

## Real Estate Primer: Part II

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Mats Larsson, December 9, 2018

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A lot of ground to cover

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### 8.7 Financial Accounts

Exemplifies with Klöver

Similarly to other financial companies like banks and insurance companies, but in contrast to most other companies, the layout of the financial accounts for real estate companies deviates from the standard company. We will exemplify by looking at the 2016 financial reports for Klöver and as such some of the discussion – especially the one on taxes – will be somewhat domestic. However, we will also come back to some important accounting differences between IFRS as used in Europe and US GAAP.

#### Oddities

- Small P&L
- Not matching profits and cash flow
- Limited income tax

Already at the outset there are a few things to notice. A first one is the fairly small size of the income statement compared to the balance sheet, a second is the two tiered income generation that isn't matched by the one tiered cash flow statement and a third is the very limited income tax payments. We will look further at all these and start with the income statement.

**Picture 8.53. Consolidated Statement of Income Klövern**

Amount in SEK million		2016	2015
	Income	a. 2,876	2,718
	Property costs	b. -985	-952
	<b>Operating surplus</b>	c. <b>1,891</b>	<b>1,766</b>
First part: a to g	Central administration	d. -100	-92
	Financial income	e. 2	2
	Financial expenses	f. -613	-633
	<b>Profit from property management</b>	g. <b>1,180</b>	<b>1,043</b>
	Share in earnings of associated companies	h. 0	171
	Changes in value, properties	i. 1,709	1,252
	Changes in value, derivatives	j. -114	91
Second part: h to m	Changes in value, financial assets	k. -19	-4
	Impairment of goodwill	l. 0	-12
	<b>Profit before tax</b>	m. <b>2,756</b>	<b>2,541</b>
	Current tax	n. -24	-2
	Deferred tax	o. -473	-531
	<b>NET PROFIT FOR THE YEAR</b>	p. <b>2,259</b>	<b>2,008</b>

Source: Klövern Annual Report 2016

Incomes (a.) are almost exclusively rents collected from tenants and as such obviously dependent on both occupancy rates and rent levels. The economic occupancy rate during 2016 was 89%, down from 91% the year prior.

Income = rents

Klövern has often acquired properties in need of refurbishment and has a sizable development project portfolio, which gives higher vacancies. LFL income increased with 1% y-o-y, mainly due to net moving-in. In total, income increased 6% y-o-y thanks to a larger property portfolio.

“Gross margin” = 66%

Property costs (b.) are operating costs, repairs and maintenance, property tax and site leasehold charges and personnel costs. The property tax is a levy on the value of a property. The operating surplus (c.), what other sectors would call gross profit, generates a healthy margin of 66%. However, in relation to the average value of the investment properties it is about a 5% return.

Swing factor in interest costs

The other dominating cost apart from property costs is the financial expenses (f.). Since real estate companies are asset heavy, interest costs is a large part of the sector's cost base. Out of the SEK 613m paid in 2016 by Klövern about SEK 551m was interest costs. The importance of interest costs in relation to other factors is highlighted by the sensitivity analysis from the 2016 annual report.

**Picture 8.54. Sensitivity Analysis Klövern**

	Change +/-	Annual effect on profit, SEKm
Economic occupancy rate	1 percentage point	+/- 34
Rental income	1 per cent	+/- 29
Property costs	1 per cent	-/+ 10
Klövern's average interest rate	1 percentage point	-/+ 239

SEK 239m is equivalent to 43% of interest costs

Source: Klövern Annual Report 2016

IFPM – Income From Property Management

We now arrive at the profit from property management (g.), or IFPM (Income From Property Management) as it is often named in analyst reports. This is largely equivalent to the operating result or EBIT (Earnings Before Interest and Tax) in traditional companies. The IFPM generates a 41% margin in Klöver, or 3% in relation to the average investment property values.

And now for the encore...

If this was all there was to the P&L and taxes would follow after the IFPM, real estate income statements would be fairly conventional. However, since real estate companies are “asset based” and mainly consists of a property portfolio the change in value of these assets adds an additional section to the income statement for companies using IFRS.

...the capital appreciation

As long as they are properly maintained the owned properties generally increase in value even though this isn't realized through a divestiture of the assets. Over time the capital appreciation has been slightly higher than inflation, say 1% real appreciation. However, it doesn't follow a straight line but instead the normal pattern is a number of years with higher than average increases followed by a pair of years with significant write-downs of values.

**Picture 8.55. Cool buildings: Donut Hotel, Guangzhou, China**

Hopefully there is an underwater path to the right wing



Source: [matadornetwork.com](http://matadornetwork.com)

Valuation...

The revaluation of Klöver's properties (i.) amounted to SEK 1,709m in 2016, a full 45% more than the IFPM. Each property in the portfolio is valued quarterly, out of which one of these occasions involve an external party, Cushman & Wakefield or Savills.

...of each property

The valuation looks to the operating surplus minus investments, i.e. the cash flow, for each property and discounts this with a cost of capital that in 2016 were between 5.5% and 9.5%. The long-term inflation in the valuation model is set at 2%. To this the value of building rights and undeveloped land is added.

Accountant joke: "Three accountants are interviewed for a job opening. The first applicant was asked what is two plus two. He responded "four". The second answered "four point zero" to the same question. The third replied "what do you want it to be?". The third accountant was hired."

Not commenting on Klövern specifically, the values generated by such valuations are hardly exact. Over time the cost of capital used tends to make sure that the property values correlate broadly with the current transaction values of similar properties. There are also internal interests in high numbers since the property values form the basis for collateral and for share prices. Further, eternal valuation experts have a clear professional interest in keeping a positive relationship with their customer, the real estate company.

US GAAP: I believe it when I see it

This second section of the income statement only applies to companies using IFRS. Under IFRS investment properties are originally measured at cost but thereafter they may be accounted for on a fair value basis and the changes in fair value is recognized in the income statement. The carrying amount isn't depreciated in the financial accounting but in the tax accounting. Under US GAAP properties are accounted for using historical cost which is being depreciated. Hence, the revaluation in property values is recognized in a lump sum when properties are sold instead of gradually over time as in Europe.

Swapping in fixed rates

Another interesting accounting entry for Klövern is the costs for derivatives (j.) of SEK 114m. To hedge interest rate risk real estate companies generally secure the interest rate levels they are to pay over the next 3-4 years using swaps meaning interest rate changes will have a lagged impact on the net profit (the changes will have a much faster impact on share prices however).

No crystal ball

Since interest rates in a jagged fashion have been declining in the Western World since the early 1980's this has obviously created a steady profit tailwind for a relatively leveraged sector. With perfect 20-20 hindsight it would obviously have been much cheaper to never have smoothed-out the interest cost with derivatives to start with. The best future path is however, as always, covered in mist.

PTP – taxes

With the addition of the revaluation of properties the pre-tax profit (m.) is SEK 2,756m - equivalent to 96% of the company's income. With this we arrive at the taxes. In looking at various industries it is quite rare that taxes draw much attention – real estate is an exception.

Picture 8.56. Note 8 Taxes, Klövern 2016

		2016	
		Basis, current tax	Basis, deferred tax
<b>Consolidated Statement of Income, SEK million</b>			
Tax calculation for Group			
	Profit before tax	2,756	
	Deductible for tax purposes		
	depreciation	-669	669
	investment	-356	356
	Change in value of properties not subject to tax	-1,708	1,708
	Change in value of derivatives not subject to tax	119	-119
	Change in value of securities not subject to tax	19	-19
	Impairment of goodwill not subject to tax	0	0
	Tax effect of company and property divestments	-157	0
	Non-deductible expenses	8	0
	Other adjustments for tax purposes	24	0
	<b>Total profit from operations</b>	<b>36</b>	<b>2,595</b>
	Use of loss carry-forwards	0	0
	New loss carry-forwards	73	-73
	Adjustment for effect of properties sold	0	-345
	Adjustment for acquired temporary differences	0	-27
	<b>Total taxable profit</b>	<b>109</b>	<b>2,150</b>
	<b>Current tax/deferred tax</b>	<b>-24</b>	<b>-473</b>

The first ever tax note in the Companion

Source: Klövern Annual Report 2016

Deducting depreciation on an appreciating asset, and the investment to make the asset appreciate, and the appreciation itself?! Wow...

As seen in the table above the PTP for Klövern is split into one part subject to current tax and one part where the tax payment is deferred, despite that investment properties aren't depreciated, for tax purposes real estate companies in Sweden are allowed to defer a depreciation cost of SEK 669m (for Klövern ca 2% of average investment property value) as well as investments of SEK 356m from the IFPM part of the PTP. Further, all the changes in asset values are likewise deferred to later with regards to paying tax.

1% income tax

After some further adjustments of SEK 125m (in blue) and a new loss carry-forward the PTP eligible for tax the current year has gone down to SEK 109m. With an expected tax rate of 22% this amounts to a current tax of SEK 24m and looking to the cash flow statement the company in reality paid SEK 26m, i.e. very close and a real paid tax rate (not counting the property tax) below 1%.

Deferred tax -> deferred tax liability

The taxable profit for taxes deferred to later is largely all that has been deducted from this year's taxable profit, minus the blue adjustments of SEK 125m and some further adjustments of SEK 372m in green. The taxable profit subject to deferred tax is SEK 2,150m and with a 22% statutory tax rate the tax is SEK 473m to be paid later. The total deferred tax liability (17. in the balance sheet) amounts to SEK 1,978m.

Truly deferred

The thing is that with the current rules very little of the deferred tax will have to be paid in the future. According to SOU 2017:27 the average paid income tax for Swedish real estate companies 2008 to 2014 was 9.9% - nowhere near the official rate of 22%.

The reason is that properties often are parked in companies, special purpose vehicles (SPV's), that allow them to be sold as "business related shares" without realizing the deferred tax. Instead the deferred tax is simply passed on to the next owner in an, in theory, endless chain.

A discount

When selling properties within a SPV not only does the seller avoid capital taxation, but the buyer also avoids stamp duty of currently 4.25%. Still, as the properties are sold in a package with a deferred tax liability added on top, this generally means that there will be some type of discount to the transaction price.

Kick-the-can

In note 8 above we would say that a large part of the green "Adjustments for effect of properties sold" relates to the fact that as Klöver sold some properties they passed on the deferred tax liability to the buyer and by this could deduct it from Klöver's own balance sheet. We will return to the topic of taxes in the section on investing in real estate.

Well spent...

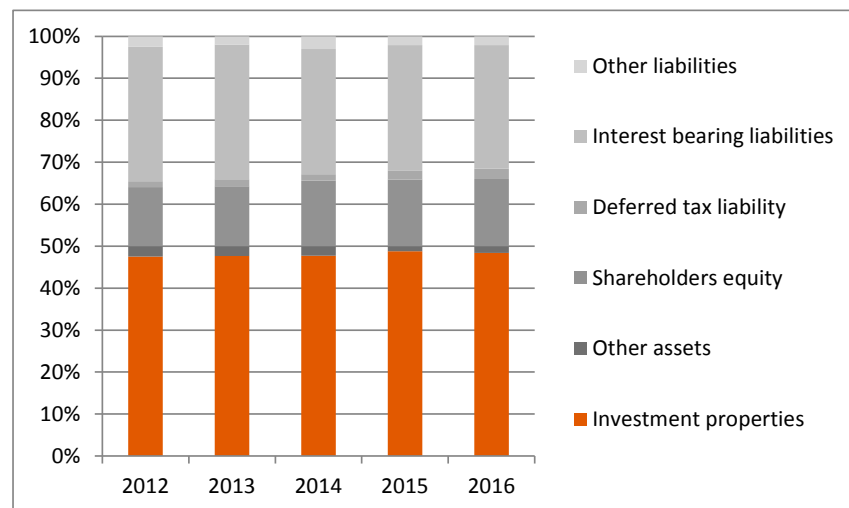
The ROI from "investments" can further in a way be seen as remarkable. Investments that amount to SEK 356m, or 1.2% of the revenues, can be seen as generating a return of SEK 1,708m, or 4.3% of the much larger investment property figure. If we simply divide the two numbers, it's a ROI of 480%.

...maintenance capes

This is obviously not the full story. The investments that are to be seen as a maintenance capex is a prerequisite to qualify to participate in the revaluation that takes place for properties over time. However, without the capex the properties would over time decay and lose all their value.

**Picture 8.57. Schematic Development Klöver's Balance Sheet Last 5 Years**

Few important components



Source: Klöver Annual Report 2016

Balance sheet

We move on to the balance sheet. It is dominated by relatively few line items; investment properties, shareholder's equity, deferred tax liabilities and interest bearing liabilities. Out of total assets in 2016 investment properties accounted for 97%. Out of all liabilities 93% was interest bearing debt.

Again, as the industry is capital heavy the balance sheet is large compared to the income statement and the ROA is 6% - or 3% if only dividing the untaxed IFPM by the average assets.

Investment properties grew from SEK 35b to SEK 39b

We have put frames around the important 2016 line items starting with the SEK 39,234m of investment properties (2.) Compared to the prior year prior the investment properties increased in value by SEK 4,202m. One part of this is the already discussed unrealized value changes of SEK 1,709m (i. in the income statement). Then there are the non-organic changes to the portfolio. Klöver acquired properties valued to SEK 1,484m; through investments in development projects they created property values of SEK 1,626m and they sold properties for SEK 617m.

Adjusted equity ratio of 39%

A shareholders' equity of SEK 12,999m (16.) gives a 2016 equity ratio of 32%. Klöver looks to an adjusted equity ratio that is adjusted for a portion of the deferred tax assets, derivative positions and goodwill. The adjusted equity ratio was 37%. Out of shareholders' equity 14% is share capital (13.), 37% other capital contributed (14.) and 49% retained profits (15.). Looking to the share capital there are 74.4 million shares of series A, 837.6 million shares of series B and 16.4 million preference shares.

**Picture 8.58. Consolidated Balance Sheet Klöver**

Outgoing balance for total assets are 14x annual income

Amount in SEK million	2016	2015
<b>ASSETS</b>		
<b>Non-current assets</b>		
Goodwill	1. 233	233
Investment properties	2. 39,234	35,032
Machinery and equipment	3. 18	12
Financial assets valued at fair value via the income statement	4. 99	112
Other long-term receivables	5. 345	1
<b>Total non-current assets</b>	<b>6. 39,929</b>	<b>35,390</b>
<b>Current assets</b>		
Accounts receivable	7. 52	42
Other receivables	8. 183	234
Prepaid expenses and accrued income	9. 234	205
Liquid funds	10. 129	12
<b>Total current assets</b>	<b>11. 598</b>	<b>493</b>
<b>TOTAL ASSETS</b>	<b>12. 40,527</b>	<b>35,883</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>		
<b>Equity</b>		
Share capital	13. 1,865	1,865
Other capital contributed	14. 4,786	4,786
Retained profits including net profit for the year	15. 6,348	4,739
<b>Shareholders equity attribute to parent company's shareholders</b>	<b>16. 12,999</b>	<b>11,390</b>
<b>Long-term liabilities</b>		
Deferred tax liability	17. 1,978	1,503
Interest bearing liabilities	18. 17,904	17,915
Other liabilities	19. 5	5
Derivatives	20. 482	467
<b>Total long-term liabilities</b>	<b>21. 20,369</b>	<b>19,890</b>
<b>Current liabilities</b>		
Interest bearing liabilities	22. 5,965	3,571
Accounts payable	23. 259	250
Income tax liability	24. 11	11
Other liabilities	25. 235	172
Accrued expenses and prepaid income	26. 689	599
<b>Total current liabilities</b>	<b>27. 7,159</b>	<b>4,603</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>	<b>28. 40,527</b>	<b>35,883</b>

Source: Klöver Annual Report 2016

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Interest free loan	Deferred tax liabilities (17.) relates to taxes that a company is supposed to pay in the future due transactions that has already taken place. In this case it obviously mainly relates to the revaluation of investment properties that is supposed to be realized when the properties are sold in the future. In a way the deferred tax liabilities of SEK 1,978m can be seen as an interest free loan from the government.
Interest bearing loans	The long-term interest bearing liabilities (18.) and the current interest bearing liabilities (22.) of a combined SEK 23,869m clearly dominates the liabilities. We will look further to the financing side of the real estate sector in the next segment. For Klöver specifically the interest bearing debt over 5 years has gone down from 64% of the total shareholders' equity and liabilities to 59%.
LTV – Loan-to-Value	<p>The leverage ratio, or loan-to-value (LTV), provides a snapshot of the financial strength of a company at the balance sheet date. It measures the interest bearing debt (18. + 22. in the balance sheet) minus liquid funds (10.), i.e. net debt, divided by the investment properties (2.).</p> <p>For Klöver at the end of 2016 the LTV was <math>((17,904+5,965-129)/39,234) = 60\%</math>. The measure is best used in combination with for example an interest-coverage ratio since some properties may be non-earning as they are vacant or under redevelopment etc.</p>
Cash flow statement	The cash flow statement of a real estate company like Klöver ignores the non-cash profits from the revaluation of properties and is as such very different from the income statement. The operating surplus (I.) of SEK 1,891m equals line (c.) in the income statement and the operational cash flow before changes in working capital (VII.) is roughly equivalent to the IFPM (g.) in the income statement.
Poor "cash conversion"	Apart from the small changes in working capital that is all the operational cash flow there is. The cash flow from current operations (XI.) of SEK 1,336m is as such relatively small (59%) compared to the net profit (p.) of SEK 2,259m that includes the property revaluation part.



**Picture 8.59. Consolidated Statement of Cash Flow Klövern**

Amount in SEK million		2016	2015
<b>Current operations</b>			
Operating surplus	I.	1,891	1,766
Central administration	II.	-100	-92
Reversal of depreciation	III.	5	4
Interest received	IV.	2	2
Interest paid	V.	-502	-520
Income tax paid	VI.	-26	-2
<b>Cash flow from current operations before changes in working capital</b>	VII.	<b>1,270</b>	<b>1,158</b>
Change in operating receivables	VIII.	12	-70
Change in operating liabilities	IX.	54	-190
<b>Total change in working capital</b>	X.	<b>66</b>	<b>-260</b>
<b>Cash flow from current operations</b>	XI.	<b>1,336</b>	<b>898</b>
<b>Investment operations</b>			
Divestment of properties	XII.	465	411
Acquisition of and investment in properties	XIII.	-3,118	-4,118
Acquisition of machinery and equipment	XIV.	-10	-4
Increase in financial non-current assets	XV.	-200	-94
Decrease in financial non-current assets	XVI.	11	772
<b>Cash flow from investment operations</b>	XVII.	<b>-2,852</b>	<b>-3,033</b>
<b>Financing operations</b>			
Loans raised	XVIII.	7,919	11,638
Amortization	XIX.	-5,537	-9,022
Realized changes in value, derivatives	XX.	-99	-151
Dividend	XXI.	-650	-604
<b>Cash flow from financing operations</b>	XXII.	<b>1,633</b>	<b>1,861</b>
<b>Total cash flow</b>	XXIII.	<b>117</b>	<b>-274</b>
<b>Liquid funds at beginning of year</b>	XXIV.	<b>12</b>	<b>286</b>
<b>Liquid funds at year-end</b>	XXV.	<b>129</b>	<b>12</b>

Source: Klövern Annual Report 2016

As most real estate companies Klövern was active in the transaction market during 2016 and sold properties (XII.) for SEK 465m. Out of the line acquisition and investment in properties (XIII.) about half of the sum came from acquisitions and half from investments in internal development projects.

With the large volume of interest bearing loans on the balance sheet the turnover in these loans also involves rather large sums. A total of SEK 7,919m of new loans were raised and SEK 5,537m were paid back. After paying SEK 650m in dividends, the cash flow from operations (XI.), plus the cash flow from investments (XVII.), plus the cash flow from financing (XXIII.) sums to a total cash flow of SEK 117m for the year. Combined with SEK 12m of cash at the start of the year this gave SEK 129m of cash in the end of 2016.

## 8.8 Financing

Real estate is a capital-intensive industry and it is important for companies to have access to a variety of capital sources to be able to fund investments in the business as cheaply and securely as possible. The loan book of a company should ideally be diversified both with regards to the sources of financing and to the maturities of the debt.

The largest sums are in the financing operations and then the investment operations. Then comes the smallest part – the current operations

Substantial developments

The capital structure of a typical Swedish real estate company is made up of a number of components in size order:

Capital structure: bank loans > equity > fixed income instruments > preference shares

- Bank loans is the largest source of financing
- Equity financing both through share issues and retained earnings is the second largest
- Bonds and other fixed income instruments are a growing part of the financing
- Issuance of preference shares supplies the remainder

In Klöver's Finance strategy below we see how they complement bank loans with other types of lending and how ordinary shares are complemented with preference shares. Further they aim to lower the refinancing risk by lending from a range of creditors over a range of maturities.

**Picture 8.60. Strategy (left) & Goals (right) 2017, Klöver**

No LTV limit but an adjusted equity goal

FINANCE		
	> Equity shall consist of both ordinary and preference shares.	> Return on equity shall in the long term amount to the risk-free rate plus at least 10 per cent.
	> There shall be two classes of ordinary shares, A and B.	> The dividend to the shareholders shall in the long term amount to at least 50 per cent of the profit from property management.
	> The interest rate risk shall be limited by hedging a certain share of the credit portfolio.	> The dividend to preference shareholders shall in the long term not exceed 30 per cent of the profit from property management
	> The refinancing risk should be limited by a spread of credit maturities and creditors.	> The equity ratio shall in the long term be 40 per cent.
	> Bank borrowing should be complemented by alternative forms of finance.	> The interest coverage ratio shall be at least 2.0.
		> The period of tied-up capital shall be at least 2.0 years.
		> The period of fixed interest shall be at least 2.0 years.

Source: Klöver Annual Report 2016

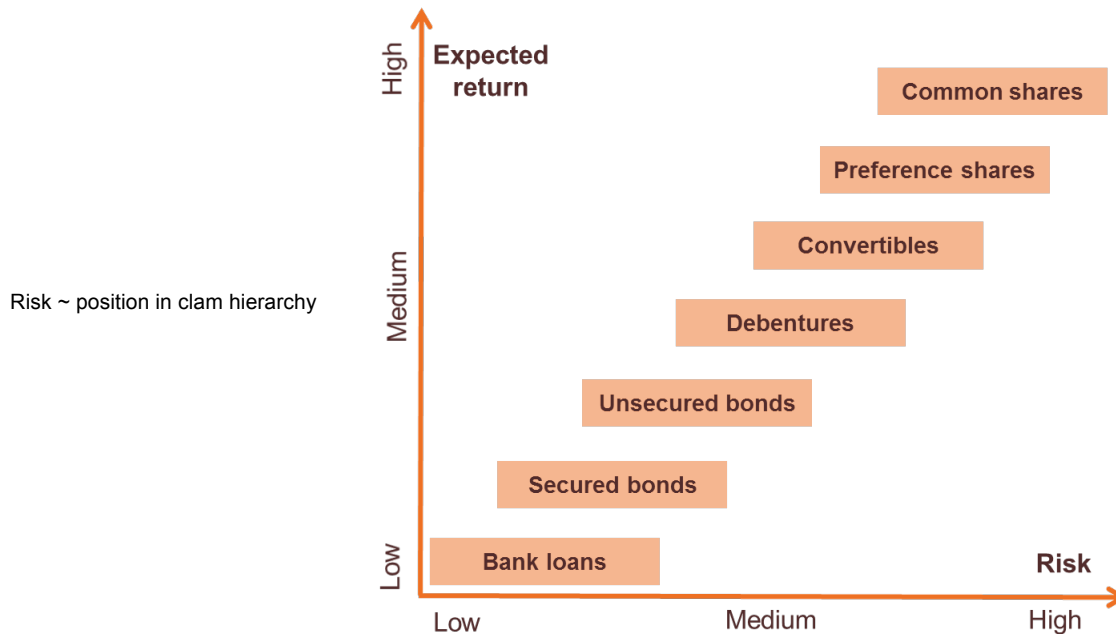
Out of Klöver's end of 2016 SEK 23.9b in interest bearing liabilities 69% were bank loans, 18% unsecured bonds, 10% commercial paper and 3% secured bonds. The loan portfolio was distributed over 9 banks while 3 banks aided the company in the issuance of bonds and commercial paper.

Maturity transformation

It could be argued that real estate companies like banks earn some of their income from a type of maturity transformation. They lend on shorter maturities at lower interest rates and use the funds to invest in properties that often are let on much longer maturities at higher yields.

As noted above different times come with different costs and access to funding. Various sources of financing also come with higher or lower cost and risk. The picture below tries to illustrate this risk/reward relation and we touch briefly on the various components in the text thereafter.

Picture 8.61. Risk/Reward of Capital Sources



Source: The author

Collateral for bank loans

Properties are normally used as collateral for bank loans. To withstand price declines the value of the provided collateral is also higher than the lent sum, making bank loans low risk. The LTV is usually kept between 40-60% and Klövern in 2016 had an average LTV on underlying properties of 44%. Generally real estate companies also have covenants placed on them, which restrict debt levels. Covenants can originate both from the many lending banks and in relation to issuance of fixed income securities.

Covenants

Standard US REIT covenants include a maximum of 60% leverage, no more than 40% of assets comprised of secured debt, a minimum of 1.5x fixed charge coverage and unencumbered assets of at least 150% of unsecured debt. Klövern's covenants are an equity ratio of at least 20-25%, an interest coverage ratio of at least 1.25-1.5 and a leverage of no higher than 50-75%. Klövern met all requirements by some margin at the end of 2016.

Bonds

Secured bonds are backed by some collateral while unsecured bonds are not. Despite being more expensive due to the lower priority in a liquidation situation the absolute majority of the bonds issued in Sweden are unsecured. About 13% of issued bonds in 2016 had some form of collateral. Unsecured debt comes with the advantage of being flexible and possible to adjust on short notice. Further, some 75-80% of the issued bond volume can be deemed investment grade and the rest high yield.

Short term securities

Debentures and commercial paper are unsecured fixed income securities as above but with a maturity at issuance of below one year. Short term unsecured fixed income securities are often used to finance acquisitions and the debt will then be rolled into something more permanent later on. In sum, from being a very limited phenomena prior to the GFC fixed income securities have been a growing part of the financing of European real estate companies and now account for some 15%.

Pricing

Fixed income securities are at issuance generally priced with a spread on top of a base rate as LIBOR in the UK or Stibor in Stockholm. The spread will depend on the company's operations, the financial risk of the company, the position of the bond in the claims hierarchy in case of liquidation, the maturity of the bonds that can range from months to a decade or more and other conditions of the specific security issuance.

Credit rating

If the real estate companies decide to pay for the service, rating agencies such as Fitch, Moody's and S&P rate their loans based on multiple criteria including debt coverage ratios, fixed cost coverage ratios, company size, diversity of portfolio, management capabilities and much more. These ratings then become one important input in the cost of financing for the debt of the real estate companies.

Out of the shadows

Prior to 2017 banks used to issue shadow ratings but after regulatory intervention this has been largely ended, possibly leading to more real estate companies that sign on for the rating agencies services.

**Picture 8.62. Cool buildings: Bodegas Ysios, Spain**

Like two sets of mountain tops



Source: [businessinsider.com](http://businessinsider.com)

Convertibles

Convertible bonds and preference shares both have a character of being hybrid instruments with bond features and equity features. A convertible is a bond that can be converted to a specified number of shares if the share price reaches a specific level during a pre-determined period. Holding a convertible is often seen as owning a combination of a bond and an equity buy option.

Preference shares

Preference shares have become increasingly common in the Swedish property sector. Preference shares give an ownership in the company and are seen as equity from an accounting perspective. Hence, the credit metrics of the company is strengthened when issuing preference shares. The voting rights are usually less than for common shares while the preference shares instead offer a pre-specified dividend that takes precedence over any dividend to holders of common shares.

Adding mandatory payments

The holder of a preference share also has a claim of a specified amount in case of liquidation of the company. This claim is higher than those of holders of common stock but lower than the claims of bond holders. Similarly to the interest payments for debt the fixed dividend payments to preference shareholders add to the mandatory payments of the company but in contrast to interest payments the dividend payments are made with taxed corporate profits.

Redemptions

Like all shares preference shares are perpetual but they can be redeemed at a specified price if so decided by 90% of the votes from both common shareholders and preference shareholders at a company general meeting. The redemption premium is decided at the time of the issuance of the preference shares.

Changing shape

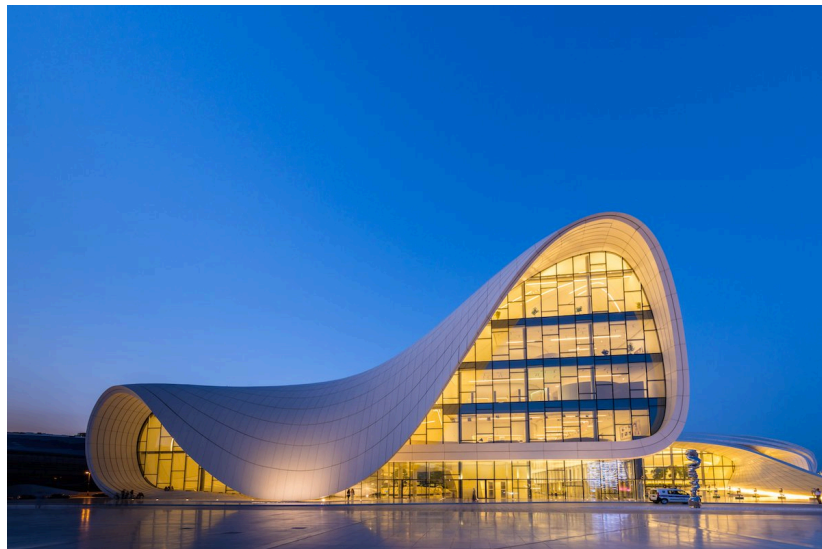
Even though preference shares are seen as equity by the accountants their hybrid character has meant that the rating agencies have set limits for what they allow in terms of preference shares as a part of the financing mix. S&P has for example a rather binary rule that states that as long as preference shares are below 15% of the combined market capitalization of debt and equity they fully count as equity and above 15% they fully count as debt.

OP-units

Common shares in the real estate sector are no different from other sectors. In the US some REITs have so-called operating partnership (OP) units that have been issued in exchange for properties. The OP units receive dividends, have voting rights and are exchangeable into common stock. The OP units allow the seller of properties to postpone tax until he converts the units into common shares.

**Picture 8.63. Cool buildings: Aliyev Center, Azerbaijan**

Concert hall and exhibition center



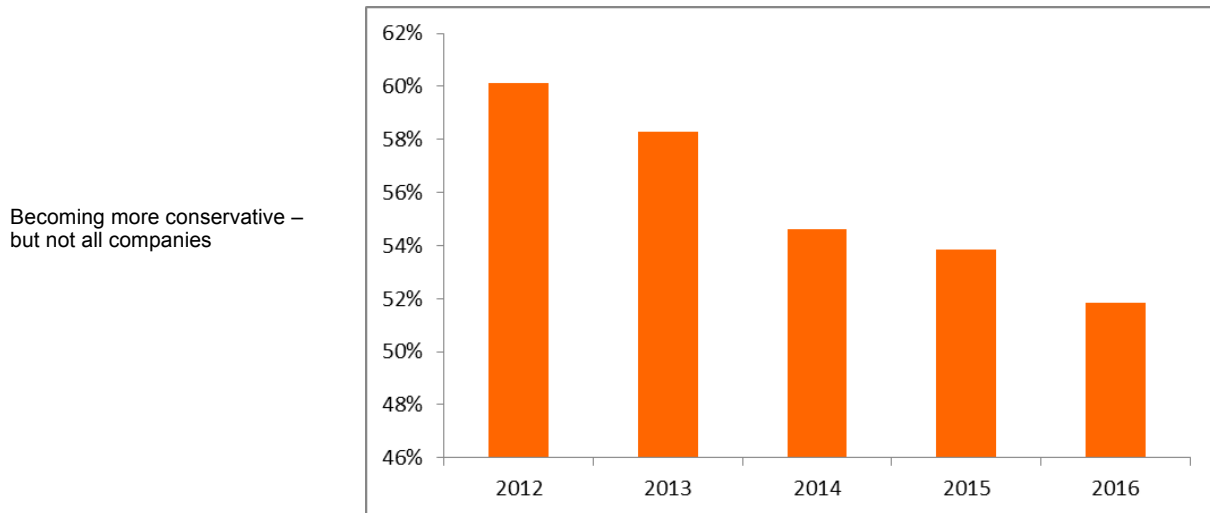
Source: [businessinsider.com](http://businessinsider.com)

Long contracts – higher leverage

Swedish real estate companies operate with a LTV of 50-60%, while the average leverage internationally is a more conservative 40%. There is a tradeoff between the LTV-ratio and the length of the rental agreements. With long contracts to good yields the gearing can be higher.

Over the last decades the balance sheets of real estate companies both in Sweden and internationally have become more significantly conservative. However, we want to point out that there is a fair spread between different companies.

Picture 8.64. LTV of Listed Swedish Real Estate Companies



Source: Company Annual Reports

Becoming more conservative – but not all companies

Leverage - an example

We want to take a moment to describe the effects of leverage over time. Say that you have SEK 30m to invest in properties. These properties yield 4% per year and that is parked in cash until used and the properties in the example also increase 2% in value per year. If you are a very aggressive investor you choose to invest with a LTV of 70% and on top of the SEK 30m you raise another SEK 70m to buy properties for in the beginning of year 1.

Picture 8.65. Effects of Leverage, 70% LTV, Bull Market

	IB Year 1	Year 1	Year 2	Year 3	Year 3
Properties	100	102	104	106	161
Cash	-	4	8	12	-
Equity	30	36	42	48	48
Loans	70	70	70	70	113
LTV	70%	69%	67%	66%	70%

Source: The author

LTV declining

If we in the example don't amortize the debt the first 3 years and unrealistically don't factor in any interest payments, we end up with properties worth SEK 106m, cash of SEK 12m, equity of SEK 48m and loans of SEK 70m. Notice however how the LTV has declined since the value of the properties has gone up but the loan value has been constant.

Releveraging

Now, if we in the end of year 3 first use our available cash and then borrow another SEK 43m to buy new properties for SEK 55m we will again reach a LTV of 70%. With the initial investment of SEK 30m, properties valued at SEK 161m is owned and the CAGR in equity has been 27%. The investor is a hero.

The conservative case

If you instead are a very conservative investor you chose to invest with a LTV of 30% and on top of the SEK 30m you raise another SEK 13m to buy properties for in the beginning of year 1.

**Picture 8.66. Effects of Leverage, 30% LTV, Bull Market**

	IB Year 1	Year 1	Year 2	Year 3	Year 3	
LTV 30% and tailwind	Properties	43	44	45	45	54
	Cash	-	2	3	5	-
	Equity	30	33	35	38	38
	Loans	13	13	13	13	16
	LTV	30%	29%	29%	28%	30%

Source: The author

After the first 3 years we end up with properties worth SEK 45m, cash of SEK 5m, equity of SEK 38m and loans of SEK 13m. Notice again how the LTV has declined for the same reasons as above.

Good but not great

Again, if we in year 3 first use our available cash and then borrow another SEK 3m to buy new properties for SEK 9m we will again reach a LTV of 30%. With the initial investment of SEK 30m, properties valued at SEK 54m is owned and the CAGR in equity has been 12%. Not at all bad but not as strong as in the first case.

Things heading south

Obviously leverage brings risk as well as opportunity. If we instead of the very pedestrian and stable appreciation of property values factor in a brutal price fall of 50% in year 3 the aggressive investor will have a LTV of 135% and the equity will be under water. If he cannot add substantial new amounts of fresh cash he will go bankrupt and the banks will try to recover what they can of their money by selling the properties.

**Picture 8.67. Effects of Leverage, 70% LTV, Bear Market**

	IB Year 1	Year 1	Year 2	Year 3	
LTV 70% and headwind	Properties	100	102	104	52
	Cash	-	4	8	12
	Equity	30	36	42	(6)
	Loans	70	70	70	70
	LTV	70%	69%	67%	135%

Source: The author

The conservative investor isn't happy since his equity has halved but the LTV is still only 58% and he will probably be allowed to live to see another day and rebuild the equity in a coming bull market.

Unhappy but coping

**Picture 8.68. Effects of Leverage, 30% LTV, Bear Market**

	IB Year 1	Year 1	Year 2	Year 3	
LTV 30% and headwind	Properties	43	44	45	22
	Cash	-	2	3	5
	Equity	30	33	35	15
	Loans	13	13	13	13
	LTV	30%	29%	29%	58%

Source: The author

Large falls in property values aren't the only financial risk factor. We have mentioned the importance of spreading bonds over varying maturities. The risk is otherwise that the company will have difficulties in rolling over a too large amount of its bond financing if they all mature at the same time and that moment happens to be one of turmoil in the capital markets.

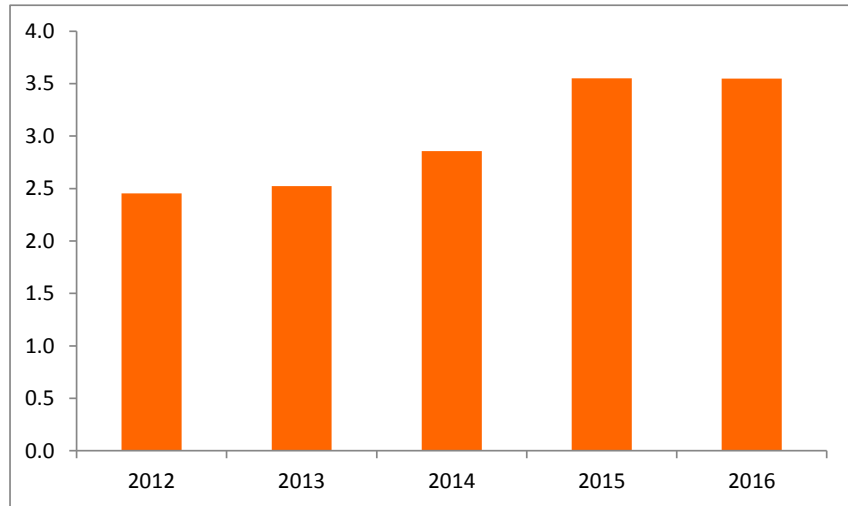
Roll risk

Interest rate risk

Further, with interest costs being such a large cost component, real estate companies are naturally vulnerable for interest rate increases and generally hedge that risk by rolling interest rate swaps that smooth out any interest rate changes. Hence, in the above table showing Klöver's finance strategy and goals it said "The interest rate risk shall be limited by hedging a certain share of the credit portfolio".

Picture 8.69. Interest Coverage Ratio, Listed Swedish Companies

Interest coverage ratio = often EBIT/interest costs

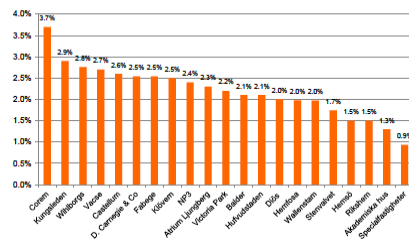


Source: Company Annual Reports

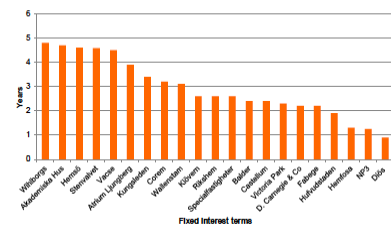
Interest coverage ratios can change quickly if interest rates rise

So far however the trend has been the opposite – interest rates are going down. With declining interest rates and rising profitability the average interest coverage ratio of the Swedish listed real estate companies shown above has risen from 2.45 to 3.55 over the last five years. Still, even without interest rates rising high leverage makes a company more vulnerable to sudden cost increases or revenue shortfalls due to vacancies.

Picture 8.70. Average Interest Rates, 2016



Picture 8.71. Fixed Interest Terms, 2016



Source: Company Annual Reports

### 8.9 Valuation

Discussing

- Multiples
- Yield gap
- DCF

Please note that the market pricing of properties also was discussed in the above market section; so kindly take the time to revisit that text as well. In this section we will first look to sector specific valuation multiples, then we will discuss what is often called the yield gap and finish with a discussion on cash flow valuations in the real estate sector.



Picture 8.72. Cool buildings: CCTV Headquarters, China



And the CCTV Oriental Pearl Radio and TV tower in Shanghai is a pretty cool building as well

Source: [businessinsider.com](http://businessinsider.com)

### Multiples

Not only are many of the valuation multiples in real estate specific for the industry, the multiples also differ in name and details but no so much in logic, depending on which side of the Atlantic you're on. We will present the following:

- Price/FFO and Price/AFFO
- P/CE
- P/NAV
- Cap Rate
- Yield

Mainly US: P/FFO, P/AFFO and cap rate

Mainly Europe: P/CE, P/NAV and yield

US GAAP – no unrealized revaluations

Apart from these ratios investors also look at PE-ratios, dividend yields or distribution yields, price/sqm and much more. Remember that US GAAP does not allow the recognition of the unrealized revaluation of property values and depreciates the property values. The revaluations are instead recognized when properties are sold.

FFO – Funds From Operations  
AFFO – Adjusted dito

We start with P/FFO and P/AFFO where “P” simply is the market capitalization of the listed company. Funds from operations (FFO) and adjusted funds from operations (AFFO) are the most common US concepts when valuing REITs.

NAREIT – National Association of Real Estate Investment Trusts

Both measures try to separate out what the market is willing to pay in relation to the operational business result of the company, i.e. what Europeans call income from property management. While FFO is standardized and defined by NAREIT (National Association of Real Estate Investment Trusts, the US industry body), AFFO is not.

EPRA – European Public Real Estate Association

FFO is pretty much net income excluding capital gains from sales of properties and adding back amortization plus depreciation on properties. The measure is as such parallel to EPRA's (European Public Real Estate Association, the European industry body) underlying earnings measure, but also relatively similar to the IFPM for European companies. The reason for adding back A&D is that properties generally appreciate, not depreciate, in value over time.

Operational PE

AFFO is FFO minus the maintenance capex and investments to keep the current quality of the properties and minus any non-recurring items. Hence, AFFO tries to show the underlying profit from the property management less what is spent for generating the capital appreciation of the properties. P/FFO and P/AFFO could be said to represent something similar to operational PE-ratios. Further, AFFO divided by dividends is called the AFFO coverage ratio, a type of inverted payout ratio.

Price-to-Cash Earnings

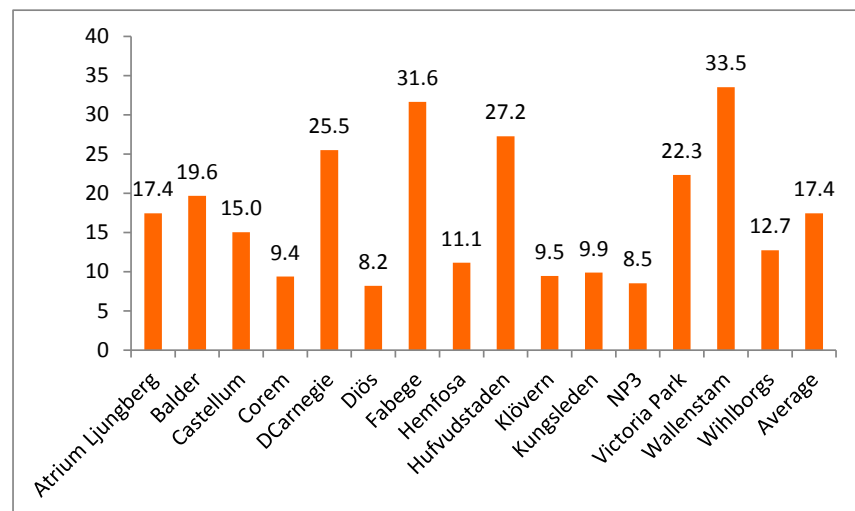
The ratio P/CE is often used by us and we exemplify the calculation of the ratio using the 2016 numbers from Klöver. Cash earnings per share are the profit from property management (g. in the above income statement) of SEK 1,180m, minus dividends to preference shareholders of SEK 328m, minus current tax (n.) of SEK 24m, divided by the total number of common shares (916 million). The CEPS was 0.90 SEK and with a share price of 9.50 for shares of class A, the 2016 P/CF is 10.5.

Preference share dividends  
~interest payment

The fact that Klöver has preference shares gave rise to some adjustments but in essence the P/CE compares the market pricing to a post-tax IFPM. The dividends to preference shareholders is seen as a type of interest payment so it is deducted but then the preference shares are excluded from the share count as well. P/CE is as such not so very different from the US P/FFO and P/AFFO.

**Picture 8.73. P/CE 2017e, Swedish Listed Companies**

Diös lowest



Source: Company Annual Reports

NAV – Net Asset Value

We now turn to P/NAV and P/NNNAV (pronounced “triple net NAV”) that are measures parallel to P/Book ratios in traditional companies. P/Book is not relevant when it comes to US real estate companies since property revaluations aren't recognized in the balance sheet and under IFRS it is optional.

Mark-to-mark book value

Investors in real estate instead look closely to the net asset value (the NAV) that the companies report and try to forecast the future NAV development. NAV should reflect the fair market value of a firm's assets (i.e. mainly the properties but potentially also some development projects) minus the liabilities (i.e. mainly interest bearing debt), i.e. a mark-to-mark book value. Companies with a higher expected NAV growth will generally trade at a higher multiple than those with lower and the multiple also tends to be pro-cyclical so that companies are valued at a premium to the NAV in the latter part of the upcycle.

Ignores management

Depending of the type of NAV-ratio used the concept either looks to what the holders of common shares would receive if the company was liquidated today or what the properties are worth in a going concern. The downside of looking to NAV is that the measurement doesn't account for the corporate framing, i.e. the quality of management, the aggressiveness of the financing etc.

EPRA NAV

Swedbank calculates two types of NAV measures, EPRA NAV and EPRA NNNAV and again we will exemplify using Klöver's 2016 figures. The EPRA NAV is meant to reflect the fair value of net assets on an ongoing, long-term basis.

The 2016 EPRA NAV for Klöver is made up of the shareholders equity (16. in the balance sheet) of SEK 12,999m, minus the market value of the preference shares (simply the number of outstanding shares times the preference share price) of SEK 4,847m, plus the deferred tax (17.) of SEK 1,978m, plus the deficit in value of derivatives (20.) of SEK 482m. The 2016 EPRA NAV then sums to SEK 10,609m.

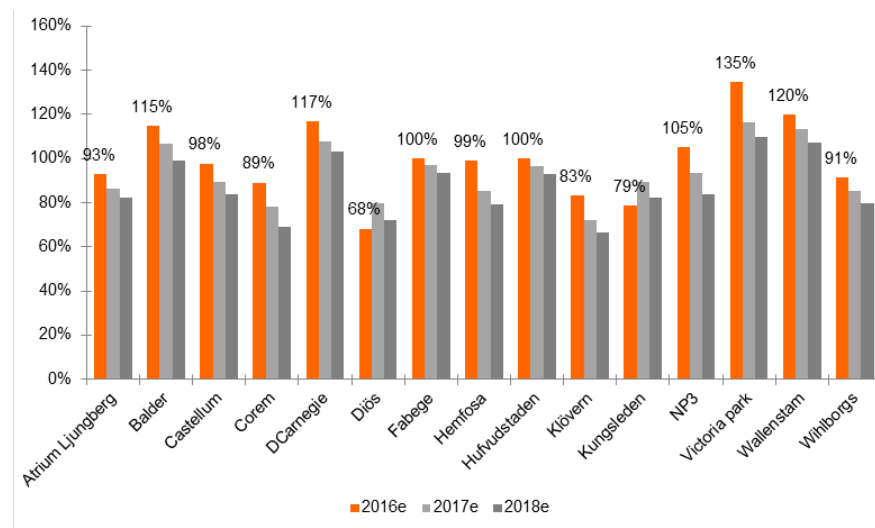
Again preference shares are not seen as being part of the equity and are therefore excluded. However, the financing through deferred tax is seen as so long term that it can be included in the permanent financing with the shareholders' equity.

Swaps will result in higher or lower interest payments than otherwise

The derivatives liability is according to EPRA's guidelines excluded since normally derivatives are held to maturity and so the theoretical gains or losses at the balance sheet date will never be realized. If joint ventures are not included at market value in a company's equity the estimated excess value is added to the EPRA NAV-number.

Differences in P/NAV reflects expectations on NAV-growth

**Picture 8.74. P/EPRA NAV Swedish Listed Companies, 2016-2018e**



Source: Company Annual Reports

EPRA NNAV

EPRA NNAV is more of a spot value of the net assets at the reporting date and some refer to the measure as the “liquidation NAV”. The 2016 EPRA NAV for Klövern is again made up of the shareholders’ equity (16.) of SEK 12,999m, minus the market value of the preference shares of SEK 4,847m, plus a deferred tax that is adjusted for to mirror a tax rate that is expected to be paid instead of the official tax rate used in the accounting (17%/22% \* SEK 1,978m) of SEK 1,528m, plus the total expected coming dividend of SEK 366m. It sums up to an EPRA NNAV of SEK 10,044m.

The dividend is added back since at the balance sheet day it hasn’t been paid out and while the deficit in the value of derivatives isn’t included since liquidating them at the balance sheet day they would indeed incur the cost they are booked at. Usually the NNAV are a few percent smaller than the NAV.

**Picture 8.75. Cool buildings: Guangzhou Circle, China**



Source: [businessinsider.com](http://businessinsider.com)

What will it take to get it rolling?

US analysts have to estimate property values themselves

Calculating NAV under the IFRS accounting regime is relatively easy since the book value includes the market based value of properties and then the analyst simply has to do some adjustments. It is a messier affair under the US GAAP accounting where the book value instead includes properties at a depreciated cost value and a number of assumptions has to be made that can vary between persons calculating the NAV.

Cap rate – see next side

Schematically the US top-down calculation is performed as follows; first the net income is divided by a cap rate (covered below) that reflects the pricing of properties in the transaction market and makes adjustments for the perceived quality of the company’s properties. The calculation gives an estimate of the current property values and to this the estimated value of development projects is added and the debt is deducted to reach a NAV.

NAV ~transaction value

The US calculation makes it very explicit that the NAV is tightly coupled with the current transaction values of properties. It is the same in Europe since the DCF valuation of the properties that goes into the book value of the investment properties uses a discount factor that we would claim broadly correlates to the transaction market's pricing of properties.

Reversal to the mean

The market capitalization of real estate companies over time circles around the NPV of the properties. Since NAV as such reflects the underlying trend for "P" the concept of looking at the P/NAV to some extent resembles judging if a stock is oversold or overbought using Bollinger bands in technical analysis. It is a type of short term arbitrage combining a potential reversal to the mean trend but also a potential change in the mean trend.

Cap rates & yields = inverted valuation multiples

We now arrive at the US concept of capitalization rates, or cap rates, and the European notion of yield. In their basic structure they are the same in that they divide some type of earnings number with some type of value to generate a percentage number, say a property's operating income by its purchase price. Hence, they are inverted valuation multiples.

Unfortunately there is a jungle of different ratios and their calculation varies between different analysts so checking the definitions becomes critical. The most important US cap rates are:

#### Cap rates

- Implied cap rate
- (Nominal) cap rate
- Economic cap rate

- **Implied cap rate:** the historic or estimated forward net operating income divided by the sum of equity market capitalization and the value of debt (sometimes less non-property assets). Note that the European equivalent to the NOI is approximately the post-tax IFPM. The implied cap rate reveals the current real estate returns required by the capital market.

- **Cap rate (often also called nominal cap rate, initial yield or all-risk yield):** the cash flow from a property during a first year of ownership (assuming it is fully let or not, assuming leverage or not) divided by the purchase price. The cap rate is a way to assess properties in relation to acquisitions and disposals.

- **Economic cap rate:** resembles cap rate but the maintenance capex has been deducted from the cash flow to single out the operational results as opposed to the expenditures needed to facilitate capital appreciation. Annoyingly some analysts who make this adjustment still simply call their measure cap rate.

Example

As an example a nominal cap rate of 8% means that the buyer of a property will receive 8\$ for each 100\$ invested and that he has paid an multiple of  $(1/0,08) = 12.5x$  for the property. Changes in differences between implied cap rate and the nominal cap rate are interesting to analyze as the gap mirrors the difference in valuation between the financial markets and the property transaction market.

Understand definitions

What Americans call cap rates Europeans call yield. Hence, a yield is an inverted valuation multiple. When yields go down they are said to be hardening or compressing and when they go up they are softening or expanding. Again the definitions vary between ratios so it is vital to understand the definition of the one used. We try to give a guided tour of the varieties:

Yield = (rents – property costs) /  
property value

- Yield: what is normally meant by simply yield or property yield is net income divided by the property value. Importantly, the income from rents is net of property management costs such as operating and maintenance costs, paid ground rent, insurance costs, property tax etc.

- EPRA Net Initial Yield: is EPRA's way of formalizing the above yield measure. The EPRA NIY is adjusted annualized rental income at the balance sheet day less non-recoverable property operating expenses, divided by the gross market value of the property. The rental income takes into account rental discounts at the balance sheet day but also adds the annualized effect of CPI adjustments and other rental increases in force at the balance sheet day.

- EPRA "topped-up" Net Initial Yield: is the same as the above measurement but without any deductions for rent free periods or temporary rental discounts.

Implied property yield ~EV/EBIT

- Implied property yield: is a fairly similar concept to the US implied cap rate but it is pre-tax. Rental income minus property management costs are divided by the sum of the equity market capitalization and the net debt. The measure shows the current real estate returns required by the capital market and resembles an inverted EV/EBIT measure (that disregards the value creation from property revaluations).

#### Yield gap

Given that money has a time value, future earnings should be discounted to determine their value today. The lower the discount rate used, the higher the current value of future earnings everything else alike. Some of the discount rate consists of the underlying risk free rate.

Yield gap – difference between  
yield and risk free interest rate

On top of this real estate analysts often look to what they call the yield gap measuring the difference between some measure of property yield and the yield on for example a 3 or 5-year government bond.

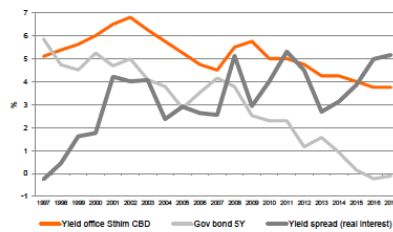
Reversal to the mean

If the gap is larger than what it has been historically this generally triggers a buy recommendation for real estate stocks as a reversal to the mean is expected. The convergence could obviously also happen due to interest rates increasing but this is seldom the focus as the current interest level is often seen as a fixed condition.

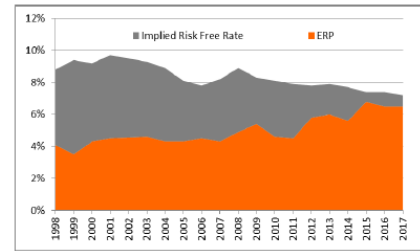
Non-linear relationship

We don't at all argue against that there should be a correlation between property values and the underlying interest rate level but we would still dare to propose that the correlation is non-linear and gets less strong the lower the government bond yield becomes. We have seen a very long trend of yield gap spreading as interest rates have approached zero. Hence calculating historical averages and expecting a convergence might not be fully sufficient.

Picture 8.76. Yield Gap (Real)



Picture 8.77. The Cost of Equity



Source: JLL, Riksbanken, SCB. Source: Price Waterhouse

Risk premiums are perhaps not independent of interest rate levels

The reason for this is in our view simple. Real estate like equities is a risk asset and investors require a return to take on that risk. The yield gap is to be seen as a real estate risk premium. This risk premium doesn't have to be static and unchanging in relation to the interest rate level. If the historical yield gap average for example is 2% and the current 5-year government bond yield is -2%, will investors then set a cost of capital of 0% when discounting real estate and in reality give each building an infinite value? - of course not.

Same trends in equities overall and in timber

Neither will equity investors, the non-linear character of the equity risk premium is quite visible in the survey performed by PriceWaterhouse. The lower the interest rate level has moved, the higher the demanded equity risk premium has become compensating for most, but not all, of the decline in the interest rates, keeping the cost of equity up. Exactly the same trend can incidentally be seen in the risk premium and cost of capital for timber assets.

Reversal to trend line?

At least for now, people want some type of payment for taking equity risk even if the central banks bomb interest rates into extinction and even if academics call investors irrational, suffering from 'money illusion'. We expect the same to apply for real estate investors. Hence, we would instead try to calculate a trend line for the yield gap and use this as the reference for any reversal to the mean calculations.

Picture 8.78. Cool buildings: St Mary Axe (the Gherkin), London, UK



Hosts a whole lot of offices and the pub The Slug and Lettuce

Source: luxatic.com

DCF

Cash flow doesn't tell the full story

In many sectors a discounted cash flow analysis is a valuable tool in estimating an absolute value for a company. This absolute valuation complements the relative multiple valuations that build on current market pricing. Looking at the cash flows in real estate it becomes obvious that the cash flow in a standard cash flow statement doesn't capture the value creation that comes from the revaluation of properties. If unrealized the revaluation is a non-cash item and if it's realized through a transaction it will be non-operating.

NAV indirectly includes price appreciation

Still the underlying property valuations that build up the NAV of a company are made up of DCFs for each building. So does the NAV underestimate the values of real estate companies? We would argue that they potentially might not, since the discount factor over time follows the yields generated in property transactions and these transactions also should factor in the value that over time is generated by capital appreciation. Still, it is a dangerous assumption to make that the transaction market always correctly prices future value creation – history shows clear signs of periods of over- and undervaluation.

A base...

How would we go about to construct a discounted cash flow model for real estate to get a second opinion? The cash flow of a real estate company is in effect rents minus maintenance costs, some overhead costs, interest rate costs and potentially some cash tax. This would clearly form the base of a DCF with a set of hopefully growing cash flows over time in a forecast period. This growth in cash flow will have to be forecasted over a forecast period.

...an addition

In our view it should be possible to add a second set of "cash flows" to the calculation. Over time property values appreciates with about 1% per year in real terms. If we add a nominal capital appreciation line to the cash flow forecasts (minus maintenance investments if not deducted in the maintenance costs) we should be able to catch the capital appreciation aspect of the real estate business. No, it does not reflect yearly cash flows but the appreciation will manifest itself in future cash flows when properties eventually are sold.

Where are we?

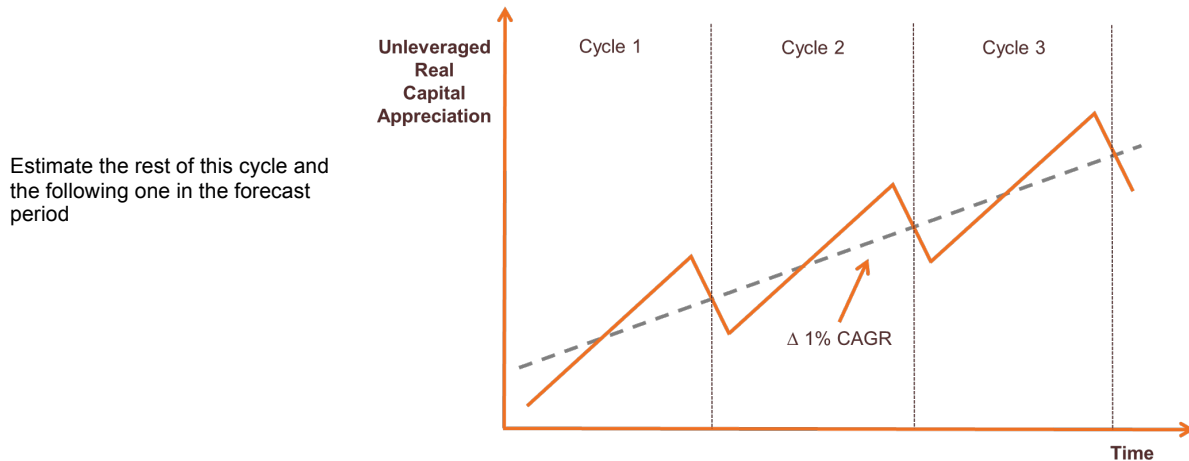
If this is done it is important to make a judgement on where in the real estate cycle we currently are. The 1% real capital appreciation is the underlying trend but on top of this there is a cyclical pattern and it is probably not correct to factor in 1% real growth during a for example 10 year forecast period from every point in the cycle.

Look to more than the current cycle

Our advice would be to try to estimate the shape of both current cycle and the next in the forecast period. For example, if we are halfway into cycle 2 below we let the forecast period span during the rest of cycle 2 and the full cycle 3 before using a terminal value. The reason is that if we only use a forecast period that ends after cycle 2, the DCF will not factor in any below-trend period.



Picture 8.79. Cycles in Capital Appreciation



Source: The author

WACC – Weighted Average Cost of Capital

The discount factor will have to be a CAPM-based WACC, not a yield, or else values will be double counted. Over time it is NAV creation that matters and P/NAV measures at least to some extent overlook the difference between companies in this ability. Compared to a P/NAV valuation a DCF like the one above could for example catch the internal NAV creating capability of companies like Victoria Park and D. Carnegie.

### 8.10 Investing in Real Estate

Perceived risk isn't always accurate

To be clear, we are here discussing listed real estate stocks, not private investments. We are further discussing investments both on longer and shorter timeframes.

As in any sector that is exposed to some sort of economic cycle the best time to invest is generally when times are bad but soon about to turn better. In good times when the stocks are approaching their peak risks are perceived as small since everything is working in favor of the companies and especially of those who buy properties at low yields and launch lavish construction projects using high amounts of leverage.

At some - in advance unknowable - point in time a turn in fortunes is triggered and the perceived low risk turned out to be high in reality. The eternal difficulty for more myopic investors is that trends can continue longer than one thinks and with a short investment horizon you might feel forced to ride the trend as long as it continues - and finally right over the edge.

"Buy when there's blood on the streets, even if the blood is your own" / Barron Rothschild

Instead the best time to invest is when distressed forced sellers are selling their properties at prices below the then depressed market prices. Bargains are now everywhere and no-one will construct competing space for a number of years since the perceived risk is high. The trick is to have the long-term vision, available financing and guts to invest at the right time.

Free projects

When the market is willing to take risk development projects are assigned a fairly high value. In troubled times land banks and projects are often valued very close to zero by the stock market. Hence, for the investor with a longer-term view it might be well worth to search for real estate companies with large project portfolios when the market is giving them away for free.

**Picture 8.80. Worth Zero?**



Eventually there should be some tenants

Source: [fyrprojects.co.uk](http://fyrprojects.co.uk)

An interest rate derivate?

A complicating factor is that real estate stocks are affected by secular economic trends as well as cyclical ones. An often discussed topic is how sensitive real estate stocks are to changes in interest rates; "Aren't real estate stocks just a derivate on the interest rate development?"

Interest rates up -> shares down?

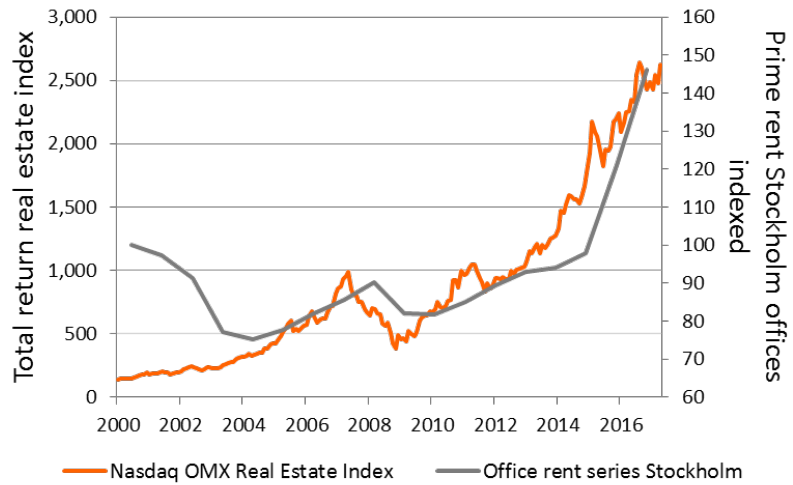
On the one hand the antagonist would argue that rising interest rates increase the cost of capital with which the properties of real estate companies are discounted and naturally the values then should go down. On top of this rising interest costs will lower the profits generated by the real estate companies.

Interest rates up -> shares up?

One the other hand the protagonist would argue that when interest rates go up this is mostly because the times are good and when times are good real estate companies can increase rents. Hence, the value of the properties should go up since their income generating ability has increased. From a pure ocular inspection the ability of rent increases to drive real estate stocks higher also looks impressive.

Picture 8.81. Rent Increases Drive Share Prices

Raise rents and see shares soar



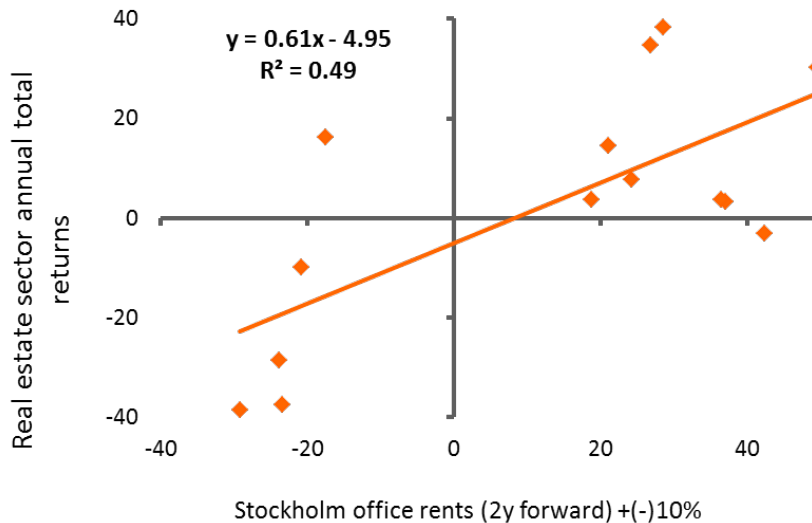
Source: Macrobond, FactSet

1 – 0 to the protagonist

If we further look at situations when office rents two years forward have moved +/- 10% this has given very clear return differences for real estate stocks. The statement that rents drive stock prices looks to be valid.

Picture 8.82. Rent Increases Drive Share Prices

Rent changes matter



Source: Macrobond, FactSet. Sweden 1990 - 2015

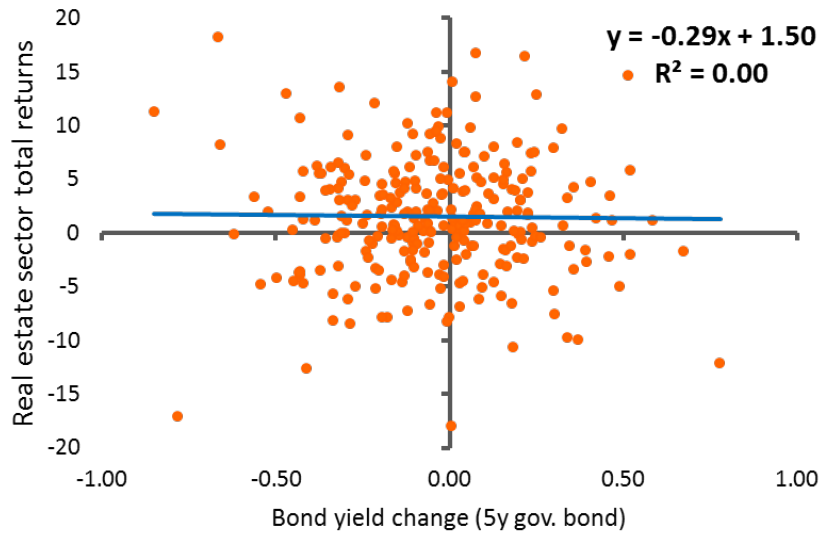
Very low absolute correlation

Now to the topic of interest rate sensitivity - even if this feels counterintuitive to many investors, looking to the historic correlation between absolute change in real estate stock prices and bond yield changes the relationship is very low.

This however isn't the full story. Correlations simply try to tell us how frequently two variables move in the same direction. It doesn't really tell us if there are any patterns in how much the two variables move at different times.

Picture 8.83. Share Price Change vs Bond Yield Change

Explains nothing



Source: Macrobond, FactSet. Monthly changes, Sweden 1995-2017

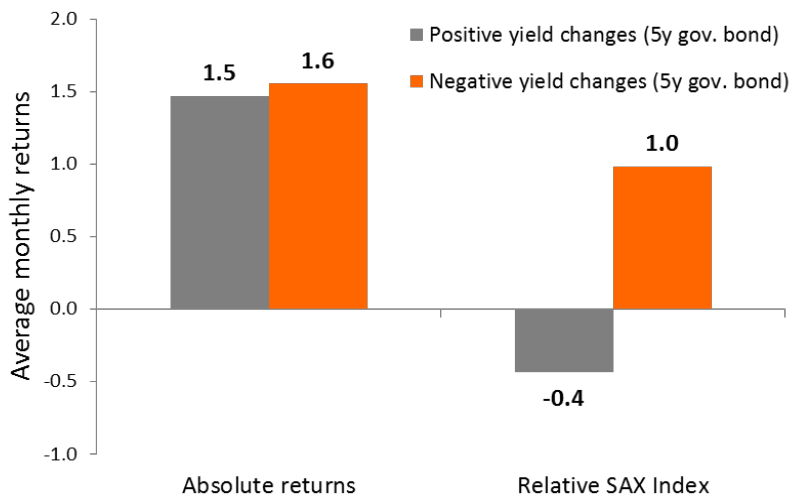
If we first look to relative share price performance compared to the index it instead becomes clear that the relative returns of real estate stocks are related to the interest rate environment.

Interest rates up -> shares down in relative terms

During months when bond yields for a 5 year government bond had declined real estate stocks have outperformed by 1% on a monthly basis. During months when bond yields instead have gone up real estate stocks have instead underperformed by 0.4%.

Picture 8.84. Absolute and Relative Returns Affected by Bond Yield Changes

Real estate stocks outperform when interest rates go down



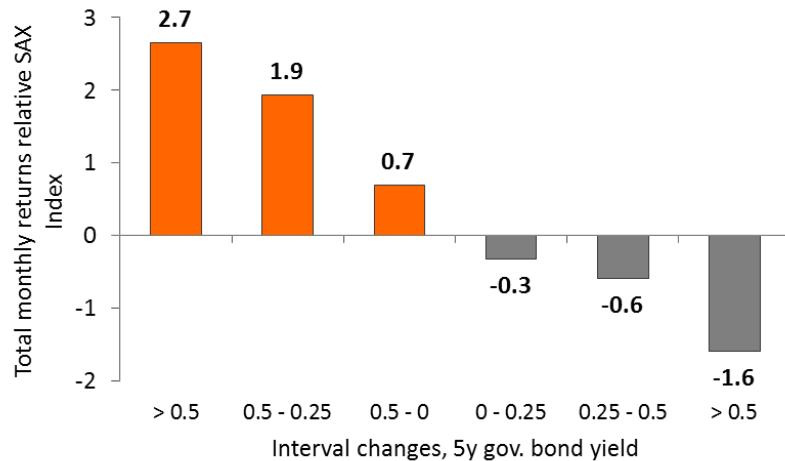
Source: Macrobond, FactSet., Monthly changes, Sweden 1995-2017

Interest rates matter more than rents for short-term relative returns

When differentiating between periods when the bond yields have moved by varying amounts the relationship becomes even clearer - the larger the change, the larger the relative performance differences. Even though rents are important in driving share prices, the relative performance for real estate stocks vs the index clearly looks to be negatively related to bond yield changes.

**Picture 8.85. Relative Returns Affected by Bond Yield Changes**

We expect that interest rates will stay low for some time



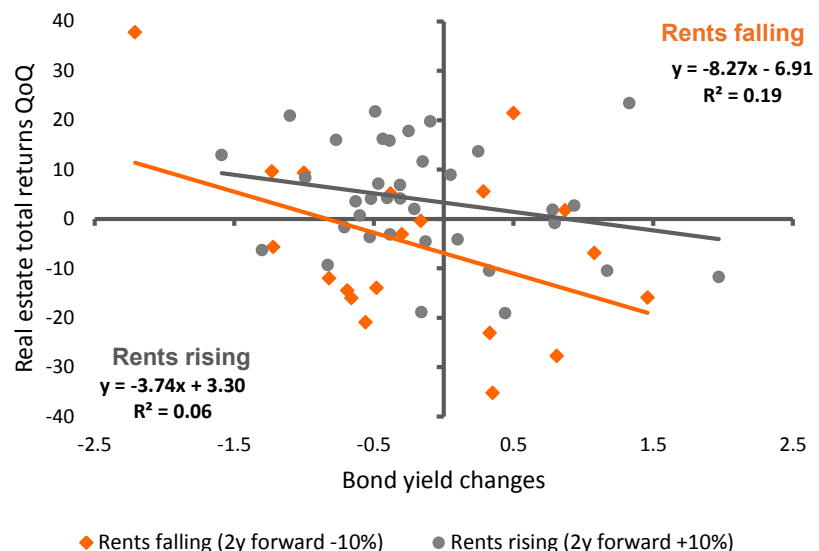
Source: Macrobond, FactSet, Monthly changes, Sweden 1995-2017

Now it is getting more complicated

An interesting additional topic is if interest rate changes affect real state stocks differently in periods a) when interest rates are rising and times are good so rents are also rising and b) when interest rates go up but rents instead are falling. The second case is less common but it would be wrong to assume that interest rates and rents always move in tandem.

**Picture 8.86. Some Difference Due to Rent Environment**

No super clear patterns



Source: Macrobond, FactSet, Quarterly changes only showing periods of large rent changes, Sweden 1995-2017

Rents down vs rents down

In the picture above we have separated out two datasets, where the first contains periods when rents have been falling by a large amount (orange dots) and the second when rents have risen by a large amount (gray). All other data is removed. Then we look to how bond yield changes affect absolute real estate share price returns for those two datasets.

Part of the difference is due to one outlier

The R-squared values are still low but yet somewhat higher during the period when rents are falling. Hence, during periods when rents are declining the negative effects of interest rate increases are more marked also with regards to the absolute returns of real estate stocks. However, with the low explanatory value it is clear that the relationships aren't fool proof. Hence, we don't dare to draw any firm conclusions from the above picture.

Both right?

Today we have a situation where the supremely low interest rate level at least to some extent is influenced by a global monetary policy that is out of synch with the economic growth in Sweden. Looking at the patterns above our conclusion is that the short-term relative returns of real estate stocks are clearly affected by interest rate movements. Over longer time horizons rents equally clearly drive real estate stocks and it is not easy to know what will trump the other during a period.

Yield gap cushion

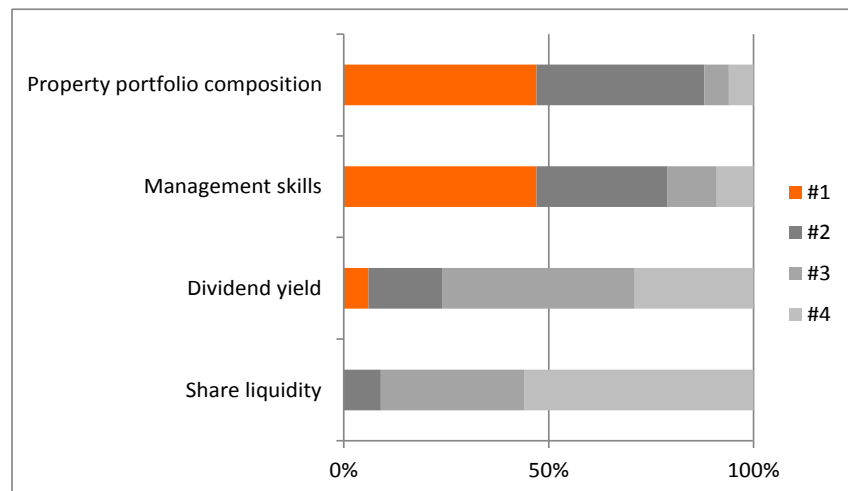
Our view is that interest rates will stay low for a relatively long period but if this would turn out to be wrong this could be negative for the sector's relative performance. The effect should however to some extent be cushioned by the fact that the yield gap is so large. If the shares didn't react fully to interest rates coming down they shouldn't be fully punished if interest rates go up.

Exposure and management

Now, if we instead of looking to the sector as a whole turn to the topic of choosing stocks. In the short term many real estate stocks move in tandem, meaning that for example the Swedish real estate index moves very much in synch with the European index, but over time differences between companies crystalize.

When asked about what they looked for when picking real estate stocks the two dominating factors among asset managers are the exposure of the property portfolio to various property segments and region plus the skill of the management team. We interpret the latter as an ability to build NAV over time.

**Picture 8.87. Most Important Factor for Asset Managers in Stock Selection**



Pretty clear dominance

Source: Leimdörfer 2014

Cyclical and secular trend exposure

Different segments are more or less cyclical but also exposed to varying secular trends and so should perform differently if this hasn't been priced correctly by the market. Many of the best stocks the last few years have had an exposure to the urbanization trend. Still, there are more to the composition of the portfolio and exposure should be complemented with a quality assessment.

Quality differences

Investing is always a balance between the quality of what is being bought and the price. A quality assessment must factor in the quality of locations, the diversification of the property portfolio, the state of the buildings, payment ability of the tenants, the demographics, the lease terms such as the average remaining lease period and much more.

Management skill

Further, financial aspects like average debt maturity, interest coverage and LTV are important. With today's low interest costs measures like current interest coverage can prove deceptive if interest rates go up and it could be wise to also look to ratios like Debt/IFPM etc.

The topic of management skill is trickier - if it is important (which we clearly think it is), is there a way to try to measure it? We think the most important aspect of management's value creation is to be a competent participant in the acquisition market and to timely add value through projects but not to over-leverage.

Value creation per unit of leverage

The picture on the next page is one first crude attempt to look at the issue. On the y-axis is the 10 year change in NAV, measured as 2016 NAV, minus 2006 NAV, plus dividends during the period, minus share issues during the period and the sum of the previous divided by 2006 NAV – basically organic change in NAV divided by starting NAV. On the x-axis is simply the average leverage during the same period. So what we are after is the ability to generate NAV per unit risk taken. We are not saying the measure is perfect but it might give an indication of skill.

Lots of other circumstances

There are clear caveats; to start with, not all companies have had the same management during the entire period. Then a huge factor is the segment and geographical exposure during the period and the companies' positioning with regards to these exposures and how they have performed must be said to be a combination of skill and luck.

#### Winners

1. Balder
2. Sagax
3. Hufvudstaden

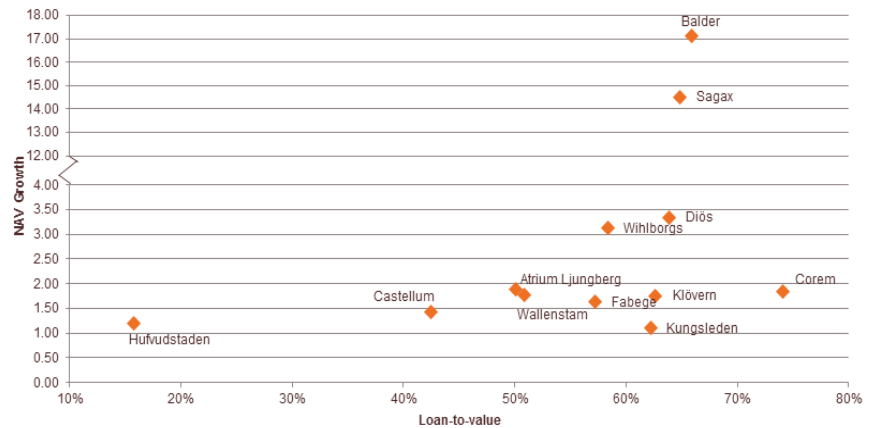
Still, we want to point to three stocks in particular. The successful high risk/higher reward names are clearly Balder with Erik Selin and Sagax with David Mindus. The successful low risk/medium return is Fredrik Lundberg's Hufvudstaden with its exposure to Stockholm.

Forgiving period for the aggressive

The clear winners are however Selin and Mindus. They have had quite aggressive but created much more NAV than others who have had similar levels. At the same time it clearly was fortunate that the 2008/09 crisis was so relatively mild with regards to Swedish real estate prices.

Picture 8.88. NAV Growth 2006-2016 vs average LTV same period

Change in NAV vs LTV



Source: Company annual reports. NAV growth is (End NAV – new issues + dividends – start NAV)/Start NAV. LTV is arithmetic mean over the period

REIT investing – one month reversal

When looking to quantitative backtests 1990-2001 of what has worked in generating outperformance within US REITs, the one factor that stands out both in absolute terms and in relation to how well the factor has worked in other sectors the winner is one month reversal.

That is, if you for the coming month invest in the REITs that the previous month had the worst total return and for the coming month short the REITs that the previous month had the best total returns you historically have generated a strong average performance, and stronger than in other sectors.

P/NAV short term

Considering this, and considering that NAV could be seen as a smoothed price trend, it should be a profitable strategy to do short-term reversal trading around the P/NAV multiple. For most portfolio managers it might not be a strategy for the initial choice of companies to hold in the portfolio but in this industry it offers a credible compliment to improve returns.

Sector specific ratios better

Further, P/FFO and P/AFFO performed better than PE-ratios and P/NAV performed better than P/Book, where the latter didn't work at all. In the backtests dividend yield in itself wasn't a very profitable factor but dividend growth over the previous two years generated strong relative returns and much more so than in other sectors.

DY ~1/PE

Remember that REITs must distribute almost all of their net profits in dividend meaning a high dividend yield is almost the same as a low PE-ratio (that we just saw had little relevance), while a high historic dividend growth in effect means a high profit growth.



Picture 8.89. Cool buildings: Scandic Victoria Tower, Stockholm



34 floors and 299 rooms

Source: [businessinsider.com](http://businessinsider.com)

Lower compounding in REITs

REITs are pass-through constructions that have to distribute the absolute majority of the cash flow generated by their business operations to the shareholders. Thus, the downside of the beneficial tax treatment of REITs compared to for example Scandinavian real estate companies, is that a smaller percentage of earnings can be retained and reinvested. Hence, REITs lack some of the compounding capacity of other real estate companies. Since they have to distribute 90% of their earnings they also have a tougher time issuing new equity capital.

A remedy?

To try to circumvent this growth impediment REITs have often expanded through JVs with other investors in private equity like constructions. Typically the REIT uses its management and other resources to manage the properties of the JV and earn a fee stream while an outside source provides the majority of the capital to fund the properties. This gives the REIT a type of operational leverage on its capabilities.

Swedish taxes

As a more immediate side note on Sweden, the final proposals of the ongoing tax review committees will be very important for stock returns. There is both the "packaging committee" that has presented its conclusions on March 31, 2017 and there is the corporate tax committee which will look at the overall tax situation for the real estate sector. We started to discuss the taxation topic in the section covering the financial statements.

Proposal is now out for consultation

The packaging committee presented their proposal SOU 2017:27 implying that real estate companies irrespective if the properties are owned through the current SPVs are to pay a capital tax of 22% on sales of properties from July 1, 2018 and the buyer is to pay a stamp duty of 2%. This would naturally have the largest effects on the more transaction intensive real estate companies.

Most larger property transactions are packaged deals

SOU 2017:27 showed statistics over all Swedish property transactions over SEK 40m and concluded that the number of transactions where the properties were packaged in SPVs had increased from 65% in 2013 to 81% in 2015. In transactions over the period where the property values were above SEK 500m they were almost exclusively packaged deals.

Total tax for the sector is not lower than normal

Exceptions to aid new construction?

### Conclusion

- Contrarian
- Management Arbitrage

When comparing the Swedish real estate companies' total tax payment in percent of pretax profits to other sectors between 2008 and 2014, SOU 2017:27 concluded that they paid the lowest corporate tax with 9.9% but the total tax payment, adding on an additional 9.3% in property tax, was higher than any other sector. On the other hand, real estate companies – like banks – are VAT exempt with regards to the real estate management services but not for development projects.

The proposal from the committee has met with heavy criticism as it would lower the liquidity of the transaction market and – politically more potent - hinder new construction of badly needed residential properties. Still, until the various tax issues are settled they will probably act as a damper on the shares in the sector.

So how do we think you should invest in this sector? We think:

- You should be a contrarian in the property cycle and invest heavily when skies are cloudy and then lower the risk level during the second part of the cycle.
- You should find capable management teams that are skilled in building NAV over long terms and prioritize holding the stocks in the companies they run.
- You should consider adjusting the short-term weights of the holdings to benefit from reversals to P/NAV levels.

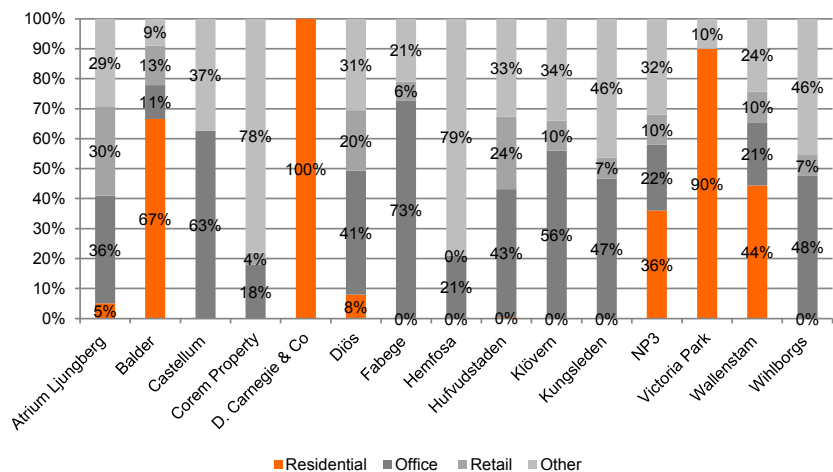
And if interest rates would face a secular rise there might be other sectors to look closer at.

## 8.11 The Listed Swedish Universe

In this section we will briefly describe the universe of listed real estate stocks in Sweden by presenting a number of graphs. Throughout this primer there have been additional graphs on the listed Swedish companies. For example a pair of valuation graphs in the valuation section and so on. We now just want to add some additional color to the description of the companies.

Picture 8.90. Property Category Mix of Portfolio

Many are fairly mixed

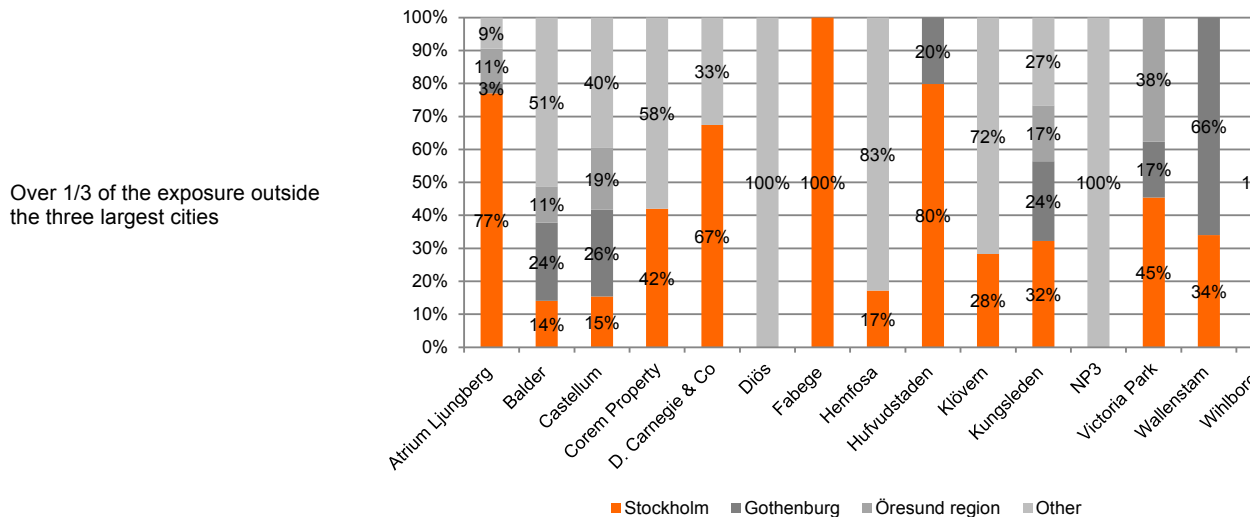


Source: Company annual reports

While most companies have mixed category exposure there are some noteworthy exceptions. Balder, D. Carnegie and Victoria Park are the most residentially dominated. Fabege and Castellum have the highest office exposure.

Few have any really large exposures to retail while Corem's and Hemfosa's other segments are the largest. For Corem this relates to warehousing and logistics and for Hemfosa to community services buildings.

Picture 8.91. Geographical Mix of Portfolio

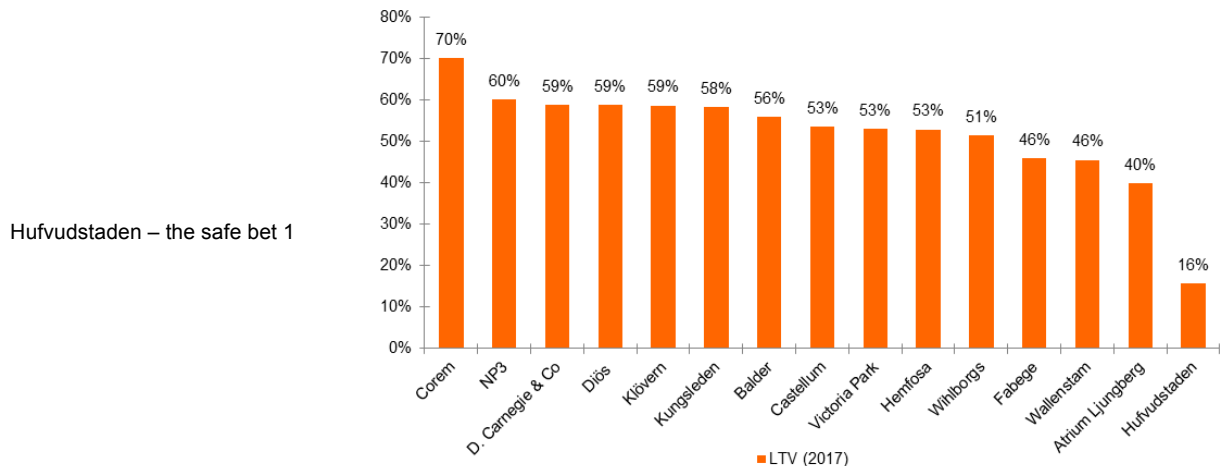


Over 1/3 of the exposure outside the three largest cities

Source: Company annual reports

Atrium Ljungberg, Fabege and Hufvudstaden have had the good fortune - or foresight - to have the highest exposure to Stockholm where the rents and property prices have risen most. Wallenstam is the only Gothenburg dominated stock while Winlborr is the Malmö company. Two companies, Diös and NP3, have all their exposure outside the three largest cities.

Picture 8.92. Loan-to-value, 2017e



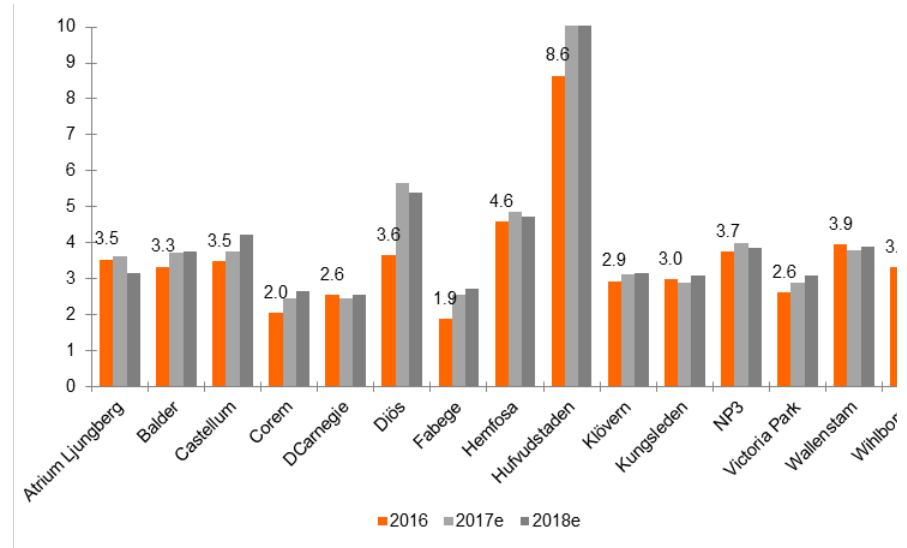
Hufvudstaden – the safe bet 1

Source: Company annual reports

Corem has the highest LTV level while Hufvudstaden has the by far lowest. Looking at interest coverage ratios Fabege shows the lowest multiple while again Hufvudstaden takes no chances.

Picture 8.93. Interest Coverage Ratio, 2016-2018e

Hufvudstaden – the safe bet 2



Source: Company annual reports

With this we end the second part of our industry primer on real estate.

Happy investing!