



SSE ALUMNI ECONOMIC FORECAST
Spring 2010

SSE Alumni's Expectations about Economic Developments

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PREFACE

As society changes and patterns of economic development – across regions, countries, markets, companies and other organizations – become more complex and intricate, there is a general wish for reliable and valid indicators of what is going on and where economic development is heading. Indicators are aplenty, but few meet these criteria. Therefore there is a general quest for alternative indicators, new ones that may supplement the existing ones.

This study represents a first step toward developing new indicators of economic developments, focusing on expectations among the alumni of the Stockholm School of Economics about the next six months, to be surveyed once a year. Whether the task will be successful or not will only be possible to determine later on, when the indicators can be related to actual developments. The study also aims at explaining how these expectations are formed – what influence the expectations.

The expectations are also of interest in their own right, since they show how a specific group of professionals, of which many are rather influential in Swedish businesses and in the society, view the future, which influences their decisions and which may – after being made known – influence other decision makers.

In addition to the questions concerning expectations about future economic developments, each survey will focus on a topical issue. The survey that this report is based upon included questions about equality and diversity in work life, questions that will be analyzed and reported in separate reports.

This project is the result of my collaboration with Carina Aspenberg, Director of Communications at the Stockholm School of Economics. As she is a SSE alumnus who majored in economics and subsequently spent much of her professional career in marketing, it goes without saying that I very much appreciate her advice and ideas.

Many thanks also to Professor Örjan Sjöberg for your numerous valuable comments and linguistic suggestions, to Professor Lennart Sjöberg, Professor Per Davidsson, Docent Patric Andersson, PhD Per Hedberg, PhD Erik Lakomaa and other colleagues providing me with valuable comments and suggestions.

I would also like to thank the more than 1,600 SSE alumni who participated in the first survey. This report as well as future reports is fully depending on your cooperation and willingness to participate.

Stockholm, November 2010

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1. BACKGROUND AND PURPOSE

The SSE Alumni¹ Economic Forecast Spring 2010 is based upon an Internet survey among all alumni from the Stockholm School of Economics. It was carried out during two weeks, starting on April 9 in 2010. The alumni were asked five questions about their expectations concerning the development of the world economy, the outlook for the Swedish economy, the economic prospects of the firms or organization they work for (their employer), its market conditions, and its investments over the next six months.

As already mentioned, the respondents are former students at the Stockholm School of Economics. This implies that they have professions based on higher education in business and economics. They are also likely to have pursued careers that put them in close contact with the realities behind the numbers typically used to assess the progress of the economy. They could thus be expected to bring considerable insight into economic circumstances and developments, and an analytically capacity to match.

SSE alumni are also to a greater extent than a random sample of the Swedish population working as decision makers in businesses and in societal organizations, or influencing such decision makers. As a group, they therefore directly and deliberately influence the economic developments of markets, firms and the society more broadly.

True, to an extent they may already be surveyed by SCB and others, but by bringing their views and insights together in one dedicated survey the expectations of this well-informed and influential group of professionals will become more easily accessible. The SSE Alumni Economic Forecast surveys should thus be viewed as supplementing these other surveys and resulting indicators, extending them to include the voice of an exceptional experienced and influential group of professionals.

The intention is to conduct this survey twice a year with the following two purposes, one practical and one theoretical, in mind:

- a) To provide supplementary indicators of the development of the world and the Swedish economies, of businesses and other organizations, and of investments in the near future (six months).
- b) To arrive at a better understanding of the causes behind expectations concerning economic developments among economically skilled professionals, and – once some time has passed – how these expectations are related to economic developments.

Since economic forecasts for the near future, in this case six months, *per se* is of short-term value, this report focuses on presenting the statistics, with only rather short comments. The invitation to answer the survey was sent to 10,973 SSE alumni with known e-mail addresses, of which 1,624 (14.8 percent) responded with usable answers. Being a busy population and using email to reach them, the response rate cannot be expected to be much higher than this. A description of the respondents follows.

¹ Graduates from the Stockholm School of Economics.

1.1. Description of the respondents

Characteristics	Percent	n
<i>Gender</i>		
Males	66.2%	1052
Females	33.8%	536
<i>Working in what industry</i>		
Banking, finance or insurance	27.1%	425
Management consulting	14.7%	231
Industrial production	9.6%	151
Service industry (tourism, security, transport, entertainment, recruitment, etc.)	8.4%	131
Research and/or education	7.8%	122
Marketing and communications	7.7%	121
IT/telecom	6.6%	103
Public sector, politics	6.2%	97
Retail, distribution	5.9%	92
Media	3.0%	47
Accounting, auditing	3.0%	47
<i>Size of employer within its industry</i>		
Small	29.7%	461
Midsized	26.1%	405
Large	44.3%	688
<i>Extent employer is commercial – non-commercial</i>		
100% commercial	30.6%	423
75-99% commercial	47.4%	655
50-74% commercial	6.7%	92
25-49% commercial = 50-74% non-commercial	2.8%	39
1-24% commercial = 75-99% non-commercial	6.4%	88
100% non-commercial	6.1%	84
<i>Position (not exclusive: overlapping possible)</i>		
Board member	16.1%	246
Top management	32.2%	491
Management team (“stab”)	24.8%	378
Business area manager	10.0%	378
President of a subsidiary	2.9%	45
Department head	9.4%	143
Self-employed, entrepreneur	26.0%	415
Retired	9.3%	148

Characteristics	Per cent	n
<i>Responsibility for personnel and/or budget</i>		
Responsible for a budget and personnel	41.4%	643
Responsible for a budget	14.8%	230
Responsible for personnel	6.7%	104
Neither	37.1%	576
<i>Salary</i>		
Less than 400,000 SEK in 2009	16.7%	255
400.000 – 1,000,000 SEK in 2009	51.2%	782
More than 1,000,000 SEK in 2009	32.0%	489
<i>When born</i>		
Before 1940	5.1%	81
1940-1949	11.3%	179
1950-1959	16.6%	264
1960-1969	18.5%	293
1970-1979	30.0%	476
1980-1989	18.6%	295
<i>Graduated from SSE</i>		
Before 1960	2.1%	33
1960-1969	7.0%	111
1970-1979	14.5%	229
1980-1989	15.0%	237
1990-1999	23.2%	365
2000-2009	38.1%	601
<i>Total number of respondents</i>	100%	1624

2. THE SSE ALUMNI ECONOMIC FORECASTS SPRING 2010

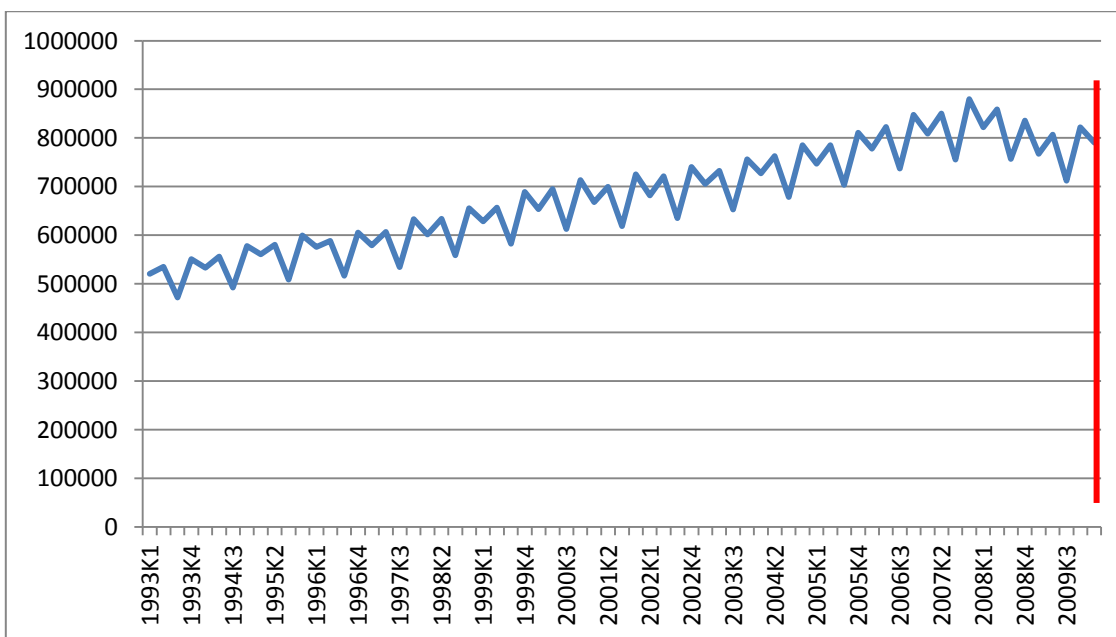
In this chapter is presented descriptive statistics of expectations of the developments of the world and the Swedish economies, and expectations concerning the economic developments of companies/institutions, their markets and their investments.

2.1. Actual Swedish GNP development preceding the survey

The survey was conducted in April 2010, i.e. right after the first quarter in 2010. Figure 1 shows the actual development of the Swedish GNP² from 1993 until the first quarter in 2010, and the red vertical line is the time of the survey. The figure shows that Sweden experienced a general decline after the third quarter 2008, when the financial crisis erupted, until the fourth quarter 2009. The peak before then was the fourth quarter 2007. In the first quarter 2010 GNP was three percent higher than in the first quarter 2009.

When it comes to expectations, the latest experienced GNP development and the ongoing development may play a role. In addition to the above general development of the GNP, seasonal variations may also be observed and reacted upon, as indications of possible future development. The latest development before the survey was a heavy drop in BNP in the third quarter 2009 with 11.7 percent, followed by an increase with 15.4 percent in the fourth quarter 2009, in turn followed by a reduction of 3.8 percent in the first quarter 2010, right before the survey. Although these variations are partly seasonal, they may play a certain role for individuals in their total experiences of the development of the Swedish economy.

Figure 1: Actual GNP development in Sweden 1993 – first quarter 2010 (mil. SEK) and the time of the survey (red line)



² Measured production, calendar adjusted, fixed prices with 2009 as reference year. Source: SCB (2010).

2.2. Views on the economic developments in the world and in Sweden

As can be seen from Figures 2 and 3 below, a great majority of the respondents were optimistic both about the development of the world economy (71 percent; $\bar{x}=60.2$; $s=15.2$; $n=1618$) and the development of the Swedish economy (77 percent; $\bar{x}=64.0$; $s=14.6$; $n=1623$) in the next six months. Only 17 percent were pessimistic as to the world economy and 11 percent as to the Swedish economy. This indicates that managerial decisions henceforward will have more focus on expansion.

The questions were answered during two weeks from April 9, i.e. just before the Swedish media began to report about the economic crisis in Greece and some other European countries. On the other hand, international media had begun writing about the problems already in 2009, for example Christopher Booker and Ambrose Evans Pritchard in *The Telegraph* and Wolfgang Munchau in *Financial Times*. Thus, for decision makers in business and society, the crisis should not have come as a complete surprise.

Figure 2: Are you optimistic or pessimistic regarding the world economic development in the next six months?

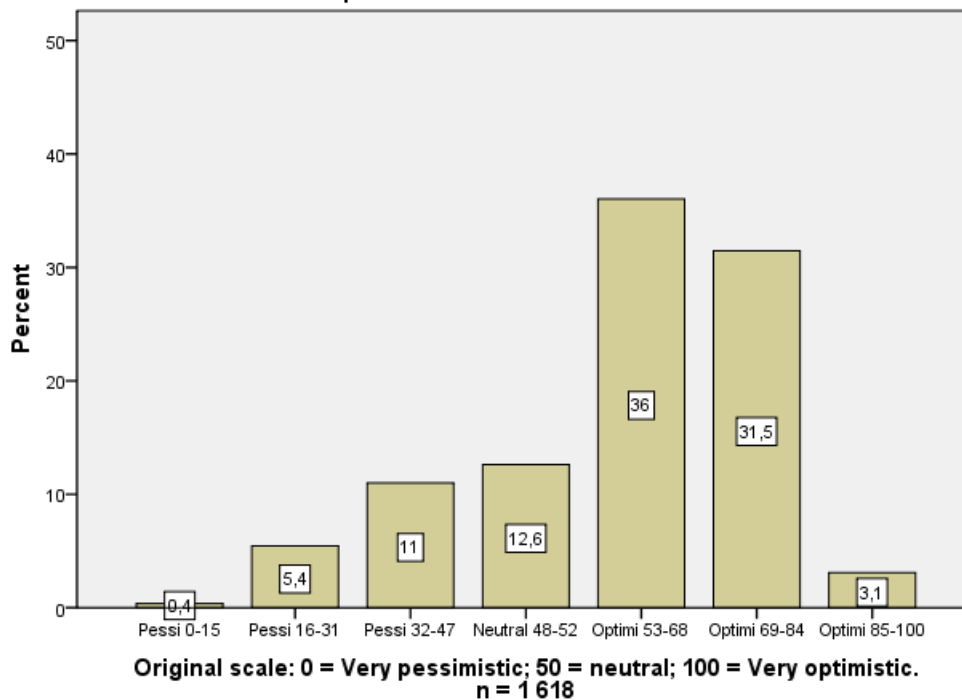
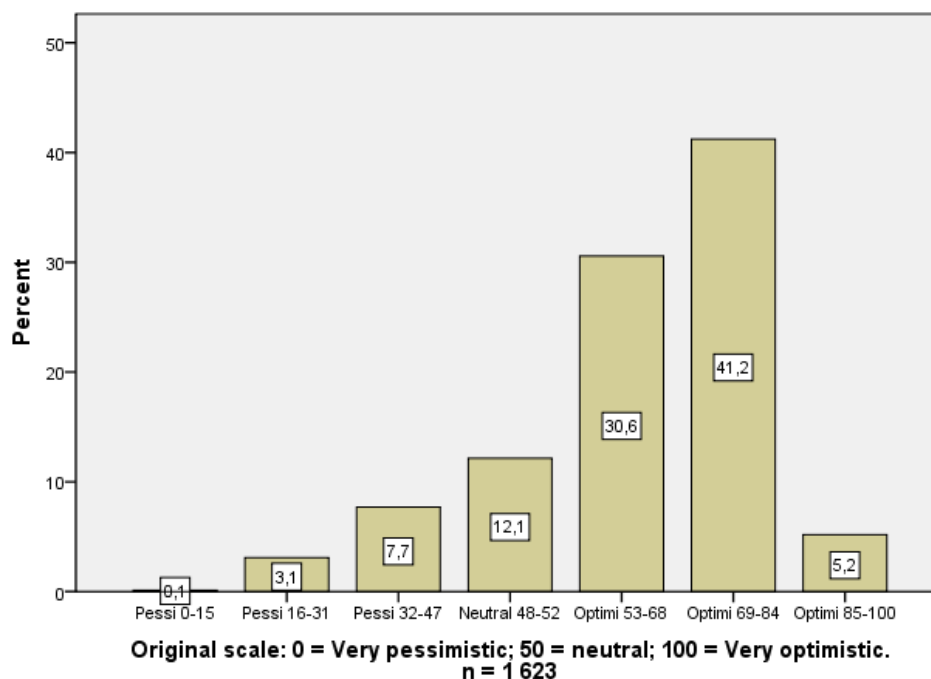


Figure 3: Are you optimistic or pessimistic regarding the economic development in Sweden in the next six months?



The findings also mean that the respondents are to a greater extent optimistic and to a lesser extent pessimistic about the Swedish economy than about the world economy³. It could indicate that the respondents have a stronger belief in the inherent domestic forces behind the Swedish economy, than on its dependence on the world economy.

There is, however, a possible psychological explanation, namely that people are more optimistic about things more closely related to them. It is well known that people tend to exaggerate their own chances of success (Weinstein, 1980) and downplay risks to themselves (Sjöberg, 2003).

2.3. Expectations concerning one's employer, its market and its investments

The economic development of a company should heavily depend on the development of its market conditions, such as the demand and competition in its market(s). As shown in figure 4 below, a majority of the respondents were optimistic concerning the development of their company's market conditions during the next six month (65 percent), and less than 12 percent were pessimistic ($\bar{x}=6.3$; $s=1.7$; $n=1565$).

As to the economic development of their company/employer, 70 percent of the respondents were optimistic and only 11 percent were pessimistic ($\bar{x}=6.5$; $s=1.8$; $n=1576$). This seems to follow the expectations as to market conditions rather well at the macro level (for micro level correspondence, see chapter 3 below). The results are also quite comparable with the optimistic views on the world and the Swedish economies, despite the fact that the scales differ, the latter two being the tenth power of the other ones.

³ Paired sample t-test: $t = -12.6$, $p < 0,001$.

Figure 4: Are you optimistic or pessimistic regarding your company's market conditions (demand, completion, etc.) in the next six months?

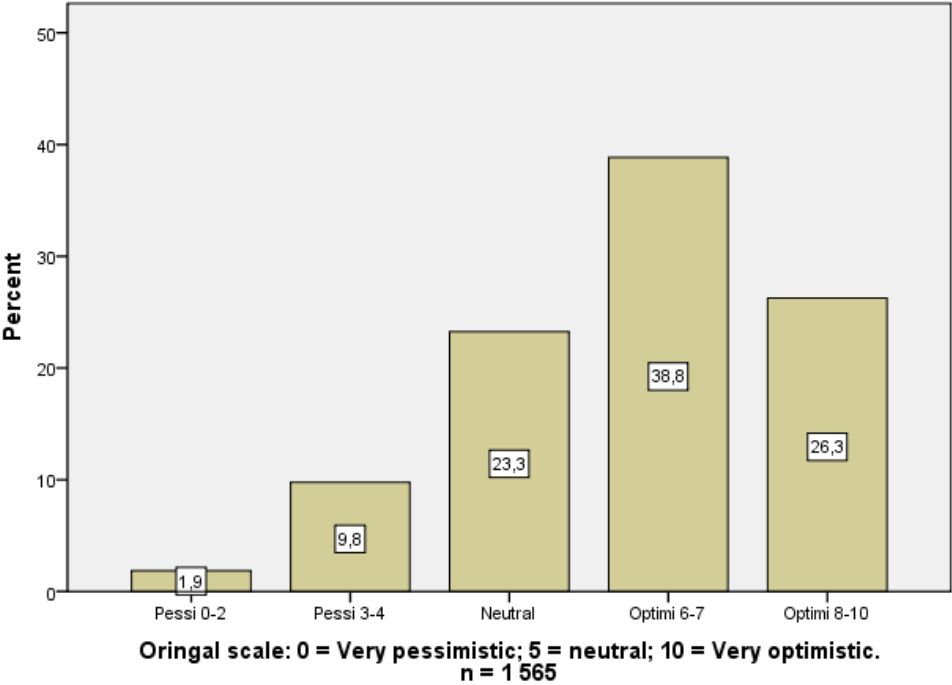
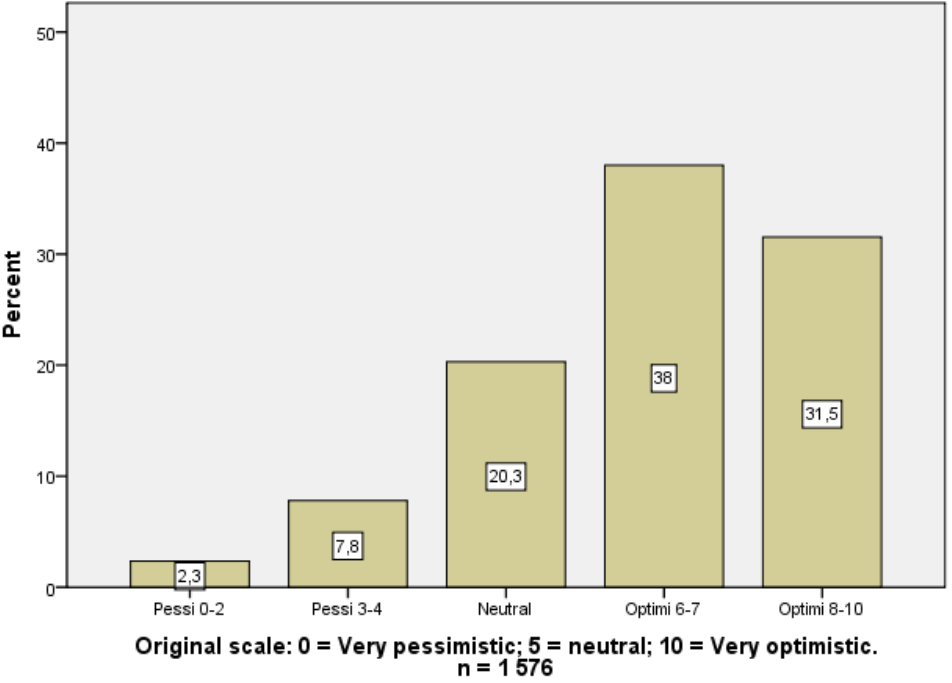


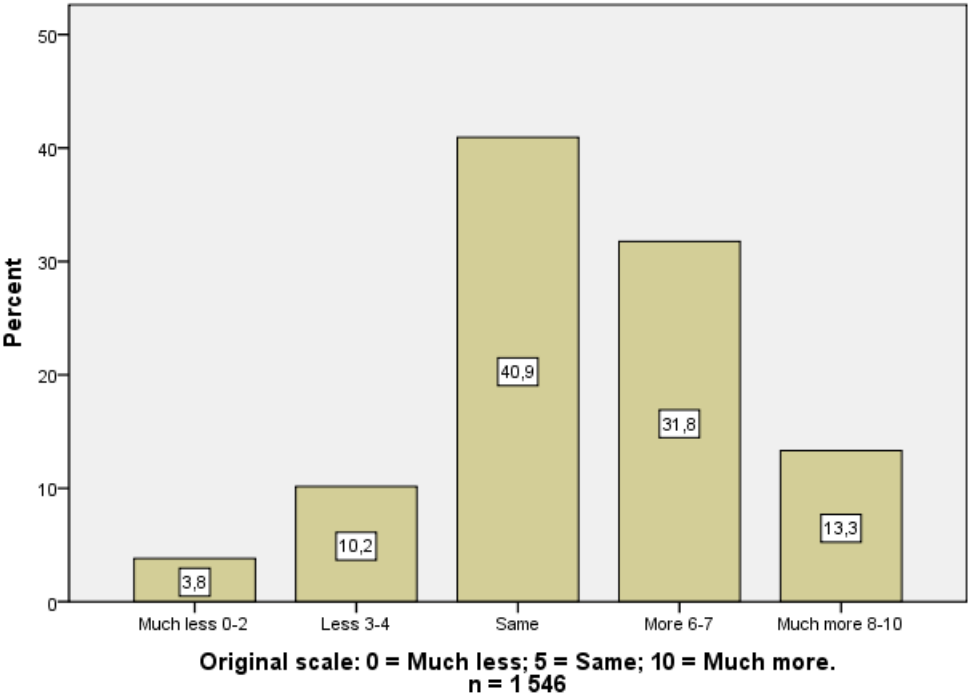
Figure 5: Are you optimistic or pessimistic regarding your company's economic development in the next six months?



In the long run, a company's earlier investments should have a positive effect on its economic development. However, in the short run, investment decisions are often at least partly based on how the economic development of the company is perceived at present.

Figure 6 shows that the respondents do not believe that investments will increase to the same extent as they are optimistic about their company's economic development: 45 percent expect their employer to increase its investments, 41 percent that investments will continue at the same level as at present, and 14 percent that their investments will be reduced. A possible explanation is that as production increases, the companies will first use idle resources.

Figure 6: Do you expect your company to increase or reduce its investments in the next six months? I believe it will invest ...



3. WHAT EXPLAIN THE ECONOMIC EXPECTATIONS?

The research questions dealt with in this chapter are the following: What are the causal relations between the different economic expectations, to what extent do the respondents base their expectations on the assumed causal reasoning, and what other variables may influence the expectations?

First in this chapter are discussed why and how different economic expectations may be causally related to each other. Then other variables that may influence these expectations are presented and discussed. Thereafter follows an analysis of the correlations between the expectation variables, and then analyses of what explain each expectation, using cross tabulations (the categories optimistic, neutral or pessimistic) and regression analyses. Only statistically significant results will be presented and commented.

3.1. Hypothesized causal relations between economic expectations

As mentioned earlier, market conditions such as demand and competition should greatly influence the economic development of a company. This development in turn should affect investments, since investment decisions are often based on how the company's economic situation is developing. In the long run, however, investments should also have an effect on the economic development of the company. Since what has been measured in this survey are *expectations* about these things in the next six months, it is here assumed that the expected investment decisions during these months will depend on the companies' expected economic development during the same period, not the opposite.

A company's market conditions should in turn be influenced by the economic development in the country or countries where the company's markets are, which in turn should be affected by the world economic development due to the demand it generates or impairs. There may also be direct effects from the economic developments in the world and in the country on companies' economic developments, in addition to the market effects, since a company is dependent on other things such as availability and costs of risk capital and competence (labor), as well as pull effects from customers' markets (in business-to-business).

For the regression analyses, each expectation variable was divided into two variables, one with all the pessimistic answers (-50 to -1, or -5 to -1, respectively), and one variable with all the optimistic answers (1 to 50, or 1 to 5, respectively). The reason is that the reasoning behind an optimistic, neutral (however there is no variance in such an expectation to be explained) and a pessimistic expectation may differ. It is also well known that people view and react differently to negative and positive outcomes (see e.g. Wahlund 1989/2002 on *prospect theory* and *reference points*, among other things), which means that the influence of explanatory variables may differ in size and even direction.

3.2. Other variables assumed to influence economic expectations

In addition to the above discussed assumed causal relations between the different economic expectation variables, also other variables are assumed to influence the expectations. However, this influence may not be constant. An example: If one branch is doing well while another is not, people working in the former will have more positive expectations to economic development than those working in the latter, but this may have changed to the opposite at some later time. The influences of these two industries then change signs.

Gunnarsson and Wahlund (1997) also found in a national study of Swedish households' financial behavior that different types of households, defined by the 'financial strategy' they exhibited through their actual financial behavior, had different judgment and decision styles or processes. In a later study, Gunnarsson, Wahlund and Flink (2000) found that households change their financial strategy over time, and consequently also the way they make economic judgments and decisions from one time to another.

In some surveys carried out by Wahlund (e.g. 2002a, 2002b) during three years around the millennium, with the same target population as in this study – SSE alumni – it was found that correlations among economic expectations varied over time as the actual economic conditions in the country and in the world varied, also indicating that people reason differently in different economic times. It has also been found that experts and novices reason and solve problems differently (discussed below).

A tentative conclusion drawn from all this is that different people use different judgment and decision criteria or information in different ways depending on the actual or perceived (economic) situation. This means in turn that we should expect different relationships among judgment and decision variables, and variables explaining these, over time as the actual or perceived economic situation(s) varies.

George Katona (1974) expressed a similar idea: "... the behavioral scientist assumes that under conditions a_1, b_1, c_1 a set of stimuli would elicit one response whereas under conditions a_2, b_2, c_2 the same set of stimuli would elicit a different response. Attitudes and expectations, which as intervening variables modify the response, are subject to change according to time and circumstances. Instead of searching for a single necessary response to change in income, prices, or interest rates, the behavioral scientist studies circumstances under which a stimulus will produce the same or a different response."

Whether this is true or not as to expectations about investments and economic developments among SSE alumni will only be possible to test when there are many surveys with the same questions carried out over time, at different times with differing conditions, which we hope to accomplish, with this being the first one. Notably, there exist numerous panel studies which could be used for the same purpose, although not for the same population as this study.

Below is presented the variables measured in this study and believed to influence the economic expectations studied. However, as a consequence of the above reasoning and lack of theories about different judgment and decision styles or processes among

different groups of people (especially different professionals trained in economics and business administration like the SSE alumni) at different points in time (under different general economic conditions), there are no hypotheses as to the direction of influence (positive or negative), or even of any influence at all, *at the particular time at which this survey has been carried out*, since these influences are expected to vary over time.

One's position: Being on the board of a company or belonging to the top management means that you are highly responsible for how the company is run, having to make decisions how to respond to changing market conditions and economic developments in the country and in the world. These decisions require that you are well informed about such things. Although quite a few others may also be well informed, having the responsibility may make you evaluate, view and use the information differently, which has been shown by for example Brehmer (1992), Brehmer and Dörner (1993), Montgomery, Lipshitz and Brehmer (2004), and Salas and Klein (2001), and possibly also – as has been mentioned above – differently from time to time.

One's operational responsibility: In addition to board and top management responsibility, there are other positions that are in enhanced need of foresight: those having responsibility for a budget or for personnel. Such responsibilities may also affect one's expectations.

Industry: Business trends differ between markets and industries. Expectations as to economic development should thus differ between people working in different industries, but differently from time to time depending on the present trend in the specific industry at a specific time. Those industries that have been measured in this survey are the same as in Handelshögskolans Imagebarometer (Wahlund 2010): banking/finance/insurance, retail and distribution, management consulting, marketing and communications, industrial production, media, public sector and politics, research and/or education, IT/telecom, accounting and auditing, and finally other service production (tourism, security, transport, entertainment, recruitment, etc.).

Type of market/organization: Noncommercial organizations have different types of “markets” and thus different market conditions than commercial companies. How for example the Swedish and world economies develop may thus play a different role depending upon how much of the turnover that is commercial or noncommercial, which in turn may affect expectations as to the economic development of and investments by the organization. What has been measured is the extent to which one's organization's activities is noncommercial (the estimated part of the turnover).

Size of company/organization: A small company or organization, focusing on a niche market, usually has less risk diversification than larger companies. Being at a higher risk may affect the employees' expectations as to economic and market developments and possibilities for their company/organization to invest, but differently depending on actual or perceived economic situation for the organization.

Self-employed: Self-employed have the same kind of responsibility as top management, but are also (main) owners of the company they work for, thus taking somewhat

different risks. Many studies also show that self-employed or entrepreneurs differ from the average person.

Beugelsdijk and Noorderhaven (2005) studied, among other things, personality characteristics of self-employed. Based on a large sample of almost 15,000 individuals they found that entrepreneurs are more individually oriented than the rest of the population. Individual responsibility and effort were distinguishing characteristics. Collins et al (2004) found that self-employed were likely to be more achievement orientated than others.

Douglas and Shepherd (2002) studied the relationship between career choice and people's attitudes toward income, independence, risk, and work effort. Among other things, the strength of intention to become self-employed was significantly related to the respondents' tolerance for risk and their preference for independence. Assuming greater responsibility, being more achievement oriented and putting in more personal efforts, being more tolerant towards risk and having a higher need for independence may make self-employed reason about possible economic developments and investments differently from others.

Gender: Males are usually found to be more risk seeking than females (e.g. Davidson and Freudenburg 1996; Gunnarsson 1999), and Wahlund (1989/2002) found that there was a significant difference in how male and female SSE students used information to test hypothesis. In a study of why males are usually more risk seeking than females, Harris et al (2006) found that females to a greater extent expects negative outcomes and have lesser expectation of enjoyment than males, and that these factors partially mediated their lower propensity toward risky choices in gambling, recreation, and health domains. In this case, females could thus be expected to have more negative expectations than males and to reason differently about possible economic developments and investment plans.

Years as a professional/amount of experience: Experts are known to solve problems qualitatively differently than novices. The differences occur because experts and novices use different representations and strategies to reason about and solve problems, the experts having many more specific representations stored in memory that they can bring to bear on a problem (e.g. Chase and Simon, 1973; Simon and Gilmarin, 1973). When confronted with a new problem, an expert usually represents a problem in terms of the physical principle needed for the solution, whereas the novice usually represent the same problem in terms of its surface features (Chi, Glaser and Rees, 1982).

In studies of physics problem solving, experts generally tried to formulate a plan for attacking the problem before generating the equations, while novices typically started to write equations with no general plan in mind (Larkin, McDermott, Simon and Simon, 1980). Experts have also been found to generally reason from the givens of a problem towards solution, a working-backward strategy, whereas novices most often reason in the reverse direction, a working-forward strategy (Patel and Groen, 1986).

Ericsson et al (2007) found that outstanding performance is the product of years of deliberate practice and coaching, not of any innate talent or skill. Thus, the more years of professional experience, the more expert one should be. As a consequence, the reasoning behind expected development in the world and the Swedish economies as well as the expected market and economic development of one's company should change as professionals acquire more experience and expertise.

On the other hand, studies on clinical inference have shown that people do not always improve their judgments with experience. Brehmer (1980) argued that "the expectation that they will improve is mistaken and founded on an incorrect conception of the nature of experience. Changing this conception towards a more adequate one along the lines suggested by Popper ... leads to a far more pessimistic view about people's ability to learn from experience, a view that is in closer correspondence with the facts from studies on clinical judgment." Brehmer also reviewed results from psychological studies about people's ability to learn from experience in probabilistic situations. According to these studies, people have a number of biases which prevent them from using the information provided by their experience. (See also Wahlund, 1989/2002).

Kahneman and Klein (2009) showed that research about naturalistic and heuristic judgments and decision making have come to different conclusions: experts often misjudge without knowing it (Kahneman), but they may at the same time make subtle and very effective intuitive judgments (Klein). The authors explained these differing results by observing that experts function well in situations where what is to be judged *can* be judged, the relevant information needed is available, and that the experts get feedback so that they can learn from their decisions. When reality is too complex or random, there is no learning, and experts do not do well. It concerns for example the development of stock exchange rates and political decisions. The experts are still usually very convinced that their judgments are correct.⁴

Salary: In part, one's salary should reflect one's position, experience and expertise, but it may also indicate how vulnerable one is to changes in economic conditions, or how much one focuses on economic incentives. Salary may thus have an influence on how one reason about possible economic developments and investments.

3.3. Correlations between the different expectations

Table 1 shows that there are significant positive correlations between all expectation variables, some quite high. The highest correlations are found between the expected development of one's company's market conditions and the company's economic situation ($r=0.69$), and between the expected development of the world and the Swedish economies ($r=0.67$).

The second highest correlations are between one's company's expected investments during the next six months, and the expected development of one's company's market

⁴ See Lennart Sjöberg's blog: <http://lennartsjoberg.blogspot.com/search/label/Expertbed%C3%B6mning>

conditions ($r=0.41$) and economic situation ($r=0.48$), respectively. These findings are in line with the assumed causal relations between the variables.

Table 1: Correlations between the five expectation variables

Pearson correlations (r)		The economic development in Sweden in the next six months	One's company's economic development in the next six months	One's company's market conditions in the next six months	One's company's investments in the next six months
The world economic development in the next six months	R Sig. (2-tailed) N	.666** .000 1618	.276** .000 1571	.308** .000 1560	.163** .000 1541
The economic development in Sweden in the next six months	R Sig. (2-tailed) N		.265** .000 1576	.279** .000 1565	.130** .000 1546
One's company's economic development in the next six months	r Sig. (2-tailed) N			.693** .000 1560	.475** .000 1535
One's company's market conditions in the next six months	r Sig. (2-tailed) N				.405** .000 1533

3.4. Explanations to investment expectations

Table 2 below shows the following as to what makes SSE alumni expect reduced, no change in or increased investments by their employer during the next six months (only statistically significant results will be reported):

As to *industry*: Those working in the management consulting industry are to a lesser extent expecting reduced investments, to a greater extent increased investments, and to a lesser extent no change in investments than the population as a whole. Those working in the public sector or with politics, and those working with research/education (mostly within the academics) are to a greater extent expecting reduced investments, to a lesser extent increased investments, and to a greater extent no change in investments than the population as a whole. There is also a significant correlation between the extent to which one's employer is non-commercial and investment expectations. The more commercial, the more increased or less reduced investments are expected ($r=0.18$, $p<0.001$).

As to *size of company*: Those working in small companies/organizations expect increased investments to a lesser extent and no change in investments to a greater extent than bigger firms and than the population as a whole. Those working in large companies/organizations expect increased investments to a greater extent and reduced investments to a lesser extent than smaller firms and than the population as a whole.

As to *salary*: The higher the income, the more respondents expecting increased investments, and the fewer expecting no change in or reduced investments. Those with a high income are thus optimistic about investments to a greater extent than those with a lower income.

As to *years of professional experience*: Although there is a positive correlation between number of years as a professional and salary ($r=0.14$, $p<0.001$), lower than expected, as well as between salary and expected investments (see Table 1), there is a negative correlation between number of professional years and expected investments ($r=-0.17$, $p<0.001$). These two factors thus seem to counteract each other.

Table 2: Expectations as to one's company's/organization's investments among subgroups (i.e. other variables assumed to influence expectations)

Variables	Expected reduced investments	No change expected	Expected increased investments	Chi ² and <i>p</i>	n
Total population	14.0%	40.9%	45.1%		1546
Industry					
Management consulting	9.2%	33.7%	57.1%	31.4 <0.001	415
The public sector, politics	20.0%	58.8%	21.2%	21.9 <0.001	85
Research or education	28.4%	47.4%	24.1%	34.2 <0.001	116
Size of company/organization				18.1 0.001	1508
Small	15.8%	44.9%	39.3%		443
Midsized	16.3%	39.0%	44.6%		392
Large	10.8%	38.5%	50.7%		673
Salary				29.7 <0.001	1477
Less than 400' SEK per year	18.9%	46.7%	34.4%		244
400' - < 1,000' SEK per year	12.8%	42.6%	44.6%		758
> 1,000' SEK per year	12.4%	33.3%	54.3%		475

Regression analysis of investment expectations

Table 3 shows the results from two stepwise regression analyses, with expected investments by one's employer during the next six months as dependent variable and the above presented possible explanatory variables as independent variables, including the other expectation variables. Those expecting an increase in investments and those expecting a reduction in investments have been analyzed separately since there may be different reasoning or judgment processes behind the two types of expectations, something that is supported by the results.

It should be pointed out that a regression analysis tests only direct effects from the independent variables on the dependent one. However, causal influence may also be indirect, thru intervening variables, i.e. via the variables that are found to have significant direct effects. A hint as to such influences may be found by studying the regression analyses results for the expectation variables (sections 3.5 – 3.8) that have been found to directly influence other expectation variables. The findings from the cross tabulations also indicate if there are significant total effects from explanatory variables on the dependent ones.

Findings as to *expecting increased investments*: One's employer's investments are expected to increase more the more optimistic one's view is of the economic development of one's employer (company or organization), of its market conditions, if one is a board member or a CEO, and if one is in the management consulting or service industry. One's employer's investments are expected to increase less if one has budget responsibility and the more number of years one has been a professional (an SSE alumnus). Thus, younger professionals are more optimistic than older ones.

That the development of the market conditions is somewhat more important than the economic development of one's employer indicates that one believes that the latter will wait a little longer than the former, which is in line with the hypothesized causal direction. It should also be observed that having budget responsibility and more years of professional experience were found to lessen the optimistic views as to investments.

Findings as to *expecting reductions in investments*: One's employer's investments are expected to be reduced more the more pessimistic one's view is on the economic development of one's employer (company or organization) and of its market conditions. Pessimistic researchers and teachers (most likely in academics) are also more pessimistic than other pessimists. That these are the only significant explanatory variables for pessimistic investment expectations is intriguing, but other variables may have indirect effects.

Table 3: Regression analyses of expected change in investments: reduced and increased investments, respectively

Dependent variables: bold Independent variables	Regression coefficients	β	t values	Sig. (p)
Firm's investments expected to <i>increase</i> Scale: 1 Little increase – 5 Much increase	Adj. R ² = 0.17; d.f. = 541; F = 15.1; p < 0.001			
Optimistic views on company development	0.13	0.16	2.93	0.004
Optimistic views on market development	0.18	0.22	4.03	<0.001
Having budget responsibility	-0.25	-0.10	-2.29	0.023
Number of years as professional	-0.02	-0.17	-3.83	<0.001
Being CEO or board member	0.31	0.12	2.69	0.007
Working in the marketing industry	-0.42	-0.10	-2.35	0.019
Working in the management consulting industry	0.27	0.11	2.56	0.011
Working in the service industry	0.37	0.08	2.02	0.044
Constant	1.85		8.33	< 0.001
Firm's investments expected to <i>decrease</i> Scale: -1 Little decrease – -5 Much decrease	Adj. R ² = 0.19; d.f. = 175; F = 15.0; p < 0.001			
Pessimistic views on company development	0.31	0.30	3.84	< 0.001
Pessimistic views on market development	0.19	0.16	2.10	0.037
Working in research and education	-0.50	-0.15	-2.18	0.031
Constant	-1.51		-15.4	< 0.001

3.5. Explanations to expectations as to companies' economic developments

Table 4 below shows the following as to what make SSE alumni have an optimistic or pessimistic view of their employers' economic developments during the next six months (only statistically significant results will be reported):

As to *gender*: Males were found to be optimistic to a greater extent and pessimistic to a lesser extent than females as to the economic development of their employer. This is in line with earlier findings of gender differences (reported above).

As to *industry*: Those working in the management consulting, in the retail and distribution and in the IT/telecom industries have optimistic views to the economic development of their employers to a greater extent and pessimistic views to a lesser extent than others. Those working in the industrial production industry are optimistic to a greater extent, neutral to a lesser extent, but as pessimistic as others. Those working in the public sector/with politics and with research and education (mostly in the academics) are optimistic to a lesser extent, and neutral and pessimistic to a greater extent than the population as a whole.

There is also a significant correlation between the extent to which one's employer is non-commercial and the expectation as to the employer's economic development: The more non-commercial the employer's operations are, the more pessimistic/less optimistic expectations as to the employer's economic development ($r=0.24$, $p= <0.001$).

As to *size of company*: The smaller the company/organization, the fewer with an optimistic view on their employer's economic development, and the more neutral respondents. Pessimists are about the same number independent of the size of the employer.

Table 4: Expectations as to one's company's/organization's economic development among subgroups (i.e. other variables assumed to influence expectations)

Variables	Pessimistic view	Neutral	Optimistic view	Chi ² and <i>p</i>	n
Total population	10.2%	20.3%	69.5%		1576
Gender				7.58 0.023	1547
Females	13.0%	20.2%	66.9%		525
Males	8.6%	19.9%	71.5%		1022
Industry					
Management consulting	7.6%	17.5%	74.9%	6.07 0.048	423
Retail/distribution	3.3%	13.2%	83.5%	8.59 0.014	91
Industrial production	11.3%	12.0%	76.7%	6.23 0.044	150
Public sector, politics	16.9%	54.2%	28.9%	79.23 <0.001	83
Research and education	21.7%	38.3%	40.0%	58.81 <0.001	120
IT/Telecom	5.9%	10.8%	83.3%	8.66 0.013	102
Size of company/organization				11.38 0.023	1531
Small	10.3%	23.5%	66.2%		455
Midsized	11.5%	19.3%	69.3%		400
Large	8.6%	16.9%	74.6%		676
Salary				52.27 <0.001	1501
Less than 400' SEK per year	12.8%	33.6%	53.6%		250
400' - < 1,000' SEK per year	9.8%	18.8%	71.4%		766
> 1,000' SEK per year	8.5%	13.3%	78.1%		485

As to *salary*: The higher the income, the more respondents with an optimistic view on their employer's economic development, and the fewer respondents with a neutral or a pessimistic view. Those with a high income are thus not only more optimistic as to investments (shown above) than those with a lower income, but also more optimistic as to their employer's economic development.

As to *years of professional experience*: Although there is a positive correlation between the number of years as a professional and salary ($r=0.14$, $p<0.001$), there is a negative correlation between number of professional years and expected economic development of one's employer ($r= -0.16$, $p<0.001$). Experience and salary thus have a counteracting influence on expectations as to one's employer's economic development.

Regression analysis of one's employer's expected economic development

Table 5 shows the results from two stepwise regression analyses, with expected economic development of one's employer during the next six month as dependent variable and the above presented explanatory variables as independent variables, including some of the other expectation variables. Those with optimistic and those with pessimistic expectations have been analyzed separately since there may be different reasoning or judgment processes behind the two types of expectations, something that is supported by the results. As to possible indirect effects, see comment in section 3.4.1.

Findings concerning *optimistic expectations as to one's employer's economic development*: The more optimistic or less pessimistic expectations as to the development of one's employer's market conditions, and to the Swedish economy, the more optimistic view on the world economy, the less number of years as a professional and the higher salary, the more optimistic expectations as to the economic development of one's employer. Being a CEO or board member, or in the retailing/distribution sector, also means more positive expectations.

Findings concerning *pessimistic expectations as to one's employer's economic development*: The more pessimistic view of the development of one's employer's market conditions, the more pessimistic expectation as to the economic development of one's employer. Pessimists working for a large company/organization or within the media industry are less pessimistic about their employer's economic development than other pessimists.

Table 5: Regression analyses of the expected economic development of one's employer: optimistic and pessimistic views, respectively

Dependent variables: bold Independent variables	Regression coefficients	β	t values	Sig. (p)
Optimistic expectations to firm development Scale: 1 Little optimistic – 5 Very optimistic	Adj. R ² = 0.44; d.f. = 856; F = 76.81; p < 0.001			
Optimistic views of market development	0.44	0.53	18.54	<0.001
Pessimistic views of market development	-0.21	-0.06	-2.37	0.018
Optimistic views of the Swedish economy	0.02	0.19	5.56	<0.001
Pessimistic views of the Swedish economy	-0.02	-0.07	-2.60	0.009
Optimistic views of the world economy	0.01	0.10	2.88	0.004
Number of years as professional	-0.02	-0.17	-6.15	<0.001
Being CEO or board member	0.17	0.07	2.47	0.014
Salary	0.04	0.08	2.89	0.004
Working in retailing /distribution	0.22	0.05	2.01	0.045
Constant	1.14		11.92	<0.001
Pessimistic expectations to firm development -1 Little pessimistic – -5 Very pessimistic	Adj. R ² = 0.16; d.f. = 119; F = 8.27; p < 0.001			
Pessimistic views on market development	0.27	0.30	3.53	0.001
Working for a large company/organization	0.53	0.24	2.87	0.005
Working in the media industry	0.92	0.17	2.04	0.044
Constant	-1.80		-12.30	<0.001

3.6. Explanations to expectations as to the employer's market developments

Table 6 below shows the following as to what make SSE alumni have an optimistic or pessimistic view of the development of their employer's market conditions during the next six months (only statistically significant results will be reported):

As to *industry*: Those working in the public sector or with politics are to a lesser extent optimistic and to a much greater extent neutral as to the development of their company's market conditions than the population as a whole. Those working with research and education (mostly in academics) are to a lesser extent optimistic and to greater extent neutral or pessimistic than others. Those working in the service industry are neutral to a lesser extent and pessimistic to a greater extent than the population as a whole.

As to *salary*: The higher the salary, the more respondents with an optimistic expectation and the fewer respondents with a neutral view of the development of their employer's market conditions.

Very few of the measured explanatory variables are thus found to have an influence on the expected development of one's employer's market conditions.

Table 6: Expectations as to the development of one's employer's market conditions among subgroups (other variables assumed to influence expectations)

Variables	Pessimistic view	Neutral	Optimistic view	Chi ² and p	n
Total population	11.6%	22.4%	65.1%		1565
Industry					
Public sector, politics	7.3%	58.5%	34.1%	61.8 <0.001	82
Research and education	16.0%	28.6%	55.5%	6.24 0.044	119
Service industry	16.2%	17.7%	66.2%	4.70 0.095	130
Salary				8.87 0.065	1495
Less than 400' SEK per year	10.9%	30.2%	58.9%		248
400' - < 1,000' SEK per year	11.1%	22.2%	66.7%		765
> 1,000' SEK per year	11.4%	21.0%	67.6%		482

Regression analysis of the expected development of market conditions

Table 7 shows the results from two stepwise regression analyses, with expected development of one's company's market conditions during the next six months as dependent variable and the above presented explanatory variables as independent variables, including some of the other expectation variables. Those with optimistic and those with pessimistic expectations have been analyzed separately since there may be different reasoning or judgment processes behind the two types of expectations, something that is supported by the results. As to possible indirect effects, see comment in section 3.4.1.

Findings concerning *optimistic expectations as to the development of one's employer's market conditions*: The more optimistic view of the development of the Swedish and the world economy, and the less pessimistic view of the former, the more optimistic view of the development of one's employer's market conditions. The greater β coefficient for the expectations as to the world economy compared to that of the Swedish economy indicates that the respondents view their market conditions as more dependent on the world economy than on the Swedish economy. The more years as a professional, the less optimistic view of the development of one's employer's market conditions.

Findings concerning *pessimistic expectations as to the development of one's employer's market conditions*: The only significant influence found was that those working for a large company/organization are less pessimistic as to the development of one's employer's market conditions than other pessimists.

Table 7: Regression analyses of expected development of employers' market conditions: optimistic and pessimistic views, respectively

Dependent variables: bold Independent variables	Regression coefficients	β	t values	Sig. (p)
Optimistic views on market development Scale: 1 Little optimistic – 5 Very optimistic	Adj. R ² = 0.14; d.f. = 796; F = 33.07; p < 0.001			
Optimistic views of the Swedish economy	0.02	0.18	4.20	<0.001
Optimistic views of the world economy	0.03	0.25	5.58	<0.001
Pessimistic views of the world economy	0.02	0.07	2.02	0.043
Number of years as professional	-0.01	-0.11	-3.18	0.002
Constant	1.77		19.02	<0.001
Pessimistic views on market development Scale: -1 Little pessimistic – -5 Very pessimist	Adj. R ² = 0.03; d.f. = 149; F = 5.88; p < 0.001			
Working for a large company/organization	0.35	0.20	2.43	0.017
Constant	-1.71		-17.87	<0.001

3.7. Explanations to expectations as to the development of the Swedish economy

Table 8 below shows the following as to what make SSE alumni have an optimistic or pessimistic view of the development of the Swedish economy during the next six months (only statistically significant results will be reported):

As to *position*: Somewhat more board members and self-employed are pessimistic and somewhat fewer are neutral about the development of the Swedish economy than the population as a whole.

As to *industry*: Fewer of those working in the management consulting industry and with industrial production are optimistic about the development of the Swedish economy, and more are neutral as to it, than among the population as a whole. Those working with research and education are to a greater extent pessimistic and to lesser extent neutral as to the development of the Swedish economy.

As to *salary*: Somewhat fewer of those with high or low incomes are optimistic and somewhat more are pessimistic about the development of the Swedish economy than those with an annual income of 400' – 1 million SEK.

Table 8: Expectations as to the development of the Swedish economy among sub-groups (other variables assumed to influence expectations)

Variables	Pessimistic view	Neutral	Optimistic view	Chi ² and p	n
Total population	10.9%	12.1%	77.0%		1624
Working as:					
Board member	14.2%	9.3%	76.4%	5.66 0.059	246
Self-employed	13.5%	10.6%	75.9%	5.25 0.072	1595
Industry					
Management consulting	12.0%	16.5%	71.5%	10.97 0.004	425
Industrial production	8.6%	18.5%	72.8%	6.36 0.042	151
Research and education	16.4%	6.6%	77.0%	7.31 0.026	122
Salary				9.73 0.045	1525
Less than 400' SEK per year	13.7%	11.4%	74.9%		255
400' - < 1,000' SEK per year	8.7%	11.8%	79.5%		781
> 1,000' SEK per year	12.7%	13.9%	73.4%		489

Regression analysis of the expected development of the Swedish economy

Table 9 shows the results from two stepwise regression analyses, with expected development of the Swedish economy during the next six month as dependent variable and the above presented explanatory variables as independent variables, including the expected development of the world economy. Those with optimistic and those with pessimistic expectations have been analyzed separately since there may be different reasoning or judgment processes behind the two types of expectations, something that is supported by the results. As to possible indirect effects, see comment in section 3.4.1.

Findings concerning *optimistic expectations as to the development of the Swedish economy*: Optimistic views of the development of the world economy are dominating the optimistic views of the Swedish economy: the more optimistic expectations as to the world economy, the more optimistic about the Swedish economy. Also, optimistic CEOs or board members and those working in the management consulting industry are more optimistic than other optimists.

Findings concerning *pessimistic expectations as the development of the Swedish economy*: the more pessimistic expectations as to the world economy, the more pessimistic views of the development of the Swedish economy. Also, males are more pessimistic than females. This is the only expectation variable for which this is the case.

Table 9: Regression analyses of the expected development of the Swedish economy: optimistic and pessimistic views, respectively

Dependent variables: bold Independent variables	Regression coefficients	β	t values	Sig. (p)
Optimistic view on the Swedish economy Scale: 1 Little optimistic – 50 Very optimistic	Adj. R ² = 0.39; d.f. = 942; F = 199.88; p < 0.001			
Optimistic views of the world economy	0.56	0.61	24.00	<0.001
Being CEO or board member	2.05	0.10	4.00	<.001
Working in the management consulting industry	1.23	0.06	2.24	0.025
Constant	10.61		21.77	<0.001
Pessimistic view on the Swedish economy -1 Little pessimistic – -50 Very pessimistic	Adj. R ² = 0.16; d.f. = 119; F = 14.06; p < 0.001			
Pessimistic views of the world economy	0.24	0.35	4.42	<0.001
Gender: being male	-3.04	-0.18	-2.29	0.024
Constant	-6.20		-2.69	0.008

3.8. Explanations to expectations as to the development of the world economy

Table 10 below shows the following as to what make SSE alumni have an optimistic or pessimistic expectation as to the development of the world economy during the next six months (only statistically significant results will be reported):

As to *industry*: While fewer of those working in the management consulting industry or with research/education are optimistic and more are pessimistic about the development of the world economy than the population as a whole, fewer of those in banking/finance/insurance as well as in marketing and communications are pessimistic and more are optimistic.

As to *salary*: More of those with high and low salaries are pessimistic about the world economic development than others, but it is only among those with high incomes that the optimists are fewer. Among those with low incomes the neutrals are fewer than in the total population.

Table 10: Expectations as to the development of the world economy among sub-groups (other variables assumed to influence expectations)

Variables	Pessimistic view	Neutral	Optimistic view	Chi ² and p	n
Total population	16.8%	12.6%	70.6%		1618
Industry					
Management consulting	21.6%	14.8%	63.5%	15.47 <0.001	425
Banking, finance, insurance	11.7%	12.6%	75.8%	4.96 0.084	231
Marketing and communications	9.9%	9.9%	80.2%	5.93 0.051	121
Research and education	23.8%	8.2%	68.0%	6.17 0.046	122
Salary				16.86 0.002	1520
Less than 400' SEK per year	19.7%	8.7%	71.7%		254
400' - < 1,000' SEK per year	13.1%	13.6%	73.3%		779
> 1,000' SEK per year	20.3%	12.7%	66.9%		487

Regression analysis of the expected development of the world economy

Table 11 shows the results from two stepwise regression analyses, with expected development of the world economy during the next six month as dependent variable and the above presented explanatory variables as independent variables. Those with optimistic and those with pessimistic expectations have been analyzed separately since there may be different reasoning or judgment processes behind the two types of expectations, something that is supported by the results. As to possible indirect effects, see comment in section 3.4.1.

Findings concerning *optimistic expectations as to the development of world economy*: The more years as a professional, the less optimistic about the development of the world economy. The optimistic ones that are responsible for a budget are also less optimistic than those that are not responsible for a budget. Males and those working in the marketing/communication industry are more optimistic than females and those working in other industries.

Findings concerning *pessimistic expectations as the development of the world economy*: Those working for a large company/organization are less and those working in the IT/telecom industry are more pessimistic than other pessimists about the development of the world economy. Also, the higher the salary, the more pessimistic about the world economic development.

Table 11: Regression analyses of the expected development of the world economy: optimistic and pessimistic views, respectively

Dependent variables: bold Independent variables	Regression coefficients	β	t values	Sig. (p)
Optimistic view on the world economy Scale: 1 Little optimistic – 50 Very optimistic	Adj. R ² = 0.04; d.f. = 882; F = 9.11; p < 0.001			
Gender: being male	2.35	0.13	3.85	<0.001
Number of years as professional	-0.07	-0.12	-3.42	0.001
Being responsible for a budget	-1.71	-0.10	-2.81	0.005
Working in marketing and communications	2.36	0.08	2.53	0.012
Constant	17.54		13.69	<0.001
Pessimistic view on the world economy: -1 Little pessimistic – -50 Very pessimistic	Adj. R ² = 0.09; d.f. = 200; F = 7.52; p < 0.001			
Salary	-0.87	-0.25	-3.63	<0.001
Working for a large company/organization	3.25	0.20	2.90	0.004
Working in the IT/telecom industry	-4.50	-0.15	-2.17	0.031
Constant	-12.34		-9.60	<0.001

4. SUMMARY AND CONCLUSIONS

The following are the main findings and conclusions in this study, briefly commented:

1. An overwhelming majority of the surveyed alumni of the Stockholm School of Economics were optimistic as to the development of the world and the Swedish economies during the next six months, but more so to the Swedish than to the world economy. There are two alternative or complementary explanations given to the latter: a) The respondents may have a stronger belief in the inherent domestic forces behind the Swedish economy, than on its dependence on the world ditto, or b) it is a result of the psychological tendency to be more optimistic about things more closely related to oneself, for example exaggerating one's chances to succeed.
2. A majority were also optimistic as to the development of their employer's market conditions and its economic situation during the same period, but more so to a positive change in market conditions. The latter indicates that it is expected that it will take some time for companies to take advantage of improved market conditions.
3. As to one's employer's investments during the next six months, about 40 percent of the respondents expected them to remain the same, while about 45 percent expected them to increase. This is less optimistic views than the expected improvements in one's employer's market conditions and economic situation during the same period. Possibly, companies are expected first to use their idle resources, then, after a while, increase investments to meet increased demands.
4. There is strong support for the hypothesized causal structural model behind expectations as to investments during the next six months:
 - Investment expectations are primarily based on expectations of the development of the expected economic development of one's employer and of its market conditions during the same period.
 - Expected development of one's employer's economic situation is primarily based on the expected change in its market conditions, but to some extent also directly by the development of the Swedish and the world economies.
 - Expected development of one's employer's market conditions is primarily based on the expected development of the Swedish and the world economies.
 - Expected development of the Swedish economy is mainly based on the expected development of the world economy.
 - Many other variables, such as the industry one works in, the size of one's company/organization, size of one's salary, number of years as a professional (as an SSE alumnus), having budget responsibility, being CEO or a board member or self-employed, and gender also influence the above expectation variables, as well as the expected development of the world economy. These variables were also found to influence the different expectation variables differently, both as to impact and to sign. (See next point.)

5. Optimistic and pessimistic expectations were analyzed separately, respectively for each expectation variable. It was found that there were different explanations for the optimistic and the pessimistic expectation, respectively, for the same phenomenon (e.g. the Swedish economy), both as to impact and sign. One reason argued for in this study is that the judgment or decision processes behind expectations are different for different people, but also that they change over time as (economic) situations and other circumstances change, hopefully though in a systematic way (possible to generalize). This will hopefully be possible to analyze further when this survey has been repeated a couple of times for some period, and such situations and circumstances have changed.

The plan is to repeat this survey over time, and then relate the findings as to expectations to real changes in the Swedish economy, hopefully finding prediction capacity of the results.

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