

& Recommendations FINANCIAL RATIOS

2015 Nordic Edition



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**Recommendations &
Financial Ratios
2015**

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Editor:

Henning Skov Jensen, The Danish Finance Society

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Preface

The finance societies in Denmark, Norway and Finland and the local CFA societies in Denmark, Sweden, Norway, and Finland (hereafter "the Societies") have for a number of years cooperated on creating a forum at the highest international level within finance and investment. An important part of this aim is to secure best practice standards for the calculation of key figures and ratios. Investors and analysts are thereby given a reliable basis of comparison. This publication is a revision "Recommendations and Financial Ratios" from 2010, and has been produced as a cooperation between the Societies.

This publication provides precise definitions for how to calculate a number of ratios as well as recommendations for and suggestions about how listed companies could make specific disclosures in their annual and interim reports and on their websites. Furthermore, references to a number of industry-related publications which advice on specific formats, adjustments etc. have been included. The Societies hope that listed companies, as well as financial analysts and investors in all four countries will follow the recommendations and definitions in this publication.

The Societies wish to stress that this publication is not a substitute for the official accounting standards for listed companies (IFRS). The accounting standards are issued by the IASB, and the aim of this publication is, therefore, to offer a standardised way of calculating certain ratios and to suggest some areas where additional information could be of interest to investors.

Compared to "Recommendations and Financial Ratios" from 2010, a number of adjustments have been made, of which the most important are:

- Different division of general ratios for industry, service and business so that they follow the methodology from the Du Pont pyramid
- Inclusion of a number of new risk ratios that shed light on profitability, growth and credit risks.
- Inclusion of a dividend-adjusted P/E ratio.
- Changes to the section on ratios for banks and insurance companies due to new regulatory demands.
- Appendix on how the most significant ratios will be affected by the proposed changes to how to treat leasing.

International Accounting Standards Board (IASB), The Basel Committee on Banking Supervision, as well as the European Union (EU) have a number of regulatory changes in the pipeline, which may be of great significance for how to calculate ratios. As for IASB, the most significant proposal is on changes to IAS 17 on leasing. It is expected that the present value of future lease payments are capitalised in the balance sheet and hereby create a significant increase in net interest-bearing debt for certain companies. This publication features an appendix, which briefly accounts for how the analyst should adjust historical ratios, if this standard is implemented. It is expected that the standard will be adopted in 2015. However, the deadline for implementation is typically a few years later. The Basel Committee's new Basel III regulatory framework on capital adequacy etc. is sought incorporated into the section on banks. Lastly, the EU has for some time worked on the Solvency II Directive, but the final implementation date has been postponed several times. Solvency II has thus not yet caused any changes in ratios for insurance companies.

A number of experts have provided their knowledge and contributed with revisions to this publication. The seven societies would like to express their gratitude for all these voluntary contributions. Per Grønberg and Christian Hede have revised the section on the financial sector. Dan Togo Jensen and Finn Bjarke Petersen have revised the section on shipping. The section on property companies has been revised by Michael West Hybholt. The general ratios for industry, service and business have been revised by Jacob Pedersen. Thomas Plenborg has contributed with opinions and suggestions about the general ratios, while Ken L. Bechmann and Thomas Winther Sørensen once again have revised the forms on share option schemes. The Societies would also like to direct their thanks to the committees for accounting standards and the other members of the seven Societies who have assisted with the preparation of these guidelines, among them especially Seth Bernström, CFA Society Sweden, Kati Eriksson, CFA Society Finland, as well as Kjetil Rimstad and Teodor Sveen-Nilsen, NFF. Lastly, great thanks to the chief editor, Henning Skov Jensen, for the overall coordination of and professional discussions on the preparation of this publication.

Ratios are a tool for companies, financial analysts and investors to shed light on companies' financial situations and trends. Ratios cannot, however, be used as a substitute for the fundamental analysis, which is essential in order to understand companies, industries, and which should form the basis of investment decisions.

These guidelines are published in both a Danish and an English version. In case of any discrepancies, the English wording shall be applicable.

Niels Granholm-Leth

Chairman of The Danish Finance Society's Committee for Accounting Standards

Table of Contents

I	Introduction	1
II	Definitions and Concepts	2
III	General Ratios for Industry, Service & Business	6
3.1	Profitability ratios	6
	Margin ratios	7
	Working capital ratios	10
3.2	Growth ratios	11
3.3	Risk ratios	12
3.4	Share-related ratios	14
3.5	Price related ratios	18
	Market value ratios	18
	Enterprise Value-related ratios	21
IV	Special Ratios for Certain Sectors	23
4.1	Finance	23
	Banks	24
	Non-life insurance	29
	Life insurance	34
4.2	Shipping	40
4.3	Property companies	43
APPENDICES		
Appendix I	Consolidated Statement of Income	47
Appendix II	Consolidated Balance Sheet	49
Appendix III	Consolidated Statement of Cash Flow for Reporting Companies	51
Appendix IV	Statement of Cash Flow for Analytical Purposes	52
Appendix V	Statement of Comprehensive Income	53
Appendix VI	Introduction to share-based payments	54
Appendix VII	Analytical Procedures	57
Appendix VIII	Upcoming changes to lease accounting standards	60
Appendix IX	An example	61
Index		77

I Introduction

The preceding Recommendations & Financial Ratios marked an extensive revision of how the ratios were structured and defined, which was a result of the transition to IFRS and not least the implementation of Basel II. The new Recommendations & Financial Ratios 2015 is a minor update of Recommendations & Financial Ratios 2010. The general ratios have an even sharper structure, so they to a higher degree follow the methodology from the Du Pont Pyramid. Ten new ratios and a number of minor clarifications of previous ratios have been implemented.

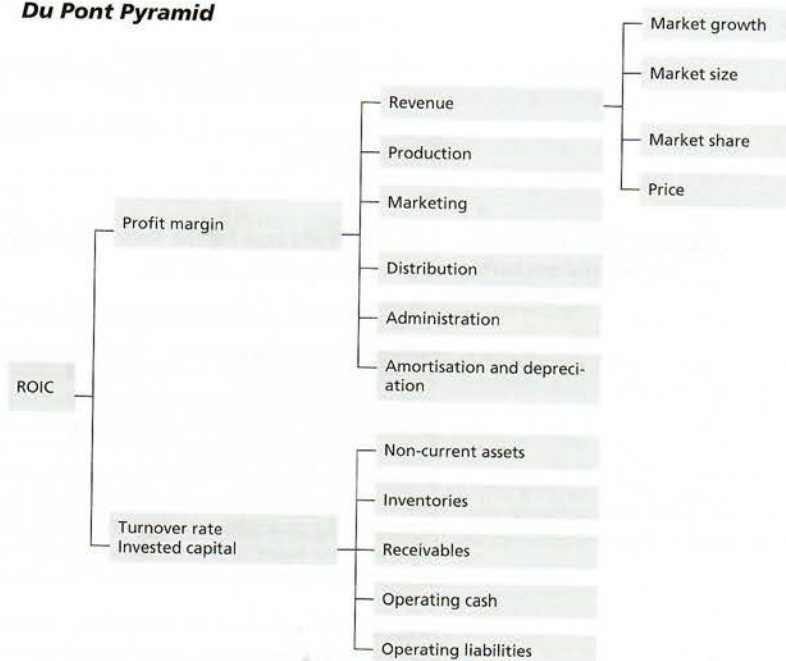
In the text, the distinction between guidelines and financial ratios can be read from the numbering of the various financial ratios and concept definitions.

The guidelines have not been numbered, but are instead an integral part of the text. Here, the objective is to give some examples of what analysts are recommended to place emphasis on. The guidelines may, therefore, also be read by preparers of financial statements as pointers to where they can help investors and analysts with supplementary disclosures. In many cases, the guidelines give supplementary comments on the financial ratio definitions.

The definitions of financial ratios are the second element of the publication. Here, the objective is to create a common understanding of the definitions of a large number of financial ratios. It is not a separate objective that the guidelines must be innovative and construct new financial ratios. Rather, the focus is on established and tested financial ratios, where both preparers and users of financial statements can profit from a joint frame of reference.

Financial statements may be affected by exceptional or non-recurring items. Such items should be disclosed in the notes and described in the management's review. Such specification makes it possible for investors and analysts to make adjustments on a well-informed basis. Adjustments are often necessary when investors or analysts are to value the underlying development in a company's operations and to compare various companies: assessments and comparisons which are made from many different angles and with many different objectives. It is not recommended to include exceptional items on separate lines in the statement of income, except as required by accounting standards.

Du Pont Pyramid



II Definitions and Concepts

Statement of Income

2.1

Revenue (sales)

Revenue or sales represents the cornerstone of a number of ratios. In addition, a thorough understanding of a company's revenue-recognition policies is a prerequisite for understanding its cash flows. Hence, there are very good reasons for the analyst to explore the subject and for companies to explain clearly their revenue-recognition policies.

The simplest starting point is that the seller must have fulfilled his obligations and that revenue must be realised or realisable in order to be recognised.

IFRS has five principles for the inclusion of sale of goods, cf. IAS 18:

- The risks and rewards of ownership have been transferred from the seller to the buyer.
- The seller has no managerial involvement or control of the goods sold.
- Revenues can be measured reliably.
- Payment of the revenues is probable.
- The costs of the transaction can be measured reliably.

As of January 2017, IFRS 15 will replace the previous standards for inclusion of sales in IAS 18, 11 and IFRIC 13, 15 as well as SIC 31. The new standard will, however, only to a limited degree affect the reading of financial statements for analysts and investors. IFRS 15 is expected to affect some sectors more than others as regards the reading of financial statements. Biotech companies, for example, will be able to recognise upfront payments for cover of certain performance obligations in sales as these are met.

Aggressive revenue-recognition has often played a role in the business scandals that we have witnessed historically. An in-depth understanding of the incoming revenues of a company is necessary to carry out a reliable analysis, and the above-mentioned principles offer a good starting point to achieve this.

Examples of items which may be part of revenue (sales) under IFRS are:

- Rental income
- Invest income (sometimes)
- Revenue related to continuing and/or discontinued operations

When interpreting ratios, it is important to keep in view whether these items are part of revenue (sales).

2.2

Adjusted Profit/Loss for the Period excluding Minorities

Adjusted Profit Loss for the Period excl. Minorities – Non-recurring Items After Tax

Profit/loss for the period excluding minorities is adjusted for relevant exceptional items and non-recurring items after tax to gain a better picture of the trend in underlying "normalised" earnings. It is recommended that items such as gains/losses related to the sale of assets not related to a company's normal business activity and gains/losses on the disposal of activities and subsidiaries be treated as non-recurring. Restructuring charges arising from the disposal or closing down of a business area should normally also be regarded as non-recurring items. When comparisons between companies are made (benchmarking), the analyst should adjust for differences in accounting principles with regard to R&D capitalisation, depreciation periods, leasing and share-based payments. As discussed in Appendix VI, it may be appropriate to include adjustments for differences in the valuation of share-based payment schemes.

Adjustments made must be transparent, and reconciliation must be made to the adjusted profit/loss for the period excluding minorities. Please see Appendix VI.

2.3**Profit/Loss for the Period
excluding Minorities**

Also termed "Profit attributable to Owners of the Parent". Calculated as follows:

Profit/Loss for the Period – Minorities

2.4**Net Operating Profit Less
Adjusted Taxes (NOPLAT)**

EBITA – Taxes on EBITA

NOPLAT is the after-tax operating profit of a company. Taxes on EBITA are the taxes the company would pay if it had no net debt or non-operating income or expenses. Generally, it is fair to assume that net interest income is subject to the marginal tax rate. Thus, EBITA tax can be calculated in the following way:

$$\text{EBITA Tax} = \text{Total Income Tax} - \text{TC} \\ \times (\text{Net Interests} + \text{Net Non-operating Income})$$

where

TC = Marginal Corporate Tax Rate

NOPLAT is the numerator in the calculation of Return on Invested Capital (ROIC).

2.5**Rolling 12 Months' Data
(Trailing Data or Forward
Data)**

Rolling data is calculated in order to show a company's last twelve months' Trailing Data in the statement of income. Quarterly or interim figures may be atypical as a result of seasonal or cyclical trade patterns and, therefore, give a misleading picture of the company's data compared to the data in the financial statements. Rolling 12 months' data can in principle be calculated for each single item in the statement of income. The balance sheet is not affected by this as the balance sheet reflects a statement at a given date and not an event over twelve months.

Year-to-date + previous financial year – year-to-date last year

Correspondingly, the company's expected twelve months' data (forward data) in the statement of income can be calculated as:

Remaining quarter(s) + following financial year – past quarter(s)

Balance Sheet

2.6**Net Working Capital (NWC)**

Inventories + Trade and Other Receivables + Other Operating Current Assets – Trade and Other Payables – Other Operating Current Liabilities

NWC includes all current assets less current liabilities used in or necessary for the operations of the company. NWC may include some cash balances, but it is preferable that these are not included in this definition. Taxes and dividends payable should not normally be included in non-interest-bearing short-term liabilities.

2.7**Net Interest-bearing Debt**

Interest-bearing Liabilities – Interest-bearing Assets – Cash

Note that some pension provisions and long-term receivables may be interest-bearing. It is recommended that companies specify which balance-sheet items are interest-bearing. Please refer to Appendix VIII regarding implementation of future lease liabilities in net interest-bearing debt and profit/loss.

Furthermore, attention is drawn to the influence of new alternative financing concepts (factoring, reverse factoring, etc.), which may complicate the distinction between NWC and net interest-bearing debt and disturb comparisons over time and between companies.

2.8**Invested Capital excluding Goodwill**

NWC + Non-current Tangible Assets + Non-current Intangible Assets excl. Goodwill – Other Provisions – Other Operating Non-current Liabilities

Invested capital is an important measure of how much capital has been invested in operating activities, including activities that have been acquired. Please see Appendix VII for a discussion of invested capital and how to deal with the possibility that accumulated amortisation of goodwill may not necessarily be disclosed following the implementation of impairment tests.

2.9**Invested Capital including Goodwill**

Invested Capital + Recognised Goodwill + Accumulated Amortisation

This ratio is used in the calculation of profitability ratios, cf. 3.1 and related notes.

2.10**Net Asset Value (NAV)**

Equity + difference between the carrying amount (book value) of assets and liabilities and their objective market value, net of tax and minorities' share

This typically applies to assets and liabilities that are tradable in a secondary market.

Adjustments made must be transparent, and reconciliation with the carrying amount is recommended in order to obtain transparency.

Cash Flow

2.11**Cash Earnings (CE)**

Profit/Loss for the Period excl. Minorities + Depreciation + Amortisation + Write-downs – Revaluations + Expensed Share-based Payments – Share in Associates – Minorities' Share of Depreciation, Amortisation and Expensed Share-based Payments

Adjustments are made for minorities' share of depreciation, amortisation and expensed share-based payments to keep the measure at a post-minorities level. In some cases, it may be appropriate to include other non-cash items such as changes in provisions when cash earnings are calculated.

2.12**Cash Flow From Operations (CFFO)**

NOPLAT ± Change in Net Working Capital ± Change in Provisions

Please see Appendix IV for the definition of a cash flow statement for analytical purposes.

2.13**Free Cash Flow to Firm (FCFF)**

CCFO – Capex

Used in discounted cash-flow models as a measure of the cash flow left to meet the return requirements of the company's debt and equity.

For connoisseurs who wish a more correct theoretical approach, maintenance Capex may be used in the calculation of free cash flow to firm. Maintenance Capex of the current capital equipment and competitiveness is only a portion of the total Capex reported in an company's cash flow statement. For analytical purposes, it is important to distinguish between maintenance investments and investments related to future growth. This division is not a requirement under IFRS. The company itself may choose whether it wants to publish maintenance Capex or not. For some sectors, it may be difficult, and involve inaccuracies, to determine maintenance Capex. Net Capex is often used about the approximate value for maintenance Capex.

Please see Appendix IV for the definition of a cash flow statement for analytical purposes.

2.14**Free Cash Flow to Equity (FCFE)**

$FCFF \pm \text{Net Financials} + \text{Share of Profit or Loss in Associates After Tax} - \text{Tax on Net Financials}$

Please see Appendix IV for the definition of a cash flow statement for analytical purposes.

Stock Exchange

2.15**Share Price (Price)**

Latest share price or the share price on a specific day multiplied by the Accumulated Dilution Adjustment Factor.

2.16**Market Capitalisation (Market Cap)**

Number of Shares $\times$ Share Price

Market capitalisation is based on the Number of Shares as defined in 3.4.1. Market capitalisation is the market value of equity at a given date.

2.17**Enterprise Value (EV)**

$\text{Market Cap} + \text{Net Interest-bearing Debt} + \text{Market Value of Minorities} - \text{Market Value of Share of Associates} - \text{Market Value of Other Non-operating Assets}$

Enterprise Value (or Firm Value) is the market value of underlying invested capital. Enterprise Value is often regarded as the firm value of debt-free operations or the value irrespective of a company's capital structure. However, as the market value includes the value of the tax-shield from debt, it is not an entirely precise definition.

It is important to include both minorities and associates at market value; this could be either an observed market value, if such exists, or a calculated value.

Miscellaneous

If nothing else is stated, the Average Invested Capital is calculated as a simple average between opening and closing invested capital.

2.18**Number of Full-time Employees Year-end**

Restated number of full-time employees at year-end.

2.19**Average Number of Full-time Employees**

Restated average number of full-time employees over a given time period.

2.20**Full-year and Interim Figures**

All ratios should be calculated on the basis of a company's full-year figures. When used in connection with interim reporting, ratios may be calculated for the interim period or restated on a full-year basis. The method chosen must be disclosed. Restatement on a full-year basis must take into account historical and expected seasonality based on rolling quarterly data. It is recommended that the latest four quarters are applied for the calculation of restated full-year figures, cf. 2.5.

2.21**Negative Values**

Negative ratios should be calculated and disclosed unless they are not meaningful.

III General Ratios for Industry, Service & Business

3.1 Profitability ratios

Measuring a company's profitability is one of the most important indicators for the creation of future expectations as to how the company will develop financially and with respect to creating potential return for investors.

3.1.1 Return on Invested Capital excluding Goodwill (ROIC excl. Goodwill)	EBITA Average Invested Capital excl. Goodwill
	ROIC excluding goodwill reflects a company's ability to generate a return on invested capital through its operations. This is most useful for analysing operational performance trends and for comparing operating performance between companies. Please see Appendix VII for a discussion of Invested Capital.
3.1.2 Return on Invested Capital Including Goodwill (ROIC incl. Goodwill)	EBITA Average Invested Capital incl. Goodwill
	ROIC including goodwill measures the return a company generates on its investors' funds. When measured against the WACC (weighted average cost of capital), and deductions are made for corporate tax on operations, ROIC also indicates the ability of a company to create value for its shareholders. Please see Appendix VII for a discussion of Invested Capital.
3.1.3 After-Tax Return on Invested Capital excluding Goodwill (After-Tax ROIC excl. Goodwill)	NOPLAT Average Invested Capital excl. Goodwill
	After-tax ROIC excluding goodwill reflects a company's ability to generate a return after tax on invested capital through its operations. This is most useful for analysing operational performance trends and for comparing operating performance between companies. As the return ratio is on an after tax basis it is more useful for cross-border comparisons than the ROIC on a pre-tax basis. Please see Appendix VII for a discussion of Invested Capital.
3.1.4 After-Tax Return on Invested Capital including Goodwill (After-Tax ROIC incl. Goodwill)	NOPLAT Average Invested Capital incl. Goodwill
	After-tax ROIC including goodwill measures the return a company generates on its investors' funds. When measured against the WACC (weighted average cost of capital), after-tax ROIC also indicates the ability of a company to create value for its shareholders. Please see Appendix VII for a discussion of Invested Capital.
3.1.5 Return on Equity (ROE)	Profit/Loss for the Period excl. Minorities Average Equity excl. Minorities

ROE is a function of a company's gearing and its ROIC.

3.1.6**Sales/Assets****Sales****Average Total Assets**

This is the traditional ratio used to express a company's capital intensity as outlined in Appendix VII. However, as total assets are a mix of intangibles, financial assets, property, plant and equipment, this ratio is not very meaningful. Sales/Invested Capital (defined in 3.1.7) is a more meaningful ratio for measuring capital intensity and more appropriate when comparisons over time and between companies are made.

3.1.7**Sales/Invested Capital
excluding Goodwill****Sales****Average Invested Capital excl. Goodwill**

This ratio represents the best and cleanest way of expressing a company's capital intensity and how efficiently a company employs its invested capital (please see comments in Appendix VII).

3.1.8**Sales/
Invested Capital
Including Goodwill****Sales****Average Invested Capital incl. Goodwill**

A capital turnover ratio based on invested capital including goodwill is not very useful for trend analysis or when comparisons between companies are made. However, it can be appropriate for a breakdown analysis of ROIC including Goodwill (please see comments in Appendix VII).

Margin ratios

The income statement shows several levels of profit, such as gross profit, operating profit, and net profit. The "margin" term mainly appears in connection with profit being set as a portion of sales, but also related ratios have been included in the section. The purpose of margin analysis is to spot a trend in the profit of the company.

3.1.9**Gross Margin****Gross Profit/Loss****Sales**

The transparency of this ratio is limited as production costs encompass both direct and indirect production costs. The indirect production costs – variable as well as fixed – are resources that during the manufacturing period are used in production and that indirectly can be attributed to the product in question. The ratio expresses how large a percentage of sales less production costs remains for payment of capacity costs and profit. It is recommended that the ratio be supplemented with a statement of total operating expenses divided into variable and fixed expenses, respectively.

3.1.10**EBITDA Margin****Earnings before Interest, Tax, Depreciation and Amortisation
(EBITDA)****Sales**

Historically, EBITDA has often been used as a proxy for a company's cash flow. This is misleading, as the ratio does not take into account the need for continued capital expenditure. Nor does it take into account changes in provisions or working capital. The ratio is influenced by capital intensity and other factors, which makes it difficult to make comparisons between companies, especially those operating in different industries. The ratio can, therefore, advantageously be supplemented with a measure for capital intensity. It is also important not to recognise income from associated companies that are accounted for using the equity method, as this income does not have any corresponding influence on sales for accounting purposes.

3.1.11

$$\frac{\text{EBITA Margin}}{\text{Earnings before Interest, Tax and Amortisation (EBITA)}} = \frac{\text{Sales}}{\text{Sales}}$$

This ratio is increasingly being used as the best measure of operating profitability, as it ignores amortisation, for example, of purchased software, patents, etc. It is recommended that goodwill impairment be deducted from earnings before calculation of this ratio. When comparisons between various companies are made, this ratio can additionally be supplemented with a measure for capital intensity. Furthermore, it is recommended that the various companies be adjusted for different depreciation conventions, including the effect of R&D capitalisation. It is also important not to recognise income from associated companies that are accounted for using the equity method, as this income does not have any corresponding influence on sales for accounting purposes.

3.1.12

$$\frac{\text{Operating Margin (EBIT margin)}}{\text{Operating Profit/Loss(EBIT)}} = \frac{\text{Sales}}{\text{Sales}}$$

If EBIT is not burdened by goodwill write-downs, the difference between EBITA and EBIT will solely be amortisation on other intangible assets.

3.1.13

$$\frac{\text{NOPLAT Margin}}{\text{NOPLAT}} = \frac{\text{Sales}}{\text{Sales}}$$

This ratio expresses the profitability of operating activities after tax and is useful as NOPLAT also figures in the calculation of return on invested capital (ROIC).

3.1.14

$$\frac{\text{Pre-Tax Margin}}{\text{Earnings Before Tax (EBT)}} = \frac{\text{Sales}}{\text{Sales}}$$

The pre-tax margin is useful for year-on-year comparisons for a single company, but distorts the picture if a significant change occurs in a company's financing structure. For the same reason, the ratio is not useful for making comparisons between companies. For companies with a large amount of earnings stemming from associated companies that are accounted for using the equity method, the ratio is even less useful.

3.1.15

$$\frac{\text{Net Margin}}{\text{Profit/Loss for the Period}} = \frac{\text{Sales}}{\text{Sales}}$$

This ratio is of limited relevance for the same reasons as outlined under the Pre-Tax Margin above. Furthermore, it may be distorted by minority interests.

3.1.16

$$\frac{\text{EBITDA-to-Gross Profit/Loss Margin}}{\text{Earnings before Interest, Tax, Depreciation, Amortisation and Write-downs (EBITDA)}} = \frac{\text{Sales}}{\text{Sales}}$$

This ratio may be relevant for commercial companies which operate with a stable gross margin. Thus, it expresses the company's ability to convert gross profit into operating profit. It can advantageously be supplemented with a calculation per employee as a measure for efficiency (please see the following ratios).

3.1.17

$$\frac{\text{Cash Conversion Ratio}}{\text{Free Cash Flow before acquisitions}} = \frac{\text{EBIT}}{\text{EBIT}}$$

This ratio is a simple expression for the company's ability to convert operating profit into cash flow. The ratio should be assessed over several years, especially for companies with large yearly fluctuations in Capex.

3.1.18 Sales per Employee	Sales Average Number of Full-time Employees A simple measure of a company's productivity. It is recommended that this ratio be used with great care when comparisons over time and between companies are made due to the different degrees of outsourcing of various services and the use of sub-contractors.
3.1.19 EBITA per Employee	EBITA Average Number of Full-time Employees Shows the average operating profit per employee. Please see comments under "Sales per employee".
3.1.20 Added Value per Employee	Added Value Average No. of Employees Added value (EBITDA + employee expenses). A high added value per employee is not per se an indicator of an attractive company as depreciation for accounting purposes as well as employee expenses are not included. This ratio is mostly used to illustrate a company's productivity gains over time and is less suitable for comparing different companies' current levels.
3.1.21 Employee Expenses/Sales	Employee Expenses Sales A simple measure for the efficiency of a company. Shows the percentage of sales used for payment of employee expenses. It is recommended that this ratio be used with great care when comparisons over time and between companies are made due to the different degrees of outsourcing of various services and the use of sub-contractors.
3.1.22 Cash Flow From Operations (CFFO)/Sales	CFFO Sales This ratio focuses on how efficiently the company can generate cash from its sales. Please see comment section 2.12: "Cash Flow From Operations"
3.1.23 EBITDA-to-Gross Profit/Loss per Employee	Gross Profit/Loss – EBITDA Average No. of Employees This ratio focuses on the return on investment per employee and is especially relevant for commercial companies with a stable gross margin and many employees, for example builders merchants.

Working capital ratios

Working capital ratios can give an insight into a company's underlying operating efficiency. When a company has a large quantity of capital tied up in inventory and customer credits, its capital will not be available to reduce a debt, if any. Therefore it will be advisable to trace changes in working capital.

$$\text{3.1.24} \quad \text{Inventory Turnover (days)} = \frac{\text{Inventory at Year-end}}{\text{COGS}} \times 365$$

An indicator of how long it takes the company to convert its inventory into sales.

$$\text{3.1.25} \quad \text{Receivables Turnover (days)} = \frac{\text{Receivables at Year-end}}{\text{Sales}} \times 365$$

An indicator of the company's ability to collect its receivables. Theoretically, the use of 'sales on credit' would be more correct than 'sales' for calculation of receivables turnover. Sales is used as an approximation for sales on credit as the latter is seldom stated.

$$\text{3.1.26} \quad \text{Credit Period (days)} = \frac{\text{Trade Payables at Year-end}}{\text{COGS}} \times 365$$

An indicator of how long it takes the company to pay its trade payables. Theoretically, the use of 'trade payables relating to manufacturing' would be more correct than just 'trade payables'. However, trade payables relating to manufacturing is seldom specified.

$$\text{3.1.27} \quad \text{Cash Conversion Cycle (days)} = \text{Inventory Turnover Days} + \text{Receivables Turnover Days} - \text{Credit Days}$$

An indicator of how fast a company can convert its products into cash through sales.

$$\text{3.1.28} \quad \text{NWC/Sales} = \frac{\text{NWC at Year-end}}{\text{Sales}}$$

This is an important value creator expressing the relationship between sales and funds tied up in net working capital (NWC). It indicates the additional capital that needs to be funded when sales are expanded. Please see section 2.6 for the definition of NWC.

$$\text{3.1.29} \quad \text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Theoretical measure of how the current assets cover the current liabilities.

3.2 Growth ratios

Most companies have a growth strategy, and for analysis purposes it is interesting how the growth is generated. If acquisitions or divestments have been made during the period, it is recommended to supplement with information on the organic growth of the company. The organic sales growth forms part of the growth projections produced by the market participants

3.2.1

$$\text{Sales Growth} = \frac{\text{Sales Year 1} - \text{Sales Year 0}}{\text{Sales Year 0}} \times 100$$

3.2.2

$$\text{Organic Growth} = \frac{\text{Absolute Organic Sales Growth}}{\text{Sales Year 0}} \times 100$$

The absolute organic sales growth expresses the internal growth of a company, which is generated through e.g. expansion of production, penetration of new markets or development of new products, but not through acquisitions/divestments or mergers with other companies. It is recommended that organic growth be disclosed both including and excluding the exchange rate impact for the year. For retail companies, it is recommended that growth be disclosed in Same Store Sales, which includes the revenue (sales) in stores that have been in business for more than two years. Thereby, it is possible to state how large a share of the overall sales growth that can be attributed to the opening of new stores.

3.2.3

$$\text{Compounded Annual Growth Rate (CAGR)} = \left[\left(\frac{\text{Data Year } n}{\text{Data Year 0}} \right)^{\frac{1}{n}} - 1 \right] \times 100$$

Historical growth rates are typically calculated for sales, EBITDA, EBIT and EPS.

3.2.4

$$\text{Capital Expenditure/Depreciation} = \frac{\text{Capital Expenditure}}{\text{Depreciation}} \times 100$$

Assuming that capital expenditure for maintenance equals depreciation, a ratio greater than 100 per cent implies that the company is expanding its business.

3.2.5

$$\text{Book-to-Bill Ratio} = \frac{\text{Orders Received}}{\text{Sales}}$$

This ratio may express a company's momentum in sales. If orders are higher than sales (book-to-bill ratio > 100 per cent), all things being equal, sales should be increasing for the coming period, provided that orders received are converted into sales for the coming period. It is recommended that companies use a conservative definition for orders received. I.e. the orders included should be firm and unconditional.

3.2.6

$$\text{Sales-Backlog-Ratio} = \frac{\text{Orders Backlog}}{\text{Sales}}$$

This ratio may also express a company's momentum in sales. If the average delivery time is known, the ratio will express how many years or quarters of the current sales, the order backlog covers.

3.3 Risk ratios

In principle, a company's risks can be split into operating risks and financial risks. The risk ratios below deal primarily with the financial risks. If data consisting of a company's variable and fixed expenses is available, it is recommended also to use operating risk ratios.

3.3.1

$$\text{Interest Cover I} = \frac{\text{EBIT} + \text{Interest Income}}{\text{Interest Expenses}}$$

A measure of a company's financial strength/resilience. It may be appropriate to substitute EBIT with EBITA or EBITDA when assessments from a creditor's perspective are made.

3.3.2

$$\text{Interest Cover II} = \frac{\text{CFO}}{\text{Net Finance Costs}}$$

As an alternative to Interest Cover I, cash flow from operations (CFO) may substitute EBIT. This ratio captures inter alia the company's ability to cover interest expenses after changes in working capital.

3.3.3

$$\text{Financial Gearing} = \frac{\text{Net Interest-bearing Debt}}{\text{Equity incl. Minorities}}$$

Financial gearing reflects a company's gearing based on carrying amounts. For companies with significant intangible assets or with assets whose carrying amounts are substantially higher than their market value, this measure might be misleading. Please refer to Appendix VIII regarding implementation of future lease liabilities in net interest-bearing debt and profit/loss.

3.3.4

$$\text{Equity Ratio} = \frac{\text{Equity excl. Minorities}}{\text{Total Assets}} \times 100$$

Traditional way to show a company's financial strength. Also known as solvency ratio.

3.3.5

$$\text{Net Interest-bearing Debt/EBITDA} = \frac{\text{Net Interest-bearing Debt}}{\text{EBITDA}}$$

A popular measure of the gearing of a company showing the company's operating earnings capacity to repay debt. Please refer to Appendix VIII regarding implementation of future lease liabilities in net interest-bearing debt and profit/loss.

Often used ratio in connection with companies' debt covenants.

3.3.6

$$\text{FCFE/Net Interest-bearing Debt} = \frac{\text{FCFE}}{\text{Net Interest-bearing Debt}}$$

Indicates how quickly it is possible for a company to repay its debts. Please refer to Appendix VIII regarding implementation of future lease liabilities in net interest-bearing debt and profit/loss.

Often used ratio in connection with companies' debt covenants.

3.3.7

*Cover of Operating
Liabilities*

CFFO

Current Liabilities

This ratio expresses the company's ability to cover its current liabilities from cash flow from operations for the year. However, for companies in financial distress, cash flow from operations will often be negative. In these cases, cash flow from operations (CFFO) may be substituted with cash in hand from the asset side. This concept is often termed Quick Ratio.

3.4 Share-related ratios

The benchmark for the calculation of EPS is IAS 33. Especially for analysts, this definition is recommended to be used as a reference if the rather simplified presentation of EPS in these guidelines is insufficient.

It is recommended that the calculated EPS is made transparent in the form of a gross list of adjustments made. They may e.g. relate to the treatment of share buybacks, options or capitalisation of research and development costs.

EPS is recommended to be calculated both on a non-diluted and a diluted basis, while other share-based ratios are only defined on a diluted basis. If the Number of Shares changes as a consequence of capitalisation, bonus shares or stock split, the calculation of EPS must be adjusted retrospectively.

In general, it is recommended that the fully diluted Number of Shares be used when share-based investment ratios are calculated, and when there is a strong probability that options, warrants, convertibles, etc., will be converted into shares. However, a separate assessment must be made in each case. If, for example, an option programme is far out of the money close to exercise time, it is not meaningful to include the share equivalents in the Number of Shares.

For the exclusion of options, warrants, convertibles, etc., in the Number of Shares on which share-based investment ratios are calculated, the exercise price must, as a rule of thumb, be significantly above the current share price multiplied by the required risk-adjusted return up to the time of exercise.

The Number of Shares used, the average weighted Number of Shares and the adjustment factor for the ratios should be disclosed.

3.4.1

Number of Shares

The total Number of Shares outstanding at any given point in time, excluding those held by the company.

3.4.2

Number of Shares Diluted

The total Number of Shares outstanding at any given point in time, fully diluted and excluding those held by the company.

For a discussion of dilution, please see section 3.4.

3.4.3

Average Number of Shares

The Average Number of Shares outstanding during a given period.

$$\frac{(\text{No. shares}_{\text{start of period}} \times d_1 \times \frac{1}{f}) + (\text{No. shares}_{\text{end of period}} \times (365 - d_1))}{365}$$

Issues Where:

d_1 = number of days prior to a share issue, including the day when the company receives the proceeds from the issue.

f = adjustment factor as defined in 3.4.4.

Where:

d_2 = number of days between the beginning of the year and the second issue

In the case of multiple issues the formula expands to:

$$\frac{(\text{No. shares}_{\text{start of period}} \times d_1 \times \frac{1}{(f_1 \times \frac{1}{f_2} \times \dots \times \frac{1}{f_n})}) + (\text{No. shares}_{\text{period}_2} \times (d_2 - d_1) \times \frac{1}{(f_2 \times f_3 \dots \times f_n)}) + \dots + (\text{No. shares}_{\text{end of period}} \times (365 - d_n))}{365}$$

Acquisitions If shares are issued to finance an acquisition, d_1 is the period up until when the acquisition takes effect in the consolidated financial statements.

Share Buybacks Formula 3.4.3 is used for share buybacks as well as for new issues.

3.4.4

Dilution Adjustment Factor (f)

If shares are issued at other, i.e. lower, prices than in the market, the new Number of Shares will increase "too much" compared with the proceeds received by the company. Per-share values of earnings, cash flow, etc., will therefore be lower than those based on shares issued at market price because the denominator – Number of Shares – is increased relatively more than the numerator – earnings, cash flow, etc. The adjustment factor f will compensate for this dilution and make year-on-year comparisons possible.

$$f = \frac{P_t}{P}$$

Where:

P_t = Theoretical price as defined below – Theoretical Ex-Rights Price (TERP)

P = Market price on the last day with the subscription rights still attached to the shares.

$$P_t = \frac{(S_p \times P) + (S_n \times P_n)}{S_p + S_n}$$

Where:

S_p = Number of Shares prior to the issue.

S_n = Number of New Shares.

P_n = Price of the New Shares issued.

P_t is the weighted average share price of old and new shares. It expresses what the share price would have been, if the issue had already taken place.

Stock Split and Bonus Shares

$$P_t = \frac{S_p \times P}{S_p + S_n}$$

$$f = \frac{S_p}{S_p + S_n}$$

Issue at Market Price $P_t = P$

$$f = \frac{P_t}{P} = \frac{P}{P} = 1$$

Rights Issue

$$\text{Value of subscription right} = \frac{\left(\frac{P_t - P_n}{S_p}\right)}{S_n} = \frac{S_n \times (P_t - P_n)}{S_p}$$

Convertible Securities The denominator is adjusted by including the new shares to be issued and the numerator is adjusted by eliminating the after-tax interest and/or preferred dividend payments made on the convertible security.

3.4.5

Average Number of Shares Diluted

The Average Number of Shares outstanding diluted during a given period.

The Average Number of Shares Diluted is calculated in the same way as the Non-diluted Average Number of Shares outstanding by substituting only "No. of Shares" by "No. of Shares Diluted".

3.4.6

$$\text{Earnings Per Share Basic (EPS Basic)} = \frac{\text{Profit/Loss for the Period excl. Minorities}}{\text{Average Number of Shares}} \times f_1 \times f_2 \times \dots \times f_n$$

Where:

f = adjustment factor as defined in 3.4.4. The adjustment factor comes into use only for issues completed in accounting periods before the one in question. So, when EPS is calculated for an issue in year 0, only EPS for the years -1, -2 and earlier is multiplied by f .

3.4.7

$$\text{Earnings Per Share Diluted (EPS Diluted)} = \frac{\text{Profit/Loss for the Period excl. Minorities}}{\text{Average Number of Shares Diluted}} \times f_1 \times f_2 \times \dots \times f_n$$

Where:

f = adjustment factor as defined in 3.4.4. The adjustment factor comes into use only for issues completed in accounting periods before the one in question. So, when EPS is calculated for an issue in year 0, only EPS for the years -1, -2 and earlier is multiplied by f .

Profit/loss for the period excluding minorities must be adjusted for the after-tax effect of changes in income and expenses as if the conversion to ordinary shares had occurred. For example the effect of interest saved on convertible debt.

3.4.8

$$\text{Adjusted Earnings Per Share Diluted (Adj. EPS Basic)} = \frac{\text{Adjusted Profit/Loss for the Period excl. Minorities}}{\text{Average Number of Shares}} \times f_1 \times f_2 \times \dots \times f_n$$

Where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6. Adjustments to the profit/loss for the period should be specified.

3.4.9

$$\text{Adjusted Earnings Per Share Diluted (Adj. EPS Diluted)} = \frac{\text{Adjusted Profit for the Period excl. Minorities}}{\text{Average Number of Shares Diluted}} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

Profit/loss for the period excluding minorities must be adjusted for the after-tax effect of changes in income and expenses as if the conversion to ordinary shares had occurred. Adjustments to the profit/loss for the period should be specified.

3.4.10

$$\text{Cash Earnings Per Share (CEPS)} = \frac{\text{Cash Earnings (CE)}}{\text{Average Number of Shares Diluted}} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

Please see comments under 2.11: "Cash Earnings".

Cash Earnings must be adjusted for the after-tax effect of changes in income and expenses as if the conversion to ordinary shares had occurred.

3.4.11

$$\text{Cash Flow Per Share (CFPS)} = \frac{\text{Cash Flow from Operations (CFO)}}{\text{Average Number of Shares Diluted}} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

Please see comments under 2.12: "Cash Flow From Operations"

Cash flow from operations must be adjusted for the after-tax effect of changes in income and expenses as if the conversion to ordinary shares had occurred.

3.4.12

$$\text{Book Value Per Share (BVPS)} = \frac{\text{Equity excl. Minorities}}{\text{Year-end Number of Shares}} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

Book Value per Share is the value of equity per share according to the company's annual report.

3.4.13

$$\text{Net Asset Value Per Share (NAVPS)} = \frac{\text{Net Asset Value}}{\text{Year-end Number of Shares}} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

Net Asset Value per Share is the adjusted value of the equity per share.

3.4.14

$$\text{Dividend Per Share (DPS)} = \text{Dividend per share} \times f_1 \times f_2 \times \dots \times f_n$$

where:

f = adjustment factor as defined in 3.4.4 and used in 3.4.6.

3.4.15

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Paid}}{\text{Profit/Loss for the Period excl. Minorities}} \times 100$$

The dividend payout ratio is the percentage of profit for the period/loss excluding minorities paid out in dividends. The reciprocal of this measure is "Dividend Cover". The dividend payout ratio and dividend yield (3.5.14) must be seen in connection with other ways of channelling money back to shareholders, e.g. share buybacks. Please note that dividend paid may occur several times a year.

3.4.16

$$\text{Total Payout Ratio} = \frac{\text{Dividend Paid} + \text{Value of the Share Buybacks}}{\text{Profit/Loss for the Period excl. Minorities}} \times 100$$

This ratio is also termed "Total Shareholder Return Ratio".

3.5 Price-related ratios

Multiples

Multiples based on EV are included... In line with the increased focus on more operations-oriented key ratios, multiples based on Enterprise Values have also gained in popularity. Multiples based on Enterprise Values measure the value of a company's operations, i.e. the invested capital, while multiples based on the share price measure the value of equity.

...but be aware of the matching principle When these two sets of multiples are calculated, it is very important to keep the matching principle in mind. Enterprise Value multiples must be calculated for statements of income before payments to debt holders, i.e. before net financials, while share price-based multiples must be calculated for statement of income items after net financials.

Ratios that do not comply with this matching principle are not very useful for valuation purposes. Ratios such as Price/Sales can mainly be used to illustrate intercompany differences. Differences can be explained by a number of factors such as market characteristics, cost structure, gearing, etc.

When ratios are interpreted, it is important to bear in mind that too many distorting factors severely reduce the ratios' explanatory value.

...and other pitfalls It is important to notice that EV-multiples (except for EV/NOPLAT) are on a pre-tax basis, which gives disturbances when companies operating in different tax regimes are compared. Comparing EV multiples (calculated with a static market cap) for companies with very different Payout ratios might also cause problems as a very high Payout ratio will increase net debt and thereby EV without influencing sales and operating profit.

Market value ratios

3.5.1

Price Earnings Basic (P/E Basic)	Price EPS Basic
---	----------------------------------

P/E is still the most commonly used price-related ratio for valuation purposes. This ratio expresses the price for the company's earnings per share. When P/E in several companies are compared, identical adjustments for extraordinary items etc. should be made.

3.5.2

Price Earnings Diluted (P/E Diluted)	Price EPS Diluted
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Please see comments under "P/E Basic".

3.5.3

Adjusted Price Earnings Basic (Adj. P/E Basic)	Price Adjusted EPS Basic
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Please see comments under "P/E Basic". Adjusted P/E Basic gives a better valuation picture than P/E when the performance of an individual company over time is analysed and when comparisons between companies are made, as the multiple should exclude goodwill write-downs, amortisation on intangible assets purchased and non-recurring items (please see 2.2 for comments on adjustments).

3.5.4

Adjusted Price Earnings Diluted (Adj. P/E Diluted)	Price
	Adjusted EPS Diluted

Please see comments under "Adj. P/E Basic". Adjusted P/E gives a better valuation picture than P/E when the performance of an individual company over time is analysed and when comparisons between companies are made, as the multiple should exclude goodwill write-downs, amortisation on intangible assets purchased and non-recurring items (please see 2.2 for comments on adjustments).

3.5.5

Dividend-adjusted Price Earnings

Some companies choose to pay cash dividends, whereas others choose primarily to return capital to the owners in the form of share buybacks. If companies consequently make use of share buybacks, analysts will typically recognise the reduction in the Number of Shares in their forecasts and thus EPS will be accreted. The corresponding effect from cash dividends is often left out.

In order to create an improved basis of comparison between companies which pay cash dividends and companies which make use of share buybacks, a dividend-adjusted P/E may be used where undistributed dividends for financial years prior to the present year are deducted from the current price.

$$\text{Dividend-adjusted P/E (n)} = \frac{P - \sum_{t=0}^{n-1} \text{undistributed dividends}}{\text{EPS (n)}}$$

If P/E for forecast year 3 is looked at, the expected but not yet distributed dividends for the latest financial statements presented as well as for forecast year 1 and 2 should be deducted from the current price, before it is used for the calculation of P/E.

If P/E 2017 is looked at in February 2015, the current share price should be reduced with the expected dividend for 2015 and 2016. Additionally, the expected or already declared dividend for 2014 should also be deducted, as it typically is not yet distributed. Thus attention should be given to the date of payment, as one should only adjust for undistributed dividends.

If done theoretically correct, the present value of the expected dividends should be deducted. However, as discounting often will have a very limited effect, it may be omitted in most cases.

3.5.6

Trailing Price Earnings	Price
	Trailing EPS

Please see comments under "Rolling 12 Months' Data" in Chapter II, Definitions and Concepts.

3.5.7

Forward Price Earnings	Price
	Forward EPS

Please see comments under "Rolling 12 Months' Data" in Chapter II, Definitions and Concepts.

3.5.8

Earnings Yield (E/P eller Adj. E/P)	EPS Diluted	or	Justeret EPS Diluted
	Price		Price

The reciprocal value of P/E is the earnings yield, which can be compared with the return on other financial assets.

3.5.9

**Price Earnings Growth
Ratio (PEG Ratio)**

$$\frac{\text{P/E Diluted}}{\text{Estimated EPS Growth}} \text{ or } \frac{\text{Adjusted P/E Diluted}}{\text{Estimated Adjusted EPS Growth}}$$

The PEG ratio is normally used for the relative valuation of growth companies. It is important that EPS or adjusted EPS growth is based on estimated future growth, CAGR (Compound Annual Growth Rate), over a long time horizon and that the same time horizon is used when the PEG ratios of different companies are compared. It is also important that the P/E ratio used is based on a year that corresponds with that of the start of the growth period. It is recommended that the P/E in the numerator represents the P/E for the current year, and that the growth rate in the denominator represents the growth, CAGR, achieved between the current year and 5 to 10 years forward.

3.5.10

Price/Cash Earnings (P/CE)

$$\frac{\text{Price}}{\text{CEPS}}$$

As mentioned under "Cash Earnings", this ratio is a poor proxy for underlying cash flow, as it does not take into consideration capital expenditure and investment in net working capital. Consequently, P/CE is a poor measure for making comparisons between industries with different levels of capital intensity and, therefore, investment requirements. Companies with low capital intensity will look very expensive compared with capital-intensive companies despite the fact that they are on the same adjusted P/E.

In cyclical industries such as shipping and airlines, which have erratic capital expenditure patterns, P/CE may be an appropriate supplement to P/E and other multiples.

3.5.11

Price/Cash Flow (P/CF)

$$\frac{\text{Price}}{\text{CFPS}}$$

Like P/CE, this multiple should be used with care when comparisons between sectors with different levels of capital intensity are made.

3.5.12

Price/Book Value (P/BV)

$$\frac{\text{Price}}{\text{BVPS}}$$

This ratio must be viewed in connection with the ROE ratio as a high P/BV is normally linked with a high ROE. If ROE is calculated on the basis of the equity at the beginning of the year, the following connection appears:

$$\text{P/E} = \frac{\text{P}}{\text{BV}} \times \frac{1}{\text{ROE}}$$

3.5.13

**Price/Net Asset Value
(P/NAV)**

$$\frac{\text{Price}}{\text{NAVPS}}$$

This ratio is most relevant for companies with assets with an objective market value, e.g. shipping companies, airlines and investment companies.

3.5.14

Dividend Yield

$$\frac{\text{DPS}}{\text{Price}} \times 100$$

This ratio expresses the direct yield on a share. It must be seen in connection with other ways of transferring liquidity to shareholders, e.g. share buybacks.

3.5.15

$$\text{Total Yield} = \frac{\text{Dividend} + \text{Value of Share Buybacks}}{\text{Market Capitalisation}} \times 100$$

3.5.16

$$\text{Free Cash Flow Yield} = \frac{\text{FCFE}}{\text{Market Capitalisation} + \text{Value of Minorities}} \times 100$$

This is a simple expression of a company's dividend and share buyback capacity. However, it is very important to see the free cash flow yield in connection with a company's current capital structure, future capital expenditure needs, etc. It is recommended that free cash flow be calculated on the basis of a normalised level of capital expenditure and not include any non-recurring cash flow.

Enterprise Value-related ratios

When EV multiples are calculated for an estimate year, the net interest-bearing debt should be determined for the estimate year in question. For all Enterprise Value-related ratios, please refer to Appendix VIII regarding implementation of future lease liabilities in net interest-bearing debt and profit/loss.

3.5.17

$$\text{Enterprise Value/Sales (EV/Sales)} = \frac{\text{EV}}{\text{Sales}}$$

This ratio is normally only used as a proxy valuation for early phase companies with little or no earnings or for companies whose earnings are characterised by significant cyclical swings.

As the ratio does not take differences in margins and capital intensity into account, it is mostly useful for comparing companies within the same industry and with the same degree of vertical integration.

3.5.18

$$\text{Enterprise Value/EBITDA (EV/EBITDA)} = \frac{\text{EV}}{\text{EBITDA}}$$

This ratio does not take differences in capital intensity into consideration. Consequently, it is not useful when companies in different industries are compared. When comparisons between companies within the same industry are made, EBITDA should be adjusted for disturbances such as, for example, differences in R&D capitalisation.

3.5.19

$$\text{Enterprise Value/EBITA (EV/EBITA)} = \frac{\text{EV}}{\text{EBITA}}$$

This ratio is a very useful Enterprise Value based measure. However, when companies in different countries are compared, it is recommended that differences in tax regimes be taken into consideration.

3.5.20

$$\text{Enterprise Value/EBIT (EV/EBIT)} = \frac{\text{EV}}{\text{EBIT}}$$

This ratio is a very useful Enterprise Value based measure. However, when companies in different countries are compared, it is recommended that differences in tax regimes be taken into consideration.

3.5.21

$$\frac{\text{Enterprise Value/NOPLAT}}{(\text{EV/NOPLAT})} = \frac{\text{EV}}{\text{NOPLAT}}$$

EV/NOPLAT is a very useful ratio. It is an expression for a debt-free operating P/E. It also eliminates the disadvantages when companies in different tax regimes are compared, as is the case with the other EV-multiples.

3.5.22

$$\frac{\text{Enterprise Value/ Free Cash Flow to Firm}}{\text{Free Cash Flow to Firm (FCFF)}} = \frac{\text{EV}}{\text{Free Cash Flow to Firm (FCFF)}}$$

EV/Free Cash Flow to Firm is a similar measure as P/E but a kind of ungeared P/E. In comparison with P/E, it is not to the same degree based on accounting techniques. The EV/Free Cash Flow to Firm ratio states how many years it will take to get payback on an investment (assuming no growth or decline in free cash flow).

3.5.23

$$\frac{\text{Free Cash Flow to Firm Yield}}{\text{FCFF}} \times 100 = \frac{\text{FCFF}}{\text{EV}} \times 100$$

This is a simple expression of a company's capacity to service debt, pay dividends and buy back shares. However, it is very important to see the free cash flow yield in connection with a company's current capital structure, future capital expenditure needs, etc. It is recommended that free cash flow be calculated on the basis of a normalised level of capital expenditure and not include any non-recurring cash flow.

IV Special Ratios for Certain Sectors

4.1 Finance

IFRS prescribes 3 possible valuation principles:

1. Available for sale (AFS)
2. Held to maturity (HTM)
3. Held for trading

Market value is predominantly used in Danish financial statements, but the Danish Executive Order on the Presentation of Financial Statements for credit institutions has opened up for the use of HTM, whereas AFS is still not allowed according to the Danish Executive Order on the Presentation of Financial Statements. Listed companies, however, are not restricted by the Danish Executive Order on the Presentation of Financial Statements, as the consolidated financial statements for a listed enterprise must be presented in accordance with IFRS. In practice, however, most banks have chosen to present their financial statements in accordance with both IFRS and the Danish Executive Order on the Presentation of Financial Statements. The use of both HTM and AFS in Danish banks' financial statements is seen to a limited degree.

For insurance companies, the use of AFS and HTM is still not allowed according to the Danish accounting rules, but they may be used in the consolidated financial statements of listed companies. So far, no company has made use of this option.

In Norway, listed credit institutions and insurance companies present consolidated financial information according to IFRS. In the statutory financial statements, listed credit institutions may choose to recognise dividend to owners as debt. Credit institutions not listed may also choose local GAAP. Statutory financial statements for Norwegian insurance companies are based on IFRS with a number of adjustments according to local regulations. Insurance companies not listed also base their consolidated financial statements on IFRS with adjustments according to local regulations.

AFS The asset is carried at market value in the balance sheet, but only realised losses and gains are carried in the statement of income. Unrealised losses/gains are carried directly against equity.

As unrealised gains and losses must be carried directly against equity in a special reserve, the visibility is high. It is recommended that AFS adjustments carried directly against equity be carried back to Profit for analytical purposes. Remember to adjust for taxes.

HTM Corresponds to the term amortised cost, which was previously used by the life insurance sector. The expected effective return from purchase of the asset is recognised as income on a current basis. Thereby a uniform and easily predictable return is obtained. HTM classification has the derived effect that the asset should not be sold before normal repayment, and if such sales occur to a more than insignificant extent, companies must reclassify all remaining HTM assets to AFS and not use the HTM classification in the following two financial years.

In order to avoid this restriction, the companies have the option to classify assets instead as loans and receivables. The overall principle corresponds to HTM, only there are no limitations on the disposal of the asset. On the other hand, listed assets cannot be classified as loans and receivables.

It is recommended that financial analysts in their work strive towards making financial statements comparable, and adjusting for differences in accounting principles.

For financial institutions, it is recommended to strive towards using market values as the common denominator as market values alone constitute an unequivocal objective measure.

From an analysis perspective, there is an appreciation of the HTM classification, and as a rule, adjustment of Profit for analysis purposes may be omitted. Companies that wish to adhere to best practice for HTM are recommended to disclose the market value and any difference from the carrying amount in both full-year and interim financial statements.

Shares as well as bonds can be classified as AFS, whereas bonds alone can be classified as HTM/loans and receivables.

Banks

Significant differences compared to the Danish Financial Supervisory Authority's financial ratio definition

The Danish Finance Society's financial ratio definition differs from the Danish Financial Supervisory Authority's definition in a number of areas. Most significant is that guarantees are left out of the denominator in a number of credit-related ratios.

Stringent Accounting Rules

The financial statements of banks are subject to presentation in statutory formats. As these schedule requirements do not give an adequately balanced presentation of the actual operations in all areas, banks following best practice should supplement with an operational format based on the following principles:

- **Net interest income** from deposit and lending operations as well as ordinary funding operations. This means that interest income and expenses stemming from trading activities and own portfolio are deducted from the reported net interest income. For liquidity tied up by trading activities and own portfolio, interest income corresponding to the average funding expense excluding deposits must be included in net interest income.
- **Commission income** is specified by source (as a rule the Financial Supervisory Authority's current division into 5 subsources) but with supplementary data on each single source broken down into portfolio-related fees (e.g. asset management fees) and transaction-oriented fees (e.g. commission).
- **Trading activities** including capital gains in connection with customer-driven trading as well as short-term positioning in the trading function. In this line, interest income related to trading activities including income from short-term positioning in the trading function must be included. As a rule, returns on long-term positioning (e.g. exceeding 5 days) must be specified if this return constitutes a material part (>25 per cent) of the total trading activity.
- **Other income** broadly consistent with the statutory format, however, with addition of dividend income not part of sector-related companies or the return on the bank's own portfolio.
- **Sector-related companies** Income from shareholdings in sector-related companies, e.g. The Danish VP Securities A/S and PBS A/S should be disclosed as a separate source of income if it constitutes a material (>5 per cent) part of profit before impairment losses.
- **Non-banking income including insurance**
- **Treasury income** The total return on the bank's own investment portfolio including interest and dividend income net of direct costs (fees), and funding expenses for the tying-up of liquidity employed in the bank's own portfolio.

Interest income is particularly difficult to interpret in the statutory format - a problem which the operational format overcomes to a great extent.

It is recommended that the principles for settlement of cash and cash equivalents be specified for trading and treasury, respectively.

CoCo CoCo instruments (typically named "AT1's") are a subordinated capital-like instrument, which at pre-determined trigger levels, typically on the capital adequacy, either need to be converted into equity shares or be written down.

The banks' accounting classification of CoCo instruments as equity or debt depends on the specific issuance terms and conditions. If the issuance is classified as equity, the interest coupons and the tax effect hereof will not be included in the statement of income.

From an analytical perspective, CoCo capital should be treated as other subordinated capital, alternatively as minority interests. If banks choose to charge the expense to the CoCo capital under other comprehensive income, it should be deducted from Profit for analysis purposes.

CoCo issuance affects primarily three ratios – in addition to the solvency ratios.

EPS Basic (3.4.6): If not already deducted, the expense for CoCo capital should be deducted from the profit/loss for the period excluding minorities.

Return on Equity (3.1.5): The expense for CoCo capital should be deducted from the profit/loss for the period excluding minorities and should also be deducted from the average equity.

C/I (4.1.5): Optimally, the expense for CoCo capital should be deducted from the revenue. However, on the basis of a materiality criterion, it may be omitted, if it affects the revenue with less than 1 per cent.

REA REA is an abbreviation for risk exposure amount. REA replaces the former term RWA, which stands for risk-weighted assets. The ongoing implementation of CRD IV has changed the designation for risk-weighted assets, the term to be used in future being risk exposure amount (REA).

Non-recurring Income and Expenses All one-off items must be specified: e.g. gains/losses from the sale of properties, restructuring charges, amortisation/impairment losses of goodwill and depreciation/impairment losses of client assets.

Segment Information It is recommended that all segment information be based on actual organisational breakdowns.

It is recommended that full allocation of all expenses takes place, and transfer interest rate is applied which reflects the bank's average funding expenses including expenses for hybrid and other subordinated debt.

It is recommended that the statement of income be supplemented with the following balance sheet figures: loans, deposits, allocated equity and risk exposure amount.

Embedded Value It is recommended that Embedded Value be disclosed as supplementary information if life insurance constitutes a significant part of the bank's activities (the capital base in life insurance >5 per cent of the group's capital base). If Embedded Value is reported, disclosure of the most significant assumptions is recommended:

- Principles for Embedded Value calculation
- An Embedded Value-based statement of income (see section on life insurance).

Operating Leases If operating leases exceed an insignificant part of the bank's activities (>2 per cent of total income), operating lease income as well as depreciation and amortisation + other expenses related to these lease activities are recommended to be specified.

Solvency Ratios It is recommended that the following key figures are given in annual as well as interim financial reports:

- Common Equity Tier 1 (CET1)
- Core capital
- Capital base
- Risk exposure amount (REA)

In the transitional phase to Basel III/CRD, it is recommended that banks disclose REA in accordance with Basel I, the transitional regulations, as well as the expected fully implemented Basel III regulatory framework in addition to the currently used REA for calculation of solvency ratios.

In addition to this, it is recommended that banks disclose the effect of changed modelling - e.g. a transition to an advanced model for sub-portfolios.

In the annual report, companies are recommended for each subordinated loan to specify:

- Interest coupon - in case of a variable interest rate, the interest rate which is used as the basis and the margin which must be added should be stated
- Step-up time/first call, and which interest rate will apply after the step-up time
- Final maturity
- CoCo: Triggers and the effect when a certain trigger is reached (conversion/write-downs with or without the right to subsequent write-ups as well as any conditions for subsequent write-ups).

Asset Management Assets under management must be split into:

- Discretionary management
- Investment funds
- Life insurance

Additionally, it is recommended that the total volume of assets held in custody be stated.

In addition to this, it is recommended that allocation across asset types (equities, bonds, properties, etc.) be stated for each single area.

Net new sales of discretionary management as well as investment funds should also be disclosed.

Loan Impairment Losses It is recommended that impairment losses on loans be divided into:

- New individual impairment losses
- Reversed individual impairment losses
- New collective impairment losses
- Reversed collective impairment losses
- Losses not covered by prior impairment losses
- Reversed claims previously written off
- Other movements

Furthermore, it is recommended that banks disclose:

- Allowance account - divided into individual and collective impairment losses
- Impaired gross loans - before individual impairment losses

Distribution by sector:

- As a rule, it is recommended that companies disclose their allocation of loans on the basis of their internal assessment of which sector constitutes the most significant credit risk. Alternatively, the categorisation by Statistics Denmark/Norway can be used.
- It is also recommended that companies disclose their allocation of the allowance account and impaired loans/loans with a reduced interest rate split between the individual sectors.

$$\text{4.1.1} \quad \text{Loss Ratio} = \frac{\text{Impairment Losses on Loans}}{\text{Average Loans}}$$

Please note that the income statement item may include impairment losses on loans and guarantee provisions. If guarantee provisions constitute a significant amount, it is recommended to leave it out of the calculation of the loss ratio.

$$\text{4.1.2} \quad \text{Loan/Loss Allowance Ratio} = \frac{\text{Allowance Account}}{\text{Loans}}$$

Individual: $\frac{\text{Accumulated Individual Impairment Losses}}{\text{Loans}}$

Collective: $\frac{\text{Accumulated Collective Impairment Losses}}{\text{Loans}}$

$$\text{4.1.3} \quad \text{EBIT} = \text{Profit before impairment losses on loans to a certain extent corresponds to EBIT in traditional companies.}$$

Profitability

$$\text{4.1.4} \quad \text{Return on Investment} = \frac{\text{Profit/Loss}}{\text{Average Assets}}$$

$$= \frac{\text{Profit/Loss}}{\text{Average Risk-weighted Assets}}$$

$$\text{4.1.5} \quad \text{C/I} = \frac{\text{Expenses}}{\text{Total income}}$$

It is recommended that expenses as well as income be adjusted for amortisation and impairment losses of goodwill and intangible customer assets.

It is recommended that treasury income be left out of the income base.

It is recommended that operating income only includes income offset by expenses in the cost base. If e.g. insurance activities are included as a share of profit or loss, it is recommended that this not be included as the related cost base is not part of operating expenses. If a life insurance activity is consolidated in compliance with IFRS, adjustment is not necessary as in that case operating expenses in the insurance company are included in the cost base. Correspondingly, it is recommended that the return from sector companies be left out for the same reason.

If operating leases are of a material size, it is possible to adjust by offsetting depreciation and expenses related to operating leases in income and reducing expenses correspondingly.

Interest Margins Traditionally, the interest margin is measured as the difference between the average deposit and lending interest rate. As banks have broadened their funding base, today deposits are no longer the predominant funding source. As an obvious currency mismatch may occur concurrently, the financial statement user actually has a very limited chance of calculating an interest margin on the basis of the information available in the financial statements of banks.

The following interest margin definitions are recommended:

4.1.6	
Average Lending Rate	$\frac{\text{Interest Income from Loans}}{\text{Average Loans}}$
4.1.7	
Average Deposit Interest Rate	$\frac{\text{Interest Expenses on Deposits}}{\text{Average Deposits}}$
4.1.8	
Interest Margin on Loans	Average Lending Interest – Average Funding Expenses excl. Deposits
4.1.9	
Interest Margin on Deposits	Average Funding Expenses excl. Deposits – Average Deposit Interest
4.1.10	
Interest Margin 1	Average Lending Rate – Average Deposit Interest Rate
	This traditional interest margin has two primary weaknesses: currency mismatch and other sources having provided funding for a material part of loans.
4.1.11	
Return on Interest-bearing Assets	$\frac{\text{Interest Income}}{\text{Average Interest-bearing Assets}}$
4.1.12	
Funding Expense	$\frac{\text{Interest Expenses}}{\text{Average Interest-bearing Debt}}$
4.1.13	
Interest-bearing Assets	Receivables at Credit Institutions + Loans + Bonds
4.1.14	
Interest-bearing Debt	Debt to Credit Institutions + Deposits + Issued Bonds + Subordinated Debt
4.1.15	
Interest Margin 2	Return on Interest-bearing Assets – Funding Expenses
	In practice, analysts will often apply these more simple ratios:
4.1.16	
Interest Margin (REA)	$\frac{\text{Net Interest Income}}{\text{Average Risk Exposure Amount}}$

This ratio can be calculated on the basis of disclosed figures.

Due to the prolonged transition from first Basel I to Basel II and now to Basel II/CRD IV, REA has been a less applicable denominator in the interest margin, as REA is affected by transitional schemes and not least significant model changes. Therefore, the development in the margin is more often due to changes in risk weights than changes in net interest income, which, naturally, is not optimal. Therefore, it is suggested that the REA interest margin be supplemented with:

4.1.17

$$\text{Interest Margin (Loans)} = \frac{\text{Net Interest Income}}{\text{Average Loans}}$$

This interest margin has a number of obvious weaknesses, e.g. it does not take account of an altered funding mix. On the other hand, loans constitute a more fixed quantity during the phase-in of Basel III/CRD IV, and thus often make technical changes of the REA statement the primary driver of the REA interest margin.

As REA is typically projected based on growth in loans, this ratio is a good supplement to the REA-based ratio during the current transitional phase.

Non-life insurance

Stringent Format Requirements Non-life insurance financial statements are subject to stringent international format requirements supplemented by national provisions which determine the detail of the companies' financial reporting.

However, when reading Danish non-life insurance financial statements, the reader should observe that there is:

1. A focus on the gross statement of insurance ratios
2. Greatly increased use of discounting

This is not the case in Norway, where focus tend to be on net insurance ratios and discounting is rare. In Finland, the focus is mainly on net insurance ratios. Discounting is widely used as a significant share of the claims provisions are related to long-tail statutory workers' compensation and statutory motor third party insurance, where claims are paid in the form of an annuity up until the normal working life ends.

The increased use of discounting undoubtedly gives a fairer presentation and a presentation which is in greater agreement with the coming Solvency II regulations. In return, the comparability across borders will be reduced.

Two Main Constituents The statement of income may be divided into two main constituents:

- Insurance business
- Investment business

Insurance Business The insurance business expresses the value creation that results when the insurance company undertakes insurance risks including the risk-free return of the cash flows originating from earned premiums typically being paid at the beginning of the period, whereas claims are paid with a certain delay.

Investment Business Investment business expresses the additional or reduced return that companies have obtained by investing cash flows at a higher or lower risk than the risk-free interest rate. Additionally, the return on the part of the equity which is tied up in financial assets in the investment business is included.

The Danish Financial Supervisory Authority has chosen an approach where in principle all claims outstanding provisions are determined at a discounted value, which means that if a company expects to pay a claim in e.g. a year, the company will only charge the present value of the expected payment to the statement of income. Discounting of the claims outstanding provisions is made on the basis of a yield curve defined by the Financial Supervisory Authority.

Discounting is allowed in Norway but rarely used. All claims are therefore presented in a 'nominal' form, which should take account of expected inflation until the anticipated time of claims settlement.

In Finland, non-life claims provisions with a maturity of over one year are discounted with a fixed rate. The maximum discount rate applicable is determined by the FSA.

A share of the return on the insurance provisions will cover the discounting expense (unwinding of discounting) through the ongoing revaluation of claims outstanding provisions. Consequently, technical interest consists of return on the non-discounted provisions – primarily the provisions for unearned premiums. Therefore, a difference arises between the charge of technical interest to the statement of income which occurs in the investment business, and the technical interest which is recognised as income in the insurance business. This difference indicates the ongoing revaluation of claims outstanding provisions.

Technical Interest Technical interest consists of two subcomponents:

- The risk-free return on all insurance provisions, less
- Settlement of discounted claims outstanding provisions (unwinding of discounting)

Equalisation Provisions Up until the transition to IFRS in 2005, most non-life insurance companies to some extent applied equalisation provisions, which from an analytical approach should be considered as being earnings management items, and, therefore, should be carried back to profit for analysis and be added to equity – after adjustment for tax.

Norwegian regulators have required insurance companies to establish security reserves, which are intended as buffers over and above the best estimate for claims reserves. The majority of these funds are treated as untaxed equity under IFRS but not under Norwegian GAAP. These should be treated in the same way as the equalisation reserves in Denmark.

Despite the fact that Finnish listed companies report according to IFRS, which bans the use of equalisation provisions, the Finnish FSA is still governing the industry including the listed entities based on Finnish GAAP, where equalisation provisions still is used. If the combined ratio is below the historical average, companies are required to increase equalisation provisions, and when the combined ratio is above the average, companies are required to release these provisions. When the regulatory solvency capital is calculated, equalisation reserves are not included in the capital base, unlike in the IFRS financial statements, where it is added to the equity.

Claims Outstanding Provisions The amount of claims outstanding provisions is based on an estimated figure and includes not only all claims that have been reported but not yet paid, but also claims incurred but not yet reported. As claims outstanding provisions are consequently estimations, companies must on an ongoing basis report any differences between the allocated claims outstanding provisions and the actual settlement of claims outstanding provisions. This difference is termed run-off prior year's business. It is recommended that the run-off prior year's business be specified in both full-year and interim financial reports. If the run-off constitutes a significant item, it is recommended that companies that wish to live up to best practice also break down the run-off by industries and geographical areas. This is also the case if the net movement is modest, but composed of significant gross movements in the various sectors.

Companies that wish to adhere to best practice are recommended to provide information on claims outstanding provisions broken down by relevant sectors and disclose the term profile for each sector at least once a year.

It is recommended that companies that carry on business in several countries disclose this information for both the group's figures and their most significant single markets, as reserve ratios may vary considerably between countries.

Furthermore, companies that wish to adhere to best practice are recommended to disclose information on claims frequency and average claims for significant sub-portfolios – as a minimum for motor and property insurance. Companies are also recommended to specify how frequency and average claims are determined, including which type of claim has been left out, if any.

Investment Business Investment business constitutes a considerable share of the profit formation in a non-life insurance company, and at the same time it is the far largest swing factor for short-term results. Therefore, it is recommended to give reasonable insight into the asset allocation and realised profits of the insurance business. Companies that wish to adhere to best practice are recommended in both full-year and interim annual reports to provide a breakdown of the investment assets between the most significant asset classes as well as disclose the realised profit for each single asset class.

In this way, financial analysts are given not only the opportunity to estimate the return on investment based on market-observable benchmark returns, but also to backtest whether there are systematic variances from the benchmark return, which may e.g. indicate another risk profile than the benchmark employed. It is recommended that companies disclose any specific circumstances which entail that an asset class is behaving differently from a typical benchmark, and the companies are recommended to disclose relevant benchmarks for the various asset classes. Consolidated financial statements that cover both life insurance and non-life insurance must disclose the return on investment and the investment assets in the non-life section.

As insurance provisions, especially premium provisions, may have considerable seasonal fluctuations, companies that wish to adhere to best practice are recommended to disclose average balances in both full-year and interim financial statements.

On transition to IFRS, the concept intra-group rent was cancelled. That means that if an insurance company owns its own owner-occupied property, the costs in the technical profit will not reflect this expense. Instead, the company will earn a lower return on investment as the owner-occupied property does not generate any return. Pursuant to the Danish Executive Order on the Presentation of Financial Statements, companies must adjust the expense ratio, so that a market-driven rent of the owner-occupied property is part of the expense ratio. Companies that wish to adhere to best practice are therefore recommended to disclose the amount of intra-group rent split between the technical operations of non-life insurance, investment business in non-life insurance and life insurance business, respectively.

4.1.18

Earned Premiums

	Gross premiums
±	Changes in provision for gross premiums unearned
–	Bonuses and premium discounts
=	Gross premiums earned
–	Outward reinsurance premiums
±	Changes in reinsurers' share of provision for premiums unearned
	Net premiums earned

Net premiums earned are also termed earned premiums, net of reinsurance. In these guidelines, the term "net" is generally used instead of "net of reinsurance".

4.1.19

Claims Incurred

	Gross claims paid
±	Changes in gross claims outstanding provisions
=	Gross claims incurred
–	Reinsurance cover received
±	Changes in reinsurers' share of claims outstanding provisions
=	Net claims incurred

4.1.20	
Operating Costs	Acquisition costs
	+ Administrative expenses
	= Gross operating costs
	– Commissions and share of profits from reinsurers
	= Net operating costs
4.1.21	
Profit/Loss from Business Ceded	– Outward reinsurance premiums
	± Reinsurers' share of change in unearned premiums
	+ Reinsurance cover received
	± Changes in reinsurers' share of claims outstanding provisions
	+ Commissions and share of profits from reinsurers
	= Profit/loss from business ceded

Ratios Insurance ratios are determined either on a gross or a net basis. Gross figures are determined excluding reinsurance premiums ceded, whereas net numbers are determined including reinsurance premiums ceded. The Danish Financial Supervisory Authority chose to make gross figures standard for the sector with the implementation of IFRS in 2005. The other Nordic countries use net figures as standard. Based on the statutory presentation form of a statement of income, both gross and net numbers can be inferred.

Ratios, gross

4.1.22	
Combined Ratio	Gross Claims Ratio + Reinsurance Ratio + Gross Expense Ratio
4.1.23	
Claims Ratio	$\frac{\text{Gross Claims Incurred}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.24	
Net Reinsurance Ratio	$\frac{\text{Profit/Loss from Business Ceded}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.25	
Claims Ratio - including Business Ceded	$\frac{\text{Gross Claims Incurred} + \text{Profit/Loss from Outward Business}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.26	
Expense Ratio	$\frac{\text{Gross Operating Expenses Adjusted for Market Driven Rent of Own Owner-occupied Properties}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.27	
Insurance Interest Ratio	$\frac{\text{Technical Insurance Interest}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.28	
Profit Margin	$\frac{\text{Technical Profit/Loss}}{\text{Gross Premium Income} - \text{Bonuses and Premium Discounts}}$
Ratios, net	
4.1.29	
Combined Ratio	Net Claims Ratio + Net Expense Ratio

4.1.30	Claims Ratio	$\frac{\text{Net Claims Incurred}}{\text{Net Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.31	Expense Ratio	$\frac{\text{Net Operating Expenses Adjusted for Market Driven Rent of Own Owner-occupied Properties}}{\text{Net Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.32	Insurance Interest Ratio	$\frac{\text{Technical Insurance Interest}}{\text{Net Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.33	Profit Margin	$\frac{\text{Technical Profit/Loss}}{\text{Net Premium Income} - \text{Bonuses and Premium Discounts}}$
4.1.34	Solvency Capital	$\begin{aligned} &\text{Equity} \\ &- \text{Goodwill/intangible assets} \\ &- \text{Tax asset} \\ &= \text{Core capital} \\ &+ \text{Subordinated debt} \\ &= \text{Capital base} \end{aligned}$ For a more precise definition of capital base, please refer to the Financial Supervisory Authority's Executive Order on the Presentation of Financial Statements in force at any time.
4.1.35	Solvency Ratio	$\frac{\text{Capital Base}}{\text{Capital Requirement}}$
4.1.36	Equity Margin	$\frac{\text{Net Premiums}}{\text{Core Capital}}$
4.1.37	Reserve Ratio, Claims Outstanding Provisions	$\frac{\text{Gross Claims Outstanding Provisions}}{\text{Gross Premium Income}}$
4.1.38	Reserve Ratio, Premium Unearned	$\frac{\text{Gross Premiums Unearned}}{\text{Gross Premium Income}}$
4.1.39	Reserve Ratio, Total	$\text{Reserve Ratio Claims Outstanding Provisions} + \text{Premium Provisions}$

Life insurance

Life insurance is characterised by the conclusion of often long-term contracts and the incurrence of often significant sales costs in the year when the contract was made.

National Characteristics While the industry historically speaking has been dominated by guaranteed products, today, new sales are concentrated on market-rate products or unit-link, if a more international term should be used. While market-rate products are fairly conform across markets, the guaranteed products have a number of national characteristics, which to a great extent require that the reader of financial statements must have knowledge of the underlying business model and of which limitations are imposed on the profit formation in order to understand the financial statements. The balance sheet is still dominated by the guaranteed life-insurance product, and earnings are to an even greater extent dominated by the guaranteed product. But with the sizable growth from new premiums in market-rate products, it is to be expected that we before the next edition of this publication will see market-rate products take the lead, not only measured on new sales, but also on savings and perhaps even on earnings.

Danish Life Insurance

With the Executive Order on the Contribution Principle as of 1 January 2011, a number of changes in the guaranteed product have taken place, where companies now must split their portfolio into a number of interest rate groups (high focus) as well as risk and cost groups (low focus). The fundamental principles are unchanged. However, as each interest rate group should be considered a separate company, the need for insight increases, and in general best practice should dictate that information earlier requested at company level now should be disclosed for each interest rate group.

Three Principles Life insurance financial statements may be determined according to three principles:

- *1st Profit/loss based on the accrual of guaranteed return and on costs and risk coverage referring to the basis*
- *2nd Profit/loss based on the accrual of guaranteed return, whereas agreed-upon discounts are included in the cost and risk financial statements - used for calculating the ratios of the Danish Financial Supervisory Authority*
- *3rd Profit/loss including allocation of bonus - the official financial statements.*

Each of the three types of financial statements has a specific role, of which especially the first order financial statements are emphasised as they alone convey a picture of which (loss) risk the shareholders are incurring, as they illustrate the absolute least amount a company is obligated to allocate to its customers and at the same time the maximum amount the company is entitled to charge for its services: administration and risk coverage.

Companies that wish to adhere to best practice are therefore encouraged to disclose all three types of financial statements, as these alone will give the stakeholders of the companies insight into the actual operations and risk.

The statement of income in a life insurance company reflects profit generation, but in no way shows how the profit has been generated. The profit has been generated on the basis of profit limitations apparent from the Executive Order on Contribution Principle. Companies should therefore give supplementary information showing the profit components:

- + Profit margin (interest margin) on savings, which is specified for each interest rate group
- + Share of risk and administrative profit/loss
- = Total risk premiums
- + Return on equity
- + Return on unit – linked activities
- + Return on other activities outside the contribution principle
- = Profit/loss from life insurance

If the return on equity stems from a separate investment portfolio, it is recommended that information on its asset allocation and historical return divided into relevant main groups be disclosed.

Three Subcomponents Additionally, a division into these three subcomponents will be relevant:

- Investment profit/loss: Achieved return on investment less guaranteed interest for each interest rate group
- Risk profit/loss: Invoiced risk premiums less actual risk costs including reserve adjustments
- Cost profit/loss: Invoiced costs less actual costs

These three subitems may all be determined as part of first, second or third-order financial statements. In the ratios of the Danish Financial Supervisory Authority, second-order figures are applied.

Interest Rate Groups Since 2011, companies must divide the portfolio into interest rate groups, each managed as a separate unit with its own risk buffers and its own investment portfolio. The following should be disclosed for each interest rate group as a minimum:

- Interest basis, including current average
- Life insurance provisions – both determined at market value and as retrospective provisions
- Collective and individual bonus potential, including any consumption of individual bonus potential
- Average duration of the insurance portfolio
- Asset allocation – not least of e.g. swaptions as well as distribution of historical growth across main groups
- Hedging instruments – swaptions and the like
- Shadow account

Guaranteed Life Insurance in Norway

The rules and regulations governing this type of products in Norway are unique in a Nordic (and probably global) context. Guaranteed life insurance can be broken into two sub-groups, each with its profit sharing/fee characteristics:

- Products with profit sharing
- Fee-based products

Products with Profit Sharing This category makes up about 50 per cent of the guaranteed life insurance funds in private sector life insurers in Norway. Specifically, these products are individual life annuity/pension schemes, individual endowment insurance portfolio and paid-up policies (individual contracts that have left occupational pension plans). The life insurance company's earnings are primarily generated by allocating 20-35 per cent of the products' annual investment result to the life company's equity owners (profit sharing). The investment result is calculated as the difference between investment income and the guaranteed return on the policies. 20 per cent of this result for the paid-up policies is allocated to shareholders, while 35 per cent in the case of the individual products. Risk coverage (typically in the event of death or disability) is an integral part of the product.

Companies that wish to adhere to best practice disclosure should specify the following for each of the two categories of insurance products:

- Funds under management
- Asset allocation (adjusted for derivatives) on average for and at the end of the reporting period
- Investment return per asset class and in total for each portfolio
- Interest guarantees by portfolio
- Administration income (premiums and reserve releases) and associated operating costs
- Risk income (premiums and reserve releases) and claims

The insurers should disclose three 'levels' of investment return:

- The realised investment return, which forms the basis for permanent allocations to policyholders
- The value-adjusted investment return, which is realised and unrealised return excluding market value adjustments to assets held to maturity
- A comprehensive investment return, which represents a total mark-to-market of all assets on the balance sheet including assets held to maturity

Fee-based Products This is the second half of the life insurance reserves in the private sector companies and is known as group-defined benefit occupational pension products. They used to be traditional products with profit sharing, but became fee-based following changes to the law that came into effect at the start of 2008. New sales are concluded with lower interest guarantees than earlier contracts. The life insurance company's earnings are based on fees that are invoiced upfront. Risk coverage (typically in the event of disability or death which leads to a spouse and orphan pension) is an integral part of the product.

Best practice disclosure is very much the same as for the products with profit sharing as outlined above. However, in addition insurers should disclose the fees charged for providing the interest guarantee.

Buffer Capital Information Life insurers in Norway may hold three types of buffer capital (over and above equity and subordinated debt) that act as buffers between any year's investment return and the minimum guaranteed investment return.

These are:

- Market value reserve
- Overvalues (or undervalues) related to assets held to maturity (HTM)
- Additional statutory reserves

The market value reserve arises when the realised (recognised) investment return is lower than the value-adjusted investment return. This reserve is specified on the balance sheet. Surplus values (or deficits) in HTM portfolios cannot be read directly from the balance but should be detailed in notes to the balance sheet. Clients transferring away from a life insurer have no claim on the values locked up in these two reserves. However, they will benefit from transferring into any such reserves on the balance sheet of the life insurer that they move to.

The additional statutory reserves are specific to the client but can be used at the discretion of the insurer in situations when the investment return falls below the guaranteed rate. However, such funds cannot be used to cover negative investment returns. These will have to be covered by the life insurers' equity owners.

Best practice disclosure would be to show all types of buffer capital broken down by type of insurance funds. In addition, a thorough analysis of a guaranteed life insurance business requires a breakdown of buffer capital according to the level of interest rate guarantee for the funds. This is not common practice today.

Company Investment Portfolio The life insurers' equity capital is invested separately from client funds. The key information related to this portfolio is asset allocation and investment return. It is quite common to combine the earnings from these assets with any interest payments on subordinated debt. In such situations, the disclosure should allow the reader to separate these two.

Guaranteed Life Insurance in Finland

In Finland, the distribution of profits in guaranteed with-profit life insurance companies is split between shareholders and policyholders according to a "principle of fairness". Life insurance companies have to define these principles clearly and disclose them. In addition, the companies annually have to report the previous year's payments as compared to the principles, and the Finnish FSA analyses both the defined principles and the amounts paid. If the Finnish FSA analysis proves that a company has not followed its principles, the Finnish FSA may give a remark to the company. Typically, depending on the policy type, the Finnish life insurance companies have defined the total return to the policy holders to be equal to either the 12 month Euribor rate or the 5-year or 10-year Finnish government bond yield.

Swedish Life Insurance

Swedish Life insurance companies can be separated into three different categories depending on how they are permitted to distribute profits:

- Limited liability companies that are allowed to distribute profits to shareholders
- Limited liability companies run on a mutual basis (not allowed to distribute profits to shareholders)
- Mutual companies

Traditionally, all companies have been in one of the two latter categories but over the last years a couple of companies have been demutualised. That trend has however temporarily stopped as a result of the Swedish FSA not approving the demutualisation of Länsförsäkringar Liv in late 2009. Ongoing investigations on related legislation may influence the trend.

In the limited liability companies allowed to distribute profits to shareholders the investment results are shared between shareholders and policyholders at predetermined rules whereas the insurance and administration results are typically borne by the shareholders.

In mutual companies (including mutually run limited liability companies) any surpluses are returned to the policyholders. For savings products surpluses are preliminary allocated to the policyholders either through a bonus rate or through a yearly indexation (usually following the consumer price index). Undistributed preliminary allocated surpluses are held in a surplus fund within equity.

The collective funding ratio shows the value of the underlying assets in relation to the value of the guaranteed commitments and surpluses that are preliminary allocated among the insurance contracts.

Market-rate Products/Unit-linked

Operational Breakdown Unit-linked activities are consolidated into the other life insurance financial statements though by nature these activities are significantly different. If the magnitude of the unit-linked activities is high, it is recommended that the companies give the following operational breakdown:

Earned premiums -e.g. expenses calculated in proportion to the premium payment

+ Savingsbased income - i.e. income directly dependent on the size of the savings - preferably divided into direct asset fees and kick-back from external asset managers

= Total income

- Sales cost

- Administrative expenses

± Profit/Loss from risk products affiliated to the unit – linked products

= Profit/Loss from unit – linked activities

This format better reflects the profit generation in a unit-linked portfolio than the traditional life insurance financial statements. The profit/loss from unit-linked activities should be disclosed as an absolute minimum.

Ratios

4.1.40

Profit Margin $\frac{\text{Profit/Loss for the Period excl. Minorities before Transfer to/from Shadow Account}}{\text{Net Life Insurance Provisions}} \times 100$

4.1.41

Capital Base Equity – Intangible Assets + Subordinated Debt

For a more precise definition of capital base, please refer to the Danish Business Act and the solvency order in force at the time in question.

4.1.42

Collective Bonus Potential Margin $\frac{\text{Collective Bonus Potential – any Use of Individual Bonus Potential}}{\text{Net Life Insurance Provisions}}$

4.1.43

Bonus Potential Margin $\frac{\text{Collective Bonus Potential + Individual Bonus Potential}}{\text{Net Life Insurance Provisions}}$

It would be advisable to calculate the ratio separately for each interest rate group for both collective bonus potential margin and bonus potential margin, if possible.

Embedded value

The use of embedded-value financial statements has so far been limited in Denmark. If a company chooses to present embedded-value calculations as supplementary information, it is recommended that the following be disclosed as a minimum:

- Principle: typically European-market-consistent embedded value
- Embedded value is the sum of value of in-force and equity.

Value of in-force is NPV of the expected cash flows on the current portfolio of contracts including costs of capital for capital adequacy.

By supplementing the traditional financial statements with embedded-value calculations, the company can better illustrate the value creation that arises by sale of new products. On the other hand, the embedded-value principle entails that future income is recognised as income already at the time of sale, which means that the accounting principle may be perceived as aggressive by comparison to the traditional financial statements. If a company discloses embedded-value figures, it is recommended that embedded value be supplemented with the following embedded-value-based operating information:

Annualised new sales: New sales of annual premiums + $\frac{1}{10}$ of one-off premiums

+ Value of new business	Increase in embedded value by new sales
+ Settlement of discounting	Effect of all cash flows moving closer after each period
+ Operational differences	Shows whether the actual operation has been superior to the operating assumptions; e.g. terminations and expenses
= Operating profit/loss	
+ Financial differences	Differences in embedded value as a result of differences from the assumed financial return
+ Change of operating assumptions	Effect of changed model assumptions
= Embedded value – based profit/loss	

Embedded Value Ratios

4.1.44

$$\text{New Sales Margin} = \frac{\text{Value of New Sales}}{\text{Annualised New Sales}}$$

4.1.45

$$\text{In-force Margin} = \frac{\text{Value of In-force}}{\text{Savings}}$$

4.2 Shipping

Uniform Basis for the Analysis of Shipping Companies These guidelines have been prepared to suggest a uniform basis from which to analyse the accounting figures of listed shipping companies. The guidelines apply to shipping companies and other companies that are involved, either directly or indirectly, in shipping operations or ship ownership.

Additional Information Required These guidelines are a supplement to the rules for financial reporting. Shipping companies may supply the suggested supplementary information in their annual and interim reports (in the management's review).

Statement of Income for Analysis Purposes The statement of income of a shipping company could be drawn up as shown in the table below. The statement of income in this table includes income and expenses from other activities. Non-recurring income and expenses such as compensation due to breach of contract by customers or shipyards must be disclosed in a separate note or in the description of the performance trends for the period. Where statement of income items are not mentioned, the method¹ of drawing up financial statements does not differ from standard methods.

Statement of Income – an example	Gross freight revenues
	– Voyage costs
	= Net operating revenues (time charter equivalent revenues)
	– Total operating costs
	- hereof operating costs (owned vessels)
	- hereof charter hire (chartered-in vessels)
	= Gross operating profit/loss from shipping
	+ Operating income from other activities
	– Operating costs from other activities (excluding administration.)
	– Administrative expenses
	= EBITDA
	– Depreciation, shipping
	– Depreciation, other activities
	= EBITA
	– Goodwill amortisation
	± Gains/losses on sale of vessels
	= EBIT
	± Net interest income
	± Gains/losses on foreign currency
	± Other financial income/expenses
	= Profit/loss before tax
	– Taxes
	± Tax on gains/losses on sale of vessels
	= Profit/loss on ordinary activities

Split Total Operating Costs As shown in the table, it is recommended that total operating costs be split into voyage costs and operating costs. Voyage costs include bunker costs, port and canal fees as well as broker fees. Operating costs include manning costs, maintenance and repairs, stores and supplies, lubricating oils, and insurance costs.

Charter Commitments Charter hire costs may comprise time charter and/or bareboat charter costs.

Coverage of Hire Days To provide a better assessment of the sensitivity of the estimates to changes in freight rates, the coverage in number of days, rates and expenses is recommended stated for the expected, known and offered hire days, divided into segments which underlie the company's earnings expectations for the current financial year and as far as possible also for the following year.

Statement of Income per Segment Recommended Due to the diverse nature of shipping activities (container transport, dry cargo, tanker operations, etc.), it is recommended that shipping companies engaged in several shipping activities disclose the operating profit/loss for each segment (excluding other activities) in accordance with the methods outlined in this section. This disclosure would gain from containing supplementary information such as:

- Average time charter earnings in USD/operating day (operating day is defined as a vessel under operation for 24 hours)
- Capacity measured in number of operating days split between own vessels and chartered-in vessels
- Capacity costs measured in number of operating days split between own vessels and chartered-in vessels (operating costs for own vessels and time charter/bareboat liabilities for chartered-in vessels)
- Capacity earnings on chartered-out vessels measured in number of operating days
- Vessels under commercial management
- Memberships in operating pools and information on shares in pool profits
- Scheduled drydocking
- Profit-sharing arrangements, if not already accounted for in the statement of income
- USD exchange rate used

Fleet Specifications It is recommended that each individual vessel be specified on the fleet list of the shipping company's own vessels, including the name, size, year of construction, the ownership share of the shipping company, and market value. If the fleet is relatively homogeneous regarding vessel type, age, and size, the statement can be presented as a summary. It is also recommended to include vessels under finance leases in the fleet list.

Market Value of the Fleet must be Disclosed In principle, the balance sheet of the shipping company does not differ from that of other companies. The most important assets of a shipping company are its vessels.

The market value of a vessel depends on a number of factors such as the age of the vessel, its capacity, technical standard, quality, current rates (supply and demand) and newbuilding prices. The calculation of the market value is a complex procedure, and there is no single, most appropriate method. A common and recommended method would be to use an average of brokers' estimates of market values for individual ships (excluding the value of charterparties).

Newbuildings It is recommended that the specifications of the fleet be supplemented with a list of the company's newbuilding programme with the following details: shipyard, vessel type, size, delivery date and ownership. It is recommended that as a minimum the total investments in connection with the newbuilding programme be disclosed, preferably allocated over the period of delivery. Furthermore, it is recommended that the market value of the newbuilding programme be included in the total assessment of the added value of the fleet.

Put Options A put option may be attached to vessels and long-term chartered vessels held under finance leases. It is recommended that the strike price of the put options as well as the first exercise date be disclosed. This information may be supplemented with an assessment of the total present value of the charterparty including the put option.

Fixed-term Charterparties It is recommended that charterparties that do not relate to vessels under finance leases be disclosed with the number of hire days allocated between shipping segments. It is recommended that the vessels' expenses per day be disclosed and that the covered TC earnings per day be disclosed to the extent that the hire days have been covered. In the case of a homogeneous fleet, this may be disclosed as a summary per segment. If the charterparties include the possibility of renewal, this should also be disclosed including number of days/years and rate. The present value of the expected gross cash flow (before financing) may be disclosed as a supplement for the long-term chartered fleet as a whole.

Sensitivities It is recommended that the market value of the fleet and/or the equity as well as the sensitivity of the expected profit/loss to changes in significant parameters such as freight rates, second-hand values and prices on newbuilding are disclosed.

Leased Vessels Shipping companies often lease vessels. The lease of vessels is typically categorised as finance leases. Under IAS 17, contracts should be capitalised as lease assets and lease liabilities, leading to the same accounting treatment as if the assets were owned. Please refer to Appendix VIII regarding implementation of future lease accounting rules.

Prepayments Prepayments of newbuildings are normally listed under property, plant and equipment under construction. In addition, financial liabilities must be stated in the notes. It is recommended that newbuildings be stated in the balance sheet and that remaining financial liabilities be highlighted in the notes.

Valuation

Contract Market For shipping companies which operate within segments with a more industrial character (container/liner traffic, LPG, RO/RO etc.) or in cases where the business concept is based to a greater extent on the role as an operator, it is recommended that the valuation primarily is based on profit-based multiples: EV/EBITDA, EV/EBIT, P/CEPS, P/E.

Spot Market For shipping companies which operate more in the spot market and in cases where the used vessel market has a high degree of liquidity, it is recommended that the valuation be based to a greater extent on the market value-based balance sheet values such as P/NAV, but additionally also on the above-mentioned profit-based multiples. All segments can be valued based on cash flow-based discount models or return-based models.

Net Asset Value (NAV) Net Asset Value is defined in 2.10. It is recommended that the added value that is attached to any newbuilding programme, in which the added value expresses the present market value the less discounted contract price, be included in the market value of the fleet.

Furthermore, Net Asset Value can be extended to encompass added value from put options as well as the calculated present value of long-term covered charterparties.

Added Value of Put Options It is recommended that the financial statements contain information on put options relating to sailing vessels as well as newbuildings – especially concerning the number, segment, year of construction, strike price, and time – this information may be supplemented with information on the volatility of the time series which are part of the calculation of the option value. To the extent that the details of the put options are known, it is recommended that any added value to market value be discounted with the estimated WACC, and that the company as a minimum states a total estimated value of the put options.

Present Value of Long-term Covered Charterparties Calculations will be relatively complicated and will require detailed information on the individual contracts which rarely is available. Calculation of the present value will therefore to a greater extent be dependent on calculations and information from the company. It is recommended that the calculation be supplemented with details of the sensitivity to changes in the most basic assumptions such as instalment expectations and discounted interest.

4.3 Property companies

Uniform Basis for the Analysis of Property Companies

These guidelines have been prepared to suggest a uniform basis on which to analyse the accounting figures of listed property companies. The guidelines apply to property companies which directly or indirectly lease properties. Therefore, the standard does not cover property development or contracting companies.

These guidelines are a supplement to the rules for financial reporting. Property companies may supply the suggested supplementary information in their annual and interim reports (in the management's review).

In Denmark, the Danish Property Federation has composed publications with recommendations on valuation and the hereto related numbers. It will be an advantage if property companies make use of these recommendations in connection with financial reporting. The two publications are titled: 1) The Danish Property Federation (2010). Valuation of investment properties - recommendations for DCF modelling (DK: Værdiansættelse af investeringsejendomme – anbefalinger til DCF-modellen). 2) The Danish Property Federation (2013). Valuation of investment properties – definition (DK: Værdiansættelse af investeringsejendomme – definition). Furthermore, in January 2014, The European Public Real Estate Association (EPRA) published a number of Best Practices Recommendations containing recommendations on inter alia formats, adjustments to net profit/loss etc. Please refer to www.epra.com for further information.

Value Creation and Cash Flow in Property Companies

In the assessment of earnings quality and the financial position of property companies, it is important to understand the following main points:

- 1) What drives the reported value adjustments of properties
- 2) How do earnings before value adjustments and tax (EBVAT) develop

Value adjustment of investment properties represents a significant part of the value creation in property companies. It is, however, important to emphasise that value adjustments do not generate cash flow, which is why the profit/loss for the year can be very different from free cash flow to equity (Appendix IV).

It is important that property companies explain the factors that drive the value adjustments, including whether they occur as a result of operational improvements or as a result of changes in the required rate of return. It is therefore recommended that property companies specify in detail value adjustments in the following two items:

- 1) Value adjustments as a result of changes in the required rate of return
- 2) Value adjustments as a result of changes in the earnings from operations

On the basis of positive value adjustments, property companies may report positive results after tax, but may nevertheless have a negative cash flow. The negative cash flow is often the result of interest expenses exceeding the profit/loss before net financials (EBIT).

During periods with falling property prices and consequent negative value adjustments, it is important for property companies to generate a positive free cash flow to equity. This applies especially to companies with thin capitalisation.

EBVAT (earnings before value adjustments and tax) is often a good approximation for cash flow to equity as depreciation and amortisation of fixed assets normally represent a minor part of EBIT for property companies. Therefore, EBVAT is a central element in the statement of income of property companies.

It is recommended that the layout of the statement of income for property companies is as set out in the table below.

*Statement of Income for
Analytical Purposes
– an example*

+	Revenue (Sales)
+	• Rental income
+	• Service and/or administrative income
+	• Other income
	Operating expenses
–	• Property-related expenses
–	• Service and administration-related expenses
–	• Other expenses
=	Gross profit/loss
–	Administrative expenses
=	Profit/loss before net financials (EBIT)
±	Income from investments in group companies
+	Financial income
–	Financial expenses
=	Earnings before value adjustments and tax (EBVAT)
	± Unrealised gains and losses
±	Value adjustments of properties as a result of operational improvements
±	• Value adjustments of properties as a result of change in the required rate of return
±	• Value adjustments of financial liabilities
	± Realised gains and losses
±	• Property sales
±	• Capital gains/losses on financial liabilities
–	• Stamp duties in connection with disbursements of loans
=	Profit/loss before tax
–	Tax
=	Profit/loss for the year
	Earnings per share (EPS)
	Earnings per share diluted (EPS)

Revenue (sales) and expenses

Revenue Clear of Gains and Losses on Property Sales Rental income and property-related expenses include items directly related to leases and operating expenses.

Service/administrative income and related expenses include additional services and expenses which are not necessarily an integrated part of a property lease.

Administrative expenses include items such as the company's overall administration, which are not directly attributable to the individual properties.

Both operating and administrative expenses may include depreciation of tangible assets not classified as investment assets. It is recommended that gains and losses from trading properties and related tangible assets do not figure under revenue, but instead under realised gains and losses.

Value Adjustment of Properties Over time, the continuous value adjustment of properties constitutes a significant part of the total return for the property industry. There are, however, great differences in the methods of accounting among companies and from country to country. In Norway and many other countries, listed companies use external valuations when they report value adjustments. In Denmark, most companies use internal calculation models such as, for example, the return on capital method or the discounted cash flow method. When using an assessor's valuations, it is recommended that property companies disclose the source, for example assessor or mortgage bank.

It is recommended that listed property companies disclose the methods used for value adjustments and the key assumptions underlying the valuation. Furthermore, it is recommended that companies state value adjustments split between changes in earnings from operations and changes in the required rate of return.

General Information With a view to giving the external financial-statement user a better understanding of the rental income, it is recommended that property companies provide the following information at the end of the accounting period:

- Total square metres of floor space in the property portfolio
- Vacancy rate measured in rental value
- Average rent per square metre
- Average carrying amount per square metre

The above-mentioned can be segmented geographically and/or by use.

Property-related Ratios Most ratios for property companies do not differ significantly from ratios applied in relation to traditional manufacturing and commercial companies. Ratios such as gross margin, operating margin, P/E, P/BV, earnings per share, etc. can therefore be calculated in the same way as for traditional companies.

In some areas, it is, however, necessary to use industry-specific ratios for property companies. The overview of ratios set out below is not exhaustive, but should give a good basis for comparison of property companies on central points:

Profitability and Return on Investment When the property companies' return on investment is to be evaluated, it makes more sense to use an EBVAT margin than an EBIT margin. The reason is that finance costs often constitute a significant part of the total expenses.

The key ratio for the assessment of a property company is the return on the property portfolio in proportion to the carrying amount of the property portfolio. It is recommended that this ratio reflect the pure operating income on the property portfolio, i.e. excluding revenues from service activities and sale of properties.

It is recommended that expenses which cannot directly be connected with the operation of the property portfolio such as the group's overall administrative expenses be as far as possible omitted from the calculation.

Under normal circumstances, a positive free cash flow to equity is conditional on the return on the property portfolio being higher than the average interest expense expressed as a percentage.

4.3.1

$$\text{Return on Property Portfolio} = \frac{\text{Rental Income} - \text{Property-related Expenses}}{\text{Average Value of the Property Portfolio}} \times 100$$

4.3.2

$$\text{Return on Average Equity before Tax and Value Adjustments} = \frac{\text{EBVAT}}{\text{Average Equity}} \times 100$$

4.3.3

$$\text{Return on Average Equity before Tax after Value Adjustments} = \frac{\text{Profit/Loss before Tax}}{\text{Average Equity}} \times 100$$

**Risk, Borrowing Costs and
Return Margin**

Property companies are subject to a number of different risks, which may vary significantly from company to company. The operational risks are often related to rent levels and indexation thereof, vacancy rates and the average duration of leases as well as the quality and credit quality of the tenants. The operational risks assumed should be weighed against the financial risk profile, which is dependent on the capital structure of the company. Consequently, the combination of high operational and financial risk-taking will expose the property company to significant challenges during periods with low business activity. The external analyst is recommended always to use several risk measurements, which cover both the operational and financial risk profiles. This information may be used as a supplement to the well-known formulas such as the interest cover and the equity ratio.

The interest cover ratio is used by many property companies, and expresses how many times the operating profit covers the interest expenses. Thus, this ratio involves both the operational and financial risk. It does, however, say very little about the future risk profile as seemingly good cover of interest expenses may be the result of coincidental inexpensive financing at the short end of the yield curve and, therefore, the interest cover may change significantly after refinancing.

In this connection, it is important to compare the return on the property portfolio (the asset side) with the finance costs (the equity and liabilities side). Roughly speaking, the difference between these quantities expresses the return margin or the margin return which is at the disposal of the equity and therefore the shareholders.

4.3.4

Borrowing Rate

$$\frac{\text{Net Finance Costs}}{\text{Average Net Interest-bearing Debt}} \times 100$$

4.3.5

Return Margin

Return on the Property Portfolio – Borrowing Rate

Naturally, the objective is that the property company generates a positive return margin.

It is recommended that the external analyst always collects information on the operational risk. Other relevant information on the risk profile of the property company may for example be the duration of financing and the breakeven vacancy rate.

**Risk Description in the
Financial Statements**

It is recommended that listed companies include in the section regarding risk factors in the financial statements tables showing sensitivity to changes in interest rates, vacancy rates and rent levels, and that property companies state the level of the breakeven vacancy rate and comment on the duration of financing.

Share-related Ratios

Generally speaking, property shares can be valued on the basis of the same ratios as shares for commercial and industrial companies. The ratio Net Asset Value (NAV) is, however, an important factor, as NAV is a theoretical estimate of the current value of the property portfolio. According to the European Public Real Estate Association (EPRA), listed property companies should disclose NAV. NAV is defined as:

4.3.6

Net Asset Value (NAV)

$$\frac{\text{Market value of the Property Portfolio after Taxes} - \text{Net Interest-bearing Debt}}{\text{Average Number of Shares}}$$

As earlier mentioned, the company should disclose the method of calculation underlying the determination of the market value (for example DCF or return on capital). Furthermore, EPRA has presented a long list of potential adjustments to determination of the market value of the property portfolio, with which it is recommended that the property analyst be acquainted.

Appendix I

Consolidated Statement of Income – an example

By function:

	Revenue (Sales)
–	Cost of sales
=	Gross Profit/loss
+	Other operating income
–	Distribution costs
–	Administrative expenses
–	Other operating expenses
=	Operating profit/loss (EBIT)
–	Net financials
+	Share of profit from associates after tax
=	Profit/loss before tax
–	Income tax expense
=	Profit/loss for the period

Attributable to:

Owners of the parent (profit/loss for the period excl. minorities)

Minority interests

Earnings per share for the profit/loss for the period excl. minorities

- basic
- diluted

NB: Where appropriate, the following items are allocated continuing and discontinued operations respectively:

- Revenue
- EBIT
- Profit/loss for the period

Consolidated Statement of Income – an example

By nature:

	Revenue (Sales)
+	Other operating income
±	Changes in inventories of finished goods and work in progress
+	Work performed by the company and capitalised
–	Raw materials and consumables
–	Employee benefits expense
–	Other operating expenses
=	Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA)
–	Depreciation expense
–	Impairment of property, plant and equipment
=	Earnings before Interest, Tax and Amortisation (EBITA)
–	Amortisation expense
–	Impairment of goodwill
=	Earnings before Interests and Taxes (EBIT)
–	Net financials
+	Share of profit of associates after tax
=	Profit/loss before tax
–	Income tax expense
=	Profit/loss for the period

Attributable to:

Owners of the parent

Minority interests

Earnings per share for the profit for the period excl. minorities

- basic

- diluted

NB: Where appropriate, the following items are allocated between continuing and discontinued operations respectively:

- Revenue
- EBIT
- Profit/loss for the period

Appendix II

Consolidated Balance Sheet – an example

ASSETS

Non-current assets

Property, plant and equipment

Intangible assets

- Goodwill
- Other intangible assets

Investments in associates

Deferred income in tax assets

Other financial assets

Current assets

Inventories

Trade receivables

Other receivables, prepayments and accrued income

Available-for-sale financial assets

Other financial assets at fair value through profit or loss

Cash and cash equivalents

Assets held for sale

Total assets

EQUITY AND LIABILITIES

Equity

Share capital

Other reserves

- Share premium
- Treasury shares
- Fair value adjustments and other reserves

Retained earnings

Total equity attributable to owners of the parent

Minority interests

Total equity

Non-current liabilities

Long-term borrowings

Deferred income tax liabilities

Retirement benefit obligations

Other long-term provisions

Total non-current liabilities

Current liabilities

Trade payables

Other payables, accrued expenses and deferred income

Short-term borrowings

Current portion of long-term borrowings

Current income tax liabilities

Other short-term provisions

Total current liabilities

Total liabilities

Total equity and liabilities

Appendix III

Consolidated Statement of Cash Flow for Reporting Companies – an example

Indirect method

Cash flow from operating activities

Cash flow generated from operations (EBITDA)

Interest paid

Income taxes paid

Net cash flow from operating activities

Cash flow from investing activities

Acquisition of subsidiary, net of cash required

Purchase of property, plant and equipment (PPE)

Purchase of intangible assets

Purchase of available-for-sale financial assets

Loans granted

Disposal of subsidiary, net of cash disposed

Proceeds from sale of long-term assets

Loan repayments received

Interest received

Dividends received

Government grants received

Net cash flow from investing activities

Cash flow from financing activities

Proceeds from issue of securities

Purchase of treasury shares

Proceeds from borrowing

Repayments of borrowings

Repayment of finance lease liabilities

Dividends paid to parent shareholders

Dividends paid to minority interests

Net cash flow from financing activities

Decrease/Increase in cash and cash equivalents

Cash and cash equivalents at beginning of period

Cash and cash equivalents at end of period

Appendix IV

Statement of Cash Flow for Analytical Purposes – an example

	EBITA
–	Taxes on EBITA
=	NOPLAT (cf. Ratio 2.4)
+	Depreciation and impairment of PPE
+	Change in provisions
±	Change in NWC
=	Cash Flow From Operations (CFFO)
–	Capex
=	Free Cash Flow to Firm (FCFF) (cf. ratio 2.13)
+	Net financials
+	Share of profit from associates after tax
–	Taxes on net financials
=	Free Cash Flow to Equity (FCFE) (cf. ratio 2.14)
–	Net acquisitions and divestments
–	Dividends paid
–	Share buybacks
+	Share issues
+	Other adjustments
=	Total Cash Flow = Change in net interest – bearing debt

Appendix V

Statement of Comprehensive Income – an example

Consolidated profit/loss

Other comprehensive income

Exchange rate adjustments regarding foreign entities

Fair value adjustments of financial instruments

Revaluations

Other movements

Income tax relating to other comprehensive income

Total other comprehensive income

Total comprehensive income

Total comprehensive income attributable to

Owners of the parent

Non-controlling interests

Total

Appendix VI

Introduction to share-based payments

- Mandatory expensing of share-based payments** IFRS requires expensing of costs related to share-based payments. According to IFRS, options and other share-based payments are no different from other payments, and companies using them should record "an expense for the consumption of the resources received, whether in the form of employee services, other services, or goods". Conceptually, the principle behind the standard is that accounting for exchange transactions should be measured and recognised at fair value when the transaction involves the exchange of goods or services for an entity's own equity instruments.
- All details of an incentive scheme must be disclosed** It is recommended that companies publish detailed information regarding share-based payments, thereby providing financial analysts with an adequate basis on which to make valuations. Any differences between the company's and the financial analyst's valuation can be included in the adjusted profit/loss in a consistent and transparent way. It is also recommended that companies provide a sensitivity analysis, e.g. measurements of volatility, for the critical assumptions made or inputs used in their valuation models.
- Tranches should be disclosed separately...** In particular, it is recommended that the information disclosed on share-based incentive schemes include details about the various tranches, exercise prices, exercise principles and as to how the schemes are covered.
- To make an appropriate valuation, it is important that the various instruments be reported separately and only grouped in tranches if they are identical.
- ... with detailed information on exercise prices** It is recommended that the specific exercise price for each tranche and the principles for making corrections to the various exercise prices be reported. It is also important that a company states the precise periods in which the instruments can be exercised.
- ... and how schemes are covered** In addition, it is important that a company discloses the degree to which the receivers of the instruments are allowed to cover their positions.
- Valuation should normally be based on the Black-Scholes formula** It is recommended that the valuation of a company's various share-based incentive schemes be based on recognised option-pricing models, as e.g. the Black-Scholes formula or a binomial model.
- Recommended form of reporting** The Societies suggest that companies use a form like Form A shown in Appendix VI, when a new scheme is to be introduced, when material changes have been made to existing schemes, or when exercise has taken place. The Societies suggest that a form like Form B in Appendix VI be used for annual reporting.
- Company policy on future schemes should be disclosed** Finally, it is recommended that company policy with regard to future share-based incentive schemes be indicated. In some companies, the expected value of future options and warrants may represent a significant proportion of a company's total value.

Options – Form A

XXX A/S - Share options granted at 01-01-2013

Receiver/ Tranche	Grant date	Fair value (DKK)	Exercise information			Number			Strike price information				
			First year	Last year	Principle	Awarded	Expired/ Cancelled	Exercised	Adjustment Today	Expired/ principle	Cancelled	Exercised	
Board of Directors (all grants are share options)													
BO-010108-E	01-01-13	590.953	2015	2017	a,b,c,e,f	10.000	-	-	150	A	-	-	
Executive Board (all grants are share options)													
DI-010108-E	01-01-13	2.468.377	2015	2020	a,b,c,d,e	50.000	-	-	200	A,B,C	-	-	
Executive employees (all grants are share options)													
LE-010108-E	01-01-13	1.687.451	2015	2020	a,b,c,d,e	60.000	-	-	200	A,B,C	-	-	
Other employees (all grants are share options)													
OE-010108-C	01-01-13	2.812.419	2015	2020	a,b,c,d,e	100.000	-	-	200	A,B,C	-	-	
General comments													
- Receivers have been grouped based on their primary employment at XXX A/S.													
- Share options are issued to tie key employees closer to XXX A/S and to make compensation to reflect achieved results.													
- In the name for each tranche "-C" indicates that settlement in this tranche will be cash-based, whereas "-E" indicates equity-based settlement.													
- Legal ownership of issued share options is contingent on employment in XXX A/S at the time of exercise. For members of the board of directors, exercise is also contingent on an annual share price appreciation of a minimum of 5%.													
Principles for strike price adjustments													
A: Dividend payments subtracted continuously.													
B: Increased by 5% annually.													
C: Indexed against the C20 index.													
Principles of exercise													
a: First exercise window: 2 weeks after full-year report as stated under "First year".													
b: Last exercise window: 2 weeks after full-year report as stated under "Last year".													
c: Can be exercised 2 weeks after full-year report in the period between first and last exercise windows.													
d: Can be exercised 2 weeks after quarterly statement in the period between first and last exercise windows.													
e: Exercise contingent on continued employment.													
f: Exercise contingent on a 5% annual average appreciation in share price.													
Calculation of current values - assumptions and comments													
Share price	150	<u>Expected option life</u>											
Volatility	40%	BO and DI	Latest window										
Risk-free interest rate	5,0%	Other	1 year after first year										
Dividend yield	0,0%												
- The valuation is based on the Black-Scholes' formula for valuing European call options using the strike price stated under "Today". Share options with strike prices that are adjusted in accordance with principle "B" have been valued using the strike price as stated under "Today", increased by 5% annually to the applied expected option life.													
- The volatility is estimated as historical volatility using weekly share return data for the last year.													
- A dividend yield of 0% has been applied in the valuation as the strike prices are continuously adjusted for dividend payments.													
- Calculations of current values are based on granted options regardless of vesting conditions.													

Source: Ken L. Bechmann, Professor, M.Sc., Ph.D., Department of Finance, Copenhagen Business School
 Thomas Winther Sørensen, Executive Director, Head of Equities, Denmark, Markets Division, Nordea

Options – Form B

XXX A/S - Status report on share-based payments at 31-12-2013														
Receiver/ Tranche	Grant date	Fair value (DKK)	Exercise information			Development in outstanding options				Strike price information				
			First year	Last year	Principle	31 dec 2012	Awarded	Expired/ Cancelled	Exercised	31 dec 2013	Adjustment Today	Expired/ principle	Cancelled	Exercised
Board of Directors (all grants are share options)														
BO-010111-E	01-01-11	-	2013	2015	a,b,c,e,f	5.000	0	5.000	0	0	-	A	125	-
BO-010112-E	01-01-12	-	2014	2016	a,b,c,e,f	5.000	0	5.000	0	0	-	A	135	-
BO-010113-E	01-01-13	1.163.308	2015	2017	a,b,c,e,f	-	10.000	0	0	10.000	150	A	-	-
Executive Board (all grants are share options)														
DI-010111-E	01-01-11	-	2013	2018	a,b,c,d,e	5.000	0	0	5.000	0	-	A,B,C	-	185
DI-010112-E	01-01-12	-	2014	2019	a,b,c,d,e	5.000	0	5.000	0	0	-	A,B,C	200	-
DI-010113-E	01-01-13	4.738.247	2015	2020	a,b,c,d,e	-	50.000	0	0	50.000	211	A,B,C	-	-
Executive employees (all grants are share options)														
LE-010111-E	01-01-11	-	2013	2018	a,b,c,d,e	10.000	0	2.500	7.500	0	-	A,B,C	180	185
LE-010112-E	01-01-12	623.600	2014	2019	a,b,c,d,e	10.000	0	0	0	10.000	187	A,B,C	-	-
LE-010113-E	01-01-13	3.736.218	2015	2020	a,b,c,d,e	-	60.000	0	0	60.000	211	A,B,C	-	-
Other employees (all grants are share options)														
OE-010111-C	01-01-11	-	2013	2018	a,b,c,d,e	15.000	0	2.000	13.000	0	-	A,B,C	180	210
OE-010112-C	01-01-12	810.681	2014	2019	a,b,c,d,e	15.000	0	2.000	0	13.000	187	A,B,C	200	-
OE-010113-C	01-01-13	5.604.328	2015	2020	a,b,c,d,e	-	100.000	10.000	0	90.000	211	A,B,C	210	-
Total		16.676.382	-	-	-	70.000	220.000	31.500	25.500	233.000	-	-	-	-
General comments														
- Receivers have been grouped based on their primary employment at XXX A/S. - Share options are issued to tie key employees closer to XXX A/S and to make compensation to reflect achieved results. - In the name for each tranche "-C" indicates that settlement in this tranche will be cash-based whereas "-E" indicates equity-based settlement. - Legal ownership of issued share options is contingent on employment in XXX A/S at the time of exercise. For members of the board of directors, exercise is also contingent on an annual share price appreciation of a minimum of 5%. - According to the company's accounting policies, the total effect on this year's results from share options is DKK X.														
Principles for strike price adjustments														
A: Dividend payments subtracted continuously. B: Increased by 5% annually. C: Indexed against the C20 index.														
Principles of exercise														
a: First exercise window: 2 weeks after full-year report as stated under "First year". b: Last exercise window: 2 weeks after full-year report as stated under "Last year". c: Can be exercised 2 weeks after full-year report in the period between first and last exercise windows. d: Can be exercised 2 weeks after quarterly statement in the period between first and last exercise windows. e: Exercise contingent on continued employment. f: Exercise contingent on a 5% annual average appreciation in share price.														
Calculation of current values - assumptions and comments														
Share price	230	Expected option life												
Volatility, other	40%	BO and DI		Latest window										
Risk-free interest rate	5,0%	Other		1 year after first year										
Dividend yield	0,0%													
- The valuation is based on the Black-Scholes' formula for valuing European call options using the strike price stated under "Today". Share options with strike prices that are adjusted in accordance with principle "B" have been valued using the strike price as stated under "Today", increased by 5% annually to the applied expected option life. - The volatility is estimated as historical volatility using weekly share return data for the last year. - A dividend yield of 0% has been applied in the valuation as the strike prices are continuously adjusted for dividend payments. - Calculations of current values are based on granted options regardless of vesting conditions.														
Information regarding exercises														
Number	25.500													
Weighted average exercise price	198													
Weighted average share price	255													

Note: Form B does not fulfil all information requirements in IFRS 2, 45 (b) and (d). Missing information relative to IFRS 2 may be added with only minor changes.

Source: Ken L. Bechmann, Professor, M.Sc., Ph.D., Department of Finance, Copenhagen Business School
 Thomas Winther Sørensen, Executive Director, Head of Equities, Denmark, Markets Division, Nordea

Appendix VII: Analytical Procedures

Du-Pont analysis

Several versions of the Du-Pont analysis model One of the most widely used models for ratio analysis is the so-called Du-Pont model which breaks down return measures into measures of profitability, asset turnover and gearing.

The shift away from the traditional balance-sheet approach to the invested-capital approach involves the following steps:

Du-Pont model: three simplistic versions Note that both profit/loss for the period and total equity include minorities' share.

Profitability × Profit/loss for the period Sales			Activity × Sales Assets	Gearing = Assets Total Equity	Return Profit/loss for the period Total Equity
Operations × EBIT Sales	Financing × EBT EBIT	Tax × Profit/loss for the period EBT	Activity × Sales Assets	Gearing = Assets Total Equity	Return Profit/loss for the period Total Equity
Operations × EBIT Sales	Financing × EBT EBIT	Tax × Profit/loss for the period EBT	Activity × Sales Invested Capital	Gearing = Invested Capital Total Equity	Return Profit/loss for the period Total Equity

Three versions of the Du-Pont model are depicted in the diagram above. First, we have the traditional split of Return on Equity into three components: Profitability, Activity and Gearing. Profitability can again be split into a number of components. These include an EBIT margin; a margin showing the share of EBIT left after net interest income/expenses and other income; and a margin showing after-tax profitability. In the third version of the model, invested capital is substituted for assets to show the more operations-oriented versions of ratios for activity and gearing.

The invested-capital approach provides the best model for analyzing underlying performance The main advantage of the invested-capital-based method is that it analyses underlying profitability without combining the return on financial assets with the return on operating assets as the traditional method does. Furthermore, the gearing definition paints a more realistic picture of a company's gearing.

Another way of breaking down return is:

$$\text{Pre-tax ROE} = \text{ROIC} + (\text{ROIC} - \text{Interest}) \times \text{Financial Gearing}$$

with Interest defined as Net-financial Costs/Net Interest-Bearing Debt and Financial Gearing defined as Net Interest-Bearing Debt/Equity plus Minorities.

This breakdown illustrates whether a company is making a return on its financial gearing.

Return on Invested Capital (ROIC)

Focus on operating activities Invested capital represents the capital invested in operating activities, i.e. the assets that generate revenue which contributes to EBIT. It is recommended that focus be placed on the return on invested capital, as outlined in these guidelines.

Invested capital can be defined from both the asset... Invested capital is generally defined as the sum of non-current intangible and property, plant and equipment assets.

...and the liability/equity sides of the balance sheet Invested capital can also be calculated from the liability/equity side of the balance sheet, i.e. from the amount of capital invested in the company by shareholders and creditors. The definition in this case is the sum of equity, minority interests (since 2005, equity has included minority interests) and net interest-bearing debt. This is illustrated in the table below. This key figure is sometimes referred to as 'Capital Employed'.

Invested capital including and excluding goodwill The question of whether goodwill should or should not be included in invested capital relates mainly to the purpose of the related return ratio. In these guidelines, it is recommended that invested capital be calculated both with and without goodwill.

ROIC excluding goodwill illustrates a company's operating performance From an operational viewpoint, it is appropriate to exclude goodwill when return on invested capital (ROIC) is calculated as this ratio measures the operating performance of a company. This is useful for analysing performance trends and for comparing operating performances between companies.

ROIC including goodwill shows how investors' funds are managed From an investor's viewpoint, it is desirable to include goodwill in the calculation of ROIC when the historical track-record of the management is to be evaluated, as this ratio measures how the company has provided returns to investors. ROIC also shows whether a company has had earnings that are sufficient to cover the costs of capital, when the added value that is paid in connection with the acquisition of companies is taken into account. New investors are interested in the return on invested capital from the time of investment, and to them, it would be misleading to include the accumulated goodwill amortisation in the calculation of ROIC.

Restated goodwill after deduction of write-downs should be used The goodwill included in invested capital should be the total amount of acquired goodwill before cumulative amortisation and after the deduction of goodwill write-downs for impairment (defined as restated goodwill in this publication). Like depreciation and write-downs of other assets, goodwill write-downs are deducted as they represent a real financial depletion of value. Restated goodwill should also be adjusted for any sale of goodwill.

Some distortions will inevitably arise in certain circumstances Some distortions may arise in the event of a company making an acquisition as this normally involves carrying out a revaluation of the assets acquired. It may therefore be impossible to make necessary adjustments. However, even ROIC including and excluding goodwill is a better tool for analysing a company's performance than other return measures, as it focuses on the true operating performance, i.e. it distinguishes between operating performance and financial structure, which is not the case with Return on Equity.

When invested capital is calculated, it is often necessary to assess specific items, e.g. to determine whether an item is an operating or non-operating asset/liability or whether it is an interest-bearing or non-interest-bearing asset/liability.

Numerator and denominator must always be matched It is particularly important to bear in mind the matching principle. For example, in the earnings figure used for calculating ROIC, the determination of whether an asset is operating or non-operating should be consistent with the treatment of the income flow from that asset.

Provisions should be evaluated closely Special attention should also be given to provisions. Some provision items may be quasi-equity, i.e. recognised as liabilities for accounting purposes, but they should be treated as equity when invested capital is calculated. It is not possible to set up precise definitions for items that should be regarded as quasi-equity or non-interest-bearing liabilities (and in some cases interest-bearing liabilities) as these are very company specific. For many companies, however, deferred tax should be treated as equity as it could be carried forward for a very long time.

In the table below, the calculation of invested capital is shown from both the asset and the liability/equity sides of the balance sheet:

Invested capital calculation from the asset and the liability/equity sides

Traditional Balance Sheet			Aktivsiden	Passivsiden
Assets	Non-current	Goodwill		—
		Other intangible	+	
		Tangible	+	
		Financial/Non-operating		—
	Current	Inventories	+	
		Receivables	+	
Other operating		+		
Cash and cash equivalents			—	
Other non-operating			—	
Equity excl. Minorities				+
Equity and Liabilities	Minority interests			+
	Non-current	Provisions quasi-equity		+
		Other provisions	—	
		Interest bearing		+
		Other operating	—	
		Other non-operating		+
	Current	Trade and other payables	—	
		Other operating	—	
		Interest-bearing		+
		Other non-operating		+

= Invested capital excl. goodwill	=	=
Goodwill incl. Amortisation minus write-downs	+	+
= Invested capital incl. goodwill	=	=

Invested capital and Enterprise Value In calculating invested capital, carrying amounts are used except in the case of goodwill. If market values are applied to the components in the liability/equity side calculation, the result is equal to Enterprise Value. Therefore, while invested capital reflects the carrying amount of the financial claims on a company, Enterprise Value reflects the market value of those claims.

Appendix VIII

Upcoming changes to lease accounting standards - companies and analysts should be prepared

IASB and FASB have issued a joint proposal on lease accounting. If the proposed changes are implemented in their current wording, the consequences for how to calculate many of the ratios where interest-bearing debt is included will be far-reaching.

At the time of writing, the proposal has not yet been adopted. Therefore, any lease adjustments are not included in the main section of this publication. This appendix serves as a guideline on the methodology underlying the lease adjustments. How to calculate for example the present value of lease liabilities has been left out, as it is expected that the upcoming changes will feature specific guidelines for such a calculation.

In order to be able to compare ratios before/after the expected implementation of the changes to the lease accounting standards, there is, however, a need for adjustment of many *current* ratios. Therefore, a range of examples are presented below to illustrate how current items and ratios should be adjusted in order to make a meaningful comparison with ratios after implementation of the revised lease accounting standards.

The potential implementation of the new lease accounting standards especially emphasises the necessity for the correct treatment of lease when analysts calculate ratios and multiples. Furthermore, the changes are an excellent opportunity for the companies to examine the information level on lease prior to an expected implementation.

Statement of income

VIII. 1

$$EBITA_L = EBITA + \text{implicit interest rate on lease}$$

where:

$EBITA_L$ represents EBITA adjusted for the new standards – and so on in the following examples

VIII. 2

$$\text{Financial items}_L = \text{Financial items} - \text{implicit interest rate on lease}$$

Balance sheet

VIII. 3

$$\text{Assets}_L = \text{Assets} + \text{present value of lease liabilities}$$

VIII. 4

$$\text{Liabilities}_L = \text{Liabilities} + \text{present value of lease liabilities}$$

VIII. 5

$$\begin{aligned} \text{Net interest-bearing debt}_L \\ = \text{Net interest-bearing debt} + \text{present value of lease liabilities} \end{aligned}$$

Please note that the changes do not affect the book equity, but that they may influence net interest-bearing debt significantly.

Valuation

VIII. 6

$$\text{Invested capital}_L = \text{Invested capital} + \text{present value of lease liabilities}$$

VIII. 7

$$\text{NOPLAT}_L = \text{NOPLAT} + \text{implicit interest rate on lease}$$

VIII. 8

$$EV_L = EV + \text{present value of lease liabilities}$$

VIII. 9

$$\left(\frac{EV}{EBITDA} \right)_L = \frac{EV_L}{EBITDA + \text{lease expenses}}$$

Appendix IX: An example

Income statement

DKKm	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue (Sales)	700	735	809	1011	1051
– Cost of sales	525	548	607	748	772
= Gross profit/loss	175	187	202	263	279
+ Other operating income	14	26	20	30	32
– Distribution costs	53	55	65	81	79
– Administrative expenses	25	26	32	35	32
– Other operating expenses	21	22	32	40	53
= Operating profit/loss (EBIT)	90	110	93	137	147
Financial income	7	6	7	9	8
Financial expenses	42	40	38	40	30
– Net financials	(35)	(34)	(31)	(31)	(22)
+ Share of profit from associates after tax	2	3	3	5	4
= Profit/loss before tax	57	79	65	111	129
– Income tax expense	19	27	21	36	41
= Profit/loss for the period	38	52	44	75	88
Attributable to:					
Owners of the parent (Profit/loss for the period excl. minorities)	33	42	32	65	78
Minority interests	5	10	12	10	10

As an alternative to the presentation of costs by function shown above, the Group is permitted under IAS 1 to present the analysis of costs using the nature of expenditure format as shown below

Revenue (Sales)	700	735	809	1011	1051
+ Other operating income	14	26	20	30	32
± Changes in inventories of finished goods and work in progress	2	3	1	0	2
+ Work performed by the company and capitalised	0	0	0	0	0
– Raw materials and consumables	95	120	122	135	145
– Employee benefits expense	12	16	18	22	24
– Other operating expenses	487	485	540	699	720
= Earnings before Interest, Tax, Depreciation & Amortisation (EBITDA)	122	143	150	185	196
– Depreciation expense	30	31	35	45	46
– Impairment of property, plant and equipment	0	0	0	0	0
= Earnings before Interest, Tax and Amortisation (EBITA)	92	112	115	140	150
– Amortisation expense	2	2	2	3	3
– Impairment of goodwill	0	0	20	0	0
Operating Profit/Loss (EBIT)	90	110	93	137	147

Additional P&L information

DKK m	Year 1	Year 2	Year 3	Year 4	Year 5
Non-recurring income	0,0	10,0	1,0	7,0	0,0
Non-recurring costs	0,0	2,0	8,0	3,0	2,0
Minorities' share of non-recurring items	0,0	1,0	0,0	0,0	0,0
Tax on net non-recurring income	0,0	2,4	(2,2)	1,3	(0,6)
Non-recurring income net of tax	0,0	4,6	(4,8)	2,7	(1,4)
Adjusted net profit	33,0	37,4	36,8	62,3	79,4
Minorities' share of depr., amort., WD's	4	6	8	7	6
Expensed share-based payments	0	1	0	3	0
Number of employees	100	120	120	110	115
Depreciation PPE	30	31	35	45	46
Amortisation of intangible assets	2	2	2	3	3
Write-down of goodwill	0	0	20	0	0
Dividend per share (DKK)	8	4	4	5	8
Dividend (DKK m)	12,0	12,0	13,2	18,5	29,6
Estimated 10 year adj. EPS Growth (%)	10,0%	10,0%	12,0%	12,0%	15,0%

Balance Sheet

ASSETS

DKKm

	Year 1	Year 2	Year 3	Year 4	Year 5
Non-current assets					
Property, plant and equipment	300	312	349	454	463
Intangible assets					
Goodwill	100	100	80	140	140
Other intangible assets	10	12	12	11	13
Investment in associates	20	25	30	30	30
Deferred income tax asset	0	0	0	0	0
Other financial assets	0	0	0	0	0
Total non-current assets	430	449	471	635	646
Current assets					
Inventories	125	131	144	185	190
Trade receivables	175	186	200	258	266
Other receivables, prepayments and accrued income	7	7	8	10	11
Available-for-sale financial assets	2	4	4	5	6
Other financial assets at fair value through profit or loss	0	0	0	0	0
Cash and cash equivalents	30	70	125	150	150
Assets held for sale	0	0	0	0	0
Total current assets	339	398	482	609	623
Total assets	769	847	953	1.244	1.269

EQUITY AND LIABILITIES

DKKm	Year 1	Year 2	Year 3	Year 4	Year 5
Equity					
Share capital	150	300	330	370	370
Other reserves			1,5	51,5	51,5
Share premium					
Treasury shares					
Fair value adjustments and other reserves					
Retained earnings	120	0	20	72	131
Total equity attributable to owners of the parent	270,0	300,0	351,5	493,3	552,8
Minority interests	5	13	25	37	45
Total equity	275	313	376,5	530,3	597,8
Non-current liabilities					
Long-term borrowings	150	175	170	200	180
Deferred income tax liabilities	10	11	13	15	16
Retirement benefit obligations	0	0	0	0	0
Other long-term provisions	2	3	3	4	4
Total non-current liabilities	162	189	186	219	200
Current liabilities					
Trade payables	100	105	117	153	157
Other payables, accrued expenses and deferred income	10	11	12	15	16
Short-term borrowings	219	227	259	324	294
Current portion of long-term borrowings	3	3	4	3	5
Current income tax liabilities	0	0	0	0	0
Short-term provisions	0	0	0	0	0
Total current liabilities	332	345	391	495	472
Total liabilities	494	534	577	714	672
Total equity and liabilities	769	847	953	1.244	1.269

Additional balance sheet information

DKKm

	Year 1	Year 2	Year 3	Year 4	Year 5
Interest-bearing assets	30	70	125	150	150
Interest-bearing liabilities	369	402	429	524	474
Net surplus values in assets and liabilities	5	7	8	10	10
Value of minorities	60	120	144	120	120
Value of associates	14	20	20	34	27

Statement of cash flow for analytical purposes

	Year 1	Year 2	Year 3	Year 4	Year 5
EBITA	92	112	115	140	150
– Taxes on EBITA	(30,2)	(37,5)	(30,5)	(44,8)	(47,1)
= NOPLAT	62	74	84	95	103
+ Depreciation and impairment of PPE	30	31	35	45	46
+ Change in provisions		1	0	1	0
– Change in NWC		(12)	(16)	(61)	(8)
= Cash Flow From Operations (CFFO)		95	103	81	141
– Capex		(52)	(79)	(212)	(60)
= Free Cash Flow to Firm (FCFF)		43	24	(132)	80
+ Net financials		(34)	(31)	(31)	(22)
+ Share of profit from associates after tax		3	3	5	4
– Taxes on net financials		10,5	9,5	8,8	6,1
= Free Cash Flow to Equity (FCFE)		22	6	(149)	68
– New acquisitions and divestments					
– Dividends paid		(12,0)	(12,0)	(13,2)	(18,5)
– Share buybacks		0	0	0	0
+ Share issues		0	32	90	0
+ Other adjustments		(1)	2	4	(1)
= Total Cash Flow=Change in net interest-bearing debt		9	27	(68)	49

Calculation of ratios – an example

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
2.2 Adjusted Profit/Loss for the Period excl. Minorities	33.0	37.4	36.8	62.3	79.4	Adjusted Profit/Loss for the Period excl. Minorities – Non-recurring items After Tax
2.4 NOPLAT	61.8	74.5	84.5	95.2	102.9	
EBITA	92	112	115	140	150	
– Taxes on EBITA	30.2	37.5	30.5	44.8	47.1	
Total Income Tax	19	27	21	36	41	
– TC x (Net Interest + Net Non-operating Income)	(11.22)	(10.54)	(9.52)	(8.84)	(6.12)	
2.6 Net Working Capital (NWC) (DKKm)						
Inventories	125	131	144	185	190	Inventories
+ Trade Receivables	175	186	200	258	266	+ Receivables
+ Other Receivables, Prepayment and Accrued Income	7	7	8	10	11	+ Other Operating Current Assets
– Trade Payables	100	105	117	153	157	– Trade Payables
– Other payables, Accrued Expenses and Deferred Income	10	11	12	15	16	– Other Operating Current Liabilities
= Net Working Capital (NWC)	197	209	225	286	294	= Net Working Capital
2.7 Net Interest-bearing Debt						
Interest-bearing Debt	369	402	429	524	474	Interest-bearing Liabilities
– Interest-bearing Assets (Cash)	30	70	125	150	150	– Interest-bearing Assets (Cash)
= Net Interest-bearing Debt	339	332	304	374	324	= Net interest-bearing Debt
2.8 Invested Capital excl. Goodwill (DKKm)						
NWC	197	209	225	286	294	NWC
+ Non-current Tangible Assets	300	312	349	454	463	+ Non-current Tangible Assets
+ Non-current Intangible Assets excl. Goodwill	10	12	12	11	13	+ Non-current Intangible Assets excl. Goodwill
– Other Provisions	2	3	3	4	4	– Other Provisions
– Other Operating Non-current Liabilities	0	0	0	0	0	– Other Operating Non-current Liabilities
= Invested Capital excl. Goodwill	505	530	583	747	766	= Invested Capital excl. Goodwill

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
2.9						
Invested Capital incl. Goodwill (DKK mio.)						
Invested Capital excl. Goodwill	505	530	583	747	766	Invested Capital excl. Goodwill
+ Recognised Goodwill	100	100	80	140	140	+ Recognised Goodwill
+ Accumulated Amortisations	2	4	6	9	12	+ Accumulated Amortisations
= Invested Capital incl. Goodwill	607	634	669	896	918	= Invested Capital incl. Goodwill
2.10						
Net Asset Value (NAV) (DKKm)						
Equity	270	300	352	493	553	Equity
+ Net Surplus Values in Assets and Liabilities	5	7	8	10	10	+ Net Surplus Values in Assets and Liabilities
= Net Asset Value	275	307	360	503	563	= Net Asset Value
2.11						
Cash Earnings – CE (DKKm)						
Profit/Loss for the Period excl. Minorities	33	42	32	65	78	Profit/Loss for the Period
+ Depreciation, Amortisation, Write-downs	32	33	57	48	49	+ Depreciation, Amortisation, Write-downs
– Revaluations	0	0	0	0	0	– Revaluations
– Share in Associates	2	3	3	5	4	– Share in associates
– Minorities' Share of Depreciation, Amortisation, Write-downs	4	6	8	7	6	– Minorities' Share of Depri., Amort., WD's
+ Expensed Share-based Payments	0	1	0	3	0	+ Expensed Share-based Payments
= Cash Earnings	59	67	78	104	117	= Cash Earnings
2.12						
Cash Flow From Operations – CFFO (DKKm)						
		95	103	81	141	NOPLAT ± Change in Net Working Capital ± Change in Provisions
2.13						
Free Cash Flow to Firm – FCFF (DKKm)		43	24	(132)	80	CFFO – Capex
2.14						
Free Cash Flow to Equity – FCFE (DKKm)		22	6	(149)	68	FCFF ± Net Financials + Share of Profit or Loss in Associates After Tax – Tax on Net Financials
2.15						
Share Price (Price) (DKK)	145	193	150	250	375	Latest share price or the share price on a specific day multiplied by the Accumulated Dilution Adjustment Factor

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
2.16						
Market Capitalisation (Market Cap) (DKKm)	450	600	495	925	1388	Number of Shares x Share Price
2.17						
Enterprise Value (EV) (DKKm)	450	600	495	925	1388	Market Cap
Market Cap	339	332	304	374	324	+ Net Interest-bearing Debt
+ Market Value of Minorities	60	120	144	120	120	+ Market Value of Minorities
– Market Value of Share of Associates	14	20	20	34	27	– Market Value of Share of Associates
– Market Value of Other Non-operating Assets	0	0	0	0	0	– Market Value of Other Non-operating Assets
= Enterprise Value	835	1031	922	1385	1804	= Enterprise Value
Number of Full-time Employees	100	120	120	110	115	From additional information
2.18						
Average Number of Full-time Employees	95	112	120	115	112	Restated Average Number of Full-time Employees over a given period
3.1.1						
Return on Invested Capital excl. Goodwill (ROIC excl. GW) (%)	21.7%	20.7%	21.1%	19.8%		EBITA
3.1.2						
Return on Invested Capital incl. Goodwill (ROIC incl. GW) (%)	18.1%	17.7%	17.9%	16.5%		EBITA
3.1.3						
After-Tax Return on Invested Capital excl. Goodwill (ROIC excl. GW) (%)	14.4%	15.2%	14.3%	13.6%		NOPLAT
3.1.4						
After-Tax Return on Invested Capital incl. Goodwill (ROIC incl. GW) (%)	12.0%	13.0%	12.2%	11.3%		NOPLAT
3.1.5						
Return on Equity (ROE) (%)	14.7%	9.8%	15.4%			Profit for the Period excl. Minorities
3.1.6						
Sales Assets (X)	0.91	0.90	0.92	0.84		Average Equity excl. Minorities
3.1.7						
Invested Capital excl. Goodwill (X)	1.42	1.45	1.52	1.39		Average Total Assets
3.1.8						
Invested Capital incl. Goodwill (X)	1.18	1.24	1.29	1.29		Sales
3.1.9						
Gross Margin	25.0%	25.4%	25.0%	26.0%	26.5%	Average Invested Capital excl. Goodwill
3.1.10						
EBITDA Margin	17.4%	19.5%	18.5%	18.3%	18.7%	Average Invested Capital incl. Goodwill
						Gross Profit/Loss
						Sales
						EBITDA
						Sales

Formula

	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.1.11 EBITA Margin	13.1%	15.2%	14.2%	13.8%	14.3%	$\frac{\text{EBITA}}{\text{Sales}}$
3.1.12 EBIT Margin	12.9%	15.0%	11.5%	13.6%	14.0%	$\frac{\text{EBIT}}{\text{Sales}}$
3.1.13 NOPLAT Margin	9%	10%	10%	9%	10%	$\frac{\text{NOPLAT}}{\text{Sales}}$
3.1.14 Pre-Tax Margin	8.1%	10.7%	8.0%	11.0%	12.3%	$\frac{\text{EBT}}{\text{Sales}}$
3.1.15 Net Margin	4.7%	5.7%	4.0%	6.4%	7.4%	$\frac{\text{Profit/Loss for the Period}}{\text{Sales}}$
3.1.18 Sales per Employee (DKKm)		6.7	6.7	8.8	9.3	$\frac{\text{Average Number of Full-time Employees}}{\text{Sales}}$
3.1.19 EBITA per Employee (DKKm)		1.0	1.0	1.2	1.3	$\frac{\text{EBITA}}{\text{Average Number of Full-time Employees}}$
3.1.20 Added Value per Employee		1.45	1.40	1.80	1.96	$\frac{\text{Added Value}}{\text{Average No. of Employees}}$
3.1.21 Employee Expenses		2.2%	2.2%	2.2%	2.3%	$\frac{\text{Employee Expenses}}{\text{Sales}}$
3.1.22 Cash Flow from Operations	0%	12.9%	12.8%	8.0%	13.4%	$\frac{\text{Cash Flow from Operations (CFFO)}}{\text{Sales}}$
3.1.24 Inventory Turnover	87	87	87	90	90	$\frac{\text{Inventory at Year-end}}{\text{COGS}} \times 365$
3.1.25 Receivables Turnover (Days)	91	92	90	93	92	$\frac{\text{Receivables at Year-end}}{\text{Sales}} \times 365$
3.1.26 Credit Period (Days)	70	70	70	75	74	$\frac{\text{Trade Payables at Year-end}}{\text{COGS}} \times 365$
3.1.27 Cash Conversion Cycle (Days)	109	110	107	109	108	$\frac{\text{Inventory Turnover Days} + \text{Receivables Turnover Days} - \text{Credit Days}}{\text{NWC at Year-end}} \times \text{Sales}$
3.1.28 NWC	28.1%	28.4%	27.8%	28.3%	28.0%	

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.1.2.9 Current Ratio	102.1%	115.4%	123.3%	123.1%	132.1%	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$
3.2.1 Sales Growth		5.0%	10.1%	25.0%	4.0%	$\frac{\text{Sales Year 1} - \text{Sales Year 0}}{\text{Sales Year 0}} \times 100$
3.2.4 Capital Expenditure Depreciation		167.3%	227.2%	467.3%	130.4%	$\frac{\text{Capital Expenditure}}{\text{Depreciation}} \times 100$
3.3.1 Interest Cover (X)	2.3	2.9	2.6	3.7	5.2	$\frac{\text{EBIT} + \text{Interest Income}}{\text{Interest Expenses}}$
3.3.3 Financial Gearing (X)	1.2	1.1	0.8	0.7	0.5	$\frac{\text{Net Interest-bearing Debt}}{\text{Equity incl. Minorities}}$
3.3.4 Equity Ratio	35.8	36.9	39.5	42.6	47.1	$\frac{\text{Equity excl. Minorities}}{\text{Total Assets}} \times 100$
3.3.5 Net Interest-bearing Debt EBITDA	2.8	2.3	2.0	2.0	1.6	$\frac{\text{Net Interest-bearing Debt}}{\text{EBITDA}}$
3.3.6 Net Interest-bearing Debt FCFE		6.8%	1.8%	(39.8%)	21.1%	$\frac{\text{FCFE}}{\text{Net Interest-bearing Debt}}$
3.4.1 Number of Shares:						
No. Of Shares in Issue End of Year (m)	1,500	3,000	3,300	3,700	3,700	
Terms of share issues:						
No. Of shares prior to issue (S_0) (m)		1.50	3.00	3.30		
No. Of new shares issues (S_n) (m)		1.50	0.30	0.40		
Price per share of the new shares issued (P_n)		0	105	225		
Share price day before first trading day of rights (P)		325	175	225		
Date of issue		01-Apr	01-Mar	01-Jul		
Number of shares prior to the share issue (d_1)		90	59	182		
Theoretical Share Price (P_t)		162.50	168.64	225.0		$\frac{(S_p \times P) + (S_n \times P_n)}{(S_p + S_n)}$
Value of Supscription Rights		162.50	6.36	0		$\frac{S_n \times (P_t - P_n)}{S_p}$

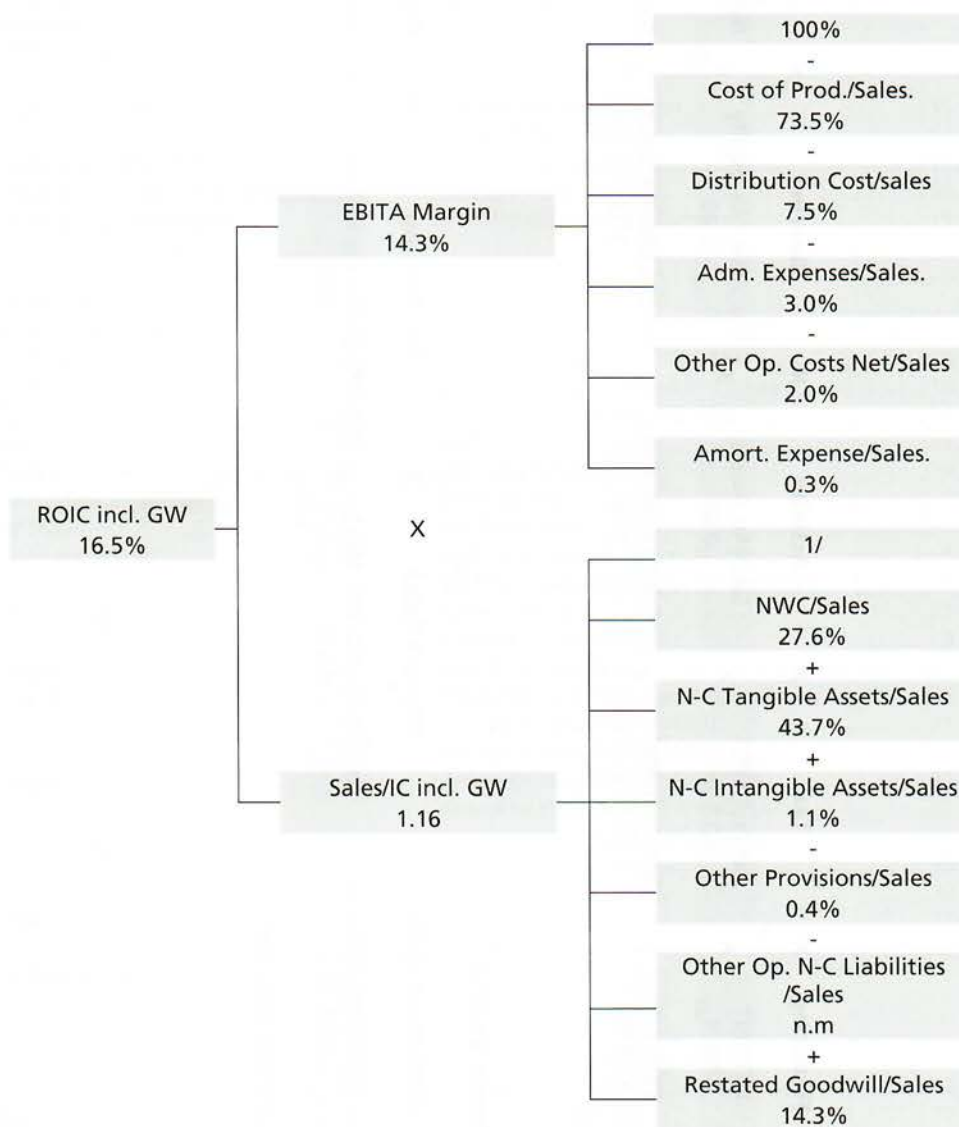
Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.4.2 Number of Shares incl. Dilution	1,500	3,090	3,390	3,990	3,990	
3.4.3 Average Number of Shares excl. Dilution	1,500	3,000	3,270	3,501	3,700	
3.4.4 Dilution Adjustment Factor (f)		0.50	0.96	1.00	1	$\frac{P_t}{P}$
Accumulated Dilution Adjustment Factor	0.48	0.96	1.00	1.00	1.00	
Actual Share Price Year-end	300	200	250	250	375	
Theoretical Share Price Year-end	145	193	150	250	375	Actual Share Price × Acc. Dilution Factor
3.4.5 Average Number of Shares incl. Dilution		3,068	3,360	3,691	3,990	
Share-based Payments:						
Number of Options/Warrants		90,000		200,000		
Expiration (+years)		5		3		
Strike Price Adjusted (DKK)		200		275		
Volatility (%)		40		40		
Risk-free rate (%)		5		5		
Share Price adjusted at the time of issue (DKK)		185		220		
Calculated value of stock-option programme (DKKm)		1.0		3.0		Both option programmes are assumed to be exercised

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.4.6 Earnings Per Share Basic (EPS Basic) (DKK)	10.6	13.5	9.8	18.6	21.1	(Profit/Loss for the Period excl. Minorities / Average Number of Shares) × Accumulated Adjustment Factor
3.4.7 Earnings Per Share Diluted (EPS Diluted) (DKK)	10.6	13.1	9.8	17.6	21.1	(Profit/Loss for the Period excl. Minorities / Average Number of Shares Diluted) × Accumulated Adjustment Factor
3.4.8 Adjusted Earnings Per Share Basic (Adj. EPS Basic) (DKK)	10.6	12.0	11.2	17.8	21.4	(Adj. Profit/Loss for the Period excl. Minorities / Average Number of Shares) × Accumulated Adjustment Factor
3.4.9 Adjusted Earnings Per Share Diluted (Adj. EPS Diluted) (DKK)	10.6	11.7	11.2	16.8	21.4	(Adj. Profit/Loss for the Period excl. Minorities / Average Number of Shares Diluted) × Accumulated Adjustment Factor
3.4.10 Cash Earnings Per Share (CEPS) (DKK)	19.0	21.0	23.8	28.2	31.7	(Cash Earnings / Average Number of Shares Diluted) × Accumulated Adjustment Factor
3.4.11 Cash Flow Per Share (CFPS) (DKK)		26.9	31.6	21.8	38.0	(Cash Flow From Operation / Average Number of Shares Diluted) × Accumulated Adjustment Factor
3.4.12 Book Value Per Share (BVPS) (DKK)	86.7	93.6	103.7	123.6	138.5	(Equity excl. Minorities / Number of Shares Year-end) × Accumulated Adjustment Factor
3.4.13 Net Asset Value Per Share (NAVPS) (DKK)	88.3	95.7	106.0	126.1	141.1	(Net Asset Value / Number of Shares Year-end) × Accumulated Adjustment Factor
3.4.14 Dividend Per Share (DPS) (DKK)	3.9	3.9	4.0	5.0	8.0	Dividend Per Share × Accumulated Adjustment Factor
3.4.15 Dividend Payout Ratio (%)	36%	29%	41%	28%	38%	$\frac{\text{Dividend Paid}}{\text{Profit/Loss for the Period excl. Minorities}} \times 100$
3.4.16 Total Payout Ratio (%)	36%	29%	41%	28%	38%	$\frac{\text{Dividend Paid} + \text{Value of Shares Buybacks}}{\text{Profit/Loss for the Period excl. Minorities}} \times 100$

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.5.1 Price Earnings Basic (P/E) (X)	13.6	14.3	15.3	13.5	17.8	$\frac{\text{Price}}{\text{EPS Basic}}$
3.5.2 Price Earnings Diluted (P/E) (X)	13.6	14.7	15.3	14.2	17.8	$\frac{\text{Price}}{\text{EPS Diluted}}$
3.5.3 Adjusted Price Earnings Basic (Adj. P/E) (X)	13.6	16.1	13.3	14.1	17.5	$\frac{\text{Price}}{\text{Adjusted EPS Basic}}$
3.5.4 Adjusted Price Earnings Diluted (Adj. P/E) (X)	13.6	16.5	13.3	14.9	17.5	$\frac{\text{Price}}{\text{Adjusted EPS Diluted}}$
3.5.8 Earnings Yield (E/P) (%)	7.3%	6.8%	6.5%	7.0%	5.6%	$\frac{\text{EPS Diluted}}{\text{Price}}$
Adjusted Earnings Yield (Adj. E/P) (%)	7.3%	6.0%	7.5%	6.7%	5.7%	$\frac{\text{Adjusted EPS Diluted}}{\text{Price}}$
3.5.10 Price/Cash Earnings (X)	7.6	9.2	6.3	8.9	11.8	$\frac{\text{Price}}{\text{CEPS}}$
3.5.11 Price/Cash Flow (X)		6.5	4.7	11.5	9.9	$\frac{\text{Price}}{\text{CFPS}}$
3.5.12 Price/Book Value (P/BV) (X)	1.67	2.06	1.45	2.02	2.71	$\frac{\text{Price}}{\text{BVPS}}$
3.5.13 Price/ Net Asset Value (P/NAV) (X)	1.64	2.01	1.41	1.98	2.66	$\frac{\text{Price}}{\text{NAVPS}}$
3.5.14 Dividend Yield (%)	2.7%	2.0%	2.7%	2.0%	2.1%	$\frac{\text{DPS}}{\text{Price}} \times 100$

Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
3.5.15 Total Yield	2.7%	2.0%	2.7%	2.0%	2.1%	$\frac{\text{DPS} + \text{Value of Share Buybacks}}{\text{Price}} \times 100$
3.5.16 Free Cash Flow Yield (%)		3.1%	0.9%	(14.2%)	4.5%	$\frac{\text{FCFE}}{\text{Market Capitalisation} + \text{Value of Minorities}} \times 100$
3.5.17 Enterprise Value/Sales (EV/Sales) (X)	1.19	1.40	1.14	1.37	1.72	$\frac{\text{EV}}{\text{Sales}}$
3.5.18 Enterprise Value/EBITDA (EV/EBITDA) (X)	6.8	7.2	6.1	7.5	9.2	$\frac{\text{EV}}{\text{EBITDA}}$
3.5.19 Enterprise Value/EBITDA (EV/EBITA) (X)	6.8	7.2	6.1	7.5	9.2	$\frac{\text{EV}}{\text{EBITA}}$
3.5.20 Enterprise Value/EBIT (EV/EBIT) (X)	9.3	9.4	9.9	10.1	12.3	$\frac{\text{EV}}{\text{EBIT}}$
3.5.21 Enterprise Value/NOPLAT (EV/NOPLAT) (X)	13.5	13.8	10.9	14.6	17.5	$\frac{\text{FCFE}}{\text{NOPLAT}}$
3.5.22 $\frac{\text{EV}}{\text{FCFF}}$		11	9	17	13	$\frac{\text{EV}}{\text{FCFF}}$
3.5.23 Free Cash Flow to Firm Yield (%)		4.2%	2.6%	(9.5%)	4.5%	$\frac{\text{FCFF}}{\text{EV}} \times 100$

Year 5 ROIC tree



Du Pont Model Year 5

	Operations	X	Financing	X	Tax	X	Activity	X	Gearing	=	Return (ROE)
Model 1:	EBIT/Sales 14.0 %	X	PBT/EBIT 87.8 %	X	Net Profit/PBT 60.5 %	X	Sales/Av. Assets 0.84	X	Av. Assets/Av. Equity 2.40	=	Net Profit/Av. Equity 14.9 %
Model 2:	EBIT/Sales 14.0 %	X	PBT/EBIT 87.8 %	X	Net Profit/PBT 60.5 %	X	Sales/Av. Inv. Cap. 1.16	X	Av. Inv. Cap./Av. Equity 1.73	=	Net Profit/Av. Equity 14.9 %

Alternative Return Breakdown Year 5

Return on oper.	+	(Return on oper.	-	Interest Rate)	X	Fin. Gearing	=	Pre-Tax Return*
ROIC incl. GW 16.5 %	+	(ROIC incl. GW 16.5 %	-	Net Fin./Av. Eq. incl. Min.) 6.3 %	X	Net IB Debt/Av. Eq. incl. Min. 0.62	=	Pre-Tax Return* 22.9 %

* Return before tax, minorities and income from associates

Index

A

Acquisitions.....	15
Added Value of Put Options	42
Added Value per Employee.....	9
Adjusted Earnings Per Share Diluted (Adj. EPS Basic).....	16
Adjusted Earnings Per Share Diluted (Adj. EPS Diluted)	16
Adjusted Price Earnings Basic (Adj. P/E Basic).....	18
Adjusted Price Earnings Diluted (Adj. P/E Diluted).....	19
Adjusted Profit/Loss for the Period excluding Minorities.....	2
AFS	23
After-Tax Return on Invested Capital excluding Goodwill (After-Tax ROIC excl. Goodwill).....	6
After-Tax Return on Invested Capital including Goodwill (After-Tax ROIC incl. Goodwill).....	6
Asset Management	26
Average Deposit Interest Rate.....	28
Average Lending Rate.....	28
Average Number of Full-time Employees.....	5
Average Number of Shares.....	14, 16
Average Number of Shares Diluted	15, 16

B

Bonus Potential Margin	38
Book Value Per Share (BVPS).....	17
Book-to-Bill Ratio	11
Borrowing Rate	46
Buffer Capital Information	36

C

C / I.....	27
Capital Adequacy Ratio	33
Capital Base	38
Capital Expenditure/Depreciation	11
Cash Conversion Cycle	10
Cash Conversion Ratio.....	8
Cash Earnings (CE)	4
Cash Earnings Per Share (CEPS)	16
Cash Flow From Operations (CFFO).....	4
Cash Flow From Operations (CFFO)/Sales	9
Cash Flow Per Share (CFPS)	17
Charter Commitments.....	40
Claims Incurred	31
Claims Outstanding Provisions	30
Claims Ratio	32, 33
Claims Ratio - including Business Ceded	32
CoCo	25
Collective Bonus Potential Margin.....	38
Combined ratio	32
Company Investment Portfolio.....	36
Compounded Annual Growth Rate (CAGR)	11
Contract Market.....	42

Convertible Securities.....	15
Cover of Operating Liabilities.....	13
Coverage of Hire Days.....	40
Credit Period (days).....	10
Current Ratio	10

D

Dilution Adjustment Factor.....	15
Dividend Payout Ratio	17
Dividend Per Share (DPS)	17
Dividend Yield.....	20
Dividend-adjusted Price Earnings	19

E

Earned Premiums	31
Earnings Per Share Basic (EPS Basic).....	16
Earnings Per Share Diluted (EPS Diluted)	16
Earnings Yield (E/P eller Adj. E/P).....	19
EBIT	27
EBITA per Employee	9
EBITA-margin.....	8
EBITDA-margin.....	7
EBITDA-to-Gross Profit/Loss Margin	8
EBITDA-to-Gross Profit/Loss per Employee	9
Embedded Value.....	25
Employee Expenses/Sales.....	9
Enterprise Value (EV)	5
Enterprise Value/ Free Cash Flow to Firm	22
Enterprise Value/EBIT (EV/EBIT)	21
Enterprise Value/EBITA (EV/EBITA).....	21
Enterprise Value/EBITDA (EV/EBITDA).....	21
Enterprise Value/NOPLAT (EV/NOPLAT)	22
Enterprise Value/Sales (EV/Sales)	21
Equalisation Provisions	30
Equity Margin	33
Equity Ratio	12
Expense Ratio.....	32, 33

F

FCFE/Net Interest-bearing Debt.....	12
Fee-based Products	36
Financial Gearing	12
Fixed-term Charterparties.....	41
Fleet Specifications.....	41
Forward EPS.....	19
Forward Price Earnings	19
Free Cash Flow to Equity (FCFE).....	5
Free Cash Flow to Firm (FCFF).....	4
Free Cash Flow to Firm Yield	22
Free Cash Flow Yield	21
Full-year and Interim Figures.....	5
Funding Expense.....	28

G	
General Information	45
Gross Margin	7

H	
HTM.....	23

I	
IFRS	2
In-force margin	39
Insurance Business.....	29
Insurance Interest Ratio	32, 33
Interest Cover I.....	12
Interest Cover II	12
Interest Margin (Loans).....	29
Interest Margin (REA).....	28
Interest Margin 1.....	28
Interest Margin 2.....	28
Interest Margin on Deposits.....	28
Interest Margin on Loans	28
Interest Margins	27
Interest Rate Groups.....	35
Interest-bearing Assets	28
Interest-bearing Debt.....	28
Inventory Turnover (days).....	10
Invested Capital excluding Goodwill	4
Invested Capital including Goodwill	4
Investment Business.....	29, 31
Issue at Market Price.....	15
Issues	14

L	
Leased Vessels.....	42
Loan Impairment Losses.....	26
Loan/Loss Allowance Ratio.....	27
Loss Ratio.....	27

M	
Margin ratios.....	7
Market Capitalisation (Market Cap)	5
Market Value of the Fleet	41
Multiples based on EV are included	18

N	
National Characteristics	34
Negative Values.....	5
Net Asset Value (NAV)	4, 42, 46
Net Asset Value Per Share (NAVPS)	17
Net Interest-bearing Debt	3
Net Interest-bearing Debt/EBITDA	12
Net Margin.....	8
Net Operating Profit Less Adjusted Taxes (NOPLAT).....	3

Net Reinsurance Ratio	32
Net Working Capital (NWC)	3
New Sales Margin	39
Newbuildings	41
NOPLAT Margin	8
Number of Full-time Employees Year-end	5
Number of Shares	14
Number of Shares Diluted	14
NWC/Sales	10

O	
Operating Costs.....	32
Operating Leases.....	25
Operating Margin (EBIT margin)	8
Operational Breakdown	38
Organic Growth.....	11

P	
PEG Ratio.....	20
Prepayments	42
Present Value of Long-term Covered Charterparties.....	42
Pre-Tax Margin.....	8
Price Earnings Basic (P/E Basic)	18
Price Earnings Diluted (P/E Diluted)	18
Price/Book Value (P/BV)	20
Price/Cash Earnings (P/CE)	20
Price/Cash Flow (P/CF)	20
Price/Net Asset Value (P/NAV).....	20
Products with Profit Sharing	35
Profit Margin	32, 33, 38
Profit/Loss for the Period excluding Minorities.....	3
Profit/Loss from Business Ceded	32
Profitability and Return on Investment	45
Profitability ratios	6
Property-related Ratios	45
Put Options.....	41

R	
Ratios	32
REA	25, 28
Receivables Turnover (days)	10
Reserve Ratio, Claims Outstanding Provisions	33
Reserve Ratio, Premiums Unearned.....	33
Reserve ratio, total	33
Return Margin.....	46
Return on Average Equity before Tax after Value Adjustments	46
Return on Average Equity before Tax and Value Adjustments	45
Return on Equity (ROE).....	6
Return on Interest-bearing Assets	28
Return on Invested Capital excluding Goodwill (ROIC excl. Goodwill)	6
Return on Invested Capital Including Goodwill (ROIC incl. Goodwill).....	6

Return on Investment	27
Return on Property Portfolio	45
Revenue (sales)	2
Revenue Clear of Gains and Losses on Property Sales ..	44
Rights Issue	15
Risk Description in the	46
Risk, Borrowing Costs and Return Margin	46
Rolling 12 Months' Data (Trailing Data or Forward Data)	3

S

Sales Growth	11
Sales per Employee	9
Sales/Assets	7
Sales/Invested Capital excluding Goodwill	7
Sales/Invested Capital Including Goodwill	7
Sales-Backlog-Ratio	11
Sensitivities	42
Share Buybacks	15
Share Price (Price)	5
Share-related Ratios	46
Solvency Capital	33
Solvency Ratios	26
Split Total Operating Costs	40
Spot Market	42
Statement of Income – an example	40
Statement of Income for Analysis Purposes	40
Statement of Income for Analytical Purposes	44

Statement of Income per Segment Recommended	41
Stock Split and Bonus Shares	15
Stringent Accounting Rules	24
Stringent Format	29

T

Technical Interest	30
Three Principles	34
Three Subcomponents	35
Total Payout Ratio	17
Total Yield	21
Trailing EPS	19
Trailing Price Earnings	19
Two Main Constituents	29

U

Uniform Basis for the Analysis of Property Companies ..	43
Uniform Basis for the Analysis of Shipping Companies ..	40

V

Value Adjustment of Properties	45
Value Creation and Cash Flow in Property Companies ..	43

W

Working capital ratios	10
------------------------------	----

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