

# Key ratios

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Some common key ratios that are used in property companies are return on equity, yield, total return, interest coverage ratio, equity/asset ratio, loan to value and operating surplus ratio.

**Return on equity** is a profitability measurement that is used on company level and shows the rate of return on the capital invested by the owners, the shareholders equity. This means that return on equity shows how the company has used the invested capital to generate growths in earnings. Return on equity is calculated by dividing net income after tax with the shareholder equity.<sup>1</sup>

$$\text{Return on equity (ROE), \%} = \frac{\text{Profit for the period}}{\text{Shareholder equity}}$$

The level on which the return on equity must achieve to be acceptable is dependent on two factors, the risk free interest level and the risk premium. Return on equity is used by capital investors to benchmark and evaluate different investments to choose where to invest their capital.

**Yield** is a measurement that shows one year's return on an investment. It is calculated through dividing the net operating income for one period with the total investment.

$$\text{Yield, \%} = \frac{\text{Net operating surplus}}{\text{Total investment}}$$

When referring to an investment's return the first year we talk about **initial yield**. This is calculated the same way, through dividing the expected net operating income from the first year with the total investment. Total investment for a property deal is the purchase price, transaction costs and any investments that were calculated for in the purchase.

Yield can for example be calculated for one particular property, a segment or for the whole company.

**Total return or performance** is used to measure a property's total cash flow for one given period. Total return can be used to calculate the expected return for a property or to calculate what

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<sup>1</sup> Finansiell Strategi och Styrning, Örjan Hallgren

the return was. It is important to realize that the measurement total return, does not take into account when the cash flow occurs.

Total return is calculated through dividing the sum of the market value at the end of the measurement period and the net operating surplus for the measurement period with the sum of the market value at the beginning of the period and any investments that have been made during the same period. Investments must be added to the opening value to enable us to derive the true change in value.

$$\text{Total return, \%} = \frac{\text{Market value (closing value)} + \text{Net operating surplus (period)}}{\text{Market value (opening value)} + \text{investments (period)}} - 1$$

The total return can in simplified terms be seen as the sum of a property's value increase and yield for a period. To enable us to divide total return into value increase and yield we must calculate the value increase and then subtract this from the total return.

The value increase is calculated through dividing the value at the end of the measurement period with the value at the beginning of the measurement period adjusted for any investments that were undertaken during the same period.

An acceptable level of total return is 6.5 percent. Performance can be divided into poor, mid and top performance.

Top: Over 7.5 percent

Mid: Between 6.5 and 7.49 percent

Poor: Under 6.49 percent

**Interest coverage ratio** is a measurement that shows how easily a company can pay its debt interest. It shows what margin, buffer, the company has to manage any interest cost changes. In simplified terms, there are two ways of defining the interest coverage ratio, based on the result or based on the cash flow. Which definition a company chooses to use depends on what the company considers to be most important to present, or what they are required to present to their external financiers.

The interest coverage ratio based on result, is calculated by dividing earnings before interest and tax for one period with interest expense for the same period. An interest coverage ratio of 1.0 is equal to a result before tax of zero, which would mean that there are now buffer for rent increases.

*Interest coverage ratio (ICR) =*

$$\frac{\text{Earnings before interest and tax (EBIT)}}{\text{Financial costs}}$$

If a company has items in their income statement that are not from the company's normal business operations and that affect the interest coverage ratio in a significant way, some companies adjust for this. Items that affect comparability could be results from large property sales in a company that primarily focus on property management and not trading in properties.

The interest coverage ratio based on cash flow, is calculated by dividing earnings before interest, tax and depreciation for one period with interest expense for the same period. Depreciation should not be deducted from the results since this is not an item that affects the cash flow.

*Interest coverage ratio (ICR) =*

$$\frac{\text{Earnings before interest, tax and depreciation (EBITA)}}{\text{Financial costs}}$$

Line of business, financial position and financial policy affect the level of accepted interest coverage ratio. This means that when analyzing a company's interest coverage ratio it is crucial to consider the risks in the company, for example a residential company has relatively low risk in their rental income and property costs. One also must look at the financial policy, for example if a company has fixed or non fixed interest rates. If a company has a high share of fixed interest rates it is not as volatile to changes in the market interests rates.

Consequently, if a company has a strategy of taking high risks the interest coverage ratio should be higher than a company taking lower risk to enable the company to handle a possible high risk scenario.

**Equity/asset ratio** is a measure of the company's capital strength and ability to take losses. The equity/asset ratio shows the share of equity in relation to a company's total capital.

Equity/asset ratio is calculated by dividing the shareholders equity with total assets<sup>2</sup>.

$$\text{Equity/asset ratio, \%} = \frac{\text{Shareholder equity}}{\text{Total assets}}$$

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<sup>2</sup> Finansiell Strategi och Styrning, Örjan Hallgren

What is seen as an acceptable level of equity/asset ratio depends on the line of business. An equity/asset ratio of 30 percent is generally seen as a healthy capital structure. With this said, property company's often show an equity/asset ratio of between 15-30 percent. The lower equity/asset ratio is often due to the fact that property company's finance their properties through a high share of external capital, hence having a high share of its total assets financed with loans resulting in a low equity/asset ratio.

Property company's, like other companies with high capital gains that are not accounted for in the balance sheet, often adjust the equity/asset ratio with this overvalue. This is often called **adjusted equity ratio**. When using an adjusted equity/asset ratio it is important to assure that all assets and debts are accounted for to fair value. Property companies often simplify this through only adjusting for the excess-value in their properties since this is the largest item in their balance sheet.

It is important to mention that a low equity/asset ratio can be adequate if the ability to pay the interest of the existing loan structure is good, meaning a high interest coverage ratio.

**Loan to value** is a measurement that shows how much of the property's market value that is financed through external capital. Loan to value indicates how much the market value of a property can decrease before the company will be able to sell the property to repay the debt.

In general property companies finance property deals 70-75 percent with external capital.

A company that has a high loan to value will most likely receive a higher interest cost due to that the bank will take out a higher margin to cover the higher risk that they take.

**Operating surplus ratio** is a profitability measurement that shows the margin, how much of the rental income that is left after property costs. The operating surplus should cover a company's overhead costs and to provide a buffer for any unknown events.

$$\text{Operating surplus ratio, \%} = \frac{\text{Rental income}}{\text{Net operating surplus}}$$

Operating surplus can be calculated for one particular property, a segment or for the whole company.

## References

*Budget och budgetering*, Håkan Kullvén, 2009, upplaga 1:1, Liber AB

*Controllerhandboken*, Nils-Göran Olve, Lars A Samuelson et al., 2008, Liber AB

*Finansiell Strategi och Styrning*, Örjan Hallgren, 2001, Ekonomibok förlag AB

*Management control systems*, Kenneth A. Merchant & Wim A. Van der Stede, 2003, Prentice Hall

# Group work

## Performance:

1. What is the property's total return (performance)?
2. What is the property's value increase and yield?

### Operating surplus, property Söderby 2:23

Amounts in TSEK	2010
Residential	45 273
Commercial	5 717
Parking / Garage	150
Other income	342
<b>Income:</b>	<b>51 482</b>
Usage-bond	-12 534
Operations	-7 036
Maintenance	-5 521
Site leasehold fee	0
Property tax	-983
Administration	-2 281
<b>Property costs:</b>	<b>-28 355</b>
<b>Operating surplus:</b>	<b>23 127</b>
Market value, 1/1 2010	533 627
Investments 2010	1 293
Market value, 31/12 2010	541 689
Book value	335 115

## Vacancy and rents:

1. What is the vacancy ratio for Söderby 2:23 in January 2011 and March 2011?
2. What is the annual growth rate in the average rent for Söderby 2:23?

### Property Söderby 2:23

	Jan	Mar
	2011	2011
<b>Residential</b>		
Number of apartments:	608	608
Yearly rent, TSEK:	45 457	45 524
Lettabel area:	48 077	48 077
<b>Total rent, SEK/sqm:</b>	<b>946</b>	<b>947</b>
Letted, yearly rent, TSEK:	45 367	45 343
Letted, sqm:	47 993	47 878
<b>Average rent, SEK/sqm:</b>	<b>945</b>	<b>947</b>
Vacancy residential, yearly rent, TSEK:	90	180
Vacancy residential, sqm:	84	199
<b>Vacancy rent, SEK/sqm:</b>	<b>1 071</b>	<b>905</b>
Vacancy residential, units	1	2
<b>Commercial</b>		
Yearly rent, TSEK:	6 071	6 102
Lettabel area:	6 165	6 165
<b>Total rent, SEK/sqm:</b>	<b>985</b>	<b>990</b>
Letted, yearly rent, TSEK:	5 794	5 822
Letted, sqm:	5 717	5 714
<b>Average rent, SEK/sqm:</b>	<b>1 013</b>	<b>1 019</b>
Vacancy residential, yearly rent, TSEK:	277	280
Vacancy residential, sqm:	448	451
<b>Vacancy rent, SEK/sqm:</b>	<b>618</b>	<b>621</b>

### Financing:

1. What was the equity/asset ratio as per 31<sup>st</sup> of December 2009?
2. What was the loan to value for secured loans as per 31<sup>st</sup> of December 2009 if the market value in properties was 29,286 SEK m?
3. What was the loan to value for total loans as per 31<sup>st</sup> of December 2009 if the market value in properties was 29,286 SEK m?
4. What was the interest coverage ratio for 2009?

### Balance Sheet, Akelius Group

	31 Dec	31 Dec
Amounts i SEK m	2010	2009
Properties	23 817	24 463
Other assets	708	1 833
Cash	20	24
<b>Total assets</b>	<b>24 545</b>	<b>26 320</b>
Equity	4 245	3 302
Profit for the period	764	916
<b>Total equity</b>	<b>5 009</b>	<b>4 218</b>
Provisions	1 174	1 152
Subordinated loans	3 838	3 405
Secured loans	13 883	16 831
Other liabilities	641	714
<b>Total equity and liabilities</b>	<b>24 545</b>	<b>26 320</b>

### Income Statement, Akelius Group

Amounts in SEK m	2010	2009
<b>Rental income</b>	<b>2 439</b>	<b>2 798</b>
Usage-bond	-483	-535
Operations	-274	-318
Maintenance	-266	-294
Site leasehold fee	-2	-3
Property tax	-57	-66
Administration	-139	-175
<b>Property costs</b>	<b>-1 221</b>	<b>-1 391</b>
<b>Operating surplus</b>	<b>1 218</b>	<b>1 407</b>
Depreciation	-219	-245
Other	-7	1
Central admin.	-66	-48
Profit from sales	828	747
<b>Operating profit</b>	<b>1 754</b>	<b>1 862</b>
Interest income	87	87
Interest expense	-1 037	-1 122
Other fin. items	-16	-33
<b>Profit before tax</b>	<b>788</b>	<b>794</b>
Tax incl. minority	-24	122
<b>Profit for the period</b>	<b>764</b>	<b>916</b>