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Voluntary disclosure

Occurrence of financial targets in annual reports
of listed Swedish companies and valuation
implications

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ABSTRACT

This paper extends the literature on companies' overall voluntary disclosure behavior by examining a specific type of disclosure that can be beneficial to make when it comes to analysts valuing a company. Specifically, this paper investigates financial target disclosure by Swedish firms in annual reports between 2003 and 2007. A score chart reflecting both qualitative and quantitative aspects of disclosed information is used to assess the disclosure level of the companies. The result shows that disclosure level varies between industries and that the qualitative aspects of financial disclosure have improved during the studied period. A residual income valuation model is used to assess the valuation relevance of financial targets. Targets of return on equity and dividend policy are used as input in the valuation model. The fundamental values obtained, are significantly higher than the market values.

[Keywords: voluntary disclosure, disclosure level, financial targets, valuation relevance]

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1. Introduction

Area of study

Previous studies have shown that more and more companies are disclosing information on a voluntary basis in addition to making the required compulsory disclosures (Schuster and O'Connell, 2006). One form of voluntary disclosures is information about financial targets. Financial targets can be of great value due to their ability to help stakeholders make reasonable predictions of a company's future. In 1994 the American Institute of Certified Public Accountants' (AICPA) special committee on financial reporting introduced a report to improve business reporting. AICPA presented five categories that are linked to the information need of users. One of these categories points at the need for information that concern the performance measures and operating data that management frequently uses for control. Financial targets can provide stakeholders with this information since they supply users with a management perspective of key financial numbers and value drivers. Furthermore, according to a survey by Hallvarsson&Halvarsson (2008) information about financial targets are highly requested by both investors and analysts. Keeping in mind that users of financial statements ask for information about financial targets it is interesting to study how common disclosure of financial targets are in practice? In order to answer this question companies' financial reports need to be studied.

Purpose

The purpose of this paper is to empirically investigate voluntary disclosures in the form of financial targets in the annual reports of Swedish listed companies. Furthermore, a fundamental valuation model is used to assess the valuation-relevance of financial targets.

The question at issue is: How do listed Swedish companies disclose financial targets in the annual reports and what implications have disclosed financial targets in a valuation context? The subject is interesting due to the fact that voluntary disclosures might enable analysts to make better predictions of value drivers and/or parameters that are relevant in a valuation setting.

Delimitations

In the paper the following delimitations have been made

- No other sources of company information but the annual reports are studied. This implies that information like quarterly reports, management presentations and other public information are not taken into consideration.
- The importance of voluntary disclosures is addressed from a capital market perspective, and our focus is on the analysts' use of financial information.
- The study does not intend to explain why companies choose to disclose financial information. The theory review only intends to illustrate a background to the purpose of the paper.

Outline

The outline of this paper is as follows. In the next section the framework for financial reporting in Sweden will be presented. Information asymmetry as well as information use on capital markets are theories discussed in section 3. In section 4 sample and methodology issues are discussed and a residual income valuation model is presented. The empirical results are presented in section 5 and an analysis of the results is made in section 6. In section 7 the

financial targets are applied in a valuation model. Some concluding remarks are made in section 8 and 9.

Rationale and importance of the study

The objective of corporate reports is to supply economic information to a number of user groups in order to enable them to make decisions about the allocation of scarce resources (Cooke, 1989b). Since information is important in this process it is interesting to assess the extent to which voluntary disclosures occur in annual reports. A wide variety of studies within the field of voluntary disclosures have previously been made and these studies can be divided into different areas. Several studies have focused on explaining differences in disclosure behavior between companies (e.g. Cahan, 2005, Cooke, 1989a and Clinch and Verrecchia, 1997) while others have focused on the relationship between voluntary disclosures and cost of capital (e.g. Botosan, 1997 and Leuz and Verrecchia, 2000). Common for all these studies are though that an index or survey have been created or used in order to separate the companies' disclosure levels. Previous studies aiming at assessing the level of voluntary disclosure, often consider all or a wide variety of voluntary disclosure that a company presents (e.g. Botosan, 1997, Cooke, 1989 and Aktiespararna, 2008). A previous study by Gray and Skogsvik (2004) specially examined voluntary disclosure expected to be valuation relevant in Pharmaceutical companies in Sweden and Great Britain. In line with their study this paper also focuses on valuation relevant disclosures. In addition, this paper extends the literature on firms' overall voluntary disclosure choices by examining a specific kind of valuation relevant disclosures, which are financial targets.

A summarizing table of a selection of previous studies within the area of voluntary disclosures is presented in table 15 in appendix.

2. The Financial Reporting Framework in Sweden

Voluntary disclosures provide information which goes beyond the requirements inherited by the law and in the prevailing accounting standards. In Sweden, the regulatory framework includes the Companies Act of 1975, the Accounting Acts of 1976 and 1996, financial accounting recommendations issued by the Swedish Institute of Authorized Public Accountants (FAR) and the Swedish Accounting Council (Redovisningsrådet) and the Stockholm Stock Exchange listing requirements (Gray and Skogsvik, 2004). According to these legislations disclosures about financial targets are regarded as voluntary. However, in the listing requirements on Stockholm Stock Exchange forward looking disclosures, as financial targets, have to complete the following:

“When the company discloses a forecast, it shall provide information regarding the assumptions or conditions underlying the forecast provided. To the extent possible, forecasts shall be presented in an unambiguous and consistent manner. If the company issues other forward-looking statements, they shall also be provided in an unambiguous and consistent manner. Where the company reasonably expects that its financial result or financial position will deviate significantly from a forecast disclosed by the company and such deviation is price sensitive, the company shall disclose information about the deviation. Such disclosure shall also reiterate the forecast previously provided.”(NASDAQ OMX, 2009)

3. Previous research

Information supply on capital markets

Most research that have studied accounting information and the capital market is based upon a microeconomic framework that esteems from Fama (1965, 1970 and 1991). Fama invented the phrase “efficient market hypothesis” that states that the market is efficient when prices fully reflect all information (Fama, 1970). Market efficiency can thus be described in terms of how security prices react to new information. This implies that security prices are affected by information disclosure, signifying the importance of information disclosure for investors and analysts on the capital market.

Several researchers have found that the most important source of information for investors and analysts are the annual report and financial statements (Neu et al., 1998 and Vergoossen, 1993). In addition, according to Breton and Taffler (1995), the accounting information disclosed by the firm is one of the most important information sources for investors and analysts when valuing a firm. Information disclosures from a firm can be provided in a number of ways and are of different types. Regulated disclosures are financial reports such as the annual report, whereas non-regulated information is optional and disclosed on a voluntary basis (Ström, 2006). Voluntary information can be disclosed via diverse communication vehicles, including press releases and presentations, but it can also be disclosed in the annual report.

Disclosures and information asymmetries

Disclosure practices can theoretically be explained by agency theory (Jensen and Meckling, 1976). According to agency theory managers have superior information about a company compared to investors. This condition leads to information asymmetry between management and investors which creates agency costs (Jensen and Meckling, 1976). Information asymmetries create costs by introducing adverse selection between buyers and sellers of firm shares and typically this becomes visible in a variety of market proxies, such as bid-ask spreads, market depth, and share turnover (Verrecchia and Weber, 2006). To mitigate the reluctance of potential investors to hold shares in illiquid markets, companies must issue capital at a discount which implies a higher cost of capital (Leuz and Verrecchia, 2000).

According to Diamond and Verrecchia (1991) information asymmetries hinder the efficient allocation of capital. It is therefore reasoned that the role of disclosures is to inform investors about the company and decrease information asymmetry. The management of a firm has superior information about the firm relative to the investors. By committing to an increased level of disclosures a company can reduce the possibility of information asymmetries arising either between a company and its shareholders or among potential buyers and sellers of shares. More specifically Leuz and Verrecchia (2000) have shown that a commitment to increased disclosure lowers bid-asked spreads and increases trading volume. This implies that increased disclosures lessen information asymmetry, which in turn, creates a more efficient allocation of capital.

Another theory that has been proposed to explain the usage of disclosures is the signaling theory. This theory is concerned with understanding how certain signals affect the value of the company. According to this theory, firms use disclosures to ascertain a positive signal to the investors about the value of the company (Trueman, 1986).

How much information should be disclosed?

Given the benefits of information disclosures, companies would, in a world without friction, disclose all relevant available information (Milgrom, 1981). However, the disclosure of information in annual reports causes costs for a company. These costs involve information gathering, management, supervision, audit and legal fees and the distribution of the information (Cooke, 1989a). Furthermore, some research argues, that increasing cost of capital effects may occur if the disclosures themselves lead to a more asymmetric information environment than would exist in their absence (Kim and Verrecchia, 1994, Zhang, 2001). The implication of this reasoning is that too much disclosure can be as costly as too little disclosure. The tradeoff is the costs and benefits between exceeding mandatory disclosure and only disclosing mandatory information (Verrecchia, 1983). Core (2001) suggested partial disclosure to be the optimal strategy.

The logic of the study

As earlier mentioned the purpose of this paper is to empirically investigate voluntary disclosures in the form of financial targets in the annual reports and to assess the content of valuation-relevant disclosures. Since the purpose can be divided into two parts the logic of the study is divided accordingly. The first part of the study aims to empirically describe the characteristics of financial target disclosures in Swedish companies. This is reached by scrutinizing the annual reports with regard to the occurrence of financial target disclosure. The second part seeks to assess the content of value relevant disclosures. This is attained by applying the companies' disclosed financial targets in a residual income valuation model.

4. Sample and Methodical Issues

In this section the method is specified and developed.

Sample

The selection of companies has been based on the generally most common large cap index in Sweden, the OMX Stockholm 30 Index, which consists of 28 companies (NASDAQ OMX, 2009). According to Meek (1995) large companies are believed to be trend setters when it comes to information disclosure. Furthermore, large and multinational Swedish companies have a clear tendency to publish voluntary disclosures, Skogsvik (1998). The OMX 30 companies are therefore interesting to study with regard to voluntary disclosure. In order to assess the development of disclosure of financial targets over time the annual reports for the five-year period 2003 to 2007 have been studied.

Definition of financial target

The disclosure of financial targets is examined from an analyst's perspective with the purpose of identifying targets that can be used in a valuation context. Each annual report has been studied with regard to the presence of financial targets within the following areas:

- *Return*: information about earnings persistence expressed as forecast of return on owners equity or capital employed.
- *Capital structure*: prospect of the capital structure that can prevail in the future.
- *Growth*: information about the growth prospects for the company.

- *Margin*: information about the profit prospects of the firm expressed as a margin.
- *Dividend policy*: information about principles and/or targets regarding company dividend.
- *Other target*: targets that do not fit into any of the above categories, but can be used in a valuation context.

Return and growth are key value drivers of company value (Koller et. al, 2005) so these areas have been chosen due to their direct application in common valuation models. Furthermore, the dividend policy can be related to growth. Information about capital structure and margin is not directly used in common valuation models. However several valuation models are dependent on forecasting the income statement and the balance sheet and consequently the mentioned targets can be used indirect in a valuation.

Description of method

In order to accomplish a comprehensive description of the voluntary disclosure of financial targets among the OMX 30 companies a methodology is defined to capture both quantitative and qualitative aspects of disclosures. Cooke advises that there are two approaches to developing a scoring scheme to capture levels of disclosure (Cooke, 1989a). The first approach counts the number of words used to describe an item disclosed. This approach imply that the scoring of disclosure result in a scale between zero and one. Consequently the allocation of scores along the scale is somewhat subjective (Cooke, 1989a). The alternative approach is to use a method where an item receives score one if it is disclosed and zero if it is not disclosed. Cooke uses the later approach in the survey and defines the approach “The scoring sheet”. Botosan (1997) have a similar approach to Cooke when creating her disclosure index, giving a company score one if an item is disclosed and zero if an item is not disclose. In addition she weights the score in relation to the size of the company, since larger firms can disclose items for only a business section and not for the whole company (Botosan, 1997). In the annual survey by Aktiespararna (2008) “Årets börsbolag” disclosure is ranked with different criterias and each criterion is assigned an individual number of points whether the company makes a particular disclosure or not. The different criteria are assigned different points between three and zero although each criterion is not differentiated since either the criteria’s number of points is allocated if the company have the disclosure or otherwise the company receives zero. Botosan (2004) argues that quality of disclosure depends on the quantity of information disclosed and the richness of its content. In her work Botosan (2004) discusses the two questions: what defines disclosure quality? and is disclosure quality measurable? Botosan (2004) argues that frameworks for assessing disclosure quality must be addressed in the context of a specific research question.

Label of the method

Since disclosure of financial targets can be evaluated from both qualitative and quantitative aspects the approach used to evaluate the disclosure of financial targets has to consider both the amount and quality of information disclosure. We have considered two methods for our empirical research. First we have considered creating a benchmark and to evaluate each company based on this benchmark. Secondly we have considered creating a score chart that defines levels of score. Having a benchmark mean that a best practice needs to be defined since a benchmark study should be performed against the best possible way of disclosing financial targets. However, the creation of “best practice” is dependent on a context and the question “best

practice for whom?” needs to be answered. Since we have not interviewed analysts in order to receive input on which kind of disclosure they would prefer and in which way they want to have this information presented we cannot establish a best practice. A score chart is preferably based on how companies present information in relation to some framed questions that distinguish different levels of disclosure. The main advantage with a score chart is that qualitative and quantitative questions could define different levels of disclosure which can be assigned with an individual score depending on the level of the information disclosed. However, a score chart with differentiated score has the problem of subjectivity. Another disadvantage with this approach is that we have not found any survey or similar which have examined voluntary disclosure with a differentiated score except of Aktiesparnas’ survey where different questions have higher score than others but no differentiation within the questions.

The score chart

Since a best practice of disclosure cannot be identified we decide to disregard the use of a benchmark and instead we have constructed a framework ”Score chart” in order to describe the voluntary disclosure of financial targets. The purpose of the score chart is to enable a cross company comparison as well as a comparison over time of the level of financial target disclosure. The chart is based on both qualitative and quantitative aspects and the questions in the chart as well as definitions for each score are presented in table 1.

Table 1 – Score chart

	Questions	Score 3	Score 2	Score 1	Score 0
Qualitative disclosure	1) <i>Where can you find the target/s?</i>	Separate chapter named financial targets or similar under which all financial targets are gathered.	Combined disclosure in a separate chapter of all targets but one or targets are disclosed in another chapter (i.e. letter from the president)	Information about financial targets in different parts of the annual report	The company has no disclosure of financial targets in the annual report
	2) <i>Is the outturn commented?</i>	The outturn is commented on in connection with the financial targets	The outturn is commented on but not in connection with the financial targets	No comment on outturn, but the outturn can be calculated based on the information in the annual report	The company has no disclosure of financial targets in the annual report
	3) <i>How is/are the target/s described?</i>	The financial targets have a detailed description in text and with illustrative tables/diagram/graphs showing development over time	Illustrative tables/diagram/graphs showing development over time	Description only in text	The company has no disclosure of financial targets in the annual report
Quantitative disclosure	4) <i>How many financial targets does the company disclose?</i>	Five financial targets or above	Four to three financial targets	Two to one financial targets	No financial targets
	5) <i>What is deviation between financial target and the outturn?</i>	Max 20% in absolute deviation from target	Max 40%, min 21% in absolute deviation from target	Max 60%, min 41% in absolute deviation from target	No financial targets

The first category, qualitative disclosure, consist of three questions (questions 1-3) with four defined levels of individual score in order to determine how the information is presented, commented and described. The four different levels in each question have an individual score between three and zero depending on the qualitative level of disclosed information. The second category, quantitative disclosure, consists of two questions with four defined levels of individual

score. The four different levels in each question have an individual score between three and zero depending on the quantitative level of disclosed information. Question number four determines the number of financial targets disclosed in the annual report a particular year. Question number five implies a historical comparison between the disclosed financial target and the outturn.

Each annual report studied has been marked according to the score chart. In total the annual reports of 28 companies have been studied for five years, implying a set of 140 annual reports. For question one to four each annual report has obtained an individual score. However, for the fifth question, regarding the targets historical relation to its outcome, there is only one score per company. This score is allocated according to the description of question five below.

As previously mentioned the score chart is the basis for a comparison over time and between the studied companies. In order to get an equal weight between the qualitative and quantitative aspects of financial targets the scores have to be adjusted with different number of points per question and level. Maximum score in the category qualitative disclosure is 15 points per question for the five year period studied, which implies a maximum total score of 45 (see table 2 below). In order to get an equal maximum score of the qualitative disclosure the quantitative score needs to be adjusted. Since there are only two questions in the quantitative category the maximum score per question has to be 22.5 for the five year period. In order to obtain this total score the score of question four have to be maximum 4.5 each year. Since question 5 only have one score per company the maximum score is 22.5 points (see table 2 below). The maximum total score in both the qualitative and quantitative questions is 90 points (2x45).

Table 2 – Distribution of score

Distribution of points						
Qualitative disclosure	2003	2004	2005	2006	2007	Total
Where can you find the target/s?	3	3	3	3	3	15
Is the outturn commented?	3	3	3	3	3	15
How is/are the target/s described?	3	3	3	3	3	15
						Total
						45
Quantitative disclosure						
How many financial targets does the company disclose?	4,5	4,5	4,5	4,5	4,5	22,5
What is deviation between financial target and the outturn?	22,5					22,5
						Total
						45

Qualitative disclosure

IASB's framework identifies four qualitative characteristics of information that enhance the usefulness of information to economic decision makers (IASB, 2009). These characteristics are understandability, reliability, relevance and comparability. Based on these characteristics we have formulated our qualitative questions. The relation between the qualitative characteristics and the three questions is presented in table 3.

Table 3 – Characteristics of qualitative disclosure

Characteristics of qualitative disclosure				
	Understandability	Reliability	Relevance	Comparability
<i>Where can you find the target/s?</i>		X		X
<i>Is the outturn commented?</i>		X	X	X
<i>How is/are the target/s described?</i>	X		X	X

1) Where can you find the target/s?

This question aims at capturing how easily the targets can be found by the analysts. Since an aggregated disclosure provides the analyst with a better overview of all the companies' financial targets, a separate chapter improves the comparability of the disclosure. Furthermore, if the targets are aggregated in one place the analyst can assume that the management is focusing the targets and are eager to promote them. This enhances the targets reliability. Since a company with only one financial target per definition has an aggregated disclosure it is evident that aggregated disclosure does not necessarily reflect high qualitative characteristic in the communication. A company with a separate chapter for financial targets and other forward looking information receives the highest score if the company has more than one target. Companies with only one target or with all targets but one in the same section receives score 2. Companies with financial targets in different parts of the annual report are considered to make it harder for the analyst to assess if the targets are congruent and thus receives score 1.

2) Is the outturn commented?

This question aims at reflecting the reliability, relevance and comparability of a financial target. If the outturn is commented on in connection with the financial targets this is considered to enhance the usefulness for the analyst. Having the outturn presented in connection with the specific financial target is critical in order for the analyst to assess how reliable and relevant this target have been historically. If the outturn of a target is commented on in connection with the financial targets the company receives score 3. If the outturn is commented but not in connection with the financial target score 2 is received. If the analysts have to calculate the targets with information in the annual reports score 1 is received.

3) How is/are the target/s described?

This question is important since in order for the analyst to assess the usefulness of a target it is important to know what the target reflects. Disclosure of financial targets become more relevant from a analyst point of view if the targets is related to historical outturn since the target can be related to the current level and the difference indicate the possible improvement or long term level. Companies that have a detailed description in text and with illustrative tables/diagram/graphs showing development over time receive a high score for this question. This due to the fact that having a detailed description with historical development increases the understandability, relevance and comparability of the target.

In order to assign a score of the general impression of the qualitative disclosure an overall judgment has been made based on a 50/50 principle. If half or more of the disclosed financial targets is commented or described according to a specific level of score the company obtains that score. For example, if a company discloses five financial targets out of which three has a

comment on outcome in connection with the targets then score 3 is assessed for question two to that company that year.

Quantitative disclosure

The quantitative questions are formulated in order to assess a foundation to perform the valuation. The quantitative questions describe the number of targets in the different areas and the deviation between the historical targets and their outturn. Table 4 shows the distribution of score for the quantitative questions.

4) How many financial targets?

The number of targets is important for the analyst since the lack of a certain target makes the forecasting more subjective. If a financial target falls within one of the above mentioned areas; return, capital structure, growth, margin, dividend policy or other target then that target is documented. Furthermore, financial targets are only documented when the disclosed targets are quantified figures or described in relative terms which can be quantified in an objective way. This implies that targets expressed only in terms of improvement of a specific number, without any precision, or similar will be disregarded.

5) What is the difference between the financial target and the outturn?

The usefulness of a target is approximated by the historical difference between target and outturn. The deviation is calculated by an average of the outturn divided by the target. The calculation of the deviation is performed in three different ways depending on the disclosed targets by the companies.

- 1) Financial target communicated in year 2003 is compared with an average outturn of the same target during the period 2004, 2005, 2006 and 2007 if no explicit target period is stated by the company in connection with the financial target.
- 2) If the company has stated an explicit target period in connection with the financial target the target is compared with the average outturn during the stated period.
- 3) Companies with the first disclosed target communicated after 2003 the target is compared to the average outturn during the remaining period or explicit target period stated by the company in connection with the financial target. However, if the company only discloses a target in 2007 the comparison with outturn is disregarded since data for any later years is not collected.

Table 4 – Distribution of score

What is difference between financial target and the outturn?				How many financial targets does the company disclose?		
Interval				Number of targets		
Score	Max	Min	Points	Score	Number of targets	Points
3	20%	0%	22,5	3	=> 5	4,5
2	40%	21%	15	2	4 to 3	3,5
1	60%	41%	7,5	1	2 to 1	2,5
0	Other		0	0	0	1,5

Equity valuation and voluntary disclosures

The second part of this study aims to assess the content of valuation-relevant disclosures. Stock market prices can be calculated as the present value of future dividends. Within the context of

this paper financial targets are expected to include information which is important for the prediction of accounting numbers being relevant for the assessment of future dividends. The linkage between accounting numbers and stock market prices calculated as present value of future dividends can be modeled in two ways (Skogsvik, 1998). First, dividends being paid in future periods can be expressed as some function of past and/or contemporary accounting numbers. Second, the time series behavior of accounting numbers can be forecasted (Skogsvik 1998). Voluntary disclosures in the form of financial targets are expected to be of importance for the second step of the linkage; i.e. financial targets are expected to include information which is important for the prediction of accounting numbers being relevant for the assessment of future dividends.

In order to link accounting numbers and stock market prices, a residual income valuation model will be used. The model as presented below is based on Skogsvik (1999). In order for the residual income valuation model to be representative of stock market values the assumption of a clean surplus relationship has to be introduced¹.

A standard formula for the valuation of owners' equity can be expressed as in (1).

$$V_t = \sum_{\tau=1}^T \frac{E(Div_{\tau} - N_{\tau})}{(1+\rho)^{\tau}} + \frac{E(V_T)}{(1+\rho)^T} \quad (1)$$

where:

V_t = market value of owners' equity determined ex dividend and including any new issue of share capital at time t .

Div_{τ} = total dividend being paid to the shareholders where τ denotes time of payment.

N_{τ} = new issue of share capital, where τ denotes time of payment.

ρ = required rate of return on owners' equity.

$E(. . .)$ = expected value operator, conditioned on the available set of information at time τ .

τ = periods of time, $\tau = 1, 2, . . . , T$.

According to the 'clean surplus relation of accounting',

$$B_{\tau} = B_{\tau-1} + I_{\tau} - Div_{\tau} + N_{\tau}$$

where:

B_{τ} = book value of owners' equity, determined after Div_{τ} has been paid to the shareholders and/or N_{τ} has been paid to the company, at time τ .

I_{τ} = accounting net income, accrued in the period $\tau-1$ to τ .

implies that the difference between Div_{τ} and N_{τ} in the numerator of (1) can be rewritten as follows:

¹ Clean surplus relationship implies that net income, dividends and new issue of share capital explain changes in the book value of owner's equity (Skogsvik, 1999).

$$Div_{\tau} - N_{\tau} = B_{\tau-1} + I_{\tau} - B_{\tau} = B_{\tau-1}(1 + ROE_{\tau}) - B_{\tau} \quad (2)$$

where:

$ROE_{\tau} \equiv I_{\tau}/B_{\tau-1}$ = book return on owners' equity, accrued in the period $\tau-1$ to τ .

Consequently (1) can be rewritten as in (3) below.

$$V_0 = \sum_{\tau=1}^T \frac{E[B_{\tau-1}(1+ROE_{\tau})-B_{\tau}]}{(1+\rho)^{\tau}} + \frac{E(V_T)}{(1+\rho)^T} \quad (3)$$

Substituting r_{τ} with $\rho + (r_{\tau} - \rho)$ in (3), it is possible to obtain a new expression for V_0 :

$$V_0 = B_0 + \sum_{\tau=1}^T \frac{E[B_{\tau-1}(ROE_{\tau}-\rho)]}{(1+\rho)^{\tau}} + \frac{E(V_T-B_T)}{(1+\rho)^T} \quad (4)$$

Equation (4) is recognized as the residual income valuation model.

According to the residual income valuation model the market value of owners' equity is equal to the sum of the book value of owner's equity, the present value of expected abnormal earnings, and the present value of the expected difference between the market value and the book value of owners' equity at the horizon point in time, T.

In order to obtain a market value in equation (4) the following predictions have to be made; forecast regarding expected values of the book return on owners' equity for T future periods, expected book values of owners equity at the beginning of T future periods and the difference between the market value and the book value at the horizon point in time. There are different ways of forecasting these figures. Gray and Skogsvik (2004) propose a benchmark case of how these predictions can be made:

- I. Equity investors have prior information about the average business growth rate in future periods ($g_{\tau, pop}$) and the average number of time periods until the horizon point in time (T_{pop}^*) for some specific population of companies.
- II. Having access to compulsory financial information only, equity investors expect the growth of owners' equity for a specific company to coincide with the average growth rate for the specific population $g_{\tau, pop}$. Equity investors also expect the book return on equity the next period to equal the previous period and thereafter to gradually approach a 'steady state' return equal to the required rate of return ρ after $T = T_{pop}^*$.
- III. Having access to compulsory financial information only, equity investors set the expected difference between market value and book value at the horizon point in time to zero.

The naïve predictions described above can be improved through disclosure of voluntary disclosures of financial targets. Financial targets give the company's view of suitable targets in the long or short run. Having access to these targets can help analysts improve the predictions of

the future business growth and return on owner's equity. The naïve predictions can be replaced by more company specific forecasts.

5. Results

In this section the results from the empirical study of voluntary disclosure are described.

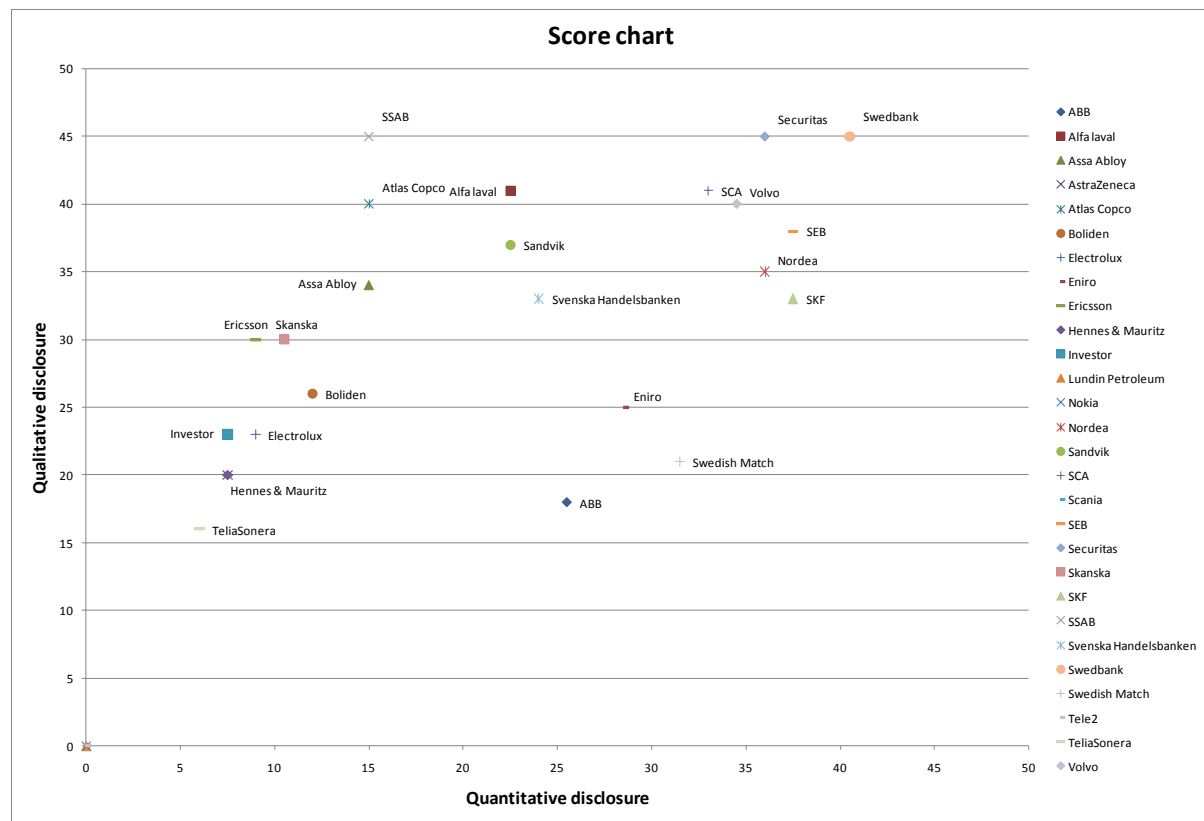
Total disclosure

The range of scores in the score chart varied from 0 to 85.5. Out of the 28 companies studied, the four companies Lundin Petroleum, Nokia, Scania and Tele2 did not disclose any financial targets during the studied period and thus received zero points. Furthermore, the three companies Hennes & Mauritz, AstraZeneca and TeliaSonera only disclosed one financial target each year. The highest score was obtained by Swedbank, which obtained the maximum qualitative score of 45 and a quantitative score of 40.5, due to a lack of growth targets 2003-2005. A summarizing table of the total ranking is enclosed in table 5 in which the companies have been divided into different industries. Furthermore, the distribution of scores is shown graphically in graph 1. In table 11 in appendix a detailed table with distribution of score per question is enclosed.

Table 5 – Total ranking based on the score chart

Rank	Company	Quantitative	Qualitative	Total score	Industry
1	Swedbank	40,5	45	85,5	Financial services
2	Securitas	36	45	81	Other
3	SEB	37,5	38	75,5	Financial services
4	Volvo	34,5	40	74,5	Trucks
5	SCA	33	41	74	Other
6	Nordea	36	35	71	Financial services
7	SKF	37,5	33	70,5	Industrial
8	Alfa laval	22,5	41	63,5	Industrial
9	SSAB	15	45	60	Commodities
10	Sandvik	22,5	37	59,5	Industrial
11	Svenska Handelsbanken	24	33	57	Financial services
12	Atlas Copco	15	40	55	Industrial
13	Eniro	28,5	25	53,5	Other
14	Swedish Match	31,5	21	52,5	Other
15	Assa Abloy	15	34	49	Industrial
16	ABB	25,5	18	43,5	Industrial
17	Skanska	10,5	30	40,5	Other
18	Ericsson	9	30	39	Telecom
19	Boliden	12	26	38	Commodities
20	Electrolux	9	23	32	Other
21	Investor	7,5	23	30,5	Financial services
22	AstraZeneca	7,5	20	27,5	Other
23	Hennes & Mauritz	7,5	20	27,5	Other
24	TeliaSonera	6	16	22	Telecom
25	Lundin Petroleum	0	0	0	Commodities
26	Nokia	0	0	0	Telecom
27	Scania	0	0	0	Trucks
28	Tele2	0	0	0	Telecom

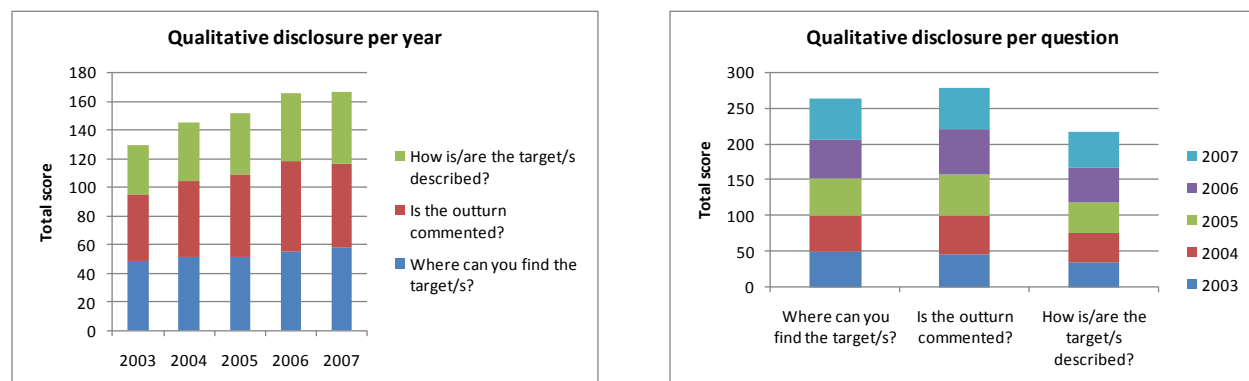
Graph 1 – Total score



Qualitative disclosure

Summarizing tables over the total qualitative disclosure can be found in diagram 1.

Diagram 1 – Qualitative disclosure per year and question



The studied companies that disclose financial target are in general consistent when it comes to where in the annual report the financial targets can be found. The study has shown two main groups concerning allocation of financial target disclosure. The first group of companies discloses financials targets in a section that describes the business in general terms. For example Sandvik disclose financial targets under “group summary review” (Sandvik, 2007) and Ericsson

under “Board of Directors report” (Ericsson, 2007). This way of disclosing financial targets is adopted by seven of the studied companies. Another group of nine companies discloses financial targets in a section called “Vision and/or strategy and/or goals”. For example SSAB disclose their financial targets under “strategy, plan of actions and targets” (SSAB, 2007) and Swedbank under “Mission, vision, strategies and objectives” (Swedbank, 2007). From this group Volvo and Skanska differs by having a separate chapter called “Financial targets and their fulfillment” (Volvo, 2003-2007 and Skanska, 2003-2006). In addition, it is common that financial targets and their fulfillment are commented on in the letter from the CEO or in the report from the Board. For example in Nordea there is a sub heading in the CEO statement “Delivering on financial targets” (Nordea, 2006). In diagram 2 and 3 the outturn of the questions as well as the outturn per industry is shown.

Diagram 2 – Question 1 and 2

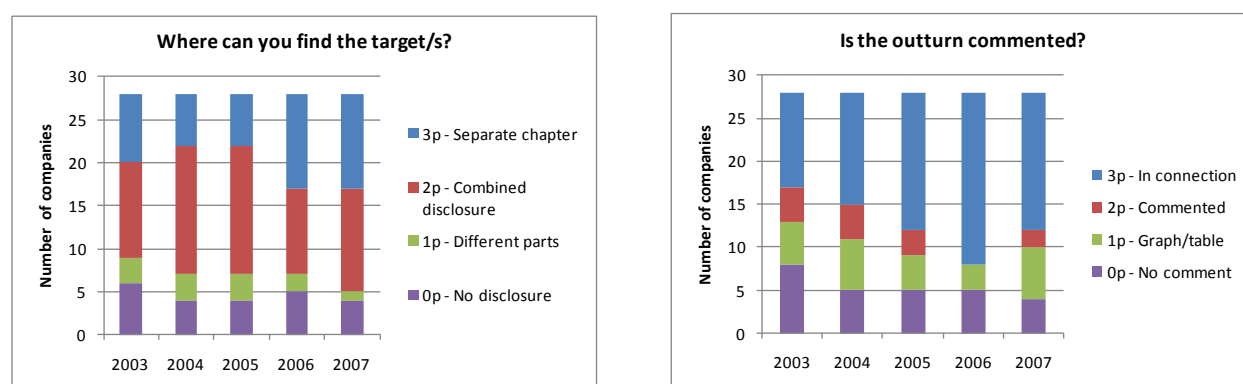
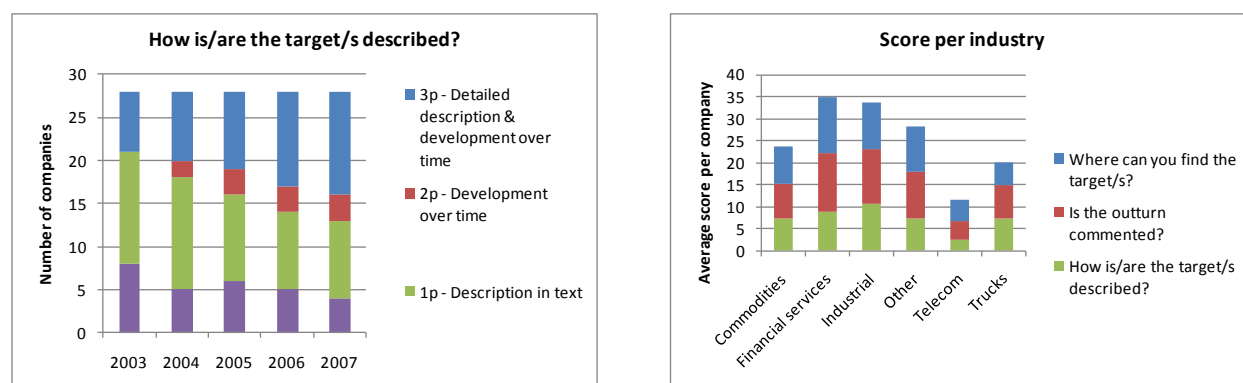


Diagram 3 – Question 3 and Score per industry



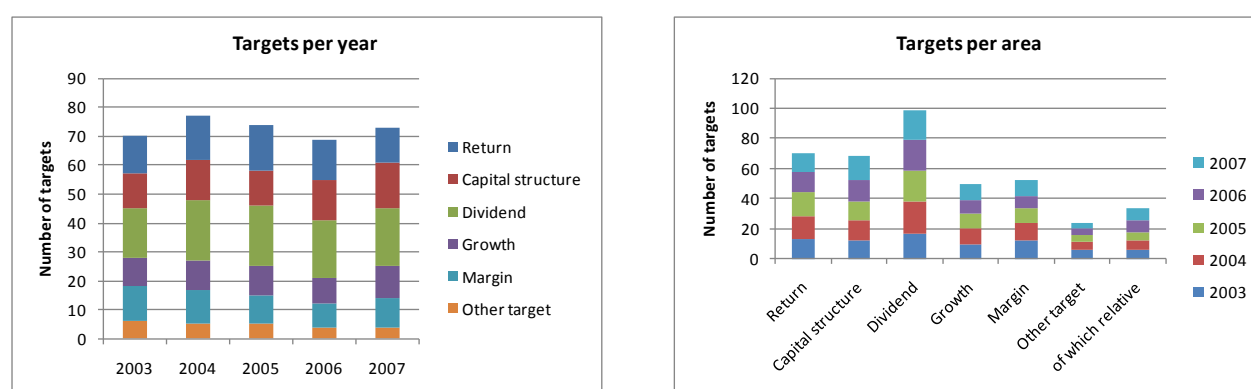
Information regarding which horizon a financial target refers to is in general vague. Most common is that the time horizon is not communicated or that the target concerns a business cycle. In total there are eight companies that don't disclose information about horizon during the studied period. For the companies that actually state a period they most often state that the financial targets apply over time (Swedish Match, 2007), in the long term (SCA, 2007) or over a business cycle (Alfa Laval, 2003-2007). However, the study shows that some companies choose to define which horizon the targets refer to. In particular we have identified that ABB and Assa Abloy are evident with definition of time horizon in the financial disclosure and these companies

are clear in their horizon disclosure all studied years. In the annual report of Assa Abloy (2006) it is stated that “The Group’s stated goal is to achieve its financial objectives by 2008 at the latest”² in resemblance ABB stated in 2005 “we set ambitious but realistic targets for the group and individual divisions for the five years to 2009” (ABB, 2005). Eniro started in 2006 to define their targeted horizon as “medium-long term, meaning 3–5 years” (Eniro, 2006).

Quantitative disclosure

Observations of how many financial targets the companies disclose are presented below, using the same differentiation of financial targets into different areas as in section 4. When it comes to the total number of financial targets in 2003 the number were 70. The corresponding number in 2007 was 73. The results are also summarized in diagram 4. A complete list of quantitative targets can be found in table 14 in appendix.

Diagram 4 – Targets per year and area



Return

Concerning earnings persistence the studied companies disclose targets on Return on Equity (ROE) and/or Return on Capital Employed (ROCE) where ROCE is the most common. 16 out of the 28 companies present a return target at least one of the years and out of these 16 companies, 11 companies present a target each year. SCA is the only company that target both ROE and ROCE all years. SKF have both targets in 2003 but switches into focusing on ROCE in later years. SSAB switches 2005 from ROE to ROCE. The four banks (Nordea, SEB, Svenska Handelsbanken and Swedbank) all have ROE targets and in 2006 and 2007 the ROE targets are expressed in relative terms.

Capital structure

Out of the 28 studied companies 18 disclose a capital structure target at least one year but only 10 disclose it every year. Disclosure of capital structure targets is more frequent in 2007 than in 2003. The definition of the target varies widely between companies, but solidity targets and targets concerning net debt in relation to EBITA are most common. Since banks have special regulatory requirements on the capital structure through the regulatory framework of Basel II the capital structure target is expressed in terms of the Tier 1 capital ratio³.

² Page 6 vision and strategy

³ Tier 1 capital = Shareholders equity – Deduction for dividend + Tier 1 capital contributions + Minority interest – Deduction for goodwill – Deduction expected loss and contributions in institutions

Growth

Growth is the least common financial target, except of other target, among the different areas of financial disclosure. 12 out of the 28 companies disclose a growth target in at least one year and there are seven companies that disclose a growth target every year during the period. Out of these seven companies five belongs to the industrial industry. Growth targets are most often stated as a growth in revenues or sales.

Margin

14 out of the studied companies have a target concerning margin and half of these companies disclose the target every year. Margin has decrease in total number of disclosures between 2003 and 2007 from twelve to ten. There are two different targets used by the studied companies, an EBITA-margin target or a cost/income (C/I) target. The C/I target is used by the four banks.

Dividend policy

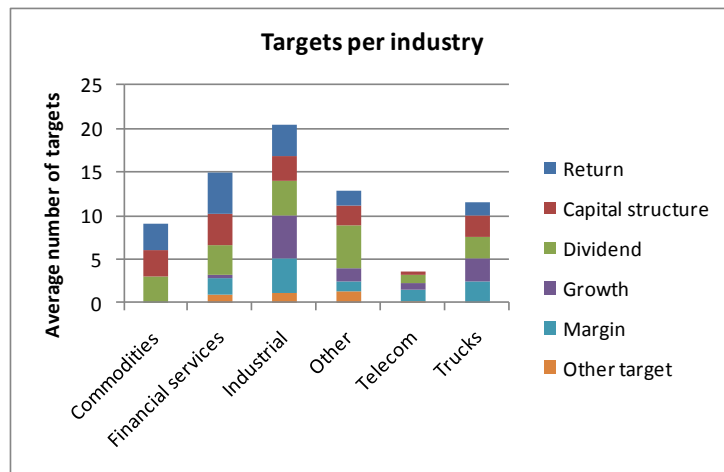
Dividend policy is outstanding the most disclosed financial target and over 70 percent of the companies disclose a dividend policy. Most companies express their dividend policy as a percentage of net income. However, SCA express it as a share of operating cash flow and Securitas as a percentage of free cash flow. Volvo and Svenska Handelsbanken (2003-2005) express their dividend policy in relative terms compared to their competitors. There is a difference between whether companies consider their dividend policy to be a target or a rule, and this is often reflected in the annual report through the disclosure of dividend policy separate from the financial targets. Nine of the studied companies disclose information about the dividend policy together with the financial targets all studied years and two companies adopt this way of disclosing in 2006 and 2007. In 2007 there are nine companies, out of which six companies also have other financial targets that disclose dividend policy separately. For example Assa Abloy disclose financial targets under the heading "Vision & strategy" and dividend policy under "The ASSA ABLOY share" (Assa Abloy, 2007).

Other target

Common other financial targets are measures of cash flow or other measurements of liquidity such as interest coverage ratios. ABB and SCA have cash flow targets in 2005 respectively in 2003 and 2004. Furthermore, Alfa Laval has a cash flow target every year 2003-2007, which states that the cash flow from operating activities should be equal to a percentage of the revenues. Securitas has a target of debt covering ratio in every studied year and Electrolux has a liquid funds target every year. In total only nine of the studied companies presented a financial target covering "other" at least one year during the studied period.

The average number of financial targets divided by industry is presented in diagram 5. In addition to the quantitative targets mentioned above it is worth mentioning that several financial targets that cannot be quantified have been found in the annual reports. An example of financial target with non-quantifiable information is Tele2 (2003), whose target is to have a "Dividend with financial balance in growth, profitability and cash flow". Furthermore, Hennes & Mauritz have a growth target to increase the number of stores by 10–15 percent per year, but also to increase sales at existing stores (Hennes & Mauritz, 2007).

Diagram 5 – Targets per industry



The targets in relation to outturn

The result regarding the deviation between the financial targets and their outcome is presented in table 6. Comparing the deviation of absolute average numbers of outturn with the target, companies have an average of 60 percent positive deviation from the financial target. Of all studied companies Eniro, SCA, Securitas and Swedbank have on average a negative deviation between target and outturn. Securitas has the largest negative deviation with on average minus 33 percent closely followed by SCA with a minus 29 percent deviation between target and outturn. Companies that had average outturns that corresponded fairly well with the targets are Nordea, Swedbank and SEB. Assa Abloy, Boliden and Skanska, all have an average deviation between outturn and target of 100 percent or more. Assa Abloy's average difference is 195 percent which is mainly caused by a historical deviation from their margin target. Number of observations is presented in table 6.

Table 6 – Number of observations

Observations	Target	Outturn
ROCE	11	38
ROE	8	28
Capital structure	16	55
Growth	10	35
Margin	11	38
Other	8	27
Total	64	221

Table 7 – Difference between target and outturn⁴

Company	ROCE	ROE	Capital structure	Growth	Margin	Other target	Company Average / total
	Outturn / target	Outturn / target	Outturn / target	Outturn / target	Outturn / target	Outturn / target	
ABB	187%		115%	138%	81%	90%	34%
Alfa laval	171%		31%	316%	106%	87%	75%
Assa Abloy	79%			155%	610%		195%
AstraZeneca							N/A
Atlas Copco				247%	114%		80%
Boliden	310%		51%				129%
Electrolux					83%	250%	84%
Eniro			129%	50%	102%		27%
Ericsson							N/A
Hennes & Mauritz							N/A
Investor	180%		4%				88%
Lundin Petroleum							N/A
Nokia							N/A
Nordea		135%	107%			102%	15%
Sandvik	124%		100%	256%			60%
SCA	48%	77%	90%	61%		61%	32%
Scania							N/A
SEB		115%	115%		102%		11%
Securitas	71%		107%	68%	87%	14%	33%
Skanska	136%	122%	-288%				148%
SKF	128%		126%	118%	111%	68%	23%
SSAB	120%	268%	138%				75%
Svenska Handelsbanken		140%					40%
Swedbank		71%	98%		103%		11%
Swedish Match			125%			100%	13%
Tele2							N/A
TeliaSonera							N/A
Volvo		127%	72%	115%	132%		26%
Average	60%	47%	78%	77%	57%	42%	60%
Number of goals	11	8	16	10	11	8	64
Outturn above target	8	6	9	7	8	3	64%
Outturn below target	3	2	7	3	3	5	36%

6. Analysis of Empirical observations

Looking at the way companies make voluntary disclosures there are several points to be made regarding financial targets. However, analyzing the results two major patterns of financial disclosure can be found. First the way the companies disclose financial targets has improved over time considering the qualitative aspects. Secondly the disclosure of financial targets varies between industries.

Development over time

The number of financial targets has not changed noticeable during the studied period, i.e. the quantitative aspects have not changed considerably from 2003 to 2007. However, looking at the qualitative aspects there has been a significant improvement. As noted earlier the total score for all companies in 2003 was 129 and in 2007 it was 167, implying an increase in total qualitative score by 29 percent. As mentioned earlier the qualitative aspects of the study represent where

⁴ Outturn / target = average outturn during the period divided by target

Average = absolute(target 1 v.s. outturn/target – 1) + absolute(target 2 outturn/target – 1) etc. divided by number of targets

the company disclose the targets, how the outturn is commented and in which ways the targets are described. An analysis of the results shows that the improvement is not due to a change in only one of these factors, instead higher scores have been obtained for every qualitative question. Over all, the companies have become better at disclosing targets in a separate section of the annual report instead of having the information in different parts. Further a change can also be observed when it comes to in which way the targets are described. In 2003 the total score of this question was 34 and in 2007 it had increased to 51, consequently an increase by 50 percent. This is mainly due to the fact that companies have started to show their targets in graphs with the historical outturn as well as describing the targets in text. An illustrative example is taken from Eniro. In figure 1 and 2 below the difference between Eniro's disclosure of financial targets 2003 and 2007 is illustrated.

Figure 1 – Voluntary disclosure of financial targets in Eniro, annual report 2003

Financial targets

The target for the Group's long-term net debt is that it should correspond to about three times operating income before depreciation (EBITDA), with consideration of a retained sound level of shareholders' equity.

Eniro's profitability target over the medium-term is an operating margin before depreciation (EBITDA margin) of at least 30 percent.

Figure 2 – Voluntary disclosure of financial targets in Eniro, annual report 2007

Target	Background	Outcome 2007 (2006)	Comments
Annual revenue growth of 3–5 percent over the medium-long term	Corresponds to a growth level on par with industry leaders.	2% (1%)	Revenues for 2007 increased organically by 2 percent through strong Internet growth in all markets. The goal of 3–5 percent growth will be achieved through accelerated growth of online revenues, increased revenues from voice and from a reduced decline of print revenues.
Sustained EBITDA margin of above 30 percent and a strong cash flow	Target set against weighted assessment primarily of Eniro's respective market positions, market changes, growth rate and cost development.	35% (35%)	2007 EBITDA-margin was continuously high, 35 percent including capital gains of SEK 140 M. Strong growth in online revenues partly offset the decline in print revenues, showing Eniro's ability to maintain margins as the revenue mix changes. The EBITDA margin has also strengthened through cost savings.
An effective capital structure with a net debt in relation to EBITDA of a multiple of up to 5.	The level was set based on effective use of Eniro's capital while maintaining a sound level of operational risk.	4.5 (3.9)	A refinancing of Eniro's debt was carried out during the fourth quarter 2007 and enabled a cash distribution of approximately SEK 2,000 M. At December 31, 2007, net debt in relation to EBITDA was a multiple of 4.5, or 4.8 excluding capital gains.
Dividend to shareholders corresponding to 75 percent of net income.	The goal is based on Eniro's estimated capital expenditure requirements and the target for net debt in relation to EBITDA.	75% (76%)	The Board of Directors will propose a dividend to the Annual General Meeting 2008 of SEK 5.20, corresponding to 75 percent of net income from continuing operations, which is considered to be in line with Eniro's dividend policy.

From telecom to manufacturing industries

There is a major difference between industries when it comes to financial target disclosure. Based on the empirical findings the disclosure level of three industries can be distinguished.

Ericsson, Nokia, Tele2 and TeliaSonera represent the telecom industry. This industry is characterized by their lack of financial targets in the annual report. Nokia and Tele2 have no financial targets at all and TeliaSonera only disclose a dividend policy. Ericsson stand out from this group by having targets for margin 2003-2007, capital structure in 2007 and growth 2003-2007. However, most of Ericsson's targets are expressed in relative terms (Ericsson, 2003-2007) and the qualitative score for Ericsson is considerably low.

The industrial group is represented by ABB, Alfa Laval, Assa Abloy, Atlas Copco, Sandvik and SKF. The differential for this group is that they disclose many financial targets, and that the quantitative disclosure has been consistent over time. The only exception is ABB that have a total lack of financial targets 2006. All companies except ABB present a dividend policy and a growth target each year. In addition return targets and margin targets are common. Out of the seven companies that display growth targets every year, five of them are industrial companies. The industrial companies also have the second highest qualitative score per company after the financial services companies.

The third group of companies is financial services. This group is constituted by Investor, Nordea, SEB, Svenska Handelsbanken and Swedbank. These companies display relative targets to a high extent. Out of the 75 total financial targets within the industry 27 percent are relative targets. All companies within this industry have a return target, and all companies except Investor have an ROE target. Other common targets are capital structure and a dividend policy. Swedbank is the only company within the industry that has a growth target, and the target was introduced in 2006. The financial industry company has the highest qualitative score on average. In general the industry is good at commenting on the outturn in relation to the targets. However, the extent of financial targets in the group and especially targets concerning capital structure (tier 1) and margin (C/I ratio) is due to the regulatory framework of Basel II and the Swedish Financial Services Authority which compared to the other studied companies have a regulatory demand of presenting information about risk management. Consequently the financial services companies except of Investor have a regulatory demand of communicating outturn on financial targets concerning capital base (tier 1) and therefore the target is set according to the minimum regulatory level or above. Although the regulatory demand on different targets the companies in the group have a high level of qualitative disclosure during the period. The companies in the financial services group have the highest average score per company. The average score in the industry amount to 11.6 points per question compared to industrial industry which receive an average score of 11.3 points out of a max score of 15 points per question during the period. Regarding outturn on relative targets we can conclude that Nordea comment on the outturn of the relative target. Nordea have a relative target of being the market leader within the industry regarding return on equity and the outturn is commented with a rank that Nordea is number two of twenty in the industry, although a specific level is not mentioned.

7. The valuation

Empirical data

The empirical findings from section 5 are the basis for the valuation. Companies with disclosed targets of dividend policy and return in the annual report of 2007 are selected for valuation. The

forecast period is determined depending on the target period given by the companies. Since the companies have disclosed their goals to be long term or to apply over a business cycle, the explicit forecast period will be assumed to be 10 years, i.e. a business cycle. Valuation point in time is set to April 1 2008 since annual reports in general are available in April.

ROE

Depending on whether the disclosed return target is a ROE target or ROCE target the required information will differ. Return targets disclosed as a measure of ROE can be applied directly in the residual income valuation model according to equation (4). If a company discloses a ROCE target then the “leverage formula” will be used to calculate the corresponding ROE.

$$\text{The leverage formula: } ROE = (1 - tax) * [ROCE + (ROCE - COL) * \frac{D}{E}] \quad (5)$$

where:

$ROCE$ = return on capital employed

COL = cost of debt

D/E = debt to equity ratio

tax = efficient tax rate

Information about assumptions regarding tax, COL and D/E are given in appendix.

During the explicit forecast period ROE is set according to the financial target or calculated according to the leverage formula (5).

When determining the steady state level of ROE three different methods are applied;

1. For companies with ROE targets equal to or above 15 percent, the steady state ROE is assumed at 15 percent. This assumption is made since companies in steady state have lower economics of scale and higher competition in steady state implies a lower ROE. Hence, after the explicit forecast period ROE are assumed to linearly decrease during the transition period and end up with a ROE of 15 percent in steady state.
2. For companies with a disclosed ROE target less than 15 percent the level of ROE in steady state is assumed to remain at that level also in steady state.
3. For companies with a disclosed ROE target below the required rate of return, ρ , ROE in steady state is assumed to be equal to the required rate of return.

Payout ratio

During the explicit forecast period the payout ratio is set according to the dividend policy. The payout ratio is needed in order to calculate the opening book value of equity. In steady state the payout ratio can be calculated using the growth formula:

$$\text{The growth formula; } g = ROE * (1 - pr) \quad (6)$$

where:

g = growth rate in steady state

ROE = return on equity in steady state

pr = payout ratio in steady state

Having assumed a steady state growth rate and a steady state ROE the steady state payout ratio can be solved for in equation (6). The growth rate in steady state is assumed at 3.5 percent. This since the companies cannot be expected to have a steady state growth above the average market growth which we assume is 3.5 percent. After the explicit forecast period the payout ratio and ROE are assumed to linearly decrease during a 4 year transition period to steady state.

Sample

Ten companies fulfilled the requirement of a return and dividend policy target in 2007 and were selected for the valuation. The selection of companies and their disclosed valuation relevant targets as well as assumptions in steady state are shown in table 8.

Table 8 – Disclosed financial targets used in the valuation

Company	Explicit forecast period					Steady state		
	Targets			Calculated values		Calculated/assumed values		
	Dividend	ROE	ROCE	ROE	ρ	ROE	Growth	Payout ratio
Alfa Laval	45,0%	N/A	25,0%	22,3%	9,1%	15,0%	3,5%	76,7%
Assa Abloy	41,5%	N/A	20,0%	24,2%	9,9%	15,0%	3,5%	76,7%
Boliden	33,3%	N/A	10,0%	9,3%	11,5%	11,5%	3,5%	69,7%
Nordea	40,0%	20,5%	N/A	N/A	9,7%	15,0%	3,5%	76,7%
Sandvik	50,0%	N/A	25,0%	29,9%	10,1%	15,0%	3,5%	76,7%
Skanska	65,0%	20,0%	N/A	N/A	9,1%	15,0%	3,5%	76,7%
SKF	50,0%	N/A	24,0%	33,2%	9,3%	15,0%	3,5%	76,7%
SSAB	50,0%	N/A	15,0%	12,8%	8,5%	12,8%	3,5%	72,7%
Svenska Handelsbanken	45,2%	19,3%	N/A	19,3%	8,4%	15,0%	3,5%	76,7%
Volvo	50,8%	13,5%	N/A	N/A	9,2%	13,5%	3,5%	74,1%
Average	47,1%	18,3%	19,8%	21,6%	9,5%	14,3%	3,5%	75,3%

For further information about assumptions and data used in the residual income valuation see “Input data to residual income valuation” in appendix.

Results

Table 9 – Results from valuation⁵

Company (value per share, SEK)	Market value	Fundamental value	Market / Fundamental value	Below market value	Above market value
Alfa Laval	93,4	292,8	68%		X
Assa Abloy	106,4	185,4	43%		X
Boliden	65,3	36,7	78%	X	
Nordea	98,4	212,3	54%		X
Sandvik	104,4	120,2	13%		X
Skanska	109,4	141,4	23%		X
SKF	112,1	264,9	58%		X
SSAB	168,3	188,2	11%		X
Svenska Handelsbanken	177,5	480,2	63%		X
Volvo	91,6	76,4	20%	X	
Average/total	112,7	199,9	42,9%	2	8

Analysis

The results of the valuation in table 9 show that there is a large discrepancy between market values and the fundamental values obtained in the valuation. Information provided by management assessed in the residual valuation model have the implication that estimates disclosed by management result in a higher value in 8 of 10 valued companies. The high fundamental values compared to market values may reflect the fact that management's perspective of the company is more optimistic than the analysts view since management is biased. The valuations of Nordea and Svenska Handelsbanken have the largest deviation from the market values, which might suggest that the application of financial targets in a residual income valuation model is not suitable for the banks and their relative targets. Three of the valued companies, Nordea, Svenska Handelsbanken and Volvo, provide relative targets of ROE, payout ratio respectively payout ratio. The banks have large deviations in value although the calculated relative target is within the average outturn for respectively company. Volvo, with a relative target regarding payout ratio, has a deviation of 20 percent below the market value compared to the fundamental value. With regard to the use of relative targets the choice of companies in the peer group will affect the value.

⁵ Market / fundamental value = absolute((market / fundamental value) – 1)

Table 10 – Difference between disclosed return target and outturn and market value and fundamental value⁶

Company	Outturn/ disclosed target	Market value/ fundamental value	Disclosed target below outturn	Fundamental value above market value
Alfa Laval	71%	68%	X	X
Assa Abloy	21%	43%		X
Boliden	210%	78%	X	
Nordea	35%	54%	X	X
Sandvik	24%	13%	X	X
Skanska	22%	23%	X	X
SKF	28%	58%	X	X
SSAB	20%	11%	X	X
Svenska Handelsbanken	40%	63%	X	X
Volvo	27%	20%	X	
Average/total	50%	43%	9	8

Considering the observed difference between target and outturn of the disclosed return targets ROE and ROCE the results imply that nine out of the ten companies have an average historical outturn that is higher than the disclosed target (see table 10 above). If the targets applied in the valuation model are understated by the companies, the values calculated are also understated. A higher target in the valuation model would imply an even higher fundamental value and bigger difference with the market value. The outturn of the target is observed during a period of time between one and four years depending on when the company disclosed the first target regarding return. This imply that the difference between historical outturn and targets may not provide a representative long term view of whether the companies over time disclose financial targets that is below the average outturn.

The selection of companies in the valuation is based on companies which disclosed return and payout ratio target in the annual report of 2007. Analyzing the valuation implications further a narrower selection of companies is chosen based on how the historical outturn has deviated from the return target. Companies with an outturn that on average is close to the target could be considered to have reliable targets. Consequently the use of such targets in a valuation model could imply that the calculated fundamental value is more reliable. If we consider companies with a deviation, in absolute terms, below 30 percent between average outturn and target five companies is identified (see table 11 below).

⁶ Market / fundamental value = absolute((market / fundamental value) – 1), Outturn / disclosed target = absolute(ROE/ROCE outturn/target – 1)

Table 11 – Deviation below 30 percent⁷

Company	Market value	Fundamental value	Outturn/ disclosed target	Market value/ fundamental value	Disclosed target below outturn	Fundamental value above market value
Assa Abloy	106,4	185,4	21,0%	42,6%		X
Sandvik	104,4	120,2	23,5%	13,2%	X	X
Skanska	109,4	141,4	22,3%	22,7%	X	X
SSAB	168,3	188,2	20,0%	10,6%	X	X
Volvo	91,6	76,4	27,2%	19,9%	X	
Average/total	116,0	142,3	22,8%	21,8%	4	4

For this group of companies the difference between market value and fundamental value is lower than for the other valued companies. On average the deviation in absolute terms amount to 22 percent between market value and fundamental value. Still the companies, except one, have a fundamental value above the market value, but no extreme deviations can be observed. There are few observations for this group so no general conclusions can be drawn. However, the results indicate that the usefulness of the disclosed company targets for return and payout ratio in a valuation setting is greater for companies that historically have had an outturn that does not deviate too much from the disclosed target. This is based on the assumption that the market value is considered as a good benchmark for company value.

Applying financial targets in a valuation model still leaves a lot of assumptions to be made which will affect the value. Even though information about financial targets may help analysts forecast future earnings persistence and growth a valuation cannot be based on financial targets alone. The results from the sensitivity analysis can be found in table 11. The sensitivity analysis conclude that the steady state ROE and growth have the biggest impact on the calculated value, according to table 11. The large deviation of fundamental value for Boliden is due to the fact that with 5 percent lower ROE the steady state level of ROE become below the required rate of return and the difference is significantly, hence ROE of 6,5 percent and required rate of return of 11,5 percent. This also applies for Sandvik, SSAB and Volvo which have ROE below required rate of return with 5 percent lower ROE in the sensitivity analysis.

Table 12 – Sensitivity analysis of the results

Company (value per share, SEK)	Sensitivity value +5 p.u. ROE (SS)		Sensitivity value -5 p.u. ROE (SS)		Sensitivity value +2 p.u. Growth (SS)		Sensitivity value -2 p.u. Growth (SS)		Sensitivity value +10 p.u. payout ratio (SS)		Sensitivity value -10 p.u. payout ratio (SS)	
	Value	% of mv	Value	% of mv	Value	% of mv	Value	% of mv	Value	% of mv	Value	% of mv
Alfa Laval	381,9	75,5%	206,4	54,7%	352,1	73,5%	264,4	64,7%	287,7	67,5%	298,0	68,6%
Assa Abloy	240,2	55,7%	132,3	19,6%	211,9	49,8%	171,4	37,9%	182,6	41,7%	188,4	43,5%
Boliden	52,7	23,8%	21,2	208,1%	36,7	78,0%	36,7	77,9%	36,7	77,9%	36,7	78,0%
Nordea	278,7	64,7%	148,4	33,7%	245,3	59,9%	195,2	49,6%	209,2	53,0%	215,6	54,4%
Sandvik	150,2	30,5%	90,7	15,1%	134,3	22,3%	112,5	7,2%	118,4	11,8%	122,0	14,5%
Skanska	176,0	37,9%	107,3	1,9%	164,5	33,5%	130,4	16,1%	139,5	21,6%	143,4	23,7%
SKF	334,2	66,4%	196,7	43,0%	310,2	63,9%	242,4	53,7%	259,8	56,8%	270,2	58,5%
SSAB	260,4	35,4%	118,1	42,5%	228,2	26,3%	170,9	1,5%	186,1	9,6%	190,4	11,6%
Svenska Handelsbanken	638,0	72,2%	328,1	45,9%	623,1	71,5%	420,0	57,7%	471,0	62,3%	489,7	63,8%
Volvo	102,4	10,6%	51,0	79,5%	88,1	4,0%	70,7	29,6%	75,6	21,2%	77,2	18,7%
Average	261,5	47,3%	140,0	54,4%	239,4	48,3%	181,5	39,6%	196,7	42,3%	203,2	43,5%

⁷ Market / fundamental value = absolute((market / fundamental value) – 1), Outturn / disclosed target = absolute(ROE/ROCE outturn/target – 1)

8. Conclusion

The purpose of this paper has been to empirically investigate voluntary disclosure of financial targets for the largest listed Swedish companies and assess the valuation relevance of the financial targets. Previous studies have indicated a trend towards increased voluntary disclosure (Schuster and O'Connell, 2006). Even though our results do not entail an increased number of financial targets disclosed during the studied period our results do show that the qualitative level of disclosure have increased significantly. Furthermore, the disclosure pattern of financial targets shows that companies within the same industries tend to disclose similarly to their peers. In this study special disclosure patterns of financial target can be observed among the industrial industry companies, the telecom companies and firms within the financial industry.

Financial targets presented by the companies can be useful in a valuation setting. However, the fundamental values obtained, when assessing the targets in a residual income valuation model, deviates on average with 43 percent from the market values. In 80 percent of the cases the fundamental value are higher than the market value. This observation is in line with the assumption that managers have a more positive view of the company's future than the analysts. Studying a sample of companies that historically have had an outturn that was quite close to the targets, the deviation between market values and fundamental value is on average 22 percent.

Considering the information asymmetry argued by Jensen and Meckling (1976) between management and investors the use of disclosed financial targets would decrease the agency cost. Further Leuz and Verrecchia (2000) argues that increased disclosure lessen the information asymmetry between analyst's and management. With regard to the sample with the lowest deviation between targets and outturn, the difference between the market value and the fundamental value is on average 22 percent. From this observation we have reason to believe that company management values the company higher than the market. This may imply that the management has additional information that is not available on the market.

Disclosure of financial target information is voluntary and has valuation implications. However, in order to assess the implications of the disclosed financial targets and draw conclusions about if voluntary disclosure decreases the information gap between analyst and investor the reliability in the disclosed information has to be considered. The size of the sample in this study is too small to draw conclusions from.

9. Discussion and suggestions for future research

Our approach of assessing voluntary disclosure of financial targets is aiming at providing the reader with a description that is reliable, understandable and comparable. The approach used is different to previous studies since it describes both the qualitative and quantitative aspects of voluntary disclosure. The problem with this method is though that when applying quantitative numbers on qualitative aspects a certain degree of subjectivity cannot be avoided. However, depending on the clarity in the definitions of the different levels of score the study becomes reliable, understandable and comparable for the reader.

For this study the only studied information source of voluntary disclosure is the annual reports. We are well aware that information about financial targets can be found in other sources of information, e.g. quarterly reports, management presentations or other published statements, however we find annual reports a reasonable delimitation with regard to comparability and time frame.

The area of financial targets is not voided with this paper. The empirical investigation of financial targets is performed during a period of time when changes can be identified. However, in order to draw further conclusion a longer period of time would be appropriate to study. In addition a longer period of time would provide a better foundation to describe the historical difference between targets and outturn. Comparing 64 targets with a total of 221 outturns may necessarily not provide a complete picture of how the historical outturn have related to the targets. An extended period would also provide the possibility of comparing financial targets with outturn in different periods of time e.g. over 5, 10 or 15 years since the target period is usually defined as a business cycle.

A suggestion for further studies is to extend the study to cover small and mid size companies. Such studies could provide an understanding of disclosure levels of financial targets in small and mid size companies. More questions or a larger number of levels of score in qualitative view would differentiate the companies even further and provide an even better foundation to draw conclusions about increased level of qualitative disclosure from. For future studies it can be suggested information although certain assumptions had to be made in order to use the information in the residual income model. Determining the forecast period and steady state levels of ROE and payout ratio have been assigned with regard to communicated target periods and according to the “growth formula” the steady state targets have been determined

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Volvo Annual Report, 2003-2007

11. Appendix

Input data to the residual income valuation

Market premium

PricewaterhouseCoopers publish annually a survey with the market premium based on answers from market makers (PricewaterhouseCoopers, 2008). The market premium amounted to 4.90 percent in February 2008.

Risk free rate

The risk free Swedish government bonds with a maturity of 10 years is used, in order to match the maturity of the obligation of the company in question. The long term risk free rate is represented by the 10 year government bond and the average yield during April 2008 amount to 4.06 percent.

Estimation of beta

Beta is obtained by using the formula below on the specific company on the OMX Stockholm 30 Index. We will use data over a four-year period, from April 1, 2004, until April 1, 2008. Monthly data is used because taking shorter return periods, such as daily and weekly returns, could lead to systematic biases. Data for four years is taken in order to achieve 48 data points.

$$\beta_a = \frac{Cov(r_a, r_p)}{Var(r_p)}$$

where:

r_a = the rate of return on the asset

r_p = the rate of return on the portfolio

$Cov(r_a, r_p)$ = the covariance between the rates of return

Estimates in the "leverage formula"

$$\text{The leverage formula: } ROE = (1 - tax) * [ROCE + (ROCE - COL) * \frac{D}{E}]$$

where:

$ROCE$ = return on capital employed is according to the target in the annual report

COL = cost of debt is according to average outturn. Consequently the variable is calculated by the average COL outturn each year during a five year period between 2003 and 2007. COL is calculated with interest expense on debt divided by short term debt and long term debt.

D/E = the debt to equity ratio is either indentified in the annual report as a target or a average is calculated by short term debt and long term debt divided by common equity during a five year period between 2003 and 2007.

tax = efficient tax rate is calculated through a of the tax ratio each year by dividing income taxes by pretax income during a five year period between 2003 and 2007.

Data for the numbers needed in the leverage formula are obtained from the companies' annual reports.

Target period

The most common target period is stated to a business cycle and consequently the disclosed target is used in the model during a forecast period of ten years. Since there is no definition of how long a business cycle is we assume that it is a ten year period. After the forecast period follows the transition period of four years when the target of ROE and payout ratio is gradually decreased to the steady state level according to our assumptions.

The permanent measurement bias (q)

The expected difference between market value and book value of equity at the horizon point in time can be approximated with a measure of the permanent measurement (q). The permanent measurement bias is calculated in accordance with the formula;

$$q = \frac{(ROE_{ss} - \rho)}{(\rho - g_{ss})}$$

where:

q = the permanent measurement bias

ROE_{ss} = return on equity in steady state

ρ = required return on equity

g_{ss} = steady state growth rate.

Financial market information

The opening value of owner's equity in 2008, number of shares outstanding at April 1 and the average price per share during April 2009 is collected from Thomson Financial Datastream Advance. Information about number of shares outstanding is also received from annual report since the average price per share is regarding the class B shares, where applicable, and several companies have both outstanding class A and class B shares.

Special information regarding the valued companies

Alfa Laval

Disclosed target of ROCE amount to 25.0 percent and using the "leverage formula" in order to calculate ROE with regard to five year average figures of L/E, COL and tax imply a corresponding ROE of 22.3 percent. The targeted dividend policy is 45.0 percent.

Assa Abloy

Disclosed target of ROCE amount to 20.0 percent and using the "leverage formula" in order to calculate ROE with regard to five year average figures of L/E, COL and tax (4 year average) imply a corresponding ROE of 24.2 percent. The target dividend policy is 41.5 percent. The average tax ratio amount to 43 percent during the last five years since a large tax expense

compared to pretax income occurred in 2003. The large expense in 2003 is assumed to constitute a none reoccurring item and the tax rate is calculated by the average ratio between 2004 and 2007 which amount to 30 percent.

Boliden

Disclosed target of ROCE amount to 10.0 percent and using the “leverage formula” in order to calculate ROE with regard to five year average figures of L/E, COL and tax (4 years) imply a corresponding ROE of 9.3 percent and ρ amount to 11.5 percent. Hence, with the assumption that the company in steady state will have a return according to the required market rate of return ROE in steady state is assumed equal to ρ . With regard to negative pretax income in 2003 the average tax is calculated by the average ratio between 2004 and 2007 which amount to 22.8 percent. Debt-to-equity is according to disclosed target which amount to 0.4.

Nordea

The ROE target is disclosed according with “in line with top Nordic peers” (Nordea, annual report 2007). Hence the target is calculated with the average ROE outturn for Svenska Handelsbanken, SEB and Swedbank in 2007 which amount to 19.3 percent. The corresponding average ROE in Nordea is during the five year period between 2003 and 2007 amount to 18.0 percent.

Sandvik

The ROE target is calculated using the “leverage formula”, and amounts to 30 percent. ROE in steady state is assumed at 15 percent since ROE amount to 30 percent in the forecast period. Debt-to-equity is according to disclosed target which amount to 0.9.

Skanska

Skanska have disclosed targets for both ROE and ROCE and the first are considered in the valuation of the company which amount to 20.2 percent.

SKF

Disclosed target of ROCE amount to 24.0 percent and using the “leverage formula” in order to calculate ROE with regard to five year average figures of L/E, COL (3 years) and tax imply a corresponding ROE of 33.2 percent. The average COL in SKF is significantly higher in 2003 (43%) and 2004 (47%) compared to the years after. The high levels is assumed to constitute none reoccurring items and the average cost of liabilities is instead calculated during the period 2005 to 2007 which amount to 9 percent compared to 23 percent average during the five year period. Hence, 9 percent cost of liabilities is assumed. Debt-to-equity is according to disclosed target which amount to 0.8.

SSAB

Disclosed target of ROCE amount to 15.0 percent and using the “leverage formula” in order to calculate ROE with regard to five year average figures of L/E, COL and tax imply a corresponding ROE of 12.8 percent. Debt-to-equity is according to disclosed target which amount to 0.3. Since ROE during the forecast period is below 15 percent the ROE in steady state is equal to the target during the forecast period.

Svenska Handelsbanken

The dividend target disclosed by Handelsbanken is to raise dividends at a rate which is above the average of other Nordic banks, (Svenska Handelsbanken, 2007). We assume the payout ratio equal to the average outturn of earnings per share divided by dividend per share during a five year period between 2002 and 2006 for the other Swedish banks Nordea, SEB and Swedbank. The average outturn is respectively 49 percent, 41 percent and 45 percent during the period. Dividend for 2007 is not regarded since information in annual report is the proposed dividend. Hence average payout ratio among the peer companies amount to 45 percent compared to the corresponding payout ratio for Handelsbanken which amount to 42 percent. Payout ratio of 45 percent is assumed in the valuation. The return target disclosed by the company is “Handelsbanken’s overall financial goal is to have a higher return on equity than a weighted average of comparable listed Nordic and British banks” (Svenska Handelsbanken, 2007). Since the target is explicitly formulated to have a return above comparable bank the return is calculated by the average return for the other Swedish banks Nordea, SEB and Swedbank in 2007 which amount to 19,3 percent. The corresponding average ROE in Handelsbanken is during the five year period between 2003 and 2007 amount to 18.7 percent.

Volvo

Since ROE during the forecast period is below 15 percent the ROE in steady state is set equally to the target during the forecast period. Further, the payout ratio amount to 25.9 percent compared to the average outturn which amount to 55.7 percent. Average outturn is calculated with the average payout ratio according to the annual report between 2004 and 2006 since the payout ratio in 2003 amounted to 1143 percent and the payout ratio in 2002 amounted to 242 percent because a low earnings per share and ordinary dividend. Disclosed dividend target is according to “total return shall in the long run exceed the business average” (Volvo, annual report 2007). Considering a peer group in the industry of Scania and MAN the average dividend divided by earnings amount to respectively 56.0 percent and 45.6 percent during the period 2002 to 2006. Industry average is consequently assumed to an average of 50.8 percent.

Score chart

Table 13 – distribution of score in the Score chart

Score chart																	
Quantitative			Qualitative				Total	Quantitative			Qualitative				Total		
Company	1	2	Total	1	2	3	Total	Score	Company	1	2	Total	1	2	3	Total	Score
ABB 2003	3,0	0,0	3,0	2,0	2,0	1,0	5,0	43,5	Sandvik 2003	3,0	0,0	3,0	3,0	1,0	1,0	5,0	59,5
ABB 2004	3,0	0,0	3,0	2,0	0,0	1,0	3,0		Sandvik 2004	3,0	0,0	3,0	2,0	2,0	3,0	7,0	
ABB 2005	3,0	0,0	3,0	2,0	2,0	1,0	5,0		Sandvik 2005	3,0	0,0	3,0	2,0	2,0	3,0	7,0	
ABB 2006	0,0	0,0	0,0	0,0	0,0	0,0	0,0		Sandvik 2006	3,0	0,0	3,0	3,0	3,0	3,0	9,0	
ABB 2007	1,5	0,0	1,5	2,0	2,0	1,0	5,0		Sandvik 2007	3,0	0,0	3,0	3,0	3,0	3,0	9,0	
ABB	10,5	15,0	25,5	8,0	6,0	4,0	18,0		Sandvik	15,0	7,5	22,5	13,0	11,0	13,0	37,0	
Alfa Laval 2003	4,5	0,0	4,5	3,0	3,0	3,0	9,0		SCA 2003	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Alfa Laval 2004	4,5	0,0	4,5	2,0	3,0	3,0	8,0	SCA 2004	4,5	0,0	4,5	3,0	3,0	3,0	9,0		
Alfa Laval 2005	4,5	0,0	4,5	2,0	3,0	3,0	8,0	SCA 2005	3,0	0,0	3,0	1,0	3,0	3,0	7,0		
Alfa Laval 2006	4,5	0,0	4,5	2,0	3,0	3,0	8,0	SCA 2006	3,0	0,0	3,0	1,0	3,0	3,0	7,0		
Alfa Laval 2007	4,5	0,0	4,5	2,0	3,0	3,0	8,0	SCA 2007	3,0	0,0	3,0	3,0	3,0	3,0	9,0		
Alfa laval	22,5	0,0	22,5	11,0	15,0	15,0	41,0	63,5	SCA	18,0	15,0	33,0	11,0	15,0	15,0	41,0	
Assa Abloy 2003	3,0	0,0	3,0	2,0	2,0	1,0	5,0	49,0	Scania 2003	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Assa Abloy 2004	3,0	0,0	3,0	2,0	2,0	1,0	5,0		Scania 2004	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Assa Abloy 2005	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Scania 2005	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Assa Abloy 2006	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Scania 2006	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Assa Abloy 2007	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Scania 2007	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Assa Abloy	15,0	0,0	15,0	10,0	13,0	11,0	34,0		Scania	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
AstraZeneca 2003	1,5	0,0	1,5	2,0	1,0	1,0	4,0		SEB 2003	3,0	0,0	3,0	3,0	2,0	1,0	6,0	
AstraZeneca 2004	1,5	0,0	1,5	2,0	1,0	1,0	4,0	SEB 2004	3,0	0,0	3,0	3,0	3,0	2,0	8,0		
AstraZeneca 2005	1,5	0,0	1,5	2,0	1,0	1,0	4,0	SEB 2005	3,0	0,0	3,0	3,0	3,0	2,0	8,0		
AstraZeneca 2006	1,5	0,0	1,5	2,0	1,0	1,0	4,0	SEB 2006	3,0	0,0	3,0	3,0	3,0	2,0	8,0		
AstraZeneca 2007	1,5	0,0	1,5	2,0	1,0	1,0	4,0	SEB 2007	3,0	0,0	3,0	3,0	3,0	2,0	8,0		
AstraZeneca	7,5	0,0	7,5	10,0	5,0	5,0	20,0	27,5	SEB	15,0	22,5	37,5	15,0	14,0	9,0	38,0	
Atlas Copco 2003	3,0	0,0	3,0	2,0	3,0	3,0	8,0	55,0	Securitas 2003	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Atlas Copco 2004	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Securitas 2004	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Atlas Copco 2005	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Securitas 2005	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Atlas Copco 2006	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Securitas 2006	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Atlas Copco 2007	3,0	0,0	3,0	2,0	3,0	3,0	8,0		Securitas 2007	3,0	0,0	3,0	3,0	3,0	3,0	9,0	
Atlas Copco	15,0	0,0	15,0	10,0	15,0	15,0	40,0		Securitas	21,0	15,0	36,0	15,0	15,0	15,0	45,0	
Boliden 2003	0,0	0,0	0,0	0,0	0,0	0,0	0,0		Skanska 2003	3,0	0,0	3,0	2,0	3,0	1,0	6,0	
Boliden 2004	3,0	0,0	3,0	2,0	1,0	2,0	5,0	Skanska 2004	3,0	0,0	3,0	2,0	3,0	1,0	6,0		
Boliden 2005	3,0	0,0	3,0	2,0	2,0	2,0	6,0	Skanska 2005	1,5	0,0	1,5	2,0	3,0	1,0	6,0		
Boliden 2006	3,0	0,0	3,0	3,0	3,0	2,0	8,0	Skanska 2006	1,5	0,0	1,5	2,0	3,0	1,0	6,0		
Boliden 2007	3,0	0,0	3,0	3,0	3,0	1,0	7,0	Skanska 2007	1,5	0,0	1,5	2,0	3,0	1,0	6,0		
Boliden	12,0	0,0	12,0	10,0	9,0	7,0	26,0	38,0	Skanska	10,5	0,0	10,5	10,0	15,0	5,0	30,0	
Electrolux 2003	3,0	0,0	3,0	1,0	3,0	1,0	5,0	32,0	SKF 2003	4,5	0,0	4,5	3,0	2,0	1,0	6,0	
Electrolux 2004	1,5	0,0	1,5	1,0	3,0	1,0	5,0		SKF 2004	4,5	0,0	4,5	1,0	2,0	1,0	4,0	
Electrolux 2005	1,5	0,0	1,5	1,0	3,0	1,0	5,0		SKF 2005	4,5	0,0	4,5	3,0	3,0	1,0	7,0	
Electrolux 2006	1,5	0,0	1,5	1,0	3,0	1,0	5,0		SKF 2006	4,5	0,0	4,5	3,0	3,0	1,0	7,0	
Electrolux 2007	1,5	0,0	1,5	1,0	1,0	1,0	3,0		SKF 2007	4,5	0,0	4,5	3,0	3,0	3,0	9,0	
Electrolux	9,0	0,0	9,0	5,0	13,0	5,0	23,0		SKF	22,5	15,0	37,5	13,0	13,0	7,0	33,0	

Quantitative								Qualitative				Total
Company	1	2	Total	1	2	3	Total	Score				
Eniro 2003	3,0	0,0	3,0	2,0	1,0	1,0	4,0					
Eniro 2004	3,0	0,0	3,0	2,0	1,0	1,0	4,0					
Eniro 2005	1,5	0,0	1,5	1,0	0,0	0,0	1,0					
Eniro 2006	3,0	0,0	3,0	2,0	3,0	3,0	8,0					
Eniro 2007	3,0	0,0	3,0	2,0	3,0	3,0	8,0					
Eniro	13,5	15,0	28,5	9,0	8,0	8,0	25,0		53,5			
Ericsson 2003	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Ericsson 2004	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Ericsson 2005	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Ericsson 2006	1,5	0,0	1,5	3,0	3,0	1,0	7,0					
Ericsson 2007	3,0	0,0	3,0	2,0	1,0	2,0	5,0					
Ericsson	9,0	0,0	9,0	11,0	13,0	6,0	30,0	39,0				
Hennes & Mauritz 2003	1,5	0,0	1,5	2,0	1,0	1,0	4,0					
Hennes & Mauritz 2004	1,5	0,0	1,5	2,0	1,0	1,0	4,0					
Hennes & Mauritz 2005	1,5	0,0	1,5	2,0	1,0	1,0	4,0					
Hennes & Mauritz 2006	1,5	0,0	1,5	2,0	1,0	1,0	4,0					
Hennes & Mauritz 2007	1,5	0,0	1,5	2,0	1,0	1,0	4,0					
Hennes & Mauritz	7,5	0,0	7,5	10,0	5,0	5,0	20,0		27,5			
Investor 2003	1,5	0,0	1,5	1,0	0,0	0,0	1,0					
Investor 2004	1,5	0,0	1,5	1,0	3,0	1,0	5,0					
Investor 2005	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Investor 2006	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Investor 2007	1,5	0,0	1,5	2,0	2,0	1,0	5,0					
Investor	7,5	0,0	7,5	8,0	11,0	4,0	23,0	30,5				
Lundin Petroleum 2003	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Lundin Petroleum 2004	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Lundin Petroleum 2005	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Lundin Petroleum 2006	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Lundin Petroleum 2007	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Lundin Petroleum	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0			
Nokia 2003	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Nokia 2004	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Nokia 2005	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Nokia 2006	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Nokia 2007	0,0	0,0	0,0	0,0	0,0	0,0	0,0					
Nokia	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0				
Nordea 2003	1,5	0,0	1,5	1,0	3,0	1,0	5,0					
Nordea 2004	3,0	0,0	3,0	3,0	2,0	1,0	6,0					
Nordea 2005	3,0	0,0	3,0	3,0	3,0	2,0	8,0					
Nordea 2006	3,0	0,0	3,0	3,0	3,0	2,0	8,0					
Nordea 2007	3,0	0,0	3,0	3,0	3,0	2,0	8,0					
Nordea	13,5	22,5	36,0	13,0	14,0	8,0	35,0		71,0			
Total												

Quantitative								Qualitative				Total
Company	1	2	Total	1	2	3	Total	Score				
SSAB 2003	3,0	0,0	3,0	3,0	3,0	3,0	9,0					
SSAB 2004	3,0	0,0	3,0	3,0	3,0	3,0	9,0					
SSAB 2005	3,0	0,0	3,0	3,0	3,0	3,0	9,0					
SSAB 2006	3,0	0,0	3,0	3,0	3,0	3,0	9,0					
SSAB 2007	3,0	0,0	3,0	3,0	3,0	3,0	9,0					
SSAB	15,0	0,0	15,0	15,0	15,0	15,0	45,0		60,0			
Svenska Handelsbanken 2003	1,5	0,0	1,5	2,0	0,0	1,0	3,0					
Svenska Handelsbanken 2004	3,0	0,0	3,0	2,0	3,0	1,0	6,0					
Svenska Handelsbanken 2005	1,5	0,0	1,5	2,0	3,0	1,0	6,0					
Svenska Handelsbanken 2006	1,5	0,0	1,5	3,0	3,0	3,0	9,0					
S												

Table 14 – Financial targets per company per year⁸

Number of targets per area													
Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target
ABB 2003		1	1	1			Sandvik 2003	1	1	1			1
ABB 2004			1	1	1		Sandvik 2004	1	1	1			1
ABB 2005	1			1	1		Sandvik 2005	1	1	1			1
ABB 2006						1	Sandvik 2006	1	1	1			1
ABB 2007			1	1			Sandvik 2007	1	1	1			1
Total	1	2	4	4	0	1	Total	5	5	5	0	5	0
Alfa Laval 2003	1	1	1	1	1	1	SCA 2003	1	1	1	1	1	1
Alfa Laval 2004	1	1	1	1	1	1	SCA 2004	1	1	1		1	1
Alfa Laval 2005	1	1	1	1	1	1	SCA 2005	1	1	1		1	
Alfa Laval 2006	1	1	1	1	1	1	SCA 2006	1	1			1	
Alfa Laval 2007	1	1	1	1	1	1	SCA 2007		1	1		1	
Total	5	5	5	5	4	5	Total	4	5	4	0	5	2
Assa Abloy 2003	1		1	1	1	1	Scania 2003						
Assa Abloy 2004	1		1	1	1		Scania 2004						
Assa Abloy 2005	1		1	1	1		Scania 2005						
Assa Abloy 2006	1		1	1	1		Scania 2006						
Assa Abloy 2007	1		1	1	1		Scania 2007						
Total	5	0	5	5	5	0	Total	0	0	0	0	0	0
AstraZeneca 2003						1	SEB 2003	1	1		1	1	
AstraZeneca 2004						1	SEB 2004	1	1		1	1	
AstraZeneca 2005						1	SEB 2005	1	1		1	1	
AstraZeneca 2006						1	SEB 2006	1	1			1	
AstraZeneca 2007						1	SEB 2007	1	1			1	
Total	0	0	0	0	0	5	Total	5	5	0	3	5	0
Atlas Copco 2003			1	1	1		Securitas 2003	1	1	1	1	1	1
Atlas Copco 2004			1	1	1		Securitas 2004	1	1	1	1	1	1
Atlas Copco 2005			1	1	1		Securitas 2005	1	1	1	1	1	1
Atlas Copco 2006			1	1	1		Securitas 2006	1	1	1		1	1
Atlas Copco 2007			1	1	1		Securitas 2007		1	1		1	1
Total	0	0	5	5	5	0	Total	4	5	5	3	5	5
Boliden 2003							Skanska 2003	1	1			1	
Boliden 2004	1	1			1		Skanska 2004	1	1			1	
Boliden 2005	1	1			1		Skanska 2005	1				1	
Boliden 2006	1	1			1		Skanska 2006	1				1	
Boliden 2007	1	1			1		Skanska 2007	1				1	
Total	4	4	0	0	4	0	Total	5	2	0	0	5	0
Electrolux 2003				1	1	1	SKF 2003	1	1	1	1	1	1
Electrolux 2004					1	1	SKF 2004	1	1	1	1	1	
Electrolux 2005					1	1	SKF 2005	1	1	1	1	1	
Electrolux 2006					1		SKF 2006	1	1	1	1	1	
Electrolux 2007				1	1		SKF 2007	1	1	1	1	1	
Total	0	0	0	2	5	3	Total	5	5	5	5	5	1

⁸ A grey square indicates a relative target

Eniro							SSAB							Svenska Handelsbanken							Swedbank							Swedish Match							
Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	Company	Return	Capital structure	Growth	Margin	Dividend policy	Other target	
Eniro 2003			1		1	1	SSAB 2003		1	1			1	Svenska Handelsbanken 2003		1				1	Swedbank 2003		1	1		1	1	Swedish Match 2003					1		
Eniro 2004			1		1	1	SSAB 2004		1	1			1	Svenska Handelsbanken 2004		1			1	1	Swedbank 2004		1	1		1	1	Swedish Match 2004					1		
Eniro 2005						1	SSAB 2005		1	1			1	Svenska Handelsbanken 2005		1				1	Swedbank 2005		1	1		1	1	Swedish Match 2005					1		
Eniro 2006			1	1	1	1	SSAB 2006		1	1			1	Svenska Handelsbanken 2006		1				1	Swedbank 2006		1	1	1	1	1	Swedish Match 2006			1		1		
Eniro 2007			1	1	1	1	SSAB 2007		1	1			1	Svenska Handelsbanken 2007		1	1			1	Swedbank 2007		1	1	1	1	1	Swedish Match 2007			1		1		
Total	0	4	2		4	5	0	Total	5	5	0	0	5	0	Total	5	1	0	1	3	0	Total	5	5	2	5	5	0	Total	0	2	0	0	5	1
Ericsson 2003				1	1		Svenska Handelsbanken 2003		1				1	Svenska Handelsbanken 2004		1				1	Svenska Handelsbanken 2004		1				1	Svenska Handelsbanken 2004					1		
Ericsson 2004				1	1		Svenska Handelsbanken 2004		1				1	Svenska Handelsbanken 2005		1				1	Svenska Handelsbanken 2005		1				1	Svenska Handelsbanken 2005					1		
Ericsson 2005				1	1		Svenska Handelsbanken 2005		1				1	Svenska Handelsbanken 2006		1				1	Svenska Handelsbanken 2006		1				1	Svenska Handelsbanken 2006					1		
Ericsson 2006					1		Svenska Handelsbanken 2006		1				1	Svenska Handelsbanken 2007		1	1			1	Svenska Handelsbanken 2007		1	1			1	Svenska Handelsbanken 2007					1		
Ericsson 2007			1		1		Svenska Handelsbanken 2007		1	1			1	Svenska Handelsbanken 2007		1	1			1	Svenska Handelsbanken 2007		1	1			1	Svenska Handelsbanken 2007					1		
Total	0	1	3		5	0	1	Total	5	1	0	1	3	0	Total	5	1	0	1	3	0	Total	5	1	0	1	3	0	Total	0	2	0	0	5	1
Hennes & Mauritz 2003						1		Swedish Match 2003					1	Swedish Match 2003						1	Swedish Match 2003						1	Swedish Match 2003					1		
Hennes & Mauritz 2004						1		Swedish Match 2004					1	Swedish Match 2004						1	Swedish Match 2004						1	Swedish Match 2004					1		
Hennes & Mauritz 2005						1		Swedish Match 2005					1	Swedish Match 2005						1	Swedish Match 2005						1	Swedish Match 2005					1		
Hennes & Mauritz 2006						1		Swedish Match 2006					1	Swedish Match 2006						1	Swedish Match 2006						1	Swedish Match 2006					1		
Hennes & Mauritz 2007						1		Swedish Match 2007					1	Swedish Match 2007						1	Swedish Match 2007						1	Swedish Match 2007					1		
Total	0	0	0	0	0	5	0	Total	5	5	2	5	5	0	Total	5	5	2	5	5	0	Total	5	5	2	5	5	0	Total	0	2	0	0	5	1
Investor 2003		1						Swedish Match 2003																											

Literature table

Table 15 – Literature table

Author and year	Purpose	Data	Method	Conclusion
Cooke (1989)	To study the relationship between the extent of voluntary disclosures and a number of firm specific characteristics of Swedish companies.	Annual reports for 90 Swedish companies for year ended 1985.	Survey of the annual reports. Dichotomous procedure where an item scores one if it is disclosed and zero if it is not disclosed.	The single most important independent variable in explaining the variability in voluntary disclosure in Swedish corporate annual reports is quotation status.
Botosan (1997)	To produce a cross-sectional ranking of disclosure levels based on the voluntary disclosure firms provide in their annual reports. Furthermore, to assess the effect of disclosure level on the cost of equity.	Annual reports from 254 companies for the fiscal year ended 1990	Items included in the score are divided into 5 categories. The total score in each category is summed to a total score, which represent a company's disclosure level. Regression models are used to link disclosure level to the cost of equity.	There is a direct association between disclosure level and cost of equity. For firms with a relatively low analyst following, greater disclosure is associated with a lower cost of equity. For firms with high analyst following no such result can be found.
Leuz and Verrecchia (2000)	To Empirically document the economic benefits of increased disclosure	German firms that report under German accounting standards and German firms that have switched to an international	Use 3 proxies for information asymmetry and make both a cross sectional analysis and an event study.	The bid ask spread and the trading volume behaves in the predicted way, i.e. increased disclosure lower information asymmetry.
Gray and Skogsvik (2004)	Empirically investigate voluntary disclosure in the financial reports of quoted Swedish and UK pharmaceutical companies.	3 Swedish and 3 UK companies. Financial reports between 1984 and 1998.	Survey, covering financial reports 1984-98. Apply a Residual Income Valuation model	Substantial disclosures to assess competitive advantage in both countries. In Swedish firms forecasts of growth and net income are more prevalent.
Cahan, Rahman and Perera (2005)	To examines whether a firm's level of voluntary disclosure varies with its level of global diversification	sample of 216 firms from 17 countries selected from Fortune.s Global 500 list and Botosan.s (1997) disclosure index	Regression model where the total voluntary disclosure provided by the firm is the dependent variable and the independent is global diversification variables	the level of voluntary disclosure is positively related to the extent of global operations, but is not related to the extent of global financing.
Birt, Bilson, Smith and Whaley (2006)	To investigate the role of ownership and competition variables in explaining voluntary segment disclosures	Top 500 Australian companies for the years 2001 through 2003	Regression model where the voluntary segment disclosure provided by the firm is the dependent variable and the independent s are an ownership and a competition variable (O and C variable)	inclusion of the <i>O and C</i> variables to the voluntary disclosure model enhances its explanatory power of why firm's chose to disclose voluntary information