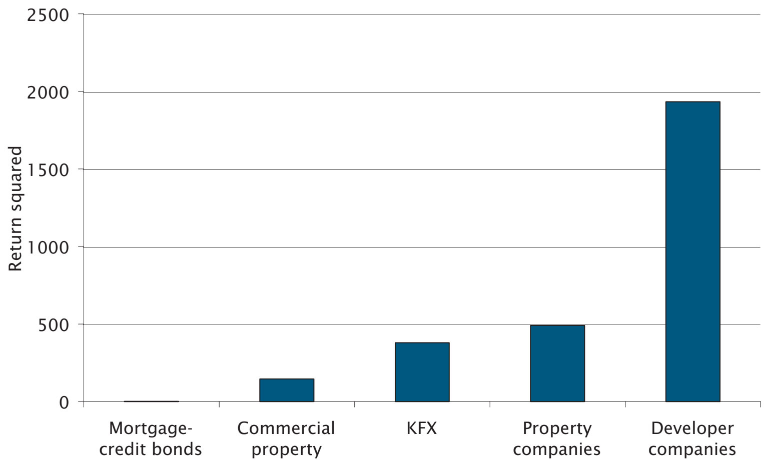
Commercial properties have performed better than their risk would necessitate

In this respect, historical data demonstrate that commercial properties have performed better than their risk would necessitate. For the part of the KFX-index that has a higher risk and thus a higher return than commercial property, performance is congruent with market standards. Mortgage-credit bonds perform marginally better than market standards.

Property companies perform satisfactorily in relation to market risk compensation. However, compared to commercial property their performance is poorer. Developer company stocks yield a return lower than what would be expected over the period. It should be noted that developer stocks have performed very well in recent years as new construction activity has soared. As developers have become more well established in the Danish property market, an analysis over a shorter period of time is expected to show a better compensation for developer company stocks in relation to risk and would for this particular index probably render a more fair estimate. Regardless of these contemplations, for investments in the portfolio of developer company stocks for the period considered the return would have been precisely as depicted.

The SML only analyses the risk that the market rewards. Turning to the total risk of the assets, the immanent dissimilarities become increasingly evident.

Total risk



Source: Sadolin & Albæk

Low total risk for commercial property

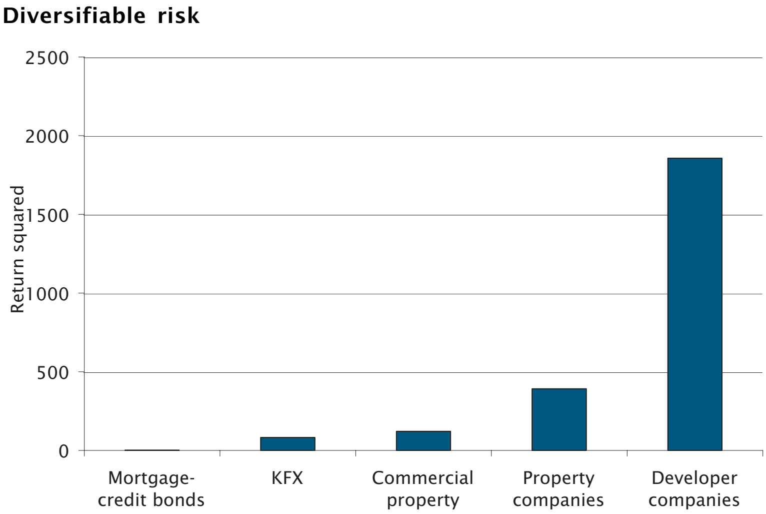
Commercial property has the second lowest total risk profile of the assets analysed. In fact, the total risk of commercial property is less than half that of the KFX-index. Some of this additional risk in the KFX-index is being compensated through returns, but a great deal is not.

The KFX index has boasted outstanding performance and has clearly yielded the highest return. The fact that the stocks have also involved the highest risk should not deter investors from investing in stocks. The reason why there is such a high return on stocks is simply that the market rewards investors who are willing to invest their capital in risky projects.

Thus, as long as the market rewards an asset with the right return in relation to its risk, there is no cause for avoiding investment in the given asset. The only reflection the investor must make on the portfolio is how much the investor is willing to invest in risky projects.

Property companies involve three times the risk of commercial property

It is often suggested that investments in property companies should involve lower risk than singular property investments. However, this is not the case. On the contrary, the property company index shows a risk level more than three times as high as that of the commercial property index. Thus, from 1986 to 2001 property companies involved a higher risk than commercial property and, moreover, a lower return.



Source: Sadolin & Albæk

Diversifiable risk

The risk that cannot be explained by market fluctuations is one reason why the assets have so different total risk profiles.

Because all leading indices lie on the SML or above, they will over time at least be rewarded in accordance with their level of systematic risk. However, none will be rewarded for their diversifiable risk.

The investor's choice further accommodates an analysis of the level of diversifiable risk. An asset with a disproportionately large share of diversifiable risk will not fluctuate in sync with the market at all. Because diversifiable risk is not rewarded by market prices, diversifiable risk is definitely unwanted.

Unrewarded risk low for all significant indices

The diversifiable risk of commercial property is medium high, albeit significantly lower than that of property companies. Incidentally, property companies also involve more than three times the diversifiable risk of the commercial property index - a risk that does not result in a higher rate of return.

The KFX-index has a lower diversifiable risk than commercial property. This can be explained by the fact that stock returns within the market portfolio in some cases are counter correlated, whereas for the commercial property index this is only true to a lesser extent.

In fact, when analysing the diversifiable risk of singular stocks in the index the diversifiable risk is high. One could state the same for the commercial property index. However, as the dissimilarities between singular properties are less pronounced than is the case for singular stocks in the KFX-index, we would actually expect to see this risk to be diversified to a greater extent in the KFX-portfolio than in the portfolio of commercial property.

Nevertheless, whether holding the KFX-portfolio or a portfolio of commercial properties, the investors only expose themselves to a limited degree of unwanted risk.

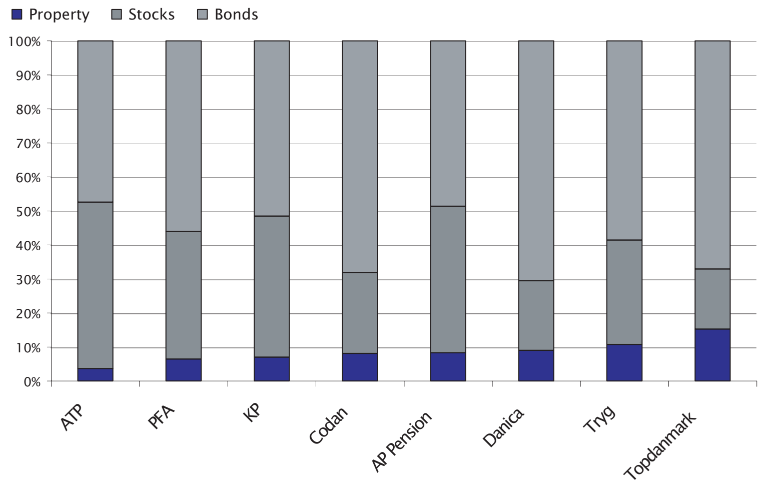
Investor preferences

Usual portfolio strategy objective is to weight property by 10 per cent

Both in Denmark and abroad, the usual portfolio strategy objective is to weight property by about 10 per cent in an ideal long-term investment portfolio. However, many investors will increase the weighting of property to about 12 per cent of total investment assets, owing to the recent drop in yields and the continuing uncertainty surrounding equity markets.

The picture is slightly blurred as regards pension funds. A number of "old" pension funds have property portfolios accounting for 9 to 11 per cent of total assets, whereas some new pension funds, including the funds that have been formed in the past five years in connection with the pension schemes set up under collective agreements, generally have portfolios with a property weighting of up to 2 per cent of total assets.

Institutional investor portfolios



Note: ATP, Codan, Danica, Tryg and Topdanmark at year-end 2001. PFA, KP and AP Pension at the beginning of 2001.

Portfolio return requirements can be sustained all the while a reduction of risk is implemented

Although the figures quoted above only include the effect of lower share prices in 2001 for some investors, the institutional investment industry in Denmark generally has too little exposure in property, viz. just in excess of DKK 20 billion.

When observing the risk and return of commercial property it is evident that institutional investors' portfolio return requirements can be sustained all the while a reduction of risk is implemented.

The investors must construct their portfolios according to their individual preferences. It seems, however, that institutional investors in particular are overexposed in stocks. The impact on pay-off volatility is evident.

In recent years, the majority of institutional investors have concentrated their investments in new corporate headquarters, mainly located on the Copenhagen waterfront. However, the slowdown in building starts will curtail these investment opportunities.

Therefore, many institutional investors are adjusting their property investment strategies.

Some investors will probably expand their exposure in property markets abroad, where there is a greater supply of prime office property available on long-term leases.

Furthermore, we forecast greater focus on secondary location office property, new residential rental property as well as new distribution property available on long-term leases.

SADOLIN & ALBÆK

Since Sadolin & Albæk was founded more than 35 years ago, the company has been a leading commercial property agent and adviser, providing e.g. the following services:

- Mediation of commercial properties and investment properties, including office properties, retail properties and shopping centres, major industrial or residential letting properties, distribution properties as well as hotels.
- Investment strategies and portfolio analyses.
- Mediation of major lease premises, including advisory services to tenants in regard to localisation strategies, identification of lease premises as well as negotiations with property owners, developers and authorities (tenant representation).
- Consulting services in regard to corporate use of areas and exposure in property assets, including project finance and sale & leaseback.
- Valuation of individual properties and property portfolios.
- Consulting services concerning project conception and urban development.
- Analyses of the commercial property market.

Through a strategic alliance with leading Scandinavian property advisers, i.e. NewSec in Stockholm and DnB Næringsmegling in Oslo, Sadolin & Albæk is able to assist Scandinavian and international companies with property consulting and property mediation throughout Scandinavia.

Sadolin & Albæk is a member of ONCOR International, an international organisation with a membership composed of highly professional companies involved in the purchase and sale of commercial properties as well as consulting in that field.

Today, Sadolin & Albæk is represented through ONCOR associates in e.g. the USA, Canada, South America, South Africa, the UK, Germany, France, Spain, Portugal, Italy, Austria, Switzerland, the Czech Republic, Holland, Belgium, Poland, Hungary and Russia. Also, in the most important markets in the Far East, e.g. China, Japan, Hong Kong and Indonesia.

Sadolin | ALBÆK

Sadolin & Albæk A/S
Nikolaj Plads 26
DK-1067 Copenhagen K
Tel: +45 33 11 66 55
Fax: +45 33 32 72 96

E-mail: sa@sa-oncor.dk
Web: www.sadolin-albaek.dk
Reg.No. 157519

ONCOR
Worldwide Real Estate Services