Who trusts share price recommendations?

Eric Alhanko[ε]
Major in Finance
Stockholm School of Economics

Alexander Kilander[α]
Major in Finance
Stockholm School of Economics

- Abstract -

In this study we investigate how students are affected by a share price recommendation when asked to guess a share price one year ahead. We have gathered information among students at the Stockholm School of Economics (SSE) and at Karolinska Institutet (KI). We find that bachelor students at SSE have a tendency to adjust their share price estimations relatively more than first and second year students at KI when exposed to a share price recommendation. Furthermore we find that SSE students majoring in Accounting adjust their estimates more than students in Economics and Finance. In order to strengthen our findings we also test for other factors which all are insignificant, leaving education to be the only significant factor. The conclusion of this study is that the subject of education can affect ones view about the stock market and consequently if one believes in share price recommendations or not.

Keywords: behavioural finance, anchoring, reference prices, stock price recommendation, efficient market hypothesis

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Tutor: Tore Ellingsen

[ε]20713@student.hhs.se, [α]20702@student.hhs.se

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Background

Fundamental analysis is a striking example where modern finance *theory* and *practice* disagree. Investment banks spend substantial resources in order to construct research reports and market their reports as a reliable source of information on which investment decision can be made. These reports have credibility in the market and numerous of financial agents are affected by them. The information and recommendations given in the reports are used for sales pitches to the banks' clients, both institutions and private investors, in order for them to gain excess returns.

The academic view of fundamental analysis is not as positive as the one prevailing in the market. Studies have shown that fundamental analysis in theory may generate abnormal excess returns. However, in practice these returns diminish because of substantial transactions costs leading to abnormal net returns that are not reliably greater than zero (Barber et al., 2001). Another study (Jegadeesh et al., 1996) found in a similar way that one could earn abnormal excess returns by investing according to fundamental momentum analysis, but these returns were also substantially reduced when taking transaction costs into account.

Modern finance research have confirmed that fundamental analysis have an impact on the market. In 1993, Barber & Loeffler studied analysts' recommendations published in the monthly Dartboard column of the Wall Street Journal. In their study, they found evidence for large initial price reactions around the publication day of recommendations and that abnormal returns could be made by investing in the tips given by financial gurus. These findings were confirmed by later studies such as Desai & Jain (1995), Liang (1999) and Ferreira & Smith (2003). However Barber & Loeffler also states that the abnormal returns that could be made only are in the short run, positive abnormal returns for the announcement day are, at least partially, reversed within 25 trading days.

The majority of papers written on the subject of generation of excess returns states that although one could earn excess returns by investing according to certain strategies based on fundamental analysis or according to stock recommendations, the returns diminish due to substantial transaction costs. With all the research done within this area one could expect that financial theorists would have a common view about fundamental analysis. Therefore we find it interesting that there seem to be discrepancies about these beliefs at Stockholm School of Economics (SSE). Courses such as Corporate Valuation have taught us that one can valuate a publicly traded company and calculate a fair price for the company's stock and draw the conclusion whether a share is undervalued or overvalued. SSE also offers courses such as

Investments which argues that the market is efficient, meaning that all available public information is priced into the security, hence the idea of creating excess returns on the base of fundamental analysis is rejected.

The differences in the beliefs about fundamental analysis which we noticed at the SSE seem to be derived from discrepancies in the beliefs about the efficient market hypothesis between the departments at school. Corporate Valuation is e.g. given by the Accounting department while the Investments course is given by the Finance department. Because of these differences between the departments one could expect that students attending a certain specialisation would obtain the same view about the efficient market hypothesis as the corresponding department.

The fact that there are substantial differences between departments at SSE in a fundamental question such as the efficient market hypothesis raises a number of questions. Do students in different specialisations at SSE have the same view as their teachers from the respective department have? Is there a clear difference in beliefs between departments or is the boarder blurred? What do students at SSE believe before starting their specialisation? Are there other factors that can affect students in their beliefs other than education and influences from teachers?

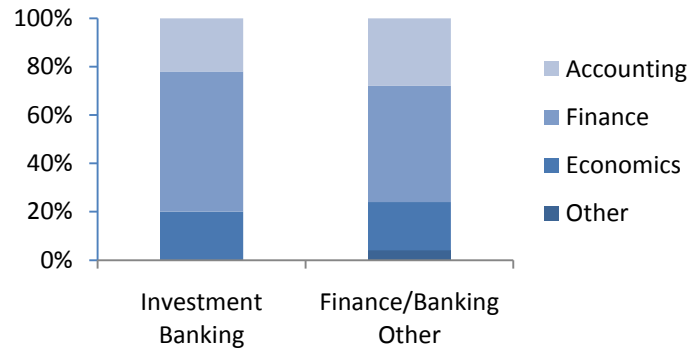
Depending on the answers of these questions, the findings could have large implications. If students are affected by their teachers and "inherit" their view about fundamental analysis and the hypothesis of the efficient market, then the choice of specialisation is of great importance to the student. Depending on which specialisation the student attends, the student will be indoctrinated towards a certain belief and probably base their career choice, investment strategy etc. upon these values. This could have great impact on the financial decisions that will be made by SSE alumnus in the future.

Our results show that there *are* large differences, both within SSE and between SSE and another educational institution. We find substantial differences between the students attending different specialisations within SSE. There is also a more sceptical view about stock recommendations and fundamental analysis among students attending a non-business education.

SSE alumni

Of all the students that graduated from SSE in 2007, more than one third started working in the Investment Banking or Finance/Banking industry. A vast majority of those students had taken their majors in Accounting, Finance or Economics (Placement Report, 2008).

Figure 1. Student's origin of specialisation starting in the financial industry



Much of the work in the banking and financial industry is to some extent based on research reports and stock recommendations. The large research departments analyze and write reports on their expectations on stocks, currencies, commodities etc. These reports then form the basis for private bankers and other bank advisors' recommendations to private investors. There are also a number of players in the Swedish financial media that give recommendations, which can be accessed by private investors through business-magazines, both in paper and online.

Purpose and Scope

Purpose with the study

We are interested in analysing what impact a share price recommendation has on private person and how this recommendation will affect the person's share price expectations, depending on the respondent's education.

Scope of the study

We choose to compare Business-students from SSE with medical students from Karolinska Institutet (KI). Both groups are characterized by high-performing students, with average high school grades of 20.0 (highest grade possible). However, the interests and values of the students are assumed to differ. The SSE students which we compare with Medicine students from KI are first and second year Bachelor

students. We wanted the respondents in the comparison between the schools to be as similar as possible therefore we chose to only compare Bachelor students at SSE with first and second year students at KI. We have also decided to look closer into the student groups at SSE and compare different specializations; Finance, Economics and Accounting. We are interested in the differences between these groups because a vast majority of all students that start their career in the financial industry have attended these specializations.

Theoretical framework

The hypothesis about an efficient market

The theory of the efficient market (EMH) was developed by Eugene Fama in the 1960s. This hypothesis states that all public information is priced into a security. The theory was met with criticism since it could be shown that e.g. stocks with low P/E-ratios outperformed other stocks (Rosenberg; Reid K; Lanstein, 1985). These inefficiencies are thought to be caused by cognitive biases (predictable human errors in reasoning and information processing) causing investors to buy overpriced growth stocks and thus strategies which concentrates on growth stocks creates excess returns from time to time (Fox, 2002). In an earlier study Ray Ball showed that these stocks had higher betas and that they therefore could not be compared with value-stocks which have low betas (Ball, 1978). However the difference in beta values has been argued not to be sufficient for explaining this anomaly in the EMH (Chopra; Lakonishok; & Ritter, 1985).

Fama developed the theory further and stated that there could be three different categories of market efficiency; weak, semi-strong and strong (Fama, 1969). The weak form states that all historical prices are taken into account in the current share price, making the study of technical analysis to create no excess returns. The semi-strong efficiency states that all public information is priced into the security causing fundamental analysis to be unable to generate excess returns. The strong efficiency states that all information is priced into the security, even information that is confidential (this theory assumes that insider-trading is allowed).

There are both evidence indicating that the stock market is semi-strong and that it is not. Nobel Laureate Daniel Kahneman argues strongly for an efficient market and for the theory that no one can beat the market (Kahneman, 2002). On the other side there is e.g. Peter Lynch, former fund manager at Fidelity Investments who managed to create an abnormal excess return for 13 years. There are many

contradictive believes about the efficient market hypothesis, and since it is almost impossible to test whether the stock market is efficient or not one most focus on empirical studies in order to make up one's mind whether the market is efficient or not.

Even if there is a lot of empirical studies done in this area, a few of them presented in the background of this thesis, there are also other factors that influence a person's belief in stock recommendations. A person's tendency to stick to a certain belief due to old habit could also explain why fundamental analysis is overvalued in the market. This habit or rule of thumb is called heuristics and is an interesting part of the area in behavioural finance.

Behavioral finance

In today's stock market there are a lot of price fluctuations that cannot be explained by fundamental factors. These fluctuations are often described as a product of human psychology. This behaviour can be explained by behavioural finance theory which is the area that deals with the influence of psychology on the behaviour of financial players (Shefrin, 2000).

According to behavioural finance there are two main emotions that control most of the psychology in the stock market, and that is hope and fear (Shefrin, 2000). Hope in its turn can be affected by a numerous of factors, inter alia stock recommendations and analysts reports. Psychology affects all practitioners' investment decisions on the stock market. Not just private investors but portfolio managers, financial planners and advisors, investors, brokers, strategists, financial analysts, investment bankers, traders and corporate executives are affected; they all share the same psychological traits (Shefrin, 2000). Financial practitioners make errors because they rely on rules of thumb according to behavioural finance. The practitioners use these rules of thumb to process data and are in behavioural finance called heuristics. One example of this heuristic behaviour could be: "I followed a stock recommendation once and I was able to generate excess returns, therefore I should base my future investment decisions on stock recommendations". This static behaviour deems the investor to make errors, because generalizations such as rules of thumb often are imperfect (Shefrin, 2000). This static heuristics can probably explain why investors choose to trust stock recommendations and analyst reports even though the majority of studies indicate that one cannot.

People are also optimistic about their own performance in general. It has been observed that when people are asked to estimate there relative performance, more than 50% answer that they think they perform better than average. In behavioural finance this phenomenon is called self-service bias

(Babcock & Loewenstein, 1997). The combination of hope/fear and static heuristics can explain why stock recommendations have an impact on the financial market, however the effect created is nothing but a mere reaction to the recommendation itself which creates a self fulfilling prophecy. The analyst reports affect the practitioners' expectations and a consensus of these is used to benchmark the actual figures in an earnings announcement. Hence, market participants are affected by analyst reports and base their expectations on these, a theory within behavioural finance which describes such a phenomenon is called anchoring.

Anchoring heuristics and reference prices

Anchoring is a theory within behavioural finance that describes how people that are exposed to a reference point, tend to stick to it in the future. The founders of the theory described this behaviour as:

> *"... different starting points yield different estimates, which are biased toward the initial values. We call this phenomenon anchoring." (Tversky & Kahneman, 1974)*

Once the anchoring value is stuck, the person ignores contradicting information even if the new piece of information is of greater importance when it comes to decision making. This tendency sometimes leads to decision making based on wrong assumptions (Bazerman, 2002).

Most people tend to, in an early phase, found their assessments or opinions on information from a first source or a reference value. In a later stage, they adjust their assessment as further information is discovered and/or a more thorough analysis is done. However, empirical evidences show that this adjustment often is deficient and that the first piece of information still plays a disproportionately big role in the decision making. The first information, the anchoring value, is therefore of great importance (Goldberg & von Nitzsch, 2002).

The human mind often seeks to simplify difficult processes. Anchoring heuristics serves as a helping hand for the mind in an initial phase by giving it a starting point for further reasoning. Especially tasks that involve estimation processes are at particular risk of being disproportionally affected by anchoring heuristics. The capability to be able to rapidly evaluate information and make decisions is desirable in many contexts, not least in the financial market industry (Goldberg & von Nitzsch, 2002).

Anchoring bias does not necessarily have to be based on a numerical value. Also attitudes, prognoses and analyses from experts or friends can underlie the same effect. It is also interesting that one can see an anchoring effect even in those cases where the prognoses or estimations are apparently unrealistic

or out of reach (Goldberg & von Nitzsch, 2002). In the financial market industry, analysts and other experts are forming the "market expectation" by their predictions and estimates. Their role as an anchoring controller in the financial world is not to be underestimated (Cragg och Malkiel, 1968). Apart from the financial analysts and experts, also the actual share price is playing an important role as an anchor for future share price. The actual share price is in fact also affecting the analysts to adjust their estimates and target prices in order to not be unreasonably far away from the current share price (Amir & Ganzach, 1998).

Looking beyond financial theory

Financial research cannot alone explain the differences between the two student groups that just recently started their educations at SSE and KI. Students in those groups are assumed to have the same level of knowledge in financial theory, nevertheless significant differences between the two groups are found. In order to explain the result that SSE students believe in a five times as high share price increase as the students at KI we must look into psychological factors.

Attitudes among analysts and Business students

Do Business/Finance students have characteristics that differ from the general population? First of all we must keep in mind that rational decision-making is an ideal that few human decision makers live up to (Kahneman, 2003a, 2003b). Findings in several studies have shown that people in general are unrealistically optimistic and believe that they are less at risk than others (Harris, 1996). This perception has been shown to hold for economic risks as well (Fromm, 2005; Sjöberg, 2003). A link between overconfidence and a high level of education has been found in studies (Bhandari & Deaves, 2006). People do not behave according to economic theory (Kahneman, 2000). Instead, research results show that psychological factors, such as emotions and personality, play an important role in financial counselling and decision-making (Hilton, 2001; Slovic, 2001). These results are explained by both cognitive limitations and psychological dynamics commonly found in studies of attitudes (Alabarracin, Johnson, & Zanna, 2005).

As financial decision-making have monetary consequences, the advisors' and analysts' attitudes towards money is a potentially important factor. Also, if the advisor/analyst has a "gambling personality" it is likely for him/her to recommend risky investments (Engelberg, 2006). A detailed analysis of prognoses of the Stockholm Stock Exchange published by leading Swedish economic papers indicated that the analysts are excessively optimistic (Albrecht, Mayer, & Winström, 2002). This tendency of wishful

thinking is another factor that needs to be considered in financial decision-making (Babad, 1997; MacGregor, Slovic, Dreman, & Berry, 2000; Sjöberg, 2006; Sjöberg & Biel, 1983).

There is some pervious research done on Finance students. A Norwegian study shows that there exist discrepancies between general Business students and non-Business students. For example, the study found that personal development was a more important motivational factor for Business students than materialistic values (Birkelund, Goodham, & Nordhaug, 2000; Gooderham, Nordhaug, Ringdal, & Birkelund, 2004). The results from another study showed that attitudes among Finance students differ from those of other students. Finance students showed high values in economic risk-taking and gambling, high values in sensation seeking and success orientation, and low values in money importance and concern (Engelberg, 2006).

Social psychological factors

Group definition

How individuals interact when they are in a group context is an area that is widely researched within social psychology. A group can be defined as two or more humans that interact and influence one another (Shaw, 1981). Further, members of a group accept the internal expectations and obligations and perceive themselves as "us" in contrast to "them" (Turner, 1987).

Deindividuation

In certain kinds of group situations, people are more likely to abandon normal restraints, to lose their sense of individual identity and to become responsive to group or crowd norms. This is a phenomenon that was described by social psychologist over 50 years ago and was termed deindividuation (Festinger, Pepitone, Newcomb, 1952). More specifically deindividuation is defined as "a loss of self-awareness and evaluation apprehension and occurs in group situations that foster responsiveness to group norms, good or bad" (Myers, 2005a).

Self-awareness

The social-psychological term "self-awareness" is defined as a self-conscious state in which attention is focused on oneself. Self-awareness makes people more sensitive to their own attitudes and dispositions" (Myers, 2005b). In situations when people perceive themselves as members of a specific group their self-consciousness tend to disconnect behaviour from attitudes (Myers, 2005a).

Experimental studies reveal that unself-conscious, deindividuated people are less restrained, more likely to act without thinking about their own values, and more responsive to the situation (Diener, 1982, Prentice-Dunn & Rogers, 1980 & 1989).

Group polarization

Group polarization is a term that describes group-produced enhancement of members' pre-existing tendencies. Discussing a topic typically strengthens the average inclination of group members (Moscovici & Zavalloni, 1969). This phenomenon has been studied and demonstrated also in school environments. Research on both political views and intellectual abilities has shown that over time, initial differences among groups of college students become accentuated. Psychologists believe that this is a result of group members reinforcing shared inclinations (Pascarella & Terenzini, 1991). Two forces explain how large effect the polarization will have in a group: informational influence and normative influence (Myers, 2005a).

Informational influence

A critical part of persuasion is what people *think* in response to a message. Two important elements of persuasion are the communicator and the message. The communicator or the source must be perceived as credible by the audience, both professional and trustworthy, for best persuasion. Another important factor is attractiveness; the message is more persuasive if told by a communicator that is appealing to the specific audience. We tend to like people who are like us. We are also more influenced by them, especially on matters of subjective performance (Myers, 2005c). Generally, people respond better to a message from someone in their own group (Van Knippenberg & Wilke, 1992).

The message is also of importance. Research has shown that messages associated with good feelings are more convincing than messages associated with bad feelings. Moreover, people have a tendency to make less reflective judgements while in good mood (Bodenhausen, 1993).

Normative influence

The other explanation of polarization involves comparison with others. The influential theory of social comparison describes people's desire to evaluate their opinions and abilities by comparing their view with others'. Also this theory concludes that we are most persuaded by people in our own "reference group", groups we identify ourselves with (Festinger, 1954).

Herd behaviour and conformity

Herd behaviour or conformity is easiest defined as a change in behaviour or belief to accord with others. Conformity increases with cohesiveness; to what extent members of a group are bound together, or a "we feeling" (Myers, 2005d). Status is another factor that positively correlates with conformity. People with high-status tend to have more impact (Driskell & Mullen, 1990), while people sometimes actually avoid agreeing with low-status persons (Swim, Ferguson & Hyers, 1999).

Hypotheses

Following the theories from the cross-scientific fields of behavioural finance and social psychology in the previous sections we have come up with a couple of hypotheses that we will examine in the following paragraphs.

Motivations for our main hypotheses

Our first assumption is that Business-students consider themselves to have a stronger connection to the players in the financial industry; therefore they are more affectable than other students in their beliefs of future stock performance after having been exposed to an expert's (the analyst) statement. We test this by measuring the students' inclination to adjust up their own target price of a specific stock, after having read an article containing a strong buy-recommendation from a Swedish business magazine. We expect Business students' faith in analysts to be higher since they belong to the same social-psychological "group". Further, Business-students are assumed to share a similar set of values, interests and personality with the people working in the financial industry in general.

Our second hypothesis is that there also are discrepancies between students attending different Masters programs at SSE. After two years of general business education students at SSE choose which specialization they want to attend in their final two years.[1] We look into three of the specializations offered at SSE: Accounting, Finance and Economics. The three specializations are in essence quite similar, with a firm foundation in traditional economic theory. Our hypothesis is that students specializing in Accounting show a high propensity to be affected by an analyst's forecast and recommendation. The Accounting department teaches several courses in which valuation methods are

[1] SSE is currently in a transition phase between a new and an old education system. In the old system, the students chose their Master specialization after two years, while they in the new system choose after three years. All of the respondent Bachelor students belong to the new system, while most of the Major students still belong to the old system.

practiced. Two of them are 3303-Financial Analysis, and 3304-Corporate Valuation. The learning of techniques on how to valuate corporations is assumed to raise a general trust in this practice. On the other hand we believe that students in the Finance and Economics specializations are, even if some of them also take courses given by the Accounting department, more sceptical to those methods since many of the mandatory courses in these two specializations are based on the EMH or at least assume that the EMH holds.

Primary Hypotheses

Hypothesis about Schools (KI and HHS)

SSE students in their first two years will adjust up their target prices of a stock comparatively more than students in their first two year from KI, after reading a buy recommendation.

Hypothesis about specializations (Accounting, Finance, Economics)

Students specializing in Accounting at SSE will adjust up their target prices of a stock comparatively more than students specializing in both Finance and Economics at SSE, after reading a buy recommendation.

Secondary Hypotheses

Hypothesis about the internal effect of a stock recommendation within student groups

Within the Accounting and the SSE Bachelor program we expect students who have read the article with a stock recommendation to give a higher estimated target price compared to those who have read the article with objective information. For the other three student groups (Economics, Finance and Medicine) we don't expect the same result, i.e. the students given stock recommendation will not give a higher target price than the student given objective information.

Hypothesis about financial media

We expect students that read financial media on a regular basis to adjust up their target prices of a stock comparatively more than students that do not, after reading a buy recommendation.

Hypothesis about working in Finance

We believe that students that have worked with or consider a career in stock analysis to adjust up their target prices of a stock comparatively more than students that do not, after reading a buy recommendation.

Complementary test

Teachers' beliefs in EMH

We expect that the majority of the teachers in the Finance and Economics departments believes in the EMH (semi-strong), while the majority of the teachers in the Accounting department does not believe in the same theory.

Methodology and data description

Collection of data

In order to test our hypothesis we have decided to use a methodology in which we get our data directly from current students at the SSE and KI. By using a survey we had the advantage to design the forms and questions exactly the way we wanted. Firstly we searched among several editions from the last year of the biggest Swedish business newspapers and magazines for an article containing a stock recommendation. Four criteria were decided upon which had to be fulfilled by the article.

Criteria on the article

Size and Familiarity

Our first criterion for the article was that it had to be about a company that was not very famous or exposed in media in order to decrease the impact of prior knowledge or attitudes towards the company. On the other hand we wanted the company to have a certain level of turnover and maturity in the industry. A company on the MidCap list would fill those requirements.

Industry

Our second criterion was that the company's business had to be within a relatively stable and matured industry. For example companies within biotech and alternative energy were dismissed because we reasoned that those companies to a greater extent could be judged upon the respondent's expectations on an industry level and not on a company basis.

Domestic Company

Our third criterion was that we wanted the stock recommendation to be about a Swedish company. Since we only were to hand out the surveys to students within the Swedish higher educational system we thought it would be more relevant to test for a Swedish company. Further, possible biases towards for example companies in growth economies could then also be dismissed.

Language and Layout

Our fourth criterion was that we wanted the article to be short, concise and to include graphical information to help the reader to faster acquire the message that the author wanted to give. We also wanted the author to give an undivided positive picture of the company's future performance and a buy-recommendation as strong as possible. We also wanted the language to be simple with as few financial terms and expression as possible. We set up both these conditions to minimize any effect caused by Business students being more used to reading business articles and stock recommendations.

The article

The article that we have chosen to use in our survey is taken from the business magazine Affärsvärlden (AV)[2] and contains a buy-recommendation for the Swedish engineering consultant Sweco, listed on MidCap. The left column of the article contains text where the author explains his/her positive view on the stock. At the very top of the column there is a green box with an apparent "KÖP" ("BUY") which makes it clear from the very start what the recommendation is about. To the right there is box of graphs showing the past stock performance, business units and past and forecasted key ratios. With the article from AV as a base we designed two surveys in similar style but with different content.

Survey forms

Survey form 1

In the first form we used the whole article from AV without any changes. On the front page the article was pasted under a brief introduction of the survey. Under the article a textbox was added. This textbox explained the source of the article, and also listed a few other broker reports that had given positive recommendations on the stock. A target price of 62 SEK by Stockpicker was also given. At the very end, the current stock price (on the printing date) was given.

On the back page some information about the respondent was collected through a number of questions, such as gender, school, specialisation of studies, and starting year of education. A few questions about to what extent the respondent had experience of business and stock research followed, and thereafter some questions about prior knowledge about the company. Three questions on the respondents' view of stock performance were next in order. The first one related to the current stock price, the second one related to the target price by Stockpicker, and the last one to which stock price the respondent thought Sweco's stock would have in one year's time. In the final question we asked the

[2] Affärsvärlden no. 21 p. 44. May, 21th, 2009

respondent to try to estimate how well their grades were in comparison with their classmates. This question was placed in the very end to decrease the risk that this answer should affect the other answers. See Appendix 2 for survey form 1.

Survey form 2

In the second form we used the same design as in the first one. The purpose was that the articles at a glance would look identical. On the front page of this form the text with the motivation for the buy recommendation from the article from AV was removed. Instead a text from the company's homepage was pasted, consisting of a company description. The green box which said "KÖP" ("BUY") at the very top of the article was replaced by the logo of the company. Also in the graph box to the right a few changes were made. The forecasted key ratios were removed and the analyst's view on the positives and negatives were removed. The purpose was to reduce as much subjective information as possible. The text at the bottom of the front page was reduced to only contain the source of the information and the current stock price of the company.

The back page on the second survey form was identical to the one on the first survey form except the removal of the question about what the future stock price would be in relation to Stockpicker's target price. See Appendix 2 for survey form 2.

Distribution of forms

The survey forms were handed out to students at Stockholm School of Economics and Karolinska Institutet during the first week of September 2009. The forms were distributed on three locations in each of the school buildings: outside lecture rooms (during breaks in seminars and lectures), in the computer labs and in the cafeteria/atrium. The pile of survey forms where sorted in a way that every other form was a survey form 1 and every other form was a survey form 2 and was given out randomly to students who wanted to attend to the survey. Each student was told to take the time they wanted for filling in the form, no time limit was given. As a sign of gratitude a small piece of chocolate was given to all students who returned a completed form. We were interested in comparing five groups with different areas of studies: SSE Bachelor students, KI students (first two years), SSE Finance students, SSE Accounting students and SSE Economics students. Since it was easier to come into contact with a large number of Bachelor students on both schools (as they are having more joint lectures and spend more time on campus) we received more answers from those two groups. The distribution phase of the study was ended when a sample of at least around 40 correctly completed forms from each of the five groups where gathered. The quest was to have the same number of completed forms of each form, in each of

the five groups. After a quick review of the handed-in forms a few were removed. The forms that were removed had not been correctly filled in, had missing values or had inconsistent answers.

Mini survey about teachers beliefs in the efficient market

In order to find out whether the teachers at SSE believe in the efficient market hypothesis or not we went to the three largest departments (Accounting, Economics and Finance) at SSE and asked the teachers in person. We explained how we defined the semi-strong efficiency and then asked the teachers whether they believed in the hypothesis or not. We went several times to the departments in order to retrieve as many answers as possible. We also sent out an e-mail for those teachers that were not available. In this e-mail we explained our survey and kindly asked them to answer the question with a yes or no answer. See Appendix 3 for a copy of the e-mail.

Methods of analysis

Difference in Differences and Z-test

The results were sorted into the groups that we wanted to examine and z-tests were performed to test for statistical significances. We used a simple difference in differences test (DD) in which the differences between the target price averages within groups between form 1 and form 2 where calculated. The difference between the differences in averages of the two groups then made up our DD. Difference in Differences is a commonly used empirical estimation technique used in econometrics to measure the effect of a treatment at a given period in time.

In the example below μ_1 is the average target price for students that read the first survey form for the first group, and μ_2 is the average target price for the students in the same group that read the second edition of the survey. The difference between these two averages was then compared to the same difference of another group. The averages in the second group were named μ_3 and μ_4. We tested our null hypothesis that the DD was 0.

Example:

$$\mu_1 - \mu_2 = \mu_3 - \mu_4$$

Which was simplified to $\mu_1 - \mu_2 - \mu_3 + \mu_4 = 0$

The test was then repeated for all groups that we wanted to compare. Since we expected a certain outcome (see the hypotheses section) we used one-sided tests.

Bootstrapping

To further increase the accuracy of the significance in our data we used a bootstrap technique. As a result of recent advances in econometric theory and computer power bootstrapping has emerged as a technique to conduct parametric testing without imposing normality. However, an assumption that our data come from an independently and identically distributed population must still be made. Bootstrapping is a method used to approximately find the sampling distribution from just one sample. The originally collected data sample represents the data from which the "new" data is simulated. In the tests where the bootstrapping technique were used we used our original sample to randomly create 5099 samples (draw and replace method) with the same sample size for every group. According to Davidson and MacKinnon (2000) at least 1499 replications are needed to avoid a power loss of more than 1% for computed p-values of about 0.01. Still, the more replications that are produced the closer one gets to the "ideal" bootstrap with infinitely many replications. In accordance with recent studies applying this type of bootstrapping technique we created 5099 replications (Johannesson, 2009). The reason for choosing numbers of replications ending with 99 is that Monte Carlo tests are exact, only if p(B+1) is an integer, where p is the significance level and B is the number of replications. The exact choice of B thus matters if special significance is attached to particular p-values, such as 0.05 (Davidson and MacKinnon, 2000).

After the replication process we had a data set of 5099 normalized DD. Those were then compared to the actual DD of the original sample (before the normalization process). The number of normalized bootstrapped DD that exceeded the actual DD was counted. The bootstrapped p-value was then calculated by taking this sum divided by 5099.

Data description

Our data comprises observations from 380 respondents divided into five main groups according to education (the major subject of study). For each respondent there are 13 variables i.e. the answers to the questions asked on the form. The variables are: respondent's gender, school, major, year the respondent started study, if he/she regularly reads financial newspapers, if he/she has worked with stock analysis, if he/she considers a potential career within stock analysis, if he/she has prior knowledge to the company described in the form, if he/she has owned shares in that company, if he/she has followed that company's share price, the respondents expected share price, the respondents self-estimated grades and the type of form (including a stock recommendation or not).

Figure 2. Number of observations, split by education

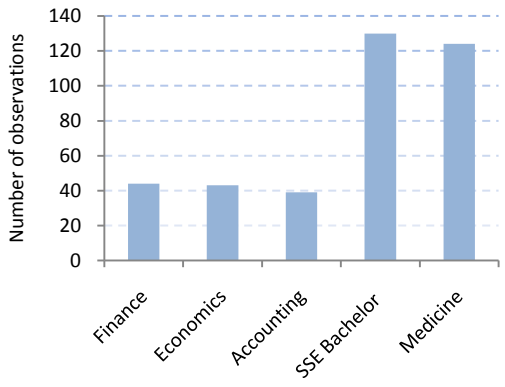
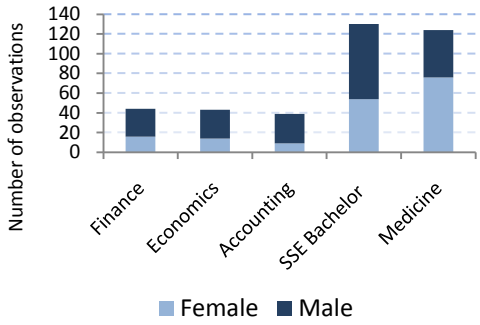


Figure 3. Number of observations, split by education and gender



The number of data observations is evenly split for the different majors at SSE, the number of observations for students at Karolinska Institutet (Medicine) and the SSE Bachelors are also in the same range. The relation between male and female respondents is accordingly to the real relation in the two schools.

Figure 4. All respondents split per gender

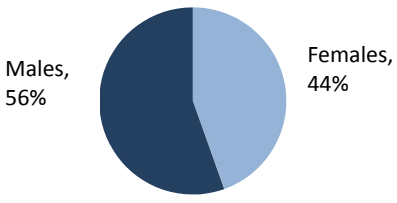
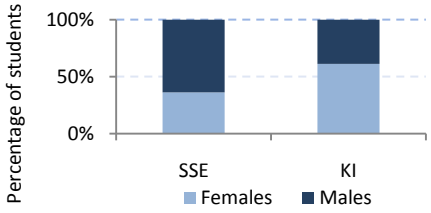


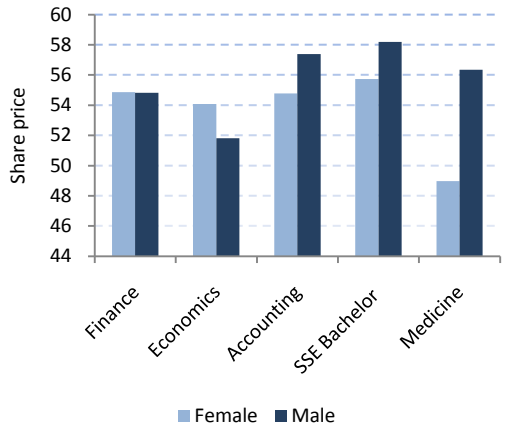
Figure 5. Respondents, split by gender and school



Our sample shows a relation of 64% males and 36% females at SSE fairly close to the real distribution of 58% males and 42% females (Olsson, 2009). At KI both our sample distribution and the real distribution is 39% males and 61% females on the medicine program (Kallenberg Nilsson, 2009).

Our results point to a difference in share price expectations between men and women. In three out of the five main groups (based on majors) men have higher expectations than women. The difference is the largest for students majoring in Medicine; the average share price expectation for men is 15% higher than for women in this group.

Figure 6. Average share price expectations, split by gender and education



There is no difference between genders for Finance students where both men and women anticipates a share price of ~ 55 SEK. The only group where females have higher share price expectations than males is Economics, where the women have a 4.4% higher average than men.

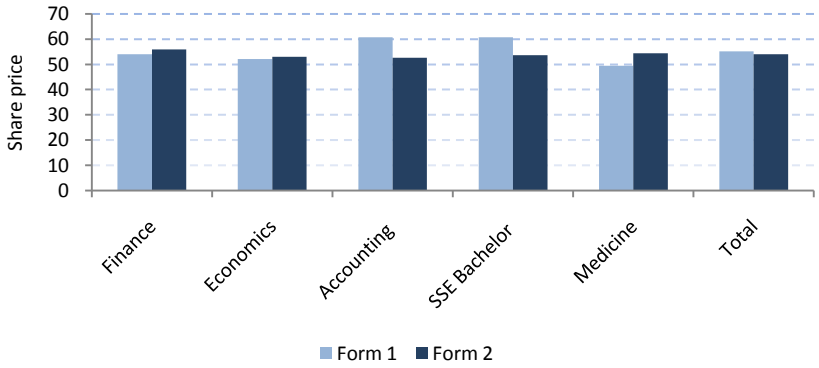
Table 1. Number of respondents per form and education

Form	Finance	Economics	Accounting	Medicine	Bachelor	Total
1	25	22	20	65	65	197
2	19	21	19	59	65	183

Our data is further split into two main groups, respondents who have taken form 1 and form 2. The number of respondent for form 1 and 2 are fairly even for all focuses of study. In total the data comprises of 197 respondents of form 1 and 183 respondents of form 2, adding up to the total number of 380 respondents.

The differences between share price expectations for respondents who have taken different forms in the survey are varying depending on the respondent's focus of study. As seen in figure 7 the difference is the largest (15.5%) for students in Accounting, whereas it is the lowest (1.6%) for students in Economics. The respondents that have taken form 1 had higher expectations than respondents who took form 2 for students in Accounting and the Bachelor program at SSE. The opposite results are given for Medicine, Finance and Economics. For all respondents there is a small difference in expectations where form 1 respondents have given a slightly higher share price (2.3%) in average.

Figure 7. Average share price expectations for respondents taken form 1 and 2, split by education

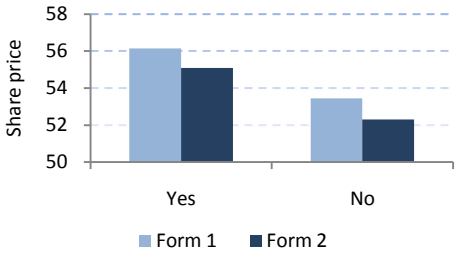


The majority of students at SSE read financial media regularly. Over 75% of all respondents have answered that they regularly read some financial media. All respondents majoring in Finance have answered that they read financial media on a regular basis. Only 33% of the students asked at Karolinska Institutet answered "Yes" to the question.

Figure 8. Percentage of respondents, split by education and if respondent reads financial media



Figure 9. Average share price expectations for respondents taken form 1 and 2, split by if respondent reads financial media



There is a difference in share price expectations between people who read financial newspapers on a regular basis and those who do not. As seen in figure 9 the respondents who have answered yes to the question "if they regularly read financial newspapers" have higher expectations regardless of which form they have taken. The difference is around 5%. The average price discrepancy between form 1 and 2 for people who read financial media is around 2%, which it also is for people that do not read financial media on a regular basis.

Figure 10. Percentage of students who have an interest in stock analysis, split by education

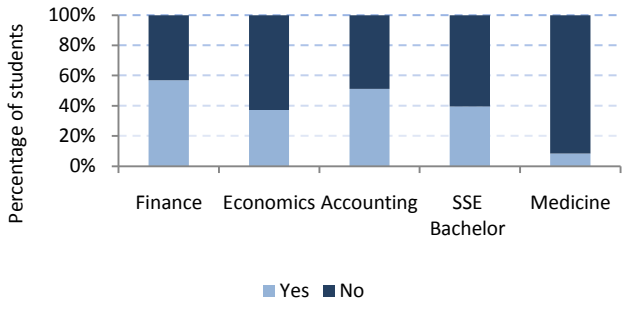
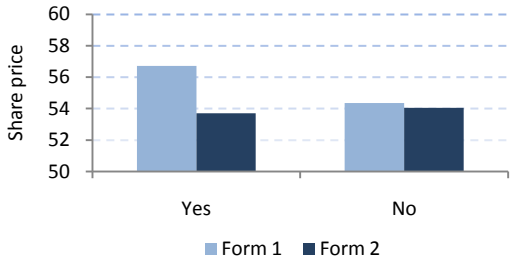


Figure 11. Average share price for students who have an interest in stock analysis, split if respondent have taken form 1 and 2



The interest in stock analysis (either has worked or considers working within stock analysis) is fairly even for students at SSE. The ratio of students that have an interest for stock analysis is much lower for Medicine students at KI. Figure 11 shows that the students in the survey that have an interest in stock analysis have higher share price expectations than students that do not have an interest in stock analysis when reading a share price recommendation in form 1. This difference in averages is 4.4%. Students who have taken form 2 have almost the same expectations (-0.7% difference) regardless of interest in stock analysis.

Results and main findings

When we test for differences between respondents who have taken form 1 and 2 we find that there are significantly higher share price expectations for form 1 respondents for the groups Accounting and SSE Bachelors. The test between form 1 and form 2 for respondents who read financial media or not generates a significant result for the hypothesis that students reading financial media on a regular basis have higher share price expectations than for students who do not. For statistical tests, tables and results see Appendix 1.

Comparison between SSE Bachelors and Medicine students

Table 2. Data for the groups SSE Bachelor and Medicine, split by respondents taken form 1 and 2

	SSE Bachelor form 1	SSE Bachelor form 2	Medicine form 1	Medicine form 2
Average	60,67	53,66	49,48	54,41
Variance	58,52	65,70	124,99	131,16
No. of obs.	65	65	65	59
Variance / no. of obs.	0,90	1,01	1,92	2,22

-

form 1 and SSE Bachelor form 2 is equal to the difference in the average value between Medicine form 1 and Medicine form 2:

$$Average\ SSE\ Bachelor\ 1 = \mu_1\ \ Average\ SSE\ Bachelor\ 2 = \ \mu_2$$

$$Average\ Medecine\ 1 = \mu_3 \quad Average\ Medecine\ 2 = \mu_4$$

$$H_0 :\ \mu_1 - \mu_2 = \mu_3 - \mu_4 \qquad H_0 :\ \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0 \qquad \mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1)$$

Since we argue that the respondents have been randomly selected we assume that all observations are independent and hence the covariance is equal to 0.

The quotas of variance and number of observations sums up to 6.06, the square root of this number gives us the standard deviation 2.46. Hence the Z-value is:

$$Z = \frac{11.94 - 0}{2.46} = 4.85$$

This Z-value corresponds to a one side p-value of 0.0000. We therefore reject the null hypothesis and conclude that the difference is larger between form 1 and form 2 for students in the SSE Bachelor program than for Medicine students at all significance levels.

When we bootstrap our original observations in order to estimate the real population we also receive a p-value of 0.0000. This p-value is based on 5099 calculations of the above null hypothesis. No one of these 5099 differences gives a higher difference than the observed one for our sample (11.94), hence we can reject the null hypothesis and again conclude that the difference is larger between form 1 and form 2 for students in the SSE Bachelor program than for Medicine students.

As seen in table 2, the difference between form 1 and 2 averages for Bachelors at SSE is 22.6% and -1.4% for medicine students.

Comparison between Accounting and Finance students

Table 3. Data for the groups Finance and Accounting split by respondents taken form 1 and 2

	Accounting form 1	Accounting form 2	Finance form 1	Finance form 2
Average	60,76	52,74	54,05	55,89
Variance	118,31	42,31	182,59	26,21
No. of obs.	20	19	25	19
Variance / no. of obs.	5,92	2,23	7,30	1,38

The test statistics for differences between Finance and Accounting are as follows:

$$Average\ Accounting\ 1 = \mu_1 \quad Average\ Accounting\ 2 = \mu_2$$

$$Average\ Finance\ 1 = \mu_3 \quad Average\ Finance\ 2 = \mu_4$$

$$H_0 : \mu_1 - \mu_2 = \mu_3 - \mu_4 \qquad H_0 : \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0 \qquad \mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \qquad \sigma_\mu = 4.1 \qquad Z = \frac{9.86 - 0}{4.1} = 2.40$$

A Z-value of 2.40 gives us a p-value of 0.00820 for a one sided test. Hence we can reject the null hypothesis, at a 0.8% significance level, and conclude that the difference is larger between form 1 and form 2 for students in the Accounting than for Finance students.

The bootstrapping method returns a p-value of 0.01549. Out of 5099 calculated differences as in the null hypothesis, 79 of these are above the observed difference of 9.86 for our sample. We can therefore reject the null hypothesis at a significance level above 1.5%.

As seen in table 3, the difference between form 1 and 2 averages for Accounting students is 15.2% and -3.3% for Finance students.

Comparison between Accounting and Economics students

Table 4. Data for the groups Accounting and Economics, split by respondents taken form 1 and 2

	Accounting form 1	Accounting form 2	Economics form 1	Economics form 2
Average	60,76	52,74	52,13	52,98
Variance	118,31	42,31	27,42	30,84
No. of obs.	20	19	22	21
Variance / no. of obs.	5,92	2,23	1,25	1,47

$$Average\ Accounting\ 1 = \mu_1 \quad Average\ Accounting\ 2 = \mu_2$$

$$Average\ Economics\ 1 = \mu_3 \quad Average\ Economics\ 2 = \mu_4$$

$$H_0 : \mu_1 - \mu_2 = \mu_3 - \mu_4 \qquad H_0 : \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0 \qquad \mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \qquad \sigma_\mu = 3.295 \qquad Z = \frac{8.87 - 0}{3.30} = 2.69$$

A Z-value of 2.69 gives us a p-value of 0.004661 for a one sided normal distribution. Hence we can reject the null hypothesis, at all reasonable significance levels, and conclude that the difference is larger between form 1 and form 2 for students in the Accounting than for Economics students.

Out of 5099 calculated differences as in the null hypothesis, 19 of these are above the observed difference of 8.87 for our sample. This translates to a p-value of 0.004. We therefore make the same conclusion as in the Z-test at all reasonable significance levels.

As seen in table 4, the difference between form 1 and 2 averages for Accounting students is 15.2% and -1.6% for Economics students.

Comparison between Finance and Economics students

Table 5. Data for the groups Finance and Economics, split by respondents taken form 1 and 2

	Finance form 1	Finance form 2	Economics form 1	Economics form 2
Average	54,05	55,89	52,13	52,98
Variance	182,59	26,21	27,42	30,84
No. of obs.	25	19	22	21
Variance / no. of obs.	7,30	1,38	1,25	1,47

The test statistics for differences between students in Finance and Economics are as follows:

$Average\ Finance\ 1 = \mu_1$ $Average\ Finance\ 2 = \mu_2$

$Average\ Economics\ 1 = \mu_3$ $Average\ Economics\ 2 = \mu_4$

$H_0: \mu_1 - \mu_2 = \mu_3 - \mu_4$ $H_0: \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0$ $\mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \qquad \sigma_\mu = 3.38 \qquad Z = \frac{-0.99 - 0}{3.38} = -0.293$$

A Z-value of -0.293 gives us a p-value of 0.6141 for a one sided normal distribution. Hence we cannot reject the null hypothesis, at any reasonable significance level, and conclude that the difference is not larger between form 1 and form 2 for students in the Finance than for Economics students.

The bootstrap gives us a p-value of 0.484 in this case. We can therefore, again, not reject the null hypothesis and we therefore conclude, as in the Z-test, that there is no significant difference between the difference between form 1 and 2 for students studying Finance and Economics. The bootstrapping method returned 2469 cases out of 5099 where the difference was larger than our observed difference of -0.99.

As seen in table 5, the difference between form 1 and 2 averages for Finance students is -3.3% and -1.6% for Economics students.

Comparison between students who do and do not read financial media

Table 6. Data for the groups that read financial media, split by respondents taken form 1 and 2

	Media form 1	Media form 2	No media form 1	No media form 2
Average	56.14	55.09	53.45	52.30
Variance	101.52	69.62	156.81	80.12
No. of obs.	128	108	69	75
Variance/ no.obs	0.79	0.64	2.27	1.07

The test statistics for differences between students that do and do not read financial media is as follows:

$Average\ Media\ readers\ 1 = \mu_1$ $Average\ media\ readers\ 2 = \mu_2$

$Average\ No\ media\ readers\ 1 = \mu_3$ $Average\ No\ media\ readers\ 2 = \mu_4$

$H_0: \mu_1 - \mu_2 = \mu_3 - \mu_4$ $H_0: \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0$ $\mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$

$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1)$ $\sigma_\mu = 2.19$ $Z = \frac{-0.10 - 0}{2.19} = -0.05$

A Z-value of -0.05 gives us a p-value of 0.6808 for a one sided normal distribution. Hence we cannot reject the null hypothesis at any reasonable significance level, and conclude that the difference of averages is not larger between form 1 and form 2 for students who read financial media on a regular basis than for students who do not.

As seen in table 6, the difference between form 1 and 2 averages for students that read financial media is 1.9% and 2.2% for students that do not.

Comparison between students who do and do not have an interest in stock analysis

Figure 7. Data description for students that have an interest in stock analysis, split by students taken form 1 and 2

	Interest 1	Interest 2	No interest 1	No interest 2
Average	56.29	53.64	53.64	54.33
Variance	103.89	74.72	139.59	75.72
No. of obs.	114	95	84	87
Variance / no. of obs.	0.91	0.79	1.66	0.87

The test statistics for differences between students that do and do not have an interest in stock analysis is as follows:

$Average\ Interest\ 1 = \mu_1$ $Average\ Interest\ 2 = \mu_2$

$Average\ No\ interest\ 1 = \mu_3$ $Average\ No\ interest\ 2 = \mu_4$

$H_0: \mu_1 - \mu_2 = \mu_3 - \mu_4$ $H_0: \mu_1 - \mu_2 - \mu_3 + \mu_4 = 0$ $\mu = \mu_1 - \mu_2 - \mu_3 + \mu_4$

$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1)$ $\sigma_\mu = 2.07$ $Z = \frac{3.34 - 0}{2.07} = 1.21$

A Z-value of 1.21 gives us a p-value of 0.0526 for a one sided normal distribution. Hence we cannot reject the null hypothesis and conclude that the difference of averages is not larger between form 1 and form 2 for students who have an interest in stock analysis than for students who do not, at a 5% significance level.

As seen in table 7, the difference between form 1 and 2 averages for students that have an interest in stock analysis are 4.9% and -1.3% for students that have not.

Self estimated grades

When students are asked to estimate there relative grades they tend to overestimate their grades. Of all respondents in our survey, 73% thought that they had better or equal to peer average. In some specializations e.g. Accounting all respondents believe to have higher or equal grades as the highest 60% in class.

Figure 12. Number of respondents per self estimated grades

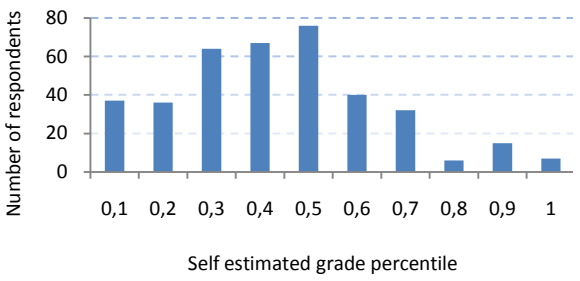
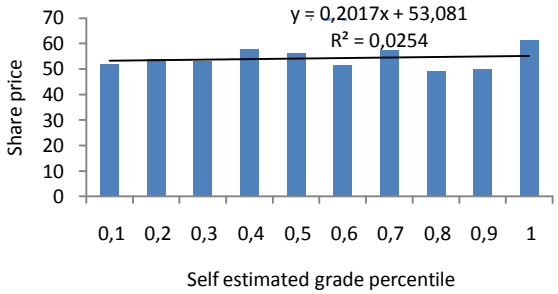


Figure 13. Share price expectations per self estimated grade

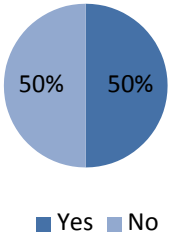


There is no significant correlation between self estimated grades and expectations in share price. As seen in figure 13 the expectations are almost uniformly distributed. The R^2-value is low; hence we can conclude that there is no significant relation between grades and expectations.

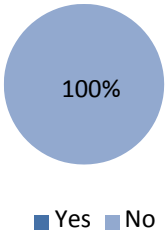
Teachers' believes about a semi-strong efficient market

The results for the mini survey regarding the teachers' beliefs about a semi-strong efficient market are given below. A yes indicates that the teacher believes in the semi-strong efficient market hypothesis. The total number of teachers which have answered is 42, where 17 are from the Economics department, 10 from the Finance department and 15 from the Accounting department.

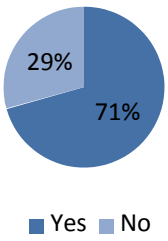
Teachers at the Finance department



Teachers at the Accounting department



Teachers at the Economics department



Discussion

Differences within programs

Absolute group effects

From the obtained results we see that, as expected, reading a buy-recommendation does give SSE students attending the Bachelor program and Master students in the Accounting program a more positive view of a stock. However, the results are not significant for the other student groups that have attended the survey: Medicine students (first two years), and Master students in Finance and Economics. These results were expected, and in accordance with our hypotheses.

Discussion of the results

Even if the most recent studies of the EMH indicate that stock recommendations might actually have a positive impact on the share price, the effect seems to be so small that one cannot base a profitable trading strategy (due to transaction costs) on these findings. Also, research demonstrates that the largest effect on stock recommendations can be seen on the share prices immediately after the recommendations are published.

Our results show that that the Accounting students that read the recommendation (form 1), on average, believed in a 30% stock price increase (Appendix 1, table 12). This is 17% higher than those who read the neutral company description (form 2) and is well above what can be explained by financial theory. Also the SSE Bachelor students (form 1) reported a 30% stock price increase, 15% higher than those who read form 2. The differences between form 1 and form 2 are significant for both Accounting and Bachelor students. It seems that these students put an unrealistic high weight on the expert's beliefs.

The Master students in Finance and Economics reported more moderate increases of expectations for the stock price, and the differences between form 1 and form 2 were much smaller and insignificant. We interpret this as the students in these two groups are not affected by the belief or target price set by the expert.

A discussion of what might be the underlying forces of this outcome will be held in the following two paragraphs. We also investigate and compare the differences between student groups that are in the same level (seniority) of education.

Differences between schools and programs

Differences between first years students at SSE and KI

We start of by comparing the results between students in their first two years at SSE and KI respectively. Our hypothesis, that the difference in differences would be higher among SSE Bachelor students compared to the KI students, is confirmed by significant results. Our explanation of these results is found in the social-psychological field of group behaviour. We believe that students in their first two years at SSE experience a feeling of group affinity with people working in the financial industry. An analyst is likely to internally be thought of as a "credible expert" which makes his/her information more influencing to the group members than to people outside the group. It is also likely that the opinions conveyed in the article are viewed as a group norm (three broker reports give a buy recommendation in form 1), which will create a sense of deindividuation among the group members to become more responsive to this norm. The sense of belonging to the same group as the author also makes the SSE Bachelor students less self-aware, more prone to act without thinking, and more inclined to put greater confidence in the financial analyst's forecast.

The effect of the group–produced enhancement of members' pre-existing tendencies (group polarization) is further amplified by the strong informational influence of the message. The buy-recommendation is associated with good feelings (perhaps more to Business students than to Medicine students) and is more convincing and gives less room for reflective judgements. Also, the finding of Pascarella and Terenzini (1991) that initial differences among groups of college students become accentuated is likely to further push the attitudes among the students to the same direction. The deep trust then increases the Business students' propensity to anchor their estimation to values closer to the analyst's target price. The process can be visualized as following:



We have no reason to believe that students at KI perceive themselves as group members of a "financial group". The interaction between Medicine students and people working in the financial industry is limited, and they hardly influence one another. Therefore, group behaviour should not be a factor that affects Medicine students to report the same target price as the expert. One can even imagine that "greedy stockjobbers", to some Medicine students, are viewed as low-status persons and they therefore (in accordance with Swim, Ferguson and Hyers (1999)) avoid agreeing with them. This would explain our

result that the KI students that read the stock recommendation (form 1) believed in a 10% *less* stock increase than those who read the neutral company description (form 2) (Appendix 1, table 14). Our hypothesis, that KI students would not change their own target value upwards after having read a stock recommendation report, is confirmed by significant results.

Differences between students in different master programs at SSE

We assume that the current first and second year students at SSE are similar in attitudes and level of knowledge to those the students in the current master program had a couple of years ago. The large difference between Accounting students on the one hand and Finance and Economics student on the other hand could then be explained in either of two ways. Either the significant difference between the two student groups rises already *before* the students make their choices of Majors or, more likely, the difference rises *after* the students have selected which program of specialization to attend.

The three Masters programs at SSE differ in some aspects greatly from one another, both in terms of course-content and teaching staff. We believe that the explanation for the discrepancies in our results between the student groups can be found in these differences. The hypothesis of efficient markets plays a central role, as a theory or as an assumption, in many of the compulsory courses in the Finance and Economics Majors. In the Accounting program on the other hand, the EMH has no central role in any of the compulsory courses. Also, the teachers in the departments are likely to have impact on the students' beliefs. The strong rejection of the EMH among the teachers at the Accounting department probably shines through in their teaching and the EMH is probably perceived by the students as just a "theory" and not as something that exists in the real world. In fact, many of the courses within the Accounting program, such as Corporate Valuation, are based on the belief that the EMH does not hold.

The more Business courses the students attend to, the more knowledge about economic theory they obtain. Master students are, in comparison with students in their first years, likely to have a greater knowledge-base in economic theory. Our results are interpreted as that the level of knowledge has a significant impact on the students' expectations on specific stock performance. Students that have taken several courses which assume that all publicly available information already is priced into the securities are not influenced by stock recommendations. Students that have not taken any courses where fundamental analyses are challenged or questioned do get influenced by stock recommendations.

It is unlikely that the feeling of group affinity with people working in the financial industry should diminish as students approach graduation. Instead we believe that the results can be explained by

looking at factor-hierarchy, in which the group-psychological factor seems to be dominated by the "level of knowledge" factor among Master students. Reading a stock recommendation should, for Finance and Economics students, imply a tension between, on the one hand what they have learned in financial and economic theory and on the other hand what their "fellow group member", the expert, communicates. This would explain the results that we have obtained in which Finance and Economics students are prone to put more trust in their own knowledge than in the expert's. The power of theoretical arguments/knowledge is stronger than the social psychological propensity to trust members of one's group. However, Accounting students do not feel any tension between the expert and the theories they have learnt, and therefore they are prone to trust the analyst.

Another possible factor that together with knowledge might explain the difference between the Bachelor and Master students at SSE is confidence. Students that have come a long way in their education are more likely to have greater confidence, partly because they are older and partly because their business knowledge-base is greater, causing them to not agree with expert reports.

The effect of reading financial media

We can see in figure 8 that the habit of reading financial media on a regular basis is shared among students in the Finance, Economics and Accounting specialisations. This is not surprising since business students are supposed to keep track of the financial markets, especially when coming closer to graduation and interview processes. We can notice that there is such a difference between Master and Bachelor students.

When we look at the impact on a share price estimation for students that do and do not read financial media we can see that there is a significant difference. Students that read financial media on a regular basis are more affected by a stock recommendation than people that do not. This can be because people that read financial media are more influenced by the current market sentiment than others. The stock market had at the time of this thesis increased with over 40% YTD, causing many articles in financial media to be bullish. It is fair to assume that students that read financial media have been more exposed to bullish information than others and therefore give a higher estimate. However the difference between students taken form 1 and form 2 for students that read financial media is not significant different from the difference between students taken form 1 and 2 who do not read financial media. We can therefore draw the conclusion that students that read financial media do not have a higher tendency to anchor their estimations, when exposed to a stock recommendation, than others. It is interesting to see that interest in finance and stock analysis is an insignificant factor whereas the

specialization at SSE is a significant factor that affects the respondent's tendency to trust a stock recommendation. This finding strengthens the conclusion that students are influenced by their teachers and the course content and that the students "inherit" their teachers' view of the market. It is also interesting to see that there is such a big difference between teachers at SSE. Depending on which specialization you chose you can get a contradictive view of the market which can affect your choice of career completely.

Discussion about the mini survey among the teachers

As our mini-survey showed, the teachers at the Accounting department strongly reject the EMH. Teachers at the Economics department are mostly positive to the EMH while teachers at the Finance department give mixed answers. The result was broadly expected, maybe except for the unanimous rejection by the Accounting teachers. The Accounting teachers' deep mistrust towards the EMH combined with the courses offered by this department is probably reflecting the students' attitudes towards fundamental analyses performed by analysts.

Self estimated grades

We can see a strong bias towards the higher scale of grades when we ask the students to estimate how well they perform in school relative to their peers. This bias is known as the self serving bias in behavioral finance (Babcock & Loewenstein, 1997). The self serving bias is the strongest for Accounting students where everybody thinks that they at least perform better than 40% of their peers. Although there are differences in how students from different specializations rank themselves amongst their peers, there is no correlation between high self estimated grades and higher or lower share price expectations. Further, we cannot see any relation between self estimated grades and the tendency to be affected by a stock recommendation.

Discussion of our method

Generally, we are satisfied with the method we used. We received very few questions about the forms and our overall impression is that our respondents did not have any difficulties understanding the form or the questionnaire. Also, we had an almost 100% return-ratio on the forms that we handed out. The removal of inconsistently filled forms would most likely not have affected our results since they were very few. Our impression is that we have good samples, similar to the populations as a whole. The gender distributions of our samples are similar to the real populations.

One weakness in our method is that we do not have a random sample in line with the econometric definition. To obtain a random sample we should have used selection process in which our respondents would have been randomly picked from a list of names of the total population. We chose not to use this method since we considered it time consuming and administrative inefficient. However, we consider our sample to be "weakly" random since the forms were distributed to students randomly in campus cafeterias, computer labs and passageways. Another weakness with our method is that the article and form was written in Swedish, which excluded all non-Swedish speaking students from the survey. Since the survey focuses on Swedish universities, where many of the participants not are used to read English articles, we thought that language skills might rise as a potential issue if the article was written in English. Also, for reliability reasons, we wanted to hand out exactly the same form to all participants and therefore we did not translate the article into an English version. The pros with a Swedish-speaking article out-weighted the cons, for this specific study.

Result of Medicine students

As figure 7 shows, Medicine students seem to be reacting negatively to a stock recommendation of a specific stock. As we have chosen to consistently use one-sided tests (consistent with our hypotheses) we cannot draw any conclusions whether a recommendation of a stock affects Medicine students to actually lower their target price or not. However, we do believe that there currently is a general scepticism towards the financial markets among common people. Since the start of the financial turmoil, the media has reported massively about misbehaving financial directors and greedy bankers. Perhaps the result of the Medicine students should be interpreted as a general present mistrust of people working in financial industry.

Economic implication of our results

Our results clearly show that there is a significant difference between how students in their first years at SSE and KI are affected by a stock recommendation from a financial analyst. What implications might this result have in larger economic context?

Perhaps the most important task of the financial market is to transfer and distribute money to where the best investment opportunities are. One could say that research reports and analysts recommendations work as a support function for this bigger purpose. Even if today's experts cannot agree if the market is efficient or not (which in the long run boils down to whether fundamental analysis make sense or not), the business research industry lives on, and new stock recommendations are published every day. Whether or not you decide to listen to these recommendations (and maybe act

upon them) is presumably dependent on several aspects. This study shows that education probably is one of them. Also, we must have in mind that whether an investor believes in stock recommendations or not, he/she is most likely affected by them indirectly, as long as other investors are. Another thing to have in mind is that many students that graduate from business schools seem to have a firm belief in fundamental analyses (in our study the Accounting and Bachelor students). Many of the students will end up later in their careers in positions where they dispose over a lot of money and are in charge of important investment decisions.

A vast majority of the population in Sweden is already, directly or indirectly, stock owners. Since the introduction of PPM system, a greater responsibility now lays on the *individuals* to decide where to invest their pension savings. People's attitudes towards financial experts and their advices are likely to affect whether (and where) to invest their money in the stock market. This decision might be of great importance, deciding how prosperous one's old-age will be.

Conclusion

The conclusion that we can draw from this thesis is that there is a correlation between education and students' tendency to adjust share price estimations when influenced by a stock recommendation. We have found that students majoring in Accounting show a tendency to be influenced by a recommendation, whereas students within Finance and Economics do not. Furthermore, we can also draw the conclusion that Bachelor students at SSE also adjust up their estimations when they are exposed to a share price recommendation and a target price. From our data for students at Karolinska Institutet we draw the conclusion that this is not the case for Medicine students. Our findings are strengthened by the fact that all other variables we have tested for are insignificant, leaving us with only education as a correlated factor. However, this does not prove that the education factor explains the differences in adjustment of the respondents, but it indicates a strong relationship between education on the one hand, and the respondent's tendency to be influenced by a share price recommendation on the other hand.

We can also conclude that there are differences between the beliefs in the efficient market hypothesis between teachers at different departments at SSE. We conclude that Accounting teachers do not believe in the hypothesis what so ever, whereas a majority of the teachers in the Economics department does. In the Finance department it seems to be tied between believing in the hypothesis and not. This result is interesting when combined with our findings that Accounting students have a tendency to be influenced

by share price recommendations. Since the efficient market hypothesis contradicts the use of share price recommendations it seems that students in the major programs at SSE to a large extent have inherited their teachers' view on how the market functions.

Further research

We have found 3 areas which would be particularly interesting areas for future research

1) The poor market conditions during the last two years could be an external factor that affects our results. Plummeting stock prices and crisis of confidence towards financial players are likely to influence people's general attitudes to financial advices. We would like to investigate if our results could be replicated in boom markets as well. Especially interesting would be to study if the answers from the Medicine students would indicate the same negative relationship between stock recommendation and target price as our study show.
2) Our reasoning and hypotheses touches the concept of the EMH, and whether the respondents believe that all public information is already priced into the specific security or that excess return could be achieved from fundamentally analyses. It would be interesting to investigate if the same differences between the groups would remain if testing whether they believe in the EMH or not.
3) Our study show significant differences between students of the different Major specializations at SSE. It would be very interesting to perform a study where individuals are tested at different occasions, to see if their beliefs change over time. Our study indicates that this is the case, but further research should be able to determine if this statement really holds.

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Appendix 1

Comparison between students who read financial media

We test the hypothesis that students who read financial media on a regular basis have higher share price expectations in our survey. The test for comparison of means for students that do and do not read financial media at a regular basis generate the following statistics and results:

$$Average\ Reads\ financial\ media\ = \mu_1 \qquad Average\ Does\ not\ read\ financial\ media = \mu_2$$

$$H_0\colon\ \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0\colon \mu \leq 0$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu}$$

Table 8. Data for students who do and do not read financial media on a regular basis

	Yes	No
Average	55.66	52.85
Variance	86.84	116.36
No. of obs.	236	144
Variance/ no. of obs.	0.37	0.81

We assume that respondents have been randomly selected hence we believe that all observations are independent and that the covariance is equal to 0.

The sum of variance/number of observations is 1.17 and the corresponding standard deviation is therefore 1.08. The difference of the means for "Reads financial media" and "Does not read financial media" returns a μ equal to -0.6253. This gives us the following Z-value:

$$Z = \frac{2.81 - 0}{1.08} = 2.59$$

Since we test the hypothesis that Students that read financial media have higher expectations than students who do not, we use a one side Z-test. The Z-value corresponds to a p-value of 0.0048. We therefore reject the null hypothesis that students that read financial media on a regular basis have equal or lower expectations than students that have taken form 2. We draw the conclusion that students that read financial media on a regular basis have higher expectations than those who do not.

Comparison between students who have interest in stock analysis

In this comparison we test the hypothesis that students who either have worked or consider a career within stock analysis have answered a higher share price on average than other students. The test statistics are as follows:

$$Average\ Interest\ in\ analysis = \mu_1 \qquad No\ interest\ in\ analysis\ 2 = \mu_2$$

$$H_0 : \mu_1 \leq \mu_2 \qquad H_0 : \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0 : \mu \leq 0$$

Table 9. Data for students who read financial media on a regular basis

	Yes	No
Average	55.01	54.09
Variance	92.37	108.59
No. of obs	209	171
Variance/ no. of obs.	0.44	0.64

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \quad \mu = 0.92 \qquad \sigma_\mu = 1.04 \qquad Z = \frac{0.92 - 0}{1.04} = 0.89$$

A Z-value of 0.89 is equal to a one side p-value of 0.1894. We are therefore unable to reject the null hypothesis as described above. Hence we cannot draw the conclusion that students that have worked or want to work with stock analysis have given higher share price estimates than other students.

Comparison between Finance students taken form 1 and 2

In the test between means for Finance students taken form 1 and form 2 the following test statistics have been used:

$$Average\ Finance\ 1 = \mu_1 \quad Average\ Finance\ 2 = \mu_2$$

$$H_0 : \mu_1 \leq \mu_2 \qquad H_0 : \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0 : \mu \leq 0$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1)$$

Table 10. Data for Finance students, spilt by respondents taken form 1 and 2

	Finance form 1	Finance form 2
Average	54.05	55.89
Variance	182.59	26.21
No. of obs.	25	19
Variance/ no. of obs.	7.30	1.38

We assume that respondents have been randomly selected hence we believe that all observations are independent and that the covariance is equal to 0.

The sum of variance/number of observations is 8.683 and the corresponding standard deviation is therefore 2.9467. The difference of the means for "Finance form 1" and "Finance form 2" returns a μ equal to -0.6253. This gives us the following Z-value:

$$Z = \frac{-1.84 - 0}{2.95} = -0.625$$

Since we test the hypothesis that Finance students which have taken form 1 have higher expectations than students who have taken form 2 we use a one side Z-test. The Z-value corresponds to a p-value of 0.6406. We can therefore not reject the null hypothesis that Finance students that have taken form 1 have equal or lower expectations than students that have taken form 2.

Comparison between Economics students taken form 1 and 2

Table 11. Data for Economics students, spilt by respondents taken form 1 and 2

	Economics form 1	Economics form 2
Average	52.13	52.98
Variance	27.42	30.84
No. of obs.	22	21
Variance/ no. of obs.	1.25	1.47

The test statistics for differences between form 1 and form 2 for Economics students are as follows:

$$Average\ Economics\ 1 = \mu_1 \quad Average\ Economics\ 2 = \mu_2$$

$$H_0 : \mu_1 \leq \mu_2 \qquad H_0 : \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0 : \mu \leq 0$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \quad \mu = -0.85 \qquad \sigma_\mu = 1.65 \qquad Z = \frac{-0.85 - 0}{1.65} = -0.52$$

A Z-value of -0.52 is equal to a one side p-value of 0.5987. We are therefore unable to reject the null hypothesis as described above. Hence we cannot draw the conclusion that Economics student who have taken form 1 have higher expectations than Economics students taken form 2.

Comparison between Accounting students taken form 1 and 2

Table 12. Data for Accounting students, spilt by respondents taken form 1 and 2

	Accounting form 1	Accounting form 2
Average	60.76	52.74
Variance	118.31	42.31
No. of obs.	20	19
Variance/ no. of obs.	5.92	2.23

The test statistics for differences between form 1 and form 2 for Accounting students are given below:

$$Average\ Accounting\ 1 = \mu_1 \quad Average\ Accounting\ 2 = \mu_2$$

$$H_0 : \mu_1 \leq \mu_2 \qquad H_0 : \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0 : \mu \leq 0$$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \quad \mu = 8.02 \quad \sigma_\mu = 2.853 \qquad Z = \frac{8.02 - 0}{2.85} = 2.81$$

A Z-value of 2.81 is equal to a one side p-value of 0.00248. We reject the null hypothesis as described above. Hence we conclude that Accounting students who have taken form 1 have higher expectations than students taken form 2.

Comparison between SSE Bachelors taken form 1 and 2

Table 13. Data for SSE Bachelor students, spilt by respondents taken form 1 and 2

	SSE Bachelor form 1	SSE Bachelor form 2
Average	60.67	53.66
Variance	58.52	65.70
No. of obs.	65	65
Variance/ no. of obs.	0.90	1.01

The test statistics for differences between form 1 and form 2 for SSE Bachelor students are given below:

$$Average\ SSE\ Bachelor\ 1 = \mu_1 \quad Average\ SSE\ Bachelor\ 2 = \mu_2$$

$H_0 : \mu_1 \leq \mu_2 \qquad H_0: \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0: \mu \leq 0$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \quad \mu = 7.01 \quad \sigma_\mu = 1.38 \qquad Z = \frac{7.01 - 0}{1.38} = 5.072$$

A Z-value of 5.07 is equal to a one side p-value of 0.0000. We reject the null hypothesis as described above. Hence we conclude that SSE Bachelor students who have taken form 1 have higher expectations than students taken form 2.

Comparison between Medicine students taken form 1 and 2

Table 14. Data for Medicine students, spilt by respondents taken form 1 and 2

	Medicine form 1	Medicine form 2
Average	49.48	54.41
Variance	124.99	131.16
No. of obs.	65.00	59.00
Variance/ no. of obs.	1.92	2.22

The test statistics for differences between form 1 and form 2 for Medicine students at Karolinska Institutet are given below:

$$Average\ Medicine\ 1 = \mu_1 \quad Average\ Medicine\ 2 = \mu_2$$

$H_0 : \mu_1 \leq \mu_2 \qquad H_0: \mu_1 - \mu_2 \leq 0 \qquad \mu = \mu_1 - \mu_2 \qquad H_0: \mu \leq 0$

$$Z = \frac{\mu - \mu_0}{\sigma_\mu} \sim N(0,1) \quad \mu = -4.93 \quad \sigma_\mu = 2.04 \qquad Z = \frac{-4.93 - 0}{2.04} = -2.42$$

A Z-value of -2.42 is equal to a one side p-value of 0.99202. We cannot reject the null hypothesis as described above. Therefore we cannot draw the conclusion that Medicine student who have taken form 1 have higher expectations than Medicine students taken form 2.

Appendix 2

Survey forms

Hej,

Vänligen hjälp oss i arbetet med vår magisteruppsats genom att läsa igenom artikeln nedan och svara på några korta frågor på nästa sida. Undersökningen tar cirka 3 minuter. Vi uppskattar att Du tar dig tid!

Vänligen,

Alexander och Eric



ANALYS

SWECO

Även i tuffa tider tjänar teknikkonsulten Sweco bra med pengar. Nettokassan bäddar för förvärv och starka storägare är inte fel. Rekommendationen blir köp.

Köpvärd lönsam konsult

KÖP

Swecoaktien har följt Affärsvärldens generalindex under det senaste året och gått upp med 14 procent i år. I en fallande marknad tjänar Sweco fortfarande bra med pengar. Bolagets mål är att rörelsemarginalen ska uppgå till minst 12 procent. En marginal på 11,4 procent under det första kvartalet är inte riktigt i mål, men ändå imponerande. Men det kan gå fort utför i konsultbranschen och det har det gjort för konkurrenterna.

Vi tror att Swecos marginaler kommer att krypa under 10 procent i år och att omsättningen kommer att falla något. Räknat på våra prognoser handlas aktien till ett p/e-tal på 10 i år och 9 för 2010.

Med en nettokassa på 200 miljoner kronor är teknikkonsulten finansiellt stark och kan sätta i gång och förvärva igen när andan faller på.

Sweco är redan bra positionerade på de marknader som kommer att börja efterfråga bolagets konsulttjänster igen när det vänder.

Ska man äga en stor teknikkonsult blir valet lätt och inte bara med tanke på lönsamhet. Swecos storägare, familjen Nordström och Gustaf Douglas, är att föredra framför stiftelseägda Ångpanneföreningen. Vi rekommenderar köp på Sweco. I alla fall på ett till två års sikt. ■

AFFÄRSOMRÅDEN

Swecos verksamhet sträcker sig över många områden och bolaget är störst inom vatten, miljö, industri och energi.

NYCKELTAL

Mkr	2008	2009p	2010p
Omsättning	5 523	5 352	5 490
Marginal, procent	11	9	10
Vinst/aktie, kr	4,70	4,10	4,40
P/e, vid kurs 41,70 kr	–	10,0	9,0

Byggmarknadens fall tär på marginalerna.

UPPSIDA

En stark balansräkning och stora inslag av både miljö och energi i verksamheten inger hopp inför framtiden. Ledningen, med Mats Wäppling som vd, inger förtroende.

NEDSIDA

Fallande byggmarknad och en kylig industri kommer att tära på Swecos marginaler, trots att bolaget varit skickligt med att anpassa verksamheten efter rådande marknadsläge.

Detta tidningsutklipp kommer från tidskriften ”Affärsvärlden”. Swecos B-aktie handlas idag på Stockholmsbörsens Mid Cap lista. Under det senaste 12 månaderna har aktien fått köprekommendationer från ett flertal finansiella analytiker, däribland Affärsvälden, Veckans Affärer och Stockpicker. När kursen stod i 46,90 kr gav Stockpicker en köprekommendation med en riktkurs på **62,00** kr. Vid tidpunkten då denna enkät skrevs (25 augusti 2009) stod Swecos kurs i **46,80** kr.

Vänligen svara nu på följande frågor:

Kön: □ Man □ Kvinna

Lärosäte: _____

Inriktning (om någon):_____

År då utbildningen påbörjades:_____

Läser du regelbundet (flera gånger i månaden) finansiella nyhetsskrifter t.ex. Dagens Industri, DI.se, DN ekonomi, SVD näringsliv, Affärsvärlden, Veckans affärer etc.? □Ja □Nej

Har du någon gång arbetat med aktieanalys? □Ja □Nej

Skulle du i framtiden kunna tänka dig att arbeta med aktieanalys? □Ja □Nej

Kände du till företaget Sweco innan du läste den här enkäten? □Ja □Nej

Äger du/Har du ägt aktier i Sweco? □Ja □Nej

Har du följt Sweco på börsen de senaste åren? □Ja □Nej

Tror du Swecos aktiekurs kommer vara högre eller lägre än **62,00** (Stockpickers riktkurs) den 1 september 2010? □Högre □Lägre □På riktkurs

Tror du Swecos aktiekurs kommer vara högre eller lägre än **46,80** (kursen den 25 augusti 2009) den 1 september 2010? □Högre □Lägre □På nuvarande kurs

Vad tror du Swecos aktiekurs kommer att vara den 1 september 2010?:_____

Vilken percentil skulle du uppskatta att du tillhör betygsmässigt inom din årskull:

□ Topp 10% □ Topp 20% □ Topp 30% □ Topp 40% □ Topp 50% □ Topp 60% □ Topp 70%

□ Topp 80% □ Topp 90% □ Topp 100%

Tack för din medverkan!

Hej,

Vänligen hjälp oss i arbetet med vår magisteruppsats genom att läsa igenom informationen nedan och svara på några korta frågor på nästa sida. Undersökningen tar cirka 3 minuter. Vi uppskattar att Du tar dig tid!

Vänligen,

Alexander och Eric

Sweco – En företagsbeskrivning

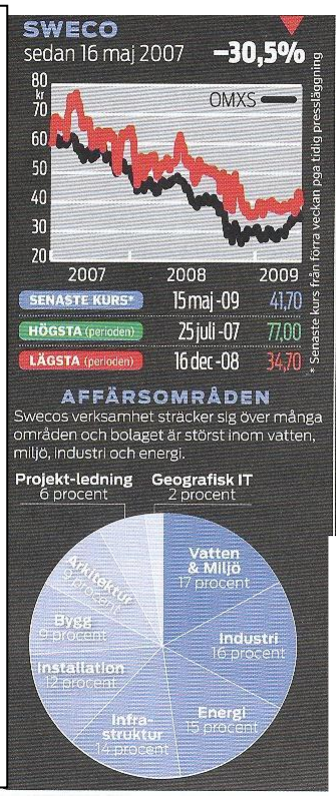
Sweco är ett internationellt teknikkonsultföretag som erbjuder kvalificerade konsulttjänster med högt kunskapsinnehåll. Uppdragen handlar om allt från förstudier, utredning och strategisk planering till design, konstruktion, projektering och projektledning. Våra ingenjörer, arkitekter och miljöexperter samverkar för att bidra till utvecklingen av ett hållbart samhälle.

I Sverige erbjuder Sweco ett brett utbud av tjänster inom arkitektur, byggkonstruktion, installation, infrastruktur, vatten & miljö, projektledning, energisystem, geografisk IT och industri.

Swecos tjänster efterfrågas inom ett stort antal marknadssegment, exempelvis tillverkningsindustri, processindustri, miljö, energi, infrastruktur, bygg, fastighet och transport. Bland de offentliga kunderna märks kommuner, statliga verk och myndigheter.

Från Sverige bedrivs en omfattande projektexport till länder i östra Europa, Afrika, Asien, Mellanöstern och Latinamerika. Sedan det första internationella uppdraget i Sankt Petersburg 1902 har Sweco utfört uppdrag i mer än 100 länder.

Sweco är medlem på Nasdaq OMX Stockholm AB.





Information och grafer är inhämtade från företagets hemsida samt från tidskriften Affärsvärlden. Swecos B-aktie handlas idag på Stockholmsbörsens Mid Cap lista. Vid tidpunkten då denna enkät skrevs (25 augusti 2009) stod Swecos kurs i **46,80** kr.

Vänligen svara på följande frågor:

Kön: □ Man □ Kvinna

Lärosäte: _____

Inriktning (om någon): _____

Antagningsår: _____

Läser du regelbundet (flera gånger i månaden) finansiella nyhetsskrifter t.ex. Dagens Industri, DI.se, DN ekonomi, SVD näringsliv, Affärsvärlden, Veckans affärer etc.? □Ja □Nej

Har du någon gång arbetat med aktieanalys? □Ja □Nej

Skulle du i framtiden kunna tänka dig att arbeta med aktieanalys? □Ja □Nej

Kände du till företaget Sweco innan du läste den här enkäten? □Ja □Nej

Äger du/Har du ägt aktier i Sweco? □Ja □Nej

Har du följt Sweco på börsen de senaste åren? □Ja □Nej

Tror du Swecos aktiekurs kommer vara högre eller lägre än **46,80** (kursen den 25 augusti 2009) den 1 september 2010? □Högre □Lägre □På nuvarande kurs

Vad tror du Swecos aktiekurs kommer att vara den 1 september 2010?: _____

Vilken percentil skulle du uppskatta att du tillhör betygsmässigt inom din årskull:

□ Topp 10% □ Topp 20% □ Topp 30% □ Topp 40% □ Topp 50% □ Topp 60% □ Topp 70%

□ Topp 80% □ Topp 90% □ Topp 100%

Tack för din medverkan!

Appendix 3

E-mail distributed to teachers at the departments of Finance, Accounting and Economics.

[Subject]: Your opinion about the efficient market hypothesis

Hi,

We are two students that would appreciate greatly if you have time to answer a short yes or no question.

We are currently writing our thesis at SSE, as a part of our thesis we are doing a short survey regarding teachers at different departments at school. We have visited the departments and asked the questions in person. Although we have received many answers from you colleagues we have unfortunately not been able to reach you during office hours. We would greatly appreciate if you took time to **answer the following question with a yes or no**:

Do you believe in the semi strong hypotheses about an efficient market (stock market of today)?
Note: With a semi strong market we mean that all public information is priced in the security and accordingly one cannot make any excess return by studying fundamental analysis.

We are thankful for your contribution!

Kind regards

Alexander and Eric