# The Effect of the Internationalization process in the Board of Directors - with a Danish perspective

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# **Executive Summary**

The analysis included eight corporations from four different countries, who were analyzed over a period from 2000 - 2009. By using Hofstede's cultural dimensions, were different characteristics of each nationality represented in one of the boards highlighted in order to discuss how these could have influenced the payout strategy.

A quantitative analysis found evidence supporting that in recent years; Danish corporations have increased their total payout, and were in general attached a higher price-to-earnings ratio. It was concluded that the latter was a result of the investor's larger trust in the Danish corporation's ability to create higher future net incomes than their competitors.

However, the different corporate governance declarations stressed that the emphasis put on each corporations long-term commitment, as well as this should be secured before allocating capital to the investors, were very different.

The results support, that the Danish corporations in general outperformed their foreign competitors. In total, the Danes created an excess shareholder return in 22 years compared to only 18 years by the competitors. It can be inferred, that the Danish corporations were better at outlining how a long-term profitability was secured, while signals containing future expectations were sent through increased payouts; using both dividends and share buyback programmes. The market incorporated these signals into their expectations, which the Danish corporations in general were able to outperform in 22 years.

Therefore, nominating a broader range of foreign board members, instead of electing some with an in-depth knowledge about a market with significance importance to the corporations, has no effect on the value creation. What seems to have effect is a strong link between the corporate governance declaration and the payout policy; the signals sent with the payout, and it does not matter the national culture, because the market will incorporate the indicated signals.

Curiosity might be good, but too much might destroy the shareholder value.

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#### 1. Globalization

For many years, companies have been crossing borders to sell their products and expand their business. More companies have decided to start up businesses in other countries as a function of technological improvements, out-sourcing or strategic reflections.

The globalization has changed many modern firms into complex entities, and many operate on an international footing. Many possibilities are followed by the globalization, but the corporations are also facing new challenges.

It is argued by Professor Jean-Pierre Lehmann (2008) that there exist four key economic challenges for today's global businesses, described as:<sup>1</sup>

- 1. *China*; it will be way ahead in terms of its impact on almost every conceivable facet of the planet that one can think of.
- 2. *Politicization of global business and protectionism*; in a volatile global political and ideological environment, companies can expect unpredictable events in which they may find themselves to be "innocent victims".
- 3. Increased poverty and inequality
- 4. A green agenda; environment is key and an increasing strategy priority.

These key challenges can be addressed by having a proper strategy, structure, and especially the right people.

In today's competitive environment, it is essential for the firm to understand how each activity contributes to the value creation so that a focus on these drivers can be in place. The Board of Directors is the link between the shareholders and the Executive Directors; they are the ones securing that the corporation focuses on the outlined strategy and the work is done in the interest of the investors.

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<sup>&</sup>lt;sup>1</sup> http://www.imd.ch/research/challenges/upload/TC00408\_the\_four\_key\_economic\_challenges\_for\_todays\_glob\_al\_business.pdf

How board members with other cultural backgrounds can contribute with other perspectives, enrichment, and inspiration to the board discussions has been stressed several times.<sup>2</sup> A study from 2002 showed how Denmark only used the possibilities to attract knowledge and international experience, from foreigners in the Board of Directors, on a very limited scale.<sup>3</sup> One explanation could be a lack of curiosity and openness for inputs from the outside world.

A current trend is that more foreign board members are elected into the "Board of Directors", <sup>4</sup> but many of the Danish corporations, of whom growth are generated outside Denmark, have been slow to start this internationalization process. It is argued to be a notoriously difficult step to take. <sup>5</sup>

Both Anders Drejer and Caspar Rose agree upon the essential in foreign board members; several Danish companies are becoming so big that they need to think more global. But what effect do foreign board members have? What is their impact and how do they contribute to the shareholder value creation?

<sup>&</sup>lt;sup>2</sup> http://www.business.dk/boersnyt/bestyrelsen-i-vestas-styrer-mod-pensionsalderen

<sup>&</sup>lt;sup>3</sup> http://www.oem.dk/Publikationer/html/global/kap10.htm

<sup>4</sup> http://borsen.dk/investor/nyhed/152941/

<sup>&</sup>lt;sup>5</sup> http://www.business.dk/boersnyt/bestyrelsen-i-vestas-styrer-mod-pensionsalderen

#### 2. Problem Statement

With globalization, the number of cross-border mergers and acquisitions have increased tremendously, and by that followed an increased focus on shareholder value maximization. The task is now how to capitalize excessive cash flows away from unprofitable investments and back to the shareholders. Unprofitable investments have previously been used by the Executive Management to transform the corporation into a personal "empire".

Maximizing shareholder value is today seen as the top task for the Executive Board and the Executive Directors, but according to Rappaport (1986:3), the allocation of excess resources has not been generally accepted. However, Miller & Modigliani<sup>7</sup> argue that the choice of dividend policy is irrelevant when measuring the value of a corporation. Influence or not, dividends are said to be ubiquitous.

Recent research, made by Fidrmuc and Jacob (2010), has shown how national culture affects the payout ratio in resident corporations. However, no suggestions are made about the possibility that Directors might be able to "transfer" these cultural values to boards in countries where another national culture is dominant.

It is therefore interesting, to expand the research done by Fidrmuc and Jacobs (2010) and investigate how foreign board members are affecting Danish corporations. This is the driver for the following research questions:

- What changes has the internationalization process meant to the composition of the Board of Directors in Danish corporations?
- Has these new board compositions, caused any detectable changes in the payout policy or the shareholder value creation?

<sup>7</sup> Miller, M; Modigliani, F: Dividend policy, growth, and the valuation of share. The journal of business, Vol. 34, No. 4, 1961, pp. 411-433

<sup>&</sup>lt;sup>6</sup> Bjorvatn, K.: Economic integration and profitability of cross-border mergers and acquisitions. European Economic review 48, 2004, pp. 1211- 1226

The research questions call for an investigation of the investor's gain from the internationalization process.

The study by Fidrmuc and Jacob (2010) is based on the "cultural dimensions" by Hofstede (1991), and tries to detect how payout policies are affected by the different national cultures. Transferring these characteristics is what is called the "internationalization process."

A theoretical approach shall describe the relationship between the corporation and its shareholders, and create the foundation for detecting the different possibilities for a reallocation of excess capital, and thereby create a measure for determining the shareholder value creation.

In order to highlight this process, are eight corporations elected to form a research group, and will be analyzed over a period from 2000 to 2009; the so-called "research period".

# 3. The Research Group

Many Danish corporations are expanding their business to capture new market shares and thereby increase profits. By doing so, the companies need to compete against both local and global competitors.

In order to investigate the value creation for Danish corporations, participating in this process, is a broad selection of companies from different industries chosen to make up the "*research group*". Several criteria have been set up to do the selection, such as: owner-structure, high infrastructural importance for the function of the country, and lastly, specialization in a certain area.

#### 3.1. The pharmaceutical industry

Novo Nordisk A/S (Novo) is one of largest companies, measured on market cap, in Denmark. Novo specializes in insulin and their most important markets are America, Europe, and Japan.

Their main competitor on the American market is Eli Lilly, Inc. (Lilly), who also operates internationally. Lilly have for many years elected board members with international experience and it is even formulated in their corporate governance declaration that non-executive Directors need experience from a global company.

#### 3.2. Infrastructure

Copenhagen Airports Denmark A/S (CPH) is the operator of the most important traffic hub in Denmark. A secure and stable infrastructure is very important on a national level, but the Danish Government has decided to go public with CPH while keeping a large stake in the company.

The German airport operator Fraport AG (Fraport) operates the main traffic hub, Frankfurt Airport in Germany, while having stakes in many other airports around the world. The company is public traded, and has two major stockholders: State of Hesse (31.57 %) and Stadtwerke Frankfurt am Main Hld. (20.16 %). An internationalization of the board has yet to begin.

#### 3.3. Industrial Ingredients

Danisco A/S is a world leading company within food ingredients, enzymes and bio-based solutions. Danisco is represented in more than 40 countries and a global approach to the strategy is essential.

Tate & Lyle, Corp. is a British company that competes with Danisco on many products and markets. Tate & Lyle has moved towards an international Board of Directors many years ago, while Danisco first recently has formulated that members with international experience are essential to increase the competences of the board.

#### 3.4. Technology Specialists

GN Store Nord A/S (GN) was once a conglomerate but is today focusing on hearing and audio aids. GN has for the past years faced a decline in sales, which is followed by deficits, and a re-organization in both management and Board of Directors has been in place.

The American corporation Plantronics, Inc., who is a designer, manufacturer and marketer of headset products, is one of GN's competitors. Plantronics has had some tough years, just like GN, where all dividend payouts have been suspended.

The board of Plantronics is relatively small compared to the other selected companies, but members with a foreign nationality have been present for many years.

# 4. Interpretations and Definitions

# 4.1. Defining "The Corporation"

The framework for the research question is *a corporation*, defined as:

"A business that is legally separated from its owners" (Brealey et al.: pG-3)

The ownership of the corporation is divided into stocks, where the owners are the individually *stockholders*. The terms *share* and *shareholder*, the American expressions, will also be used in order to create a more diverted language throughout the paper but with a similar meaning. Likewise, "company" will be used as a synonym for corporation.

The legal responsibility is held inside the corporation, where the Board of Directors is the highest authority and secures the legal supervision of the executive management, who has the daily responsibility.

#### 4.2. Defining "The Dividend Payout"

When allocating net income back to the owners, it is either done in cash payouts, or sometimes through a share buy-back programme, where outstanding shares are bought back in the market.

A payout made in cash is called a dividend and defined as:

"An individual share of earnings distributed among shareholders of a corporation in proportion to their holding and as determined by the class of their holdings."

The last part of the sentence refers to the fact that some corporations have two or more types of share-classes. These are often divided into A- and B-shares (as in Denmark) or into preferred- and common shares (as in the States). The holders of A-shares or often entitled to more votes than the B-shares, while the preferred shareholders are entitled to a preferential dividend, while the common shareholders get a portion of what remains.

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<sup>8</sup> http://search.eb.com.esc-web.lib.cbs.dk/eb/article-9030674

#### 4.3. Defining "The Shareholder Value"

Very basic, the task of the Executive Management is to secure a maximization of shareholder value by investing in projects with a positive net present value. The main reason why profit maximization is not a fulfilling corporate objective is because, it can vary according to how decides what shall be maximized and how it shall be measured.

Shareholder value creation is defined as:

"The changes in equity market capital that exceeds the investor's opportunity cost."

This definition is a little broad, but leaves room to measure shareholder value creation based on the different cash flows between the two parties; the corporation and the investors.

These cash flows are made by dividend payments, share buy-back programmes and other payouts made by the company. However, the flow of capital is not always floating from the corporation towards the investor; sometimes it will flow the other way, i.e. when the corporation makes a capital issue, which will be a decreasing factor.

#### 4.4. Defining "Culture"

The influence of cultural variables is essential to the problem statement, and one of the first attempts to characterize culture was made by Edward B. Tylor (1871):

"... that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of the society."

It is difficult to find a definition accepted by many researchers, but it has been argued that most accept that culture contains the following characteristics; holistic, historically determined, related to anthropological concepts, socially constructed, soft, and difficult to change.<sup>9</sup>

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<sup>&</sup>lt;sup>9</sup> Hofstede, G; Neuijen, B; et al.: Measuring Organizational Cultures. Administrative Science Quarterly, vol. 35, No. 2, p. 286-316, 286

Hofstede (1991) claims to have documented national cultures, but not all opponents, i.e. McSweeney (2002:25), believes in this:

"We may think about national culture, we may believe in national culture, but Hofstede has not demonstrated that national culture is how we think."

McSweeney might be right about his critique, but his article does not provide a better concept to describe or capture the cultural differences that exist among countries.

The work of Hofstede: "Organizational Dynamics" (1980), <sup>10</sup> tries to empirically determine the main criteria by which national cultures differ, and it is the definition worked with:

" The collective programming of the mind which distinguishes the members of one group or category from another (Hofstede, 1991:5)."

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<sup>&</sup>lt;sup>10</sup> Pugh, D. S.: Organization Theory, selected readings. Penguin Group, 4<sup>th</sup> edition, London, pp. 223 – 250.

# 5. The Scope of the Research

The globalization is an on-going process and it brings many external issues and challenges to the corporations; some that require adjustments if the company want to stay competitive. To investigate whether an internationalisation is a gain of the shareholder value creation has therefore contemporary importance.

The globalization has increased the number of markets where corporations are operating, and therefore also the requirements to the market-knowledge. The pivotal point will therefore be to uncover how an internationalization of the "Board of Directors", driven by the globalization, affects the payout strategy and shareholder value creation.

The problem statement has two specific research questions which will be analyzed through case studies of larger Danish and foreign corporations. The aim is to detect any differences occurred when taking the composition of nationalities into consideration in the period from 2000 to 2009.

However, the challenges in the problem statement is to detect if an internationalization process of the Board of Directors is followed by an increased shareholder wealth, which seems to be possible by analyzing the selected research group.

The selected corporations are operating in different industries, associated with different native cultural values, and legal families, and it should therefore be possible to capture some of the trends due to the internationalisation of the Danish "Boards of Directors" in relation to the problem statement.

# 6. Project Structure

Introduction Problem Statement Research Group Definitions The Scope of the Research General Methodical Approach Verification Delimitations The Theoretical Approach Cultural variables Payout policy Shareholder value M&M Fernández Hofstede The Theory as a Reference National Cultural Shareholder Value Corporate Governance Discussion Variables Creation Conclusion Perspective

Source: Own creation

Figure 6.1 Project structure

# 7. Methodology

# 7.1. The General Approach

The project is assigned a structure that starts out by describing the challenges corporations are facing due to the globalization. By introducing the challenges let off by the globalization, a perspective is created in which an internationalization process of the Board of Directors can be justified.

It highlights the possibilities for the problem statement and why an investigation of the research questions is contemporary. Moreover, it exhibits the requirements for the theoretical framework.

The problem statement introduces several terms that will be discussed and defined in relation to the problem statement. This creates a consistency throughout the paper and to further substantiate the consistency is an inquiry of the thesis in both text and picture outlined.

The problem statement calls for a comparison of Danish versus foreign corporations, are a research group introduced and the reliability of each corporation is justified. Both validity and reliability, the verification of the thesis, is discussed in relation to secure an increased verification of the thesis and the result is a research design that substantiates the problem statement.

The principal-agent relation is the starting point in the literature review, and highlights the different topics of the relationship between the investor and the corporation. The purpose is to explain the theoretical development within the topic, in order to draw attention to several relevant theories that can be drawn-in in the later discussion.

To build a bridge between the problem statement and the empirical part, are three theories discussed in depth:

- Miller & Modigliani; shareholder preferences and dividend policy (1961)
- Pablo Fernández; shareholder value creation (2004)
- Geert Hofstede; measuring cultural differences (1991)

The theories will be described with emphasis on what seems relevant according to the problem statement and the further analysis. By using these three theories, all with the investor as pivotal point but discussing different aspects of the investor relation, it is the desire that they shall both challenge and complement each other.

The next part will start out by analyzing the corporate governance declaration and board composition found for each company in the research group. This shall stress the important diversities between the nationalities detected in the different boards. Using the nations score on the cultural dimensions of Hofstede, it shall be highlighted which nations that are representing which dividend strategy.

Therefore, three different payout ratios are introduced for each corporation and shall create a quantitative foundation for the qualitative research for the board compositions. The change in share price plus the dividend payout are not all the cash flows, between the parties, and a calculation of each corporation's ability to create an additional shareholder value will end the analysis.

This is the foundation for the discussion, where the starting point is the problem statement, and will end up by discussing possible solutions in order to answer the research questions.

# 7.2. The Research Design

The aim of the research design is to maintain the original vision for the project and ensure an adequate production of information and data; the design is used in all sections of the project, starting with the problem statement and ending with the reflections.

It has been chosen to adopt an inductive approach to the research questions. By using several corporations from different industries, a real-life context can be combined with a theoretical approach and multiple sources of information are used to illustrate the phenomenon:

# The internationalization process of the "Board of Directors"

The inductive approach makes it possible to make use of multiple case studies to create new knowledge, done by analyzing eight corporations whose shareholder value are measured by using the template of Fernández and the cultural values of Hofstede's cultural dimensions.

The research group will try to inductively conclude a general knowledge about the research question but the amount of analysed corporations is very limited, which might affect the results.

#### 7.3. Verification

#### 7.3.1. Validity

The concept of validity covers the concepts of legitimacy and relevance. It outlines the correlation between the theoretical approach and the empirical concept, while determine the relevance of the empirical relation to the problem statement. Validity can be ensured with questions about truth and knowledge, and that is why the three main theories are discussed against other approaches and measurements.

Not many articles are used in the theoretical part and the analysis is based on audit approved quantitative data from annual reports. The validity of the theories is increased by discussion, while it is assumed that the numerical foundation for the analysis is true and accurate, and thereby valid.

# 7.3.2. Reliability

Reliability refers to the safety and how accurate one actually measures what are supposed to be measured (Andersen, 2006). It is important to evaluate and realize the degree to which the outcome of the analysis is influenced by chance.

Different case studies should lead to a general theory by using an inductive approach. The results produced in the analysis must be associated with a certain consistency; two fundamental aspects concerning the grade of reliability found in the results can be discussed.

First, the aim is to measure any additional shareholder value founded in a new cultural composition of the board, but how is this best measured? The approach selected is chosen based on the literature review and should thereby be reliable.

Second, the problem statement involves the international business environment, a context that has not been static over the years, and will not be it in future either. Therefore, other parameters could come into play and influence the corporation's possibilities for shareholder value creation.

However, the valuation of the wealth creation is based upon annual reports that tries to picture the situation of a respective year, and should be one of the best descriptions of a "static picture". The reliability of the results is therefore seemed to be high.

#### 7.4. Delimitations

The problem statement introduces *national cultures* as a possible factor to influence the payout. The expression "culture" is discussed and defined, and its impact on financial decisions are assumed based on the research of Fidrmuc & Jacob (2010)

In order to discuss the influence of culture is the work of Geert Hofstede chosen to be the cornerstone. No findings in the work of Schwartz are introduced to support or question the cultural analysis since the aim is not to detect if and how a national culture can be measured. In order to secure the verification of the analysis, will the scores from the updated work by Hofstede (2001) be used.

Globalization is used to introduce the new challenges faced by the modern corporations and it can therefore be argued, that the whole corporation can be influenced by new cultural compositions, and not only the Board of Directors which is the focus for the thesis.

The research question calls for an investigation of the payout strategy and the shareholder value creation, and while calculating that, it is assumed that only the Board of Directors proposes the amount paid out. Therefore, the cultural composition of the daily management or at any other level in the corporation can be excluded from the analysis.

Moreover, the globalization might have influenced the respective national cultures, but this is not questioned either. If this should have been done, a discussion of *inheritance and environment* would have been necessary, which would fall far out of the scope for the thesis.

An important cornerstone for the thesis is the principal-agent relation, and the thesis rests on that the Board of Directors takes its responsibility seriously and works in the aim of the investors. A more in-depth analysis of the relationship between the corporation and their shareholders are therefore excluded. Likewise, the numeration of the Board of Directors is left out.

Through the literature review, taxes are mentioned in order to discuss the relevance and importance of dividends. They are used as an argument to show their influence on payout preferences. However, at no point taxes will be a focus point in the analysis. This is because the aim of the analysis is to detect differences in payouts followed by the changes in the board composition, and not investigates to which extent a payout strategy is preferred based on the investor's personal taxation.

One point in the analysis is regression analysis used to test the acceptance of a hypothesis. The different assumptions, making the results valid, are done in SAS but no further clarification are not included, since it seemed inappropriate in the perspective of the general research design.

#### 7.5. Source Criticism

The primary source in the theoretical part is publications from recognized academic journals, which should indicate an academic acceptance of its professionalism. To avoid any irrelevant information about two of the three main theories, the ones by Miller & Modigliani, and Hofstede, from 1961 and 1991, respectively, are only relevant parts included in theoretical framework, while an updated version of Hofstede's work from 2001 is used.

The thesis is a product of a desk study, and it relies therefore on secondary data. Both quantitative as well as qualitative data are used, and the results rely on the verification of these. The analysis is primary based on two types of empirical data materials: qualitative and quantitative data.

The qualitatively part deals with the nationality of the different board members. The composition of nationalities present during the research period has been detected through the annual reports of the respective companies. Only some of the Danish corporations are publishing the nationality of their Directors (and this is a recent development). The nationality for the rest of the Director's is found through various internet sources.

This has been a very resource-intensive process and exact sentences stating the nationality has not always been found. For some of the board members it has been necessary to conclude their nationality upon the school where a degree has been obtained.

The discussion about heredity and environment is very relevant when determining the set of cultural variables that have been the most influential during a person's adolescence. It has been decided that a person's cultural values are determined by his or her nationality.

The quantitative data material is obtained from two sources: annual reports and databases. All corporations in the research group are listed on a stock exchange and their annual reports are therefore audited before final approval. Of course, recent crisis and scams has proved that cheaters can cheat if they really want to, but this thesis puts its trust in, that the auditors of the respective companies are doing a reliable job.

Two sources used to collect additional quantitative data, i.e. beta values and financial ratios are "Data Stream" and "Orbis", both available through the *Learning Resource Centre* at CBS. Due to this fact, they are both ascribed high reliability.

"The Danish Statistics" has been used to search for similar information, i.e. interest rates and trade partners, while historically stock prices are collected through the investor portal "Euroinvestor". The webpage adjusts the share prices to the amount paid in dividend per share, and therefore takes the capital allocated out of the company into account.

The general reliability of the sources used in this thesis are concluded to be very high, and the only less reliable parameter is the determination of the nationality of the board members, or which cultural values have had the greatest influence over years

# 8. The Theoretical Approach

# 8.1. Why focus on the investor?

The principal-agent relation, argued by Williamson in 1981,<sup>11</sup> means that the principal do not have perfect information over its agent. The agent might not always engage in transactions solely in the best interest of the principle, because the latter do not possess full control.

With the corporation in focus; the principal is the shareholder while the agent is the management. Meanwhile, the Board of Directors is appointed by the shareholders to tighten the gap to the daily management and thereby secure a better alignment of interests, minimizing the agency costs.

The legal approach of corporate governance holds that the key mechanism to protect the outside investors is through the legal system. To a large extent, shareholders and creditors are willing to finance firms because the law protects them.<sup>12</sup>

One can argue that in markets with low investor protection, a controlling shareholder is paramount for firms; otherwise, the corporation would be more likely as target to raiders who can acquire enough shares to form a block.

A block holder would find it more profitable to extract private benefits for oneself, instead of acting as a monitor that increases the value of the firm for all shareholders, also minority shareholders as long as costs are lower than the gain. It is much more profitable for block holders to get "side payments" in change for their compliance than to spend resources opposing management.<sup>13</sup>

The theory of the market-economy is based on individuals promoting their self-interest via an efficient allocation of resources through efficient market transactions, as pointed out by Rappaport (2005). One argument is an allocation of capital to unprofitable projects.

Williamson, O. E.: The Modern Corporation: Origins, Evolution, Attributes. In: Nygaard, C.: A Reader on Strategizing. Samfundslitteratur, 1<sup>st</sup> edition, 2001, pp. 150 - 200

<sup>&</sup>lt;sup>12</sup> La Porta, R; et al: Investor protection and corporate governance. Journal of Financial Economics, vol. 58, 2000, pp. 3-27

<sup>&</sup>lt;sup>13</sup>Gomes, A.: Going Public with Asymmetric Information, agency costs, and Dynamic Trading. 1999, p. 30

The compensation of management was previously tied to its ability to beat the budgets, i.e. earnings or sales. Today, the modern "value-based approach" tries to secure an alignment between compensation and shareholder wealth maximization. It is when the objective of the management differs from those of the shareholders that the management acts in their self-interest.

These transactions are the ones, which not always are in the best interest of the principle. Today, it is the task of the Executive Board, to secure an allocation of excessive cash flows away from unprofitable projects and back to the shareholders.

Companies have three ways to pay out cash to the investors; by paying dividends, by buying back outstanding shares in the open market or by a tender offer repurchase.<sup>14</sup> Dividends are a steam of cash sent "directly" to the investor, while the two others affect the share price and the payout are allocated through a capital gain on the stock.

#### 8.2. Do payouts matter at all?

It is often questioned if a chosen payout policy actually influences the value of the stock rather than just being a signal to the market. No influence on the value determination is the conclusion by Miller and Modigliani (M&M).<sup>15</sup>

The cornerstones in their argument are three central assumptions from the economy-theory, spelled out as:

- 1. *Perfect capital market:* No seller or buyer is large enough to make impact on the market. Furthermore, all investors have equal and costless access to all available information and all relevant information are available for everyone. Furthermore, there exists no transaction costs, taxes or likewise.
- 2. *Rational behaviour:* The investor prefer always more wealth than less, and is indifferent whether increments are by cash payments or by increase in the market value of their holdings.

<sup>15</sup>Miller, M; Modigliani, F: Dividend policy, growth, and the valuation of share. The journal of business, Vol. 34, No. 4,1961, pp. 411-433

<sup>&</sup>lt;sup>14</sup>Brennan, M. J; Thakor, A. V.: Shareholder Preferences and Dividend Policy. The Journal of Finance, Vol. 45, No. 4, 1990, pp. 993-1018

3. *Perfect certainty:* Complete assurance for every investor, to future investment programs and future profits by every company. Thus, no need to distinguish between stock and bonds as sources of funds.

These assumptions call for a market that is efficient in the *strong* form; a market where all prices reflect all information; both public as well as non-public.

Through the three assumptions are M&M arguing, that:

"The price of each share must be such that the rate of return (dividends plus capital gains per dollar invested) on every share will be the same throughout the market over any given interval of time (M&M, 1961:412)."

The literature of corporate finance  $^{16}$  stresses that the expected return, r, after period is:

$$r_1 = \frac{DIV_1 + P_1 - P_0}{P_0}$$
 (8.1)

The expected return, r, is given by the dividend plus the change in capital value,  $p_1$ - $p_0$ , all divided by the price of the beginning of the period. This can be rearranged to:

$$P_0 = \frac{DIV_1 + P_1}{1 + r} \quad (8.2)$$

If equation 8.2 holds, then the price in a period can be determined by a forecast of the dividend and capital gain for the following period. By looking at equation 8.2, one can imagine how these future periods can be related to the determination of today's price:

$$P_0 = \sum_{t=1}^{H} \frac{DIV_t}{(1+r)^t} + \frac{P_H}{(1+r)^H}$$
 (8.3)

<sup>&</sup>lt;sup>16</sup>Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill International Edition, 2008, 9<sup>th</sup> Edition; p. 88

The final period is denoted H, and the second element is called the *terminal value*. By letting H approach infinity, the present value of the terminal value will approach zero by accepting that the company is a "going-concern", therefore:<sup>17</sup>

$$P_0 = \sum_{t=1}^{\infty} \frac{DIV_t}{(1+r)^t}$$
 (8.4)

Equation 8.4 is denoted the discounted-cash-flow (DCF), where the dividend policy is still influencing the share price. The focus for the M&M argument was the total company value, instead of just how the dividends affect a single share.

Their assumptions for the perfect capital markets, ensures that future investment programs and the profit are known to all investors, thus, if the company wants to increase the total payout by upping the dividend, it needs to be done without changing the plans for investment.

A transfer of value still needs to be made, and is done when the company pays out dividend to old shareholders by selling newly issued shares worth the original price ex dividend. The old shareholders will realize a capital loss on their investments that are exactly offset by the dividend payment, therefore:

"We may conclude that given a firm's investment policy, the dividend payout policy it chooses to follow will affect neither the current price of its shares nor the total value of the company

(M&M, 1961:414)."

A change in dividend policy, given the known investment policy, implies a change in the distribution of the total return between dividends and capital gains. The same reasoning can be made if a share buy-back programme is chosen to canalize wealth:

"A firm that repurchases stock instead of paying dividends reduces the number of shares outstanding but produces an offsetting increase in subsequent earnings and dividends per share. 18"

<sup>&</sup>lt;sup>17</sup>Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill International Edition, 2008, 9<sup>th</sup> Edition; p. 91

Values are made by real considerations and not just how the fruit of earnings are packaged for distribution.<sup>19</sup>

#### 8.2.1. How come those dividends are so ubiquitous?

Two points from the theory of market efficiency is important to stress:

- 1. To provide incentives to gather costly information leads to, that prices cannot reflect all available information.<sup>20</sup> There must be some profit available when spending money on becoming more informed than other investors.
- 2. It is not possible to find an expected return greater than the risk-adjusted opportunity cost of capital in an efficient market. If a price differ from its fundamental value, there will exist an arbitrage opportunity generating superior returns.

Payout policies try to address the agency problem between the investor and the opportunistic management, and are one reason why dividends matter. The first assumption by M&M addresses the agent-principal problem as superfluous, which is only possible due to assumption three; that future profit is known.

Williamson (1981) showed how transactions are associated with costs, and support the findings by Renneboog and Szilahvi (2006; in Fidrmuc and Jacob, 2010:3); shareholders rarely enforce the optimal payout policy because they are in no position to do so since the ownership of the corporation often are dispersed.

Arguments can be introduced to advocate that the M&M proportion do not hold in real life, i.e. dissimilar tax systems, risk, agency costs, and differences in investor protection. The latter describes how investor protection can protect the investors against expropriation from management, and thereby affects the dividend policy, as stressed by la Porta et al. (2000:1),

<sup>&</sup>lt;sup>18</sup> Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill International Edition, 2008, 9<sup>th</sup> Edition: p. 363

<sup>&</sup>lt;sup>19</sup> Miller, M; Modigliani, F: Dividend policy, growth, and the valuation of share. The journal of business, Vol. 34, No. 4, 1961, pp. 411-433, p. 414

<sup>&</sup>lt;sup>20</sup> Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill International Edition, 2008, 9<sup>th</sup> Edition; p. 363

# 8.2.2. Undermining of the proportion

#### 8.2.2.1. Taxes

It was shown by M&M (2000) how investors must be indifferent between dividends and stock repurchases, but, if investors should stay indifferent between dividends and capital gains, one needs to assume a world without taxes. Indifferent investors would also be the case by assuming equal taxes on dividends and capital gains.

Brennan and Thakor (1990) investigate shareholder preferences and dividend policy when taking tax into account, with the result, that different taxation on dividends and capital gains influence the investor's preferences.

The after-tax payout can be described as:

$$w = q(1 - T_D) + (1 - q)(1 - T_{CG})$$
 (8.5)

Letting the after-tax payout be denoted by W, the taxes,  $T^{21}$ , decreases the total amount paid to the investor. The influence of taxes is further stressed by table 8.1:

Table 8.1 Taxation on dividends

	Stock A		Stock B		Stock C	
	No dividend		High dividend		Heavy capital gain tax	
Next year's prices		125,0		110,0		110,0
Dividend		0,0		15,0		15,0
Total payoff before taxes		125,0		125,0		125,0
Today's stock price		100,0		97,2		98,5
Capital gain		25,0		12,8		11,5
Before tax rate of return		25,0%		13,2%		11,7%
Tax on dividend	35%	0,0	35%	5,3	18%	2,7
Tax on capital gains	15%	3,8	15%	1,9	25%	2,9
Total after-tax income		21,3		20,6		21
After-tax rate of return		21%		21%		21%

Source: Brealey, R; et al. (2008:458)

<sup>&</sup>lt;sup>21</sup>  $T_D$  is taxation on dividends and  $T_{CG}$  is taxation on capital gains.

For both stock A and B, dividends are taxed harder than capital gains, but only stock B pay dividend. Since dividends are taxed harder, and the after-tax rate of return shall equal for stock all three stocks, the investors are willing to pay more for stock A than B.

Also stock C is paying dividends but compared to stock B, tax on dividends are less, and subsequently the investor is willing to pay more for this stock. Compared to stock A is stock C still lower priced.

Thus, when dividends are taxed more heavily than capital gains, firms should pay the lowest possible cash dividend while the rest should be retained or used to repurchase stocks; while choosing the opposite strategy if dividends are less taxed.

This is in alignment with research by Brennan and Thakor (1990:1):

"Despite preferential tax treatment of capital gains for individual investor, do their findings support that a majority of a firm's shareholder only support dividend payment for small distributions. For larger distributions are share-buy-backs preferred and for largest distributions tender offer repurchase dominate."

#### 8.2.2.2. Transaction costs

In the terms of Williamson (1981), transaction costs are associated with three attributes: frequency, uncertainty, and assets specificity. In the capital market it means that most transactions are attached with costs.

Already when entering an investment, one needs to pay a broker-fee. This cost is of course variable, but is necessary to enter and should not affect the investor's preference between dividend and capital gains. But, gathering information is also associated with costs, which influence can be expressed as:

$$w = q(1 - T_D) + (1 - q)(1 - T_{CG}) - C \quad (8.6)$$

Equation 8.6 is an extension of equation 8.5 where the after-tax payout, given by W, is further reduced by the transaction costs, C.

#### 8.2.2.3. Risk

One of the basic principles of finance is that a dollar today is worth more than a dollar tomorrow, thus, the investor's attitude towards risk influences the preference for payout.<sup>22</sup> M&M (1961) stated, that all future returns on investment are known, which is not possible; neither a company's profit nor its dividend policy is certain for all future.

Assuming that the risk faced is tied to the investment, then, risk should influence the preference for payout policy; risk-seeking investors would prefer more uncertain future capital gain, where a risk-averse investor would prefer the dividend right away.

#### 8.3. A Human Influence

The perfect capital market is the cornerstone in proposition by M&M (1961), who argues that dividend policy has no impact on the stock price and the investor are therefore indifferent in choice of payout.

Several arguments undermined this indifference-statement; the introduction of taxes showed how the preference changed according to different taxation levels, the phenomenon of transaction costs gives larger block holders an incentive to gather information, while the introduction of risk affects the choice of uncertainty preferred.

Dividends are ubiquitous on the financial market, and even though the M&M proportion might stand despite several counterarguments, a more soft argument can maybe explain the phenomenon even better. A more non-monetary argument is the phenomenon called "signalling".

#### 8.3.1. Signalling

In the real world, a change in dividend rate will often be followed by a change in market prices, a phenomenon referred to as the "informational content" of dividends. A firm adopting a policy aiming for a stable "target payout ratio" can send indications to the market by changing the payment. Investors are likely to interpret a change in the rate as a change in management's view of future prospect.

<sup>&</sup>lt;sup>22</sup>Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill International Edition, 2008, 9<sup>th</sup> Edition; p. 14

Signalling can be when managers, to signal their confidence in the future, uses a stock repurchase programme to indicate this confidence. If the manager believes that the stock is undervalued, a share buy-back programme can be executed until the stock price reaches a certain level above the price of the day where the announcement is made.

What is important to stress regarding dividends and signalling is that signalling is based upon a human's assumptions and predictions about the future. In a corporation are these "signals" sent by the Board of Directors. Some afterthoughts must be made: Does this leave room for a social regulation of the payout policy? If yes, is it not enough only to analyze the amount allocated to the investors?

Research shows an increasing interest for the importance of shareholder wealth creation, and maybe it is a more proper and contemporary approach, instead of just focusing on the dividend payout, when measured the value allocated to the investors.

#### 8.4. Measuring Shareholder Value

The increased interest for shareholder wealth creation, found in the works by Ramezani (2002), Rappaport (1998), and Varaiya et al. (1987) might be an association between corporate performance and shareholder value creation; due to increased part of management compensation linked to stock options.

Stern (1990) and Myers (2000) argues how compensation packages should maximize shareholder wealth by giving management an incentive to make decisions that increase the long-term value. In some cases, these incentive schemes have however instead led to value destruction in the long run.

It is argued that these schemes have generated a habit for blindly increasing firm size while not considering the drawback of the diseconomies of scale. This tendency describes the "dangers of conforming to market pressure for growth" by Fuller and Jensen (2002). Actually, it is shown how firms with moderate growth rates in sales have the highest value creation for the stockholders.<sup>23</sup>

<sup>&</sup>lt;sup>23</sup>Ramezani, C; et al.: Growth, Corporate Profitability, and value creation. Financial Analyst Journal, 2002, vol. 58, p. 2

The article "Just Say No to Wall Street" describes how analysts in general are pushing the companies to reach higher and higher growth targets. For management playing this game, it may lead to actions that can generate long-term damage. It is argued how managers must abandon the notion that a higher stock price is always better and recognize that an overvalued stock can be as dangerous to a company as an undervalued stock in order to secure the shareholder value.

The analysts have a strong incentive to demand high growth rates, and steady and predictable earnings performance, while incentive schemes can make management play along. Thus, the point is that companies encouraging excessive expectations or try too hard to meet unrealistic forecasts by analysts, they often decide risky value-destroying strategies, i.e. acquisitions or new investments.

It is generally understood that management compensation should reflect the creation of shareholder value, but the above discussion shows how simple incentive schemes can fail. Stock options should create pay-for-performance, but fail to encourage shareholder value creating.

Rappaport's (1990:33) shareholder value approach tries to estimate the economic value of an investment by discounting the forecasted cash flows by the cost of capital. These cash flows from investment serve as a foundation for the shareholder return since both dividend and share-price appreciation is reflected in these.

Corporate 
$$Value^{25} = Debt^{26} + Shareholder Value$$
 (8.7)

Thus, the corporate value is a product of the debt plus the value of the equity portion, called shareholder value.<sup>27</sup> Rearranging the formula leads to:

Shareholder Value = 
$$Corporate\ value - Debt\ (8.8)$$

<sup>&</sup>lt;sup>24</sup>Fuller, J; Jensen, M: Just Say No to Wall Street: Putting a stop to the earnings game. Journal of Applied Corporate Finance, vol. 14.4, 2002

<sup>&</sup>lt;sup>25</sup>Corporate value is defined as present value of cash flows from operations during the forecast period and present value of the business attributable to the period beyond the forecast period.

<sup>&</sup>lt;sup>26</sup>Debt is defined as the market value of debt, unfunded pension liabilities, and other claims such as preferred

<sup>&</sup>lt;sup>27</sup>Rappaport, A.: Creating shareholder value: a guide for managers and investors. Simon & Schuster, New York, 1998, p. 33

When estimating the corporate debt, an appropriate discount rate is used to establish the minimum acceptable rate of return required by the management.

One of the short-fall of this approach is that it does not incorporate the investor's opportunity costs, only the acceptable return from a management perspective. It can be argued that most investors have numerous possibilities for investment, and their utility is only maximized by investing in projects that offset their opportunity costs.

Bacidore et al. (1997) argues that the shareholders only are concerned with the abnormal return they earn which is the return in excess of expectations. Thus, the shareholder value will only increase, if the company earns a rate of return on investments greater than the rate investors expect to earn by investing in alternative equally risky securities.

Varaiya, et al. (1987) says that shareholder value creation is mostly incorporated into the strategic management literature as value-based planning while value-based planning is the starting point for Fuller and Jensen (2002), when measuring shareholder value creation.

They measure the created shareholder value when the market value, MV, of the equity capital invested exceeds the book value, BV, of equity. Thus, in order to add shareholder wealth, a firm's management must choose strategies that produce the largest possible MV given BV.

An advantage of this approach, to the one described above, is that the return created to the shareholders is the difference between the expected return on book equity investment, ROE, and the cost of equity capital,  $k_e$ .

Two more factors are added to determine the firm value: the earnings growth rate, g, and the number of years, n, over which exceptional spreads can be maintained. Thereby:<sup>28</sup>

$$\frac{MV}{BV} = \left(1 + \frac{ROE - ke}{ke - g}\right) * \left[1 - \left(\frac{1 + g}{1 + ke}\right)^{n}\right] + \left(\frac{1 + g}{1 + ke}\right)^{n} \quad (8.9)$$

Varaiya, et al.: The relationship between growth, profitability, and firm value. Strategic Management Journal, Vol. 8, 487- 497, 1987

While ROE are defined as *net income after tax* divided by the *shareholder equity*, the equation shows how management needs to generate a high ROE in order to produce the largest possible MV given BV.

Therefore, value creation results from pursuing growth strategies that are profitable in the sense that they generate a positive spread, which is the different between  $k_{\theta}$  and g. Equation 8.9 support that a higher firm valuation can be created by widening the spread between ROE and the cost of equity capital.

It is argued by M&M that any combination of debt and securities is as good as another, or more precise, the value of the firm is unaffected by its choice of capital structure<sup>29</sup>. However, the choice of capital structure can affect the accounting ratio *ROE* is different ways:

- Improved profit margins
- Increased asset turnover
- Increase financial leverage (debt to equity ratio or ROIC > r)

A one source that can increases the leverage is the amount spent to buy shares back. This reduces the equity, and the usefulness of other popular measures, i.e. dividend-yield, and price-to-earnings ratio, and *ROE* will increase when more debt is issued to decrease the equity.

Important is also, that a decrease in shareholder value can take place despite earnings growth, whenever a firm is operating below the market discount rate.

The results by Varaiya, et al. (1987) indicate that value creation clearly result from pursuing growth strategies that generate positive spreads. In addition, it is argued by Fernández how *ROE* is not the real shareholder value added and follows a different course than the actual number.

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<sup>&</sup>lt;sup>29</sup>Brealey, R; Myers, S; Allen, F: Principles of Corporate Finance. McGraw-Hill, International edition, 2008, 9<sup>th</sup> edition, p. 474

Financial ratios, i.e. *ROE* and EVA, are discussed in the paper:" Growth, Corporate Profitability, and Shareholder value creation" by Ramezani et al. (2002). The results stress that these rise with earnings and sales growth. By using a model similar to the one developed by Varaiya et al. (1987), they are advocating that there exists an optimal point beyond which further growth destroys shareholder value.

From their research it appears that sales and earnings growth rates combined best captures the benefits of growth. Firms with moderate growth in earnings show the highest rates of return and value creation.

# 8.4.1. The EVA approach

The shortfalls of *ROE* have been stressed above, and in order to make up for these, are some authors, e.g. Bacidore et al. (1997) and Ramezani et al. (2002), using the *Economic Value Added*, or the *EVA* approach. *EVA* focuses on the firms operation and is said to be a better link between managerial decisions and shareholder value creation.<sup>30</sup>

The properness of EVA is researched by Bacidore et al. (1997.12), who conclude, that:

"An appropriate performance measure gauges how management strategy affects shareholder value as measured by the risk-adjusted return on invested capital (Bacidore et al., 1997:12)."

<sup>&</sup>lt;sup>30</sup>Ramezani, C; et al.: Growth, Corporate Profitability, and value creation. Financial Analyst Journal, 2002, vol. 58, p. 4

The different components of the company value can be illustrated as followed:

Net Present Value of
Current and Future
Investment
Opportunities

Assets in Place

Economic Book
Value of Assets

Figure 8.2 Components of Value

Source: Bacidore, J., et al. 1997

The most transparent component of the valuation in figure 8.2 is the assets in place that equals the economic book value. It is difficult to assess the net present value of current and future investment opportunities since this component is less tangible and is driven significantly by the strategy of the firm.

Bacidore et al. argues how a balance sheet adjusted for distortions might be the book value of the assets in place, but it does not include the value of future opportunities. The difference between the market value of the firm and the book value of its assets can be considered as the value of the firm's future opportunities. Then *EVA* is given as:

$$EVA = NOPAT - WACC * BV_{net\ capital,adjusted}$$
 (8.10)

The starting point for the approach is the net operating profit after tax, NOPAT<sup>31</sup>, subtracted by the cost of capital times the book value of the net capital. By subtraction this from the operating profit wills the approach gauge the firm's financial performance.

<sup>&</sup>lt;sup>31</sup>Defined by Bacidore as:" Reported net operating profits plus any increase in bad debt reserve plus any increase in the LIFO reserve plus amortization of goodwill plus any increase in net capitalized R&D plus other operation income minus cash operating taxes (1997:15)."

Equation 8.10 shows how EVA is a measure of the creation of shareholder wealth and the return created to the investor. Still, some shortfalls are advocated by Bacidore et al. (1997); the debt balance can be increased by capitalizing value of operating lease payments, and the adjusted BV is including the net of non-interest-bearing current liabilities against current assets.

In order to create a true "operating" surplus for the stockholders, it is necessary for the firm to create a *NOPAT* that exceed the *WACC* that is based on the total market value of the capital used and not just the book value of the assets in place, as in equation 8.10.

In order to measure the shareholder value created, one needs to take into account the market value of the company since this is what is actually "invested" by the stockholder in a given period. By restating equation 8.10 one get what is called REVA:<sup>32</sup>

$$REVA_t = NOPAT_t - WACC * MV_{t-1}$$
 (8.11)

The shortfall of equation 8.10 is that a firm can appear to having created shareholder value based on EVA but actually having delivered less in terms of operating earnings than the shareholders requires. Therefore, one needs to take the actually market value into account as is done in equation 8.11.

The overall conclusion by Ramezani et al (2002:16) is that maximizing growth is not necessarily consistent with maximizing shareholder wealth; EVA increases with the market-to-book and price-to-earnings ratios, as well as the firm's current cash-flows.

By concluding that shareholder value is a concave function of growth are Ramezani, et al. (2002:17) agreeing with Bacidore (1997) upon that more appropriate measures can be found. He is working with an alpha approach, that determine the shareholder return as the excess of return expected in a period given the firm's systematic risk:

$$\propto_{j,t} = R_{j,t} - E(R_{j,t})$$
 (8.12)

<sup>&</sup>lt;sup>32</sup>REVA is a refinement of EVA but taking into account the market value of the capital used by the investors. MV is given is the market value of the equity plus the book value of the firms' debt adjusted for non-interest bearing current liabilities and at the beginning at the period t, t-1.

Then, for the firm to create a true "operating" surplus,  $\propto_{j,t}$ , for its financiers in period t, its operating profit,  $R_{j,t}$ , must exceed a capital charge that is based on the total market value of the capital used and not just the economic book value of assets in place.

It means the shareholders have received compensation above their risk-adjusted opportunity cost of capital if alpha is positive. By including the alpha approach in the measurement the opportunity costs faced by the investor are taking into account.

The alpha approach makes use of the expected return  $E(R_{j,t})$ , which can be found by the "Capital Asset Pricing Model", or the CAPM.<sup>33</sup>

$$E(R_{i,t}) = Rf_t + \beta_i [E(Rm_t) - Rf_t] \quad (8.13)$$

The market expectations to the company, *j*, is including the risk of the investment through the company's beta-value.

This measure should captures how well a given company has performed in terms of its operating income. The NOPAT itself is therefore not sufficient because it neither captures how much capital is used to generate a given level of income nor accounts for the required rate of return on invested capital.

One approach distinguishing from the others by not using accounting ratios and taking the investors opportunity cost into account when measuring the added shareholder value is a measurement outlined by Pablo Fernández (2004).

## 8.4.2. The model by Fernández

The starting point of Fernández' approach is to analyze the changes in the market cap, which was also advocated by Mark Scott (1998) whose argument is among the most basic ones; any movement in the transparent market cap<sup>34</sup> reflect if management is creating value or not.

<sup>&</sup>lt;sup>33</sup>Where is the risk-free bond, is the firm j's beta, or systematic risk, and is the expected equity market risk premium

<sup>&</sup>lt;sup>34</sup>The number of shares listed on the marketplace multiplied by the price per share

However, it is stressed that changes in the equity market value is not the same as the shareholder wealth added. Actually, an increase in the market cap without a similar match in the shareholder value can take place when:

- The corporation issues new shares
- The corporation convert convertible debentures to stocks

Opposite, a decrease in equity market value can be seen without a decrease in the shareholder value creation, when:

- The corporation pays out dividends
- The corporation makes share buy-back

This approach incorporates the investor opportunity cost, by stating that the shareholder return needs to exceed the required return to equity ( $k_{\theta}$ ) in order to create value. By taking this a step further, shareholder value can be defined as:

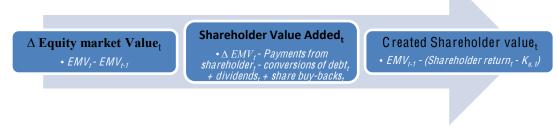
Created Shareholder Value = Equity market value \* (Shareholder return  $- K_e$ ) (8.14)

This is very much aligned with the alpha-approach, since:

Shareholder return 
$$-K_e = R_{i,t} - E(R_{i,t}) = \alpha_{i,t}$$
 (8.15)

The procedure to reach this equation 8.14 is:<sup>35</sup>

Figure: 8.3 Template outlined by Fernández



Source: Fernández (2004)

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<sup>&</sup>lt;sup>35</sup> Fernández, P.: Shareholder Value Creation of Microsoft and GE. 2004, p. 9

This approach is selected to measure if a company is creating shareholder value during the research period. The model integrates many of the things discussed in previous sections: Accepting that the value of future opportunities are built-in to the share price is the value of g incorporated in the first step; all cash-flows between the parties are taking into account in the second step; while the investor's opportunity cost is used in the last step to determine the actual shareholder value created which equals the alpha approach.

The model by Fernández incorporates both dividend and capital gains, but also the value of future investments incorporated in the stock price.

The meanings of dividends can be divided into two groups; some think that they influence the value of the firm, while some say they do not. No matter what ones particular conviction is, the non-monetary phenomenon *signalling* indicated that they are influence by human judgment.

# 8.5. Moving towards cultural finance

Social and human matters explain some of the differences between the financing patterns of developing and industrial countries, concluded by Singh (1995).<sup>36</sup> He argues that the reputation-building effect reduces the importance of the absence of investor protection. Moreover, a high concentration of ownership combined with a high volatility of cash flows, makes equity financing a relatively more attractive source of financing than debt.

Investor protection was the central point for La Porta et al. in their research of corporate governance around the world. One of their arguments is:

"Because legal origins are highly correlated with the content of the law, and because legal families originated before financial markets had developed, it is unlikely that laws were written primarily in response to market pressures. Rather, the legal families appear to shape the legal rules, which in turn influence financial markets (La Porta et al., 2000:9)."

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<sup>&</sup>lt;sup>36</sup>In: Gomes, A.: Going Public with Asymmetric Information, agency costs, and Dynamic Trading. 1999, p. 28

Their findings suggest that there exist differences across the world, shaped by what law family a country origin from, and therefore also supporting the importance of human influence.

A recent and very interesting research made by Fidrmuc and Jacob (2010) investigate if differences in dividend payout policies around the world are rooted in the national culture. They use the principal-agent relation to approach dividends and explain the preferences and behaviours of the agents by the cultural values inhered in a society.

They posit that social nature alters the character of the agency relations, and thereby makes culture a central determinant of dividend payout policies around the world. Their findings indicate that both legal institutions and culture, put as a social institution, has complementary effect on dividend payout strategies.

By using the work of Hofstede (1991) they find that firms in very individualistic countries and with low power distance pays relatively higher dividends. The study supports the cultural influence on finance, and is said to be the link between the two disciplines of "Law and Finance" and "Behavioural Finance".

As the problem statement posits, it is the aim of the thesis to explore if it is possible to transfer these cultural values across borders and legal families. In order to understand the effects of national culture on social relations the next section is a theoretical approach of culture and the cultural dimensions by Hofstede (1991).

# 8.6. The importance of national culture

Hofstede used in 1991 a model consisting of four dimensions to describe the characteristics of a national culture. Of course, not every person in a nation has all characteristics assigned, but they refer to common elements.

#### These four dimensions are:

#### - Power distance

o "Defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed (Hofstede, 1991:28)"

# - Individualism vs. Collectivism

• "Pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself... (Hofstede, 1991:51)"

## - Uncertainty Avoidance

o "Defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations (Hofstede 1991:113)"

## - Masculinity vs. Femininity

 Masculinity pertains to societies in which social gender roles are clearly distinct ...; femininity pertains to societies in which social gender role overlap (Hofstede 1991:83)

Chinese scholars have revealed support (Hofstede et al., 1990) for a fifth dimension which they call "Confucian dynamism". This dimension tries to catch the orientation in life, e.g. long-term or short-term perspective. One reason why Chinese scholars might advocate for the importance of this dimension could be the importance of Confucianism in many Asian cultures.<sup>37</sup>

The work by Fidrmuc and Jacob (2010) finds that the score on the dimensional index of individualism, power distance, and uncertainty avoidance are associated with a higher dividend payout ratio. The individuality in a country affects the principal-agent relation, and in these societies agency conflicts are more severe because people are more prone to vigorously pursue personal interests.

<sup>&</sup>lt;sup>37</sup>Moran, T. Robert: Managing Cultural Differences, p. 280. In: Cross Cultural Management. A reader to the course: Cross Cultural Management MGT 590.

It was previously emphasized how dividends can be a tool to distribute profit, and thus 'low power distance' countries can expect higher payouts because distributing profits are compatible with a strong cultural value that put emphasis on equality and a reduction in the power and wealth differentials.

Opposite put, investors in countries that scores high on uncertainty avoidance have a higher emphasis on certainty and that dividend levels are met each year. However, they also emphasize that some cash are kept within the company to hedge against unforeseen financial troubles. These societies might accept and expect lower dividend.

It is the aim of this thesis to find arguments for a discussion concerning the transfer of national cultural variables in to supervisory boards in countries where another culture is dominant, just as declared in the problem statement.

Very recent research shows, how organizations consisting of differentiated cultural backgrounds scores higher on the wellbeing of employees.<sup>38</sup> This is taking even further by Jan Ryhall<sup>39</sup>, HR-director in Danfoss, who says that cultural diversities impact the net income, even though he does not have the opportunity to distinguish the production per nationality working in Denmark.

This indicates that a transfer of culture is possible and can affect the performance of a corporation, but is this also the situation on higher management levels?

<sup>39</sup> Lykke, Pia: Har blandet nationaliteter i årevis. Børsen Executive, 12/03/2010, page 8

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<sup>&</sup>lt;sup>38</sup> Lykke, Pia: Kulturel forskel er en klar fordel for effektiviteten. Børsen Executive, 12/03/2010, page 8

# 9. The theoretical approach as a reference model

Based on the three main theories, it is the aim first to make a qualitative analysis of the research group according to the research question:

- What changes has the internationalization process meant to the composition of the Board of Directors in Danish corporations?

This will highlight the composition of nationalities represented and how these might influence the different boards. This part of the analysis is followed by a quantitative analysis that shall answer:

- Has these new board compositions, caused any detectable changes in the payout policy or the shareholder value creation?

The link between the theoretical approach and the problem statement, calls for a structured analysis of the internationalization process in order to determine the ability to create shareholder wealth. The analysis is structured as:

## 9.1. Corporate Governance

This section is based on the corporate governance practice for each company, and shall illustrate what each Board of Directors declare to be their task and how they try to allocate capital back to the shareholders.

By reviewing the composition of each board, it becomes possible to highlight trends and detect if the same trends are observed for all corporations in the research group.

## 9.2. National Cultural Variables

By combining this knowledge with the updated scores on the dimensional indices from 2001 by Hofstede, the research results by Fidrmuc & Jacob (2010) can clarify what changes in payouts that might have occurred during the research period. This combination of theories, research, and quantitative data can hopefully detect any occurred changes.

#### 9.3. Shareholder Value

Fernández stresses how the creation of shareholder value must be based on more than just the dividend per share or the capital gain, as clarified in the theoretical review.

The aim of this section is to put the template outlined by Fernández in to use on each corporation in order to determine their ability to create shareholder value. The differences found between the Danish corporations and their foreign competitors will be illustrated by a preliminary discussion.

#### 9.4. Discussion

It is the creation of shareholder value based on a cultural analysis of the board composition that shall be the basis for the discussion. This will highlight whether it is possible to provide a final conclusion on the research questions, and thereafter provide the basis for both the conclusion and reflections.

Figure 9.1 Structure of the analysis

Figure 9.1 is a highlight of how the analysis shall be seen as an evolving process; the past has not been static and neither will the future be. The outer arrows illustrate how the analytical process is a continuous process, and that the conclusion is based on results that should be

reviewed through a continual analysis of the context.

# 10. Corporate Governance

The aim of this section is to discuss what each board has declared to be their primary task and how they want to reallocate excess of capital. The section is based on annual reports and the Corporate Governance Declaration from each company; describing how board members are nominated and what are the characteristics wanted. This is what makes the analysis able to use the conclusions by Fidrmuc and Jacob (2010).

#### 10.1. Novo Nordisk A/S

The corporation has a two-tie structure that complies with the Danish standards for good corporate governance. 40 The board supervises the performance of the management and participates in determining the company strategy, while tighten the gap between the investors and the daily management.

To secure that excess capital is allocated back to the shareholders the guiding policy states that first after funding organic growth opportunities and potential acquisitions, is capital returned to the investors. The company strives to pay a pharmaceutical industry payout ratio complemented by long-term share purchases.<sup>41</sup>

# 10.1.1. Board Composition

The highest authority of the corporation is the Board of Directors which has 11 members of whom seven are elected by the shareholders at the General Annual Meeting. Moreover, only four of the shareholder-elected board members are independent as defined by the Danish Corporate Governance Recommendation, while three are non-independent due to a relation with the majority shareholder.

It is formulated in the company's corporate governance declaration<sup>42</sup> that the guiding principle when composing the Board is, that the members shall comprise knowledge and experience, so that it enables the Board as a whole, to attend the interest of the shareholders.

<sup>&</sup>lt;sup>40</sup>The Danish corporations traded on NasdaqOMX shall comply with the "Danish recommendations for Corporate Governance which shall be included in the annual reports. If the corporation deviates at any point, these deviations must be explained.

41 Novo Nordisk A/S, Annual Report 2009, p. 48

<sup>42</sup> http://www.novonordisk.com/about\_us/corporate\_governance/board\_of\_directors.asp

As can be seen from appendix A.1 has Kurt Briner, a Swiss native, been Director from 2000 to 2009, while Ulf J. Johanson, a Swede, was member from 1998 until 2005, thus, there have been members for many years with a nationality other than Danish. Johanson were replaced in 2005 by Göran A. Ando, who has served as Vice Chairman since 2005.

Of other changes worth mentioning is, that J. Kirby, British, and Hannu Ryöppönen, Finnish, joined the board in 2008 and 2009, respectively. These changes might be a consequence of Novo's increased focus and dependence on the return from foreign markets.

# 10.2. Eli Lilly, Inc.

The corporation has a one-tier board structure, where the chief executive officer shall be a member. The size of the board can fluctuate, where a range of 12-24 directors seems appropriate; the size of the Board was 13 in 2009. By having the expedient to increase the size of the board, the Nomination Committee is in a position where it can take advantage of suddenly available and outstanding candidates.

The candidates selected for the board shall represent a mix of backgrounds, and such candidates shall have substantial experience from public traded national or multinational companies. The composition of the board should reflect diversity, including geography, gender, and ethnicity.

The Board believes that through a strong system of Corporate Governance, it is possible to create long-term shareholder value. How this value is allocated back to the investors is not specified, but figure 11.1 indicates that a steady increasing dividend per share is the target.

## 10.2.1. Board composition

Electing Sidney Taurel in 1991, born in Morocco and later emigrated to the United Stated, and F. G. Prendergast, from Jamaica, in 1995, shows that an international perspective has been in place for many years. Furthermore, it can be seen in appendix A.2 how two Europeans joined the Board in the early zeros: a German and a Scot, where the former is still being a Director.

# 10.3. Copenhagen Airports A/S

Even though a foreign company acquired CPH in 2005, it is still listed on OMX and needs to comply with the Danish recommendations for good corporate governance.

Opposite many of the other companies in the research group, CPH has a very clear goal:

"CPH's goal is to create shareholder value (CPH, Annual Report 2009, p.49)."

A key element for the board in doing so is to maintain an efficient and prudent capital structure that can provide funding for the continuous business and investment requirements.

The two acquiring parts, Macquarie and Macquarie European Infrastructure Fund III owns 53.7 % of the share capital and nominates five out of nine board members. These are selected on a device that each member shall possess extraordinary skills, while actively contributing its knowledge and experience in favour of the contentious development.

The Board is aware of the other shareholders' interests, who are on an equal footing as the ones of the majority shareholders. Even though no article expresses a need for board members with an international experience, it looks like the strategy chosen, but one can argue that such an internationalization process might come quite natural in CPH.

# 10.3.1. The Supervisory board

The supervisory board consists of six members elected by the shareholders and three elected by the employees.<sup>43</sup> Even before the acquisition several nationalities were represented; Rolf Börjesson a native Swede was a regular member from 2002 to 2005, while Ivar Samrén from Finland served as deputy chairman from 2004 to 2005.

Acquiring the majority of the shares gave Macquarie a possibility to set the board as they wanted and the acquisition led to radical changes in the Board; three new board members entered and there have been six other replacements through 2006-2009. Today, mainly British and Australian nationalities are dominating the Board.

<sup>&</sup>lt;sup>43</sup> http://www.cph.dk/CPH/UK/INVESTOR/Share+Information/Corporate+governance/

# 10.4. Fraport AG

The fact that Fraport is a joint-stock company is clearly reflected in the composition of its "Supervisory Board", where most of the members are elected by the two majority shareholders. The members of the Board represent both the shareholders and the workforce, and consist of an equal number of shareholder and employee representatives.

The aim of the Supervisory Board is to over-watch the business development and corporate strategy, and the latter is to sustainably increase the value of the company through communication with the market.

How the created value shall be allocated back to the investors is not described in details, but appendix A.10.2 indicates that a dividend payout has been widely used. However, any steady increase in the dividend per share cannot be detected.

## 10.4.1. Board Composition

Not many of the Directors elected by the shareholders have had a foreign nationality. Actually, there have only been two; one from Belgium and one from Austria.

Artio Global Mgt LLC, who is another major stockholder in Fraport, is an American specialist in private equity that invests to provide management expertise and create long-term value, has not managed or forced any election of American Directors.

#### 10.5. Danisco A/S

Danisco complies with the Danish corporate governance recommendations and has a two-tier system to separate the power of the company. Candidates nominated to the Board needs to have a broad and international business experience.<sup>44</sup>

Danisco has realized that to gain as much as possible from their activities in Finland, which are both commercial and financial of significant importance, one of the Board members should represent a certain in-depth knowledge of Finland and the company's activities in the country.

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<sup>&</sup>lt;sup>44</sup> Danisco, Annual Report 2009, p. 58

## 10.5.1. The Board of Directors

The board consist of eight members, and a clearly defined dividend policy shall secure that the financial requirements for future growth are met. It is the aim to ensure the necessary equity to fund operations and distribute excess capital to the shareholder through dividend payments and share buyback programmes. 45

As can be seen from appendix A.1, Sweden and Finland has been represented several times by different board members, and it is worth remarking that Matti Vuoria has been Deputy Chairman from 2002-2005, and that the most recent change is the inclusion of Diego Bevilacqua, a British citizen.

#### Tate & Lyle Plc 10.6.

Tate and Lyle consider high standards of corporate governance as central to maximizing shareholder value. The Board of Directors ensures that the necessary financial and human resources are in place to met and review management performance.

The allocation of excess capital has for many years been through dividends and Tate & Lyle has historically had a stable dividend payout. 46 However, at the 2009 Annual General Meeting, the directors proposed a authorization to give the shareholders of the common shares the opportunity to receive dividends in the form of newly issued common shares instead of cash.

The Board consist of eight independent non-executive directors, where one are appointed Chairman, and the Group Chief Executive and the Group Finance Director. The roles of the Chairman and Chief Executive shall be separated and each responsibility is clearly defined.

No member of the board is employee-representative and the Nomination Committee consider knowledge and experience when recruiting non-executive directors<sup>47</sup> Each member shall have a broad business and commercial experience, but no requirements of international experience are put in place.

 <sup>45</sup> Danisco, Annual Report 2009, p. 52
 46 http://www.tateandlyle.com/TateAndLyle/investor\_relations/dividends/default.htm

# 10.6.1. Board Composition

Tate & Lyle is a British company with focus on the Americas, European, and South East Asian market, and especially due to this both Americans and Europeans have been widely present.

Stanley Musesengwa, a native Zimbabwean, was elected to the board in 2003 as Executive Director due to his current position as Chief Operating Officer in the Group. The following year Kai Nargolwala joined, a native Indian, as a non-executive director.

None of these are from countries previously detected in the analysis, and it might be due to an increased international focus on markets other than just North America and Europe.

## 10.7. GN Store Nord A/S

The long-term commitment is important to GN, who wants to distribute funds to the shareholders whenever the situation allows it or special events occur, i.e. a sell of subsidiaries. Being able to secure the long-term growth, cash are to be distributed after taking into account earnings, the capital structure, and investment plans.

The dividend policy applied by the Board of Directors prescribes that dividends and share buyback programmes are to be preferred.<sup>48</sup>

The board has nine members, of whom three are employee representatives and six are elected at the General Annual Meeting. However, since 2009 there have only been eight members. The number of board members is determined by the size of the company as well as the competences found necessary.

The recruitment process aims to nominate candidates with mutually complementary competencies. Moreover, competences from international corporations or a general industry experience, combined with an understanding of accounting and auditing matters shall secure this versatile composition.<sup>49</sup>

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<sup>&</sup>lt;sup>48</sup> GN Store Nord A/S, Annual Report 2009, p. 20

<sup>&</sup>lt;sup>49</sup> http://www.gn.com/DA/GNAbout/CorporateGovernance/Principles/Pages/TheCompositionoftheSupervisory Board.aspx

# 10.7.1. The Supervisory Board

GN is the Danish corporation having nominated fewest foreign board members; first was William E. Hoover, native American, elected in 2007 as Deputy Chairman. He was followed by the Dutch Mike Wallen, and in 2008 became the Norwegian Per Wold-Olsen chairman. This indicates that even though the number of foreign board members is relatively low, they have still held very central positions.

## 10.8. Plantronics, Inc.

The governance structure in Plantronics is a two-tier structure, where the corporate governance declaration of the company requires the roles of CEO and Chairman of the Board to be separated.

In the guidelines of Plantronics, it can be found that the role of the Directors is to act in what they believe, to be the best interest of the company and its shareholders. The key corporate goal is to maximize long-term shareholder value, by being profitable and improve return on invested capital.<sup>50</sup>

Potential Directors are recommended by the "Nominating and Governance Committee of the Board", but there have not been established any specific or minimum qualifications that must be met.<sup>51</sup>

# 10.8.1. Board composition

The size of the board can range from five to nine Directors, but it consists today of seven members. Of these are six independent non-executive directors and no one is elected among the employees. The Board is under regularly review as well as its composition of competences.

Foreign nationalities have been represented since 1999 where Saleem Muqaddam joined as part of a leading stockholder coalition. The year before Muqaddam's resignation in 2002, Roger Wery, a native Belgian, joined.

<sup>&</sup>lt;sup>50</sup> Plantronics, Annual Report 2009, p. 33

<sup>51</sup> http://www.plantronics.com/media/investor/corporate\_governance\_guidelines.pdf

When taking the size of the board into consideration, Plantronics can by employing just one director with a foreign nationality, increase the percentage of foreign Directors a lot.

# 10.9. The process of internationalization

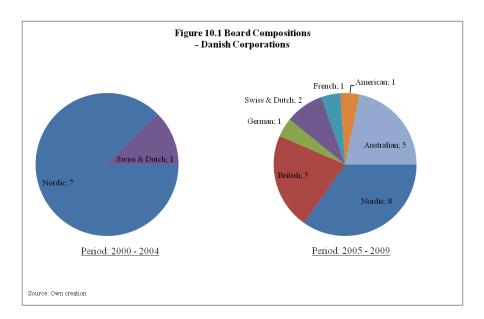
The different selection criteria, emphasized above, are the ones being used when nominating new board members. Furthermore, they can be used as an indication of the paradigm ruling in the different boards.

By uncovering the board-changes during the research period is the analysis in place to discuss these findings in an interaction with the results of Hofstede (1991) and Fidrmuc and Jacob (2010).

The following discussion is based on figure 10.1 and 10.2, where each chart contains two periods: 2000-2004 and 2005-2009. Each pie counts the number of board members having represented a nationality different than the origin of the corporation. Of course, some of the Directors have been replaced over the years, but it is assumed that their cultural values still have made an impact, and dividing the different replacements into two periods are found as the best way to illustrate the changes.

## 10.9.1. Are Danish corporations widening their horizon?

The following pie chart is based on appendix A.1 and it shows the board composition for the Danish corporations, divided into two periods.



The first pie highlights the period from 2000 to 2004, where only eight board members have had another cultural background than Danish. The foreign Directors were primary from other Nordic countries, and appendix A.1 reveals that as much as five of them were from Sweden.

That the corporations first recently have started to search for Directors beyond the Danish borders can be seen in the second pie. It shows the development in the past five years where a total of 23 foreigners had been elected to one of the boards. This is an increase of 185 % but the majority of them were from other Nordic countries.

The second pie is obviously coloured by the acquisition of CPH, and it can be argued that since the investors of CPH elect six of the Directors, an international selection procedure comes quite natural. But, since the company is still listed on the Danish stock exchange, it still represents an investment opportunity for minority investor.

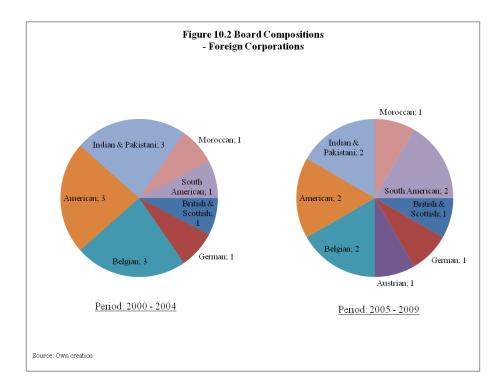
The nationalities represented can, with the use of a very broad subdivision, be divided into two groups: the majority consisting of the Nordic countries, Germany, and Britain, while the minority consists of the rest.

Danisco formulated in their declaration how at least one board member needs an in-depth knowledge about the markets where the corporation have special interests, and this can be the general argument for the trend observed above. Then, it becomes possible for the boards as a whole to act, upon the interests of all the shareholders and stakeholders, in order to gain the largest possible return on each market.

# 10.9.2. What have happened abroad?

The corporate governance declarations for the foreign corporations showed that only half of foreign competitors have set out specific criteria when nominating the Directors. Lilly is the only corporation to stress the importance of experience from a public traded national or international company in their declaration.

Figure 10.2 is based on appendix A.2 and is constructed as figure 10.1. The figures reveal that the number of Directors with foreign nationality has declined by one; from a total of 13 to 12.



The number for the first period is a little higher compared to the one of the Danish corporations, but significant lower in the second period. However, another interesting observation can be stressed.

In the first period were a total of eight nationalities present in the four foreign corporations, with a majority from either Belgium or America. The interesting point to highlight is that Directors from the Middle East, Africa (Zimbabwe), and Central America (Jamaica and Cuba) are observed in this group.

The same trend is seen in the second period; a broader composition of nationalities in the foreign corporations, even though the total number of foreign board members has declined.

## 10.10. The Composition of Nationalities

The foreign Directors found in the Danish corporations are mostly from other European countries with a majority from Sweden, with CPH as an exception. By investigating the different board composition in the Danish corporations, a trend was found: an increasing part of the Directors are from one of the neighbour countries to Denmark.

Some of the most important trading partners for Denmark are Germany, Sweden, Great Britain,<sup>52</sup> and the Netherlands, and are all countries located geographically close by. The trading partners of Denmark shows a striking similarity to the majority group defined above, thus, the trend can best be described as; more members with knowledge from one of the main trading partners of Denmark are elected to the boards.

Comparing the foreign companies with the Danish ones, were a more diversified classification found, and at some point in the research period were as much as four continents represented; North America, South America, Africa, and Europe.

The explanation for this trend might be the same as detected above; that the foreign corporations' focuses on the international markets, and as revealed in appendix A.11, this much dispersed composition of the boards are very aligned with the picture of the respective trading partners.

Having clarified the different nationalities represented in the boards, it brings the analysis to a point where the cultural dimensions of Hofstede can be used.

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<sup>&</sup>lt;sup>52</sup> Danmarks Statistik. Table UHV2: The total trade for imports and exports, seasonal adjusted and by country.

# 11. National Cultural Variables

# 11.1. Mapping the Nationalities

By mapping the results of Fidrmuc and Jacob (2010), on charts based on how the nations scored in the work by Hofstede (2001), it enables the analysis to view the different payout strategies according to what are expected based on the board composition.

Fidrmuc and Jacob found evidence that supports that three of the four dimensions developed by Hofstede; have significant influence on the dividend payout. These three are: *Individualism, Power Distance, and Uncertainty Avoidance.* 

The scores of each nation (appendix A.1 and A.2) have created appendix A.3 to A.5. Denmark has been included as reference point and the two dotted lines divide each chart into four quadrants, where some nations again are grouped together in smaller clusters.

According to the research, the Danish culture is characterised by being *individualistic*, *small* power distance, and weak uncertainty avoidance. These are also the three parameters that should lead to a higher dividend payout, according to Fidrmuc and Jacob.

Countries, that are both individualistic and have weak uncertainty avoidance, are likely to actively attempt, to integrate minority groups and guarantee equal rights. The low power distance even further supports the latter; in these countries should inequality between people be reduced to a minimum, and there should to some extent be a mutual dependency between the less and the more powerful. These are all arguments that seem to advocate a higher dividend payout for the Danish corporations.

Denmark scores highest on these parameters, and appendix A.3 and A.5 shows how Denmark and Sweden are grouped together, while they are located close to each other in appendix A.4. Thus, an increase of Swedes in the Danish boards should not change the company's payout strategy radically. Increasing the number of Swedes is exactly what the majority has done.

An increasing number of Brits were also detected, grouped with Denmark in one chart and in same quadrant in the two others, and these should have less impact as well.

Of the foreign corporations in the research group, Germany is the only country lying in another quadrant than Denmark in two of the three charts. Germany are said to have stronger uncertainty avoidance and are a little more in favour of collectivism.

Countries being more collective is characterised be seeking, that the group's interest and honour are achieved, which may require that many members of the primary group must appear self-effacing. Combined with a high degree of power distance, where privileges and status symbols are both expected and widespread, it might lead to a lower degree of dividend payouts.

In appendix A.4, the relationship between the uncertainty avoidance index and the individualism index are displayed, and the countries from the Middle East are located in the quadrant opposite Denmark. These countries are characterized by having strong uncertainty avoidance and being collective.

Such countries will tend to eliminate conflicts by denying them and attempting to oppress minorities. Thus, board members from such countries are therefore expected to vote for lower payouts in order to sure the wealth of the "the group's" corporation and securing enough cash for future uncertain events.

Keeping the cash inside the corporation, instead of allocating it back to the investors, might also be the tendency in other countries. Appendix A.3 shows how countries such as India, Pakistan, and the Arabic region are all grouped in the opposite quadrant than Denmark.

In the right bottom corner of appendix A.4 are many Western European countries found, countries such as France, Germany, and Switzerland. They are all countries hosting a more considerable resentment against minorities and other ethnic groups. France and Belgium are characterized by medium power distance, strong uncertainty avoidance and more individualistic than the average.

Such countries, with strong uncertainty avoidance, are more intolerant against dissidents and minorities, but their individualistic state tries to ensure that everyone's right are respected. France and Belgium are grouped together in all three charts, and in no chart in the same quadrant as Denmark.

Due to their high power distance, everyone belongs to a group but the implications of this relationship are to a lesser extent imposed by the group rather than dictated by the tradition. Directors from these countries should work for a lower dividend payout, and keeping the money inside the corporation.

The previous section mapped the different nationalities on Hofstede's cultural dimensions in order to detect which countries are most in favour of dividend payments. The next part will introduce various payout ratios so that the differences between the Danish corporations and their foreign competitors can be put into a quantitative perspective.

# 11.2. The Payout Ratios

Payout ratios can widen the explanation of the amount paid to the investors as a function of the company's net income, and the use of different ratios can highlight several perspectives possible to measure the dividend payout

# 11.2.1. The Total Payout Ratio

The total payout ratio deepens the understanding of the total amount paid, both by dividends and through share buyback programmes, in relation to the company's net income.<sup>53</sup> It is a ratio explaining the total percentage of earnings allocated back to the investors; the results are shown in appendix A.6.

Chart A.6.1 shows the development in the total payout ratio for Novo and Lilly; while the yield for Novo has increased almost contentious since 2001, the one for Lilly has been decreasing since 2005. In general, the payout has been higher for Lilly than for Novo, but this picture changed in 2006. The missing spike for Lilly in 2008 is one of the shortfalls of the ratio, and indicates that Lilly faced a deficit but still allocated cash to the investors.

Chart A.6.2 shows the payout ratio for Fraprot and CPH, where largest differences can be detected, the payout yield for CPH has increased in all years and also been higher than the one for Fraport. Moreover, the graph shows that the total payout did not increased significantly after the acquisition in 2005, but the companied continued to payout even though the surplus felt drastically in 2008.

<sup>&</sup>lt;sup>53</sup>Equation: Total payout ratio = (dividend + amount spent on shares purchased in the market) /Net income. Moreover, the numbers has been corrected for inflation.

The ratio for Danisco and Tate & Lyle, shown in A.6.3, shows a quite unstable trend for Danisco, while the one for Tate & Lyle are more stable while the missing spikes further reveals the models short comings. The trends for Tate & Lyle and Danisco have been quite similar but Danisco outperformed in drastically in 2009 due to a sale of subsidiaries.

The shortcomings of the model are widely influencing the figure displaying the yield for GN and Plantronics. The explanation to this phenomenon is signalling, as explained in the theoretical part of the thesis. To compensate for these shortcomings are the dividend per share analyzed in the next section.

# 11.2.2. Dividend per share<sup>54</sup>

The dividend per share shows the actual amount paid in dividends only to the investor (before any personal taxes) and its advantage is that it uses the actual amount paid to the investor, even though the company generates a surplus or a deficit.

The perspective of this thesis is to detect how Danish investors are affected, and needs to be compared to foreign investors in their home countries. Therefore, no exchange rates are needed to compare the trends. Moreover, including exchange rates would add additional risk to the foreign stocks, and therefore make the comparison less reliable.

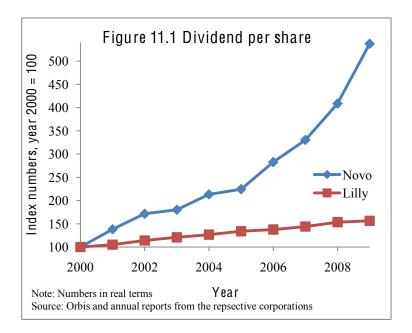
The numbers have been corrugated for inflations in order to compare the trends in real numbers; the investor's actual purchasing power for the money. Moreover, the numbers are changed into index numbers with year 2000 equalling index 100.<sup>55</sup>

<sup>&</sup>lt;sup>54</sup>The formula is straight forward, and the charts are based on the numbers in appendix A.10. Even though the method seems quite straight forward, the amount of shares can vary according to who are doing the calculation: when calculation the P/E-ratio for Novo Nordisk, the company itself uses the average amount of shares of all shares outstanding over the year, and the database Orbis are using the amount of b-shares outstanding at the beginning of the year. In order to create methodological consistency throughout the thesis, the amount of shares used will be total amount of shares end-of-year, e.g. also including both a-shares and preferred shares.

This is the same procedure used for all three measures in section 10.

<sup>&</sup>lt;sup>55</sup>This is only applied to Novo and Lilly, and Danisco and Tate & Lyle, for CPH and Fraport is 2001 equal to index 100, and since there are many years where neither GN nor Plantronics have paid out dividend is 2005 index 100 for them.

The trend in *dividend per share* for the two pharmaceutical companies is shown in figure 11.1, and can for the rest of the companies be found in appendix A.7.1 - A.7.3.



It is clear that the dividend per share has increased a lot faster for the investors in Novo, than for them in Lilly where a more stable increasing can be seen. The figure support that both companies are aiming for an increasing dividend per share, however, the actual numbers are not comparable due to their different currencies.

CPH and Fraport have had very similarly trends in the beginning of the research period but after the majority of shares were acquired in CPH did the dividend payment increase tremendously. The trend for Fraprot has been very stable over the period, also in 2008 where the payout from CPH got a heavy jerk downwards.

The figure for Danisco and Tate & Lyle are found in appendix 7.2 and the development in the beginning of the research period are very different; the dividend decreased by more than 50 points between 2000 and 2001. However, the trends have ever since been much aligned but with an overall decreasing trend.

The reason to this radical fall between 2000 and 2001 is a payment of an ordinary dividend<sup>56</sup> and it can be discussed that a comparison of the trends should have started in 2001 instead of 2000.

Not much can be said about the dividends paid by either GN or Plantronics,<sup>57</sup> since such one has been missing in many of the years. Before GN faced the crisis, and a deficit, did the dividend per share settle about a level aligned with the base year, and the same is the case for Plantronics. For the latter, it seems to stable 20 % higher than in the base year of 2005.

Both *dividend yield* and *dividend per share* tries to describe how much of the net income is allocated back to the investors. Neither of them tries to determine the investor's confidence in the company's ability to generate earnings, which can be measured by the investor's willingness to pay for a share of the net income.

# 11.2.3. Price-to-Earnings Ratio

The *Price-to-Earnings ratio* (P/E ratio)<sup>58</sup> is an "earnings multiple" and measures the price paid for a share relative to the net income earned by the firm.<sup>59</sup> A higher P/E means that the investor are willing to pay more for each unit of net income, and the ratio can therefore be used to categorize the price difference of two shares.

The P/E ratio for each company is calculated and attached in appendix A.8. At first glance, it looks like the P/E ratios in general are higher for the foreign corporations compared to the Danish ones; one exception could be the relation between Danisco and Tate & Lyle.

This hypothesis is tested by a regression analysis, where the Danish corporation will be the explanatory variable and the foreign corporation as dependent variable. It is tested by a *Time Series* regression, <sup>60</sup> and a five percent test-level is chosen.

<sup>&</sup>lt;sup>56</sup> Tate & Lyle, annual report 2000, p. 23

<sup>&</sup>lt;sup>57</sup> It has been chosen to show the development in a "column chart" instead of the XY-scatter that has been used to the three others. The reason is the very unstable payout that both GN and Plantronics have performed. Moreover, the base year has been changed to 2005.

<sup>&</sup>lt;sup>58</sup>The P/E-ratio is calculated as: *Market value per share / Earnings per share*.

 <sup>&</sup>lt;sup>59</sup>In years with a deficit, the P/E ratio is not possible to determine and are given the value 0 in appendices A.9
 <sup>60</sup>The time series chosen is: "Regression Analysis with Autoregressive Errors". The foreign corporations are used as dependent variables while the Danish are the explanatory variables. The regression shall investigate if a higher P/E ratio is attached to the foreign companies will the intercept parameter not be included.

The regressions shall investigate if a higher P/E ratio is attached to the foreign companies, and the intercept parameter will not be included. The equation tested is:

$$P/E_{Foreign} = \beta_1 * P/E_{Danish} + u$$
 (11.1)

The expectations to the results are a beta coefficient above one for the relations including Lilly, Fraport, and Plantronics. This will support the hypothesis that these are attached with a higher P/E ratio. For Tate & Lyle is the coefficients expected to be below one, indicating a lower ratio.

Testing if a beta coefficient is significantly different from zero is the normal procedure, but due to the expectations above is the test deduced as:

$$H_0$$
:  $\beta_1 \le 1$  with  $H_1$ :  $\beta_1 > 1$ 

If  $H_0$  is rejected, then the beta coefficient will be above 1 which are aligned with the expectations. For the relation including Tate & Lyle is it the hope, that the null hypothesis will be accepted.

## 11.2.3.1. Results of the regression analysis

The results of the different regression analysis are:

Table 11.1 Regression Analysis

Dependent variable	Lilly	Fraport	Tate & Lyle	Plantronics
Explanatory variable	Novo	СРН	Danisco	GN
Beta-value	1,6408	1,5117	0,2502	0,8289
Standard Errors	0,4092	0,4072	0,09	0,3543
t-value	4,01	3,71	2,78	2,34
P-value	0,0031	0,048	0,0214	0,044
$\mathbb{R}^2$	0,6411	0,605	0,4621	0,3782
Degrees of freedom	8	8	8	8

Source: SAS Enterprise

Both the regression of Lilly and Fraport has a beta-coefficient above one as expected, while it is lower for the latter two. Due to a 5-percent test-level is it indicated by the P-values that all four coefficient are significant different from zero.

The task was to determine if the beta coefficients were above one, and testing for a specific beta-value can be done by:

$$t = \frac{\hat{\beta}_1 - \beta_1}{se(\hat{\beta}_1)} \quad (11.2)$$

And the null-hypothesis can be rejected if:

$$|t| > t_{0.05,df(8)} = |t| > 1,833$$

The respective t-values calculated by equation 11.2 are:

Table 11.2 T-values

Dependent variable	Lilly	Fraport	Tate & Lyle	Plantronics
Explanatory variable	Novo	СРН	Danisco	GN
t-value	1,566	1,257	-8,331	-0,483

Source: Own contribution

Then, only the hypothesis for Tate & Lyle can be rejected, and Tate & Lyle are therefore the only of the foreign corporations attached a higher P/E ratio. Only if the test-level is changed to 10 per cent and the critical t-value will be 1.383, can the hypothesis for Lilly be rejected, and a premium is paid by the investors in the company.

It was expected that the coefficients were positive and above one for the relations, except for Tate & Lyle were a coefficient between zero and one was expected. This hypothesis is not supported by the regression analysis that advocated that it was the Danish corporation that were attached to a higher P/E. This might indicate that something has been overlooked so far.

# 11.3. The Detected impact of National cultures

Having mapped the different countries on the dimensions of Hofstede (2001), Denmark is described as: individualistic, having small power distance, and weak uncertainty avoidance.

This describes a nation supporting that inequality between people shall be reduced to a minimum, status symbols are unwelcome, and thereby supports that excess capital shall be allocated back to the investors. In general, both Novo and CPH increased their dividend per share faster than their competitors while Danisco and Tate & Lyle has followed each other in recent years.

The different ratios analysis shows that the Danish corporations in recent years were paying a higher percentage of their net income back to the investors, while it lead to an increase in the dividend per share what for both Novo and CPH outperformed their competitors. For Danisco and Tate & Lyle were the trends very similar to each others.

The P/E analysis indicated a higher P/E for the Danish corporations, with exception of Danisco. Which was not aligned with the expectations, and indicated that some explanations have been overlooked so fare.

#### 12. Shareholder Value Creation

Miller and Modigliani advocated how neither the dividend payout nor the capital structure of the corporation affects the value of the corporation. Valid or not, payouts are used to tighten the principal-agent relation as a signal for future expectations.

This confirms the impact and importance of the various cash flows existing between the corporation and the investor. The chosen template to calculate the addition of shareholder value is based on these cash flows, thus, the dividend payout will influence these results.

An advantage of this model is its ability to take the shareholder's opportunity cost into account when investigating the value creation in a certain company.

This section will start out by determining the cost of equity capital for investors living in one of the four countries included in the research-group, which is found by the CAPM approach. The section ends with the use of the template outlined by Fernández, and shall investigate the shareholder value creation of each corporation.

# 12.1. The cost of equity capital, $k_e$

The CAPM determines the investor's required return on an investment with a certain amount of risk. The risk of the investment is measured by the stock's beta-value, which is determined by its correlation with the market index.

The beta-values for the research companies are:

Table 12.1.1 Beta values

Novo	0.385	Eli Lilly	1.019
СРН	0.601	Fraport	1.022
Danisco	0.810	Tate & Lyle	0.803
GN	1.521	Plantronics	1.638

Source: DataStream

It is indicated, based on the beta-values in Table 12.1.1, that the share price on half of the selected corporations moves in the same direction as the market, while the other half moves opposite.

It can be seen that Danisco and Tate & Lyle, and GN and Plantronics have beta-values quite close to each other, while the other pairs of competitors have beta-values far from each other. The latter might indicate that the price determination is different from each other, but a point that cannot do fully recovered here, but will be taken up in the discussion.

Equation 8.13 showed that the other factors determining the investor's excepted return is the risk-free interest rate and the return on the market index. As mentioned previously, the perspective taking is the one of the local investor.

Since the pivotal point of the thesis is the internationalization of the Board of Directors in Danish corporations, the considerations made and the procedure used to determine the CAPM for the Danish investors are used as an illustration.<sup>61</sup>

# 12.1.1. A Danish investor's required rate of return

The risk-free rate is chosen to equal the yield of a Danish government bond, where the effective average bond yield is calculated on a basis of all government bonds and a variety of mortgage bonds, issued as 10-year bullet loans.<sup>62</sup>

The OMXC20 is chosen as the market index, since it includes the 20 most traded stocks on the Copenhagen Stock Exchange, OMX. Moreover, reinvestment of dividends is not taking into consideration when calculating the annual return of the market index.

Table 12.1.2 CAPM components, a Danish investor

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rf	5.2 %	5.2 %	4.5 %	4.5 %	3.9 %	3.3 %	3.9 %	4.5 %	3.3 %	3.6 %
Rm (OMXC20)	22.8 %	-13.8 %	-26 3 %	22.5 %	173%	37 3 %	12.2 %	51%	-46.6 %	359%

Source: Statistikbanken. Table: DNUDAAR

<sup>&</sup>lt;sup>61</sup>Regarding the foreign competitors, the values used in the calculations can be found in appendix A.9. The procedure explained is the one used for all companies.

<sup>&</sup>lt;sup>62</sup>http://www.nationalbanken.dk/C1256B730054214F/sysOakFil/DNRENT%20%20renter%20og%20kurser /\$File/DDRENTD\_varedeklarationer\_DK.pdf

It is now possible to calculate the local investor's required return if investing in one of the companies from the research group.

Table 12.1.3 The required return on equity, a Danish investor

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Novo	11.96 %	-2.13 %	-7.39 %	11.40 %	9.05 %	16.38 %	7.12 %	4.73 %	-15.92 %	16.05 %
СРН	15.76 %	-6.21 %	-14.04 %	15.29 %	11.95 %	23.72 %	8.90 %	4.87 %	-26.70 %	23.03 %
Danisco	19.43 %	-10.16 %	-20.47 %	19.06 %	14.76 %	30.82 %	10.62 %	5.01 %	-37.14 %	29.78 %
GN	31.92 %	-23.60 %	-42.34 %	31.88 %	24.32 %	54.98 %	16.48 %	5.47 %	-72.64 %	52.74 %

Source: Own creation

Having determined the cost of equity capital,  $k_e$ , it is possible to start the investigation of how good the companies are at creating shareholder wealth, calculated as the amount of shareholder value above market expectations.

The first step is to detect the change in *equity market value*. This is done by analyzing the changes in equity capital, the holding of treasury shares, and the stock price.

By analyzing the annual reports from the respective companies, it is possible to determine the amount of the cash that have floated between the parties, which will take the analysis from the first step to the second step, *the shareholder return*.

However, this does not take into account the investor's opportunity costs, so by using the values detected above, is the third step of the analysis to correct the *shareholder return* in order to reach the final result: *the* c*reated shareholder value*.

## 12.2. The Danish Corporations

#### 12.2.1. Novo Nordisk A/S

Novo has two share classes: A- and B-shares, that both have a nominal value of DKK1. It is only the B-share that is listed on the stock exchange and is part of the OMXC20 index.

Novo A/S holds all the A-shares, and Novo A/S is 100 % owned by the Novo Nordisk Foundation. According to the "Articles of Association of the Foundation" is it not possible to divest the A-shares. The Novo Foundation holds also a position of b-shares, but also these are attached restrictions and are seen as a strategic holding.

The amount of dividend attached to each share class is equal, and the difference is the amount of votes: the A-shares have 1,000 votes per one share while the B-shares only have 100. All cash-flows between the corporation and the investor affects only the B-shares, and the amount of shares in circulation is diluted by the amount of A-shares, likewise is the total amount of dividend paid to the investors.

#### 12.2.1.1. Detection of Shareholder Value Creation

The amount of A-shares has been very stable in the period from 2000 to 2010, but the size was in 2007 doubled through a stock-split applied to both share classes. This split reduced the nominal value of the shares from DKK2 to DKK1, and thereby doubled the equity capital.

As just mentioned, the amount of B-shares were doubled in 2007, but the amount of these has been reduced several times in the research period; mainly due to cancellation of own treasury shares. Likewise, the company has purchased shares in the market several times during the period, however, sometimes also sold own shares in the market.

In order to calculate the increase in equity capital, the information above is used to determine the diluted amount of shares outstanding. The A-shares will be deducted from the share capital since a sale is restricted, likewise is the holding of treasury shares, since they do not receive any dividend payment.

However, the A-shares are still receiving dividend payments; thus, the total amount of dividends paid will be reduced by the percentage paid to the holders of the A-shares. The rest of the transactions between the company and the regular investors will not be changed since none of these are affecting the A-shares.

Table 12.2.1 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of shares outstanding	377	355	355	355	355	355	337	647	634	620
A-shares	54	54	54	54	54	54	54	107	107	107
B-shares	324	301	301	301	301	301	283	539	527	513
Amount of shares in circulation	324	301	301	301	301	301	283	539	527	513
Cancellation of b-shares	N/A	45	N/A	N/A	N/A	N/A	35	27	13	14
Holding of treasury shares	32	8	9	17	23	31	20	26	26	32
Diluted number of shares outstanding	292	293	292	284	278	270	264	514	501	480
Share price, DKK	143	171	102	120	150	177	235	335	271	332
Equity market value	41,602	50,018	29,811	34,200	41,616	47,852	61,989	172,075	135,715	159,484
Increase of equity market value		8,416	-20,207	4,389	7,416	6,237	14,137	110,086	-36,361	23,770

Note: Numbers in 1,000,000

Source: Novo Nordisk, Annual Reports from 2000-2009

Table 12.2.1 shows how Novo has increased the equity market value in the whole period with exception of two years.

Then, the equity market value is adjusted by the different cash flows between the company and the investors - keep in mind that the total amount paid in dividends as been adjusted for by the percentage paid to the A-shares.

Table 12.2.2 Created shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	8,416	-20,207	4,389	7,416	6,237	14,137	110,086	-36,361	23,770
Dividend	777	985	1,055	1,263	1,352	1,635	1,852	2,321	3,017
Other payments to shareholders	6,437	386	4,184	4,547	3,018	9,288	12,621	8,667	10,306
Outlays by shareholders	133	39	15	87	206	210	241	295	117
Shareholder value added	15,498	-18,875	9,612	13,138	10,401	24,850	124,318	-25,668	36,976
Shareholder return	37 %	-38 %	32 %	38 %	25 %	52 %	201 %	-15 %	27 %

Note: Numbers in 1,000,000

Source: Novo Nordisk, Annual Reports from 2000-2009

It can be seen from table 12.2.2 how the flows influences the equity market value; however, it is still in the years of 2002 and 2008 that value has been destroyed.

The last row shows the "Shareholder Return" which is calculated as:

Shareholder return<sub>t</sub> = Shareholder Value added<sub>t</sub> / Equity Market Value<sub>t-1</sub> (12.1)

The return in 2007 is calculated as 142,318 / 61,989 = 201 % and the main driver is this year is a stock price that rose close to 45 % after correcting for the stock split.

An increase in equity market value is not the same as a real increase in the shareholder value. Above, the equity market value was corrected for payments made by Novo to the shareholders and outlays made by the shareholders to Novo, then, the next step is to implement the investor's opportunity costs.

Table 12.2.3 Created shareholder value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity market value	41.602	50.018	29.811	34.200	41.616	47.852	61.989	172.075	135.715	159.484
Shareholder return		37,3 %	-37,7 %	32,2 %	38,4 %	25,0 %	51,9 %	200,5 %	-14,9 %	27,2 %
Cost of equity capital, Ke		-2,1 %	-7,4 %	11,4 %	9,0 %	16,4 %	7,1 %	4,7 %	-15,9 %	16,1 %
Created shareholder value		16.383	-15.176	6.214	10.044	3.584	21.443	121.386	1.723	15.190

Note: Numbers in 1,000,000

Source: Own creation by adapting the template of Fernández

The created shareholder value is found by using equation (8.14):

Created shareholder value = Equity market value<sub>t-1</sub> \* (Shareholder return –  $K_e$ ) (8.14)

The value destruction in 2002 is found as: 50,018 \* (-37.74 % + 7.38 %) = -15,176. By looking at the numbers it can be seen that value was only destroyed in 2002, and the equity market value decrease in 2008 was small enough to offset the expectations in the market.

The calculations made for Novo clearly shows the importance of correcting for the investors opportunity cost. The investors were in two years faced by a negative equity market change, but only one of these returns were less negative than what the expected in market one of the years, and therefore, value is only destroyed in one year.

# 12.2.2. Copenhagen Airports A/S

The company was once fully owned by the Danish State, but it went public in 1994 and is today traded on OMX. The Danish State is a majority shareholder but reduced its holding in 2000 by 17 % and holds today 39 %.

The company has only one share class and all having a nominal value of DKK100. Due to three major shareholders, is the free-float of shares radically reduced but receives dividend and are therefore all included in the analysis.

#### 12.2.2.1. Detection of Shareholder Value Creation

CPH pays dividends to its holding of treasury shares; however, one such position has not existed since 2005. It means that all shares are included in the analysis.

Table 12.2.4 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of shares in circulation	9.10	9.10	9.10	9.10	8.33	7.85	7.85	7.85	7.85	7.85
Cancellation of shares	N/A	N/A	N/A	N/A	0.77	0.48	N/A	N/A	N/A	N/A
Capital Increase	0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Holding of treasury shares	0.002	0.002	0.22	0.62	0.24	N/A	N/A	N/A	N/A	N/A
Share price, DKK	680	541	510	692	1,163	1,875	1,920	2,315	1,120	1,225
Equity market value	6,188	4,923	4,641	6,297	9,688	14,715	15,068	18,168	8,790	9,614
Increase of equity market value		-1,265	-282	1,656	3,391	5,027	353	3,100	-9,378	824

Note: Numbers in 1,000,000

Source: Copenhagen Airports, Annual Reports from 2000-2009

Table 12.2.4 shows how the equity market value was destroyed in three out of nine years. The destruction is mainly due to a decrease in the share price and not that many times have the company changed its holding of treasury shares, and thereby allocated money back to the investors.

Table 12.2.5 Created shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	-1,265	-395	1,338	3,538	5,312	353	3,100	-9,378	824
Dividend	91	122	116	152	278	670	1,026	1,336	520
Other payments to shareholders	N/A	121	235	450	338	N/A	N/A	N/A	N/A
Shareholder value added	-1,174	-152	1,689	4,140	5,929	1,024	4,126	-8,042	1,344
Shareholder return	-19%	-3%	37%	71%	63%	7%	27%	-44%	15%

Note: Numbers in 1,000,000

Source: Copenhagen Airports, Annual Reports from 2000-2009

The next table shows how the company has paid out dividends to the shareholders in all years and with an increasing trend. The company has only bought back shares in the years of 2002 to 2005.

The largest value destruction is by far in 2008, with a shareholder return on -44 % which is partly due to a decrease in the share price. This might be explained by the financial crises, and not even an increase in the dividend payment on 23 % was enough to offset the loss in equity market value.

Table 12.2.6 includes the cost of equity capital and determines if the generated shareholder return was enough to offset the expectations in the market.

Table 12.2.6 Created Shareholder value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity Market value	6,187	4,922	4,527	5,865	9,403	14,715	15,068	18,168	8,790	9,614
Shareholder return		-19.0 %	-3.1 %	37.3 %	70.6 %	63.1 %	7.0 %	27.4 %	-44.3 %	15.3 %
Cost of equity capital, Ke		-6.2 %	-14.0 %	15.3 %	12.0 %	23.7 %	8.9 %	4.9 %	-26.7 %	23.0 %
Created shareholder value		-789	539	996	3,439	3,698	-286	3,392	-3,191	-680

Note: Numbers in 1,000,000

Source: Own creation by adapting the template of Fernández

The largest amount shareholder wealth is created in 2005 but is in 2006 turned into a decrease. The share price was pretty stable between 2005 and 2006 while the dividend payment increased by 60 per cent. However, it was not enough to offset the cost of equity capital.

The largest amount destroyed was in 2008, and again, the explanation might be the beginning of the financial crisis, which decreased the number of and frequency of people travelling.

The company increased the equity market value very little in 2009 and by allocating excess capital back trough dividends were the shareholder value added 65 % higher than the increase in equity market capital. However, the market expectations were too high, and the company still underperformed in the year of 2009. In total, CPH underperformed in three out of nine years.

## 12.2.3. Danisco A/S

Danisco has only one class of shares, and it is part of the OMXC20 index. The company has decreased the share capital five times in the period and has kept a holding of treasury shares in all years.

### 12.2.3.1. Detection of Shareholder Value Creation

The nominal value of the shares in Danisco is DKK 20 and the share capital has been decreased from DKK 1,164 millions in fiscal year 1999/00 to DKK 954 millions in 2008/2009.

Opposite to the other companies in the analysis, Danisco are using a skewed fiscal year and a skewed share price has therefore been used in the analysis.<sup>63</sup> The share price has been very volatile over the years, and the same can be said about the holding of treasury shares.

Table 12.2.7 Increase in equity market value

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Amount of shares in circulation	58	56	54	51	50	49	49	49	48	48
Cancellation of b-shares	N/A	N/A	N/A	0.050	0.021	0.014	0.008	N/A	N/A	0.01
Capital Increase	N/A	N/A	N/A	N/A	N/A	N/A	0.005	0.001	0.003	N/A
Holding of treasury shares	0.68	1.75	3.8	2.07	1.39	0.79	0.10	0.17	1.44	0.19
Diluted number of shares outstanding	57	55	51	49	48	48	49	49	46	47
Share price, DKK	247	292	283	243	294	374	502	443	320	186
Equity market value	14,047	15,978	14,327	11,920	14,200	17,995	24,456	21,529	14,740	8,800
Increase of equity market value		1,930	-1,650	-2,407	2,280	3,795	6,461	-2,927	-6,789	-5,940

Note: Numbers in 1,000,000

Source: Danisco, Annual Reports from 2000-2009

Danisco does not pay dividend to its holding of own shares and the treasury share are diluted the total amount of shares outstanding. Table 12.2.7 shows how five out of the nine observation-years have resulted in a decrease in the equity market value. Again, the share price has fluctuated a lot and has been the main driver to this.

<sup>&</sup>lt;sup>63</sup>The used share prices are found in the Danisco Annual Report 2008/2009, and the Danisco Annual Report 2002/2003

Changes in the holding of treasury shares have occurred, which can only happen by issuing new shares or through a share buy-back programme in the market. This indicates that other cash flows than just dividend payouts have occurred in the period.

Table 12.2.8 Created shareholder return

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Increase of equity market value	1,930	-1,650	-2,407	2,280	3,795	6,461	-2,927	-6,789	-5,940
Dividend	344	339	314	311	323	330	328	361	356
Other payments to shareholders	292	603	964	399	327	68	123	542	25
Outlays by shareholders	N/A	N/A	N/A	N/A	N/A	10	1	6	N/A
Shareholder value added	2,566	-708	-1,129	2,990	4,445	6,849	-2,477	-5,892	-5,559
Shareholder return	18 %	-4 %	-8 %	25 %	31 %	38 %	-10 %	-27 %	-38 %

Note: Numbers in 1,000,000

Source: Danisco, Annual Reports from 2000-2009

Table 12.2.8 shows how Danisco has paid out dividends in the whole period, but also that "Other payments to shareholders" are of a significant size and often as much as the dividend payment.

The changes in equity market value were negative in five out of nine years, and the same is the case for the shareholder return, not even large allocations of cash can offset a declining share price.

The following table shows the total created shareholder value for the investors in Danisco in the research period.

Table 12.2.9 Created shareholder value

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Equity Market value	14,047	15,978	14,327	11,920	14,200	17,995	24,456	21,529	14,740	8,800
Shareholder return		18.3 %	-4.4 %	-7.9 %	25.1 %	31.3 %	38.1 %	-10.1 %	-27.4 %	-37.7 %
Cost of equity capital, Ke		-10.2 %	-20.5 %	19.1 %	14.8 %	30.8 %	10.6 %	5.0 %	-37.1 %	29.8 %
Shareholder value added		2,566	-708	-1,129	2,990	4,445	6,849	-2,477	-5,892	-5,559
Created shareholder value		3,994	2,562	-3,860	1,230	68	4,938	-3,702	2,104	-9,949

Note: Numbers in 1,000,000

Source: Own creation by adapting the template of Fernández

Even though Danisco had a shareholder return on -4 % in 2001/02, it had a cost of equity capital of -20.5 % and the company performed therefore a lot better than the expectations. Therefore, it created shareholder value despite its negative shareholder return. The same development was the case in the fiscal year 2007/08, and Danisco ended up by only destroying value in three years.

### 12.2.4. GN Store Nord A/S

GN has only one class of shares with a nominal value of DKK4. The share has for many years been part of the OMXC20 index, but it is today part of the OMX Midcap index due to a lower trading volume.

### 12.2.4.1. Detection of Shareholder Value Creation

The share capital in GN has been very steady and the latest capital increase was made in 2000 due to an acquisition of the Beltone Corporation. The fact that the holding of treasury shares has been cut in half through the period makes no difference for the analysis since GN also pays dividend to its holding of treasury shares.<sup>64</sup> Thus, no diluting amount of outstanding shares is found.

Table 12.2.10 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of shares in circulation	220	220	220	220	220	220	214	208	208	208
Cancellation of b-shares	N/A	N/A	N/A	N/A	N/A	N/A	24	22	N/A	N/A
Capital increase	971	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Holding of treasury shares	9	8	8	8	8	13	11	5	5	5
Diluted number of shares outstanding	220	220	220	220	220	220	214	208	208	208
Share price, DKK	141	50	21	38	59	83	84	40	10	28
Equity market value	30,988	10,989	4,615	8,351	12,967	18,241	17,956	8,334	2,084	5,834
Increase of equity market value		-20,000	-6,373	3,736	4,615	5,275	- 285	-9,622	-6,251	3,750

Note: Numbers in 1,000,000

Source: GN Store Nord, Annual Reports from 2000-2009

<sup>&</sup>lt;sup>64</sup> GN Annual report 2000 and GN Annual report 2004

Table 12.2.10 shows how the investors in GN have faced a decrease of equity market value in five out of the nine years. Since the share capital has been stable during the period, the decrease is primarily due to a decrease in the share price that hopefully hit a bottom in 2008.

Table 12.2.11 Created Shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	-20,000	-6,373	3,736	4,615	5,275	-285	-9,622	-6,251	3,750
Dividend	127	N/A	132	127	127	124	N/A	N/A	N/A
Other payments to shareholders	39	N/A	N/A	N/A	400	424	22	4	1
Shareholder value added	-19,834	-6,373	3,868	4,742	5,802	263	-9,600	-6,247	3,751
Shareholder return	-64 %	-58 %	84 %	57 %	45 %	1 %	-53 %	-75 %	180 %

*Note: Numbers in 1,000,000* 

Source: GN Store Nord, Annual Reports from 2000-2009

When calculating the shareholder return for the different years, it becomes obvious how this has been very fluctuating. No dividends have been paid for the last three years, while the amount paid in dividends in the previously four were very stable.

The change in equity market value was downward sloping in 2006, but through both dividend payments and a share-buy-back programme managed GN to create a positive shareholder return. Of course, it is a return on only one per cent, and table 12.2.12 shows how that was not enough to satisfy the market expectations.

Table 12.2.12 Created Shareholder value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity Market value	30,988	10,989	4,615	8,351	12,967	18,241	17,956	8,334	2,084	5,834
Shareholder return		-64 %	-58 %	84 %	57 %	45 %	1 %	-53 %	-75 %	180 %
Cost of equity capital, Ke		-24 %	-42 %	32 %	24 %	55 %	16 %	5 %	-73 %	53 %
Created shareholder value		-12,520	-1,721	2,397	2,711	-1,327	-2,744	-10,582	-192	2,653

Note: Numbers in 1,000,000

Source: Own creation by adapting the template of Fernández

Table 12.15 shows how GN managed to destroy value for its shareholder in six out of ten years. Moreover, not much value has been allocated back to the shareholders, and thus most fluctuations are due to changes in the share price.

This review has calculated the Danish corporation's ability to generate shareholder value as return on the investor's capital investment. The section stressed the importance of a rising stock price; however, some companies did still outperform the market expectations even though they had a fall in the equity market capital.

The latter supports the importance of including the investor's opportunity cost when calculating the shareholder value creation. The template applied to the Danish corporations in this section, will be applied to the foreign corporations in the next section, where the perspective will be from an investor in the local market.

## 12.3. The Foreign Competitors

Four corporations that are competitors to the Danish ones just analyzed have been selected. The foreign corporations are the American pharmaceutical corporation, Eli Lilly, the German airport operator, Fraport, the British producer of industrial ingredient, Tate & Lyle, and lastly the American manufacturer of hearing aid, Plantronics.

## 12.3.1. Eli Lilly, Inc.

Lilly has two share-classes; preferred and common shares. The preferred shares are entitled to a higher dividend than the common shares, at least \$10 per preferred share<sup>65</sup>, and have more votes attached.

The common stock is traded on the New York Stock Exchange, and it is part of the S&P 500 index which is the market index used to calculate the expected return.

## 12.3.1.1. Detection of Shareholder Value Creation

The amount of preferred shares has been kept stable over the analyzed period, while the amount of common shares has been steady increased.

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<sup>&</sup>lt;sup>65</sup> Eli Lilly, Investor Relations, Corporate Governance, Articles of Incorporation, article 14.a.1

Table 12.3.1 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of										
shares										
outstanding	1,132	1,129	1,128	1,130	1,138	1,136	1,138	1,140	1,143	1,155
Preferred	_	_	_	_	_	_	_	_	_	_
Stock	5	5	5	5	5	5	5	5	5	5
Common Stock	1,127	1,124	1,123	1,125	1,133	1,131	1,133	1,135	1,138	1,150
	-,,	-,	2,120	-,	2,200	-,	-,,,,,	-,	-,,,,,	-,
Amount of shares in circulation	1,127	1,124	1,123	1,125	1,133	1,131	1,133	1,135	1,138	1,150
	1,12	1,121	1,120	1,120	1,100	1,101	1,100	1,100	1,100	1,100
Cancellation of common-shares	15	7	5	3	0	7	2	0	0	0
Holding of treasury shares	1.01	0.99	1.01	0.95	0.94	0.93	0.91	0.90	0.89	0.88
Diluted number										
of shares										
outstanding	1,126	1,123	1,122	1,124	1,132	1,130	1,132	1,134	1,137	1,149
Share price, USD	93	79	64	70	57	57	52	53	40	36
Equity market										
value	104,745	88,183	71,275	79,032	64,238	63,954	58,960	60,561	45,785	41,032
1										
Increase of										
equity market value		-16,562	-16,908	7,756	-14,794	-283	-4,995	1,601	-14,776	-4,753

Source: Eli Lilly, Annual Reports from 2000-2009

Lilly uses newly issued shares and treasury shares to satisfy stock option exercises, and neither shares issued under employee stock nor shares in the treasury holding receives dividend. By Table 12.3.1 it is stressed, that Lilly only was able to increase the equity market value twice in the research period, which is very affected by a declining share price.

Table 12.3.2 Created shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	16,562	- 16,908	7,756	- 14,794	283	-4,995	1,601	- 14,776	4,753
Dividend <sup>66</sup>	1,157	1,286	1,393	1,490	1,605	1,686	1,804	2,007	2,102
Other payments to shareholders	546	385	281	N/A	378	122	N/A	N/A	N/A
Outlays by shareholders	110	65	103	105	106	60	25	N/A	N/A
Shareholder value added	14,968	15,301	9,327	13,409	1,594	-3,246	3,380	12,769	2,651
Shareholder return	-14 %	-17 %	13 %	-17 %	2 %	-5 %	6 %	-21 %	-6 %

Note: Numbers in 1,000,000

Source: Eli Lilly, Annual Reports from 2000-2009

 $<sup>^{66}</sup>$ The annual reports do not reveal a breakdown of dividends paid on preferred stocks and common stocks. As it was mentioned are the preferred stockholder entitled to a minimum dividend payment of \$10 which is be concluded to be the general dividend payment. The total amount is therefore deducted 5 million preferred shares \* \$10 = 50 millions.

As advocated previously, Lilly have tried to keep a stable increase in the dividend payment which has been the primary factor in decreasing the value destruction. A combination of divided payments and share buyback programme is the main reason why the deficit was turn into a positive shareholder return in 2005.

Table 12.3.3 Created Shareholder value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity market value	104,745	88,183	71,275	79,032	64,238	63,954	58,960	60,561	45,785	41,032
Shareholder return		-14.3 %	-17.4 %	13.1 %	-17.0 %	2.5 %	-5.1 %	5.7 %	-21.1 %	-5.8 %
Cost of equity capital, Ke		-13.4 %	-23.9 %	26.8 %	9.4 %	3.0 %	13.8 %	3.5 %	-38.3 %	23.8 %
Created shareholder value		-949	5,763	-9,774	-20,858	-316	-12,064	1,304	10,447	-13,558

Note: Numbers in 1,000,000

Source: Own creation by adapting the template of Fernández

Lilly generated a shareholder return on only 2 % in 2005, and it is almost enough to offset the market expectations of 3.5 %. Overall, Lilly could only manage to add shareholder value in three of the research years.

## 12.3.2. Fraport AG

Fraport is listed on the stock exchange in Frankfurt and has only one class of shares. The company was introduced on the stock exchange through an IPO on March the 11<sup>th</sup> 2001, thus the quantitative research period are shortened by one year. The issued shares have a nominal value of €10.

Fraport has four major shareholders, three German and one American, and this construction affects the free-flow of shares, and thereby the traded volume, but will not be a diluting effect in the analysis.

### 12.3.2.1. Detection of Shareholder Value Creation

The company uses the market to issue new shares due to compensation schemes, and the company was introduced on the stock exchange in 2001 to raise money.

Fraport do not pay any dividend on its holding of treasury shares, which has existed the whole period. Thus, this holding dilutes the amount of shares taking into consideration when performing the analysis.

Table 12.3.4 Increase in equity market value

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of shares outstanding	90	90	90	91	91	91	92	92	92
Cancellation of shares	0.00	0.01	0.16	0.01	0.01	0.00	0.01	0.01	0.01
Holding of treasury shares	0.01	0.14	0.13	0.12	0.11	0.11	0.10	0.10	0.08
Diluted number of shares outstanding	90	90	90	91	91	91	91	92	92
Share price, EUR	27	17	23	31	45	54	54	31	36
Equity market value	2,387	1,531	2,057	2,841	4,089	4,936	4,927	2,832	3,330
		·	·						
Increase of equity market value		-856	526	784	1,248	846	-9	-2,095	498

Source: Fraport, Annual Reports from 2001-2009

As can be seen from table 12.3.4, the result in the equity market value has been very fluctuating; however, it has only been negative in three out of the nine years.

Issuing new shares creates a flow of capital from the investors to the company and it will further decrease the equity market value. However, the opposite effect is achieved by paying dividends to the shareholders. Table 12.3.5, shows how this influences the amount of years where a positive shareholder return has been in place.

Table 12.3.5 Created shareholder return

	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	-856	526	784	1248	846	-9	-2095	498
Dividend	38	1	40	68	82	105	105	105
Other payments to shareholders	3,30	0,20	0,20	0,20	0,20	0,20	0,00	0,00
Outlays by shareholders	7	3	7	21	16	12	13	7
Shareholder value added	-822	525	817	1295	913	84	-2003	596
Shareholder return	-34 %	34 %	40 %	46 %	22 %	2 %	-41 %	21 %

Note: Numbers in 1,000,000

Source: Fraport, Annual Reports from 2001-2009

Fraport has through an allocation of capital to the investors, taking form as dividends, been able to eliminate one of years with a negative equity market value creation. Now, value destruction only takes place in 2002 and 2008.

The return in 2007 was only 2 %, which might not be enough to offset the investors' expectations when investing in Fraport.

Table 12.3.6 Created Shareholder value

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity market value	2,387	1,531	2,057	2,841	4,089	4,936	4,927	2,832	3,330
Shareholder return		-34.4 %	34.3 %	39.7 %	45.6 %	22.3 %	1.7 %	-40.7 %	21.1 %
Cost of equity capital, Ke		-45.0 %	37.8 %	6.0 %	27.6 %	22.4 %	22.7 %	-40.4 %	24.3 %
Shareholder value added		-822	525	817	1,295	913	84	-2,003	596
Created shareholder value		253	-54	695	511	-2	-1,035	-11	-92

Source: Own creation by adapting the template of Fernández

Table 12.3.6 shows how Fraport completely underperformed according to the expectations in 2007. This year's value destruction is destroying approximately three fourth of the value created since the IPO in 2001.<sup>67</sup> However, Fraport did almost meet the expectations in 2008.

Overall, Fraport destroyed value in five out of eight years, even though equity market value only was destroyed in three out of eight years.

## 12.3.3. Tate & Lyle Plc.

Tate & Lyle has for many years had two share-classes; preference and common shares, but the preference shares were cancelled during 2007.

The common stock is listed on the London Stock Exchange and is not part of the FTSE 100 index, that is chosen as the market index when calculation CAPM. The shares has a nominal value of £0.25, and the nominal share capital has been both increased and decreased over the years, but ends up in 2009 quite equal to the one in 2000.

### 12.3.3.1. Detection of Shareholder Value Creation

The preference shares received dividends but was not public traded, thus, to correct this are the amount of outstanding shares reduced, as well as the total amount paid in dividends.

<sup>&</sup>lt;sup>67</sup>Doing a comparison between years when not taking inflation into consideration might be misleading. Introducing inflation would have increased the numbers in the previously years and thereby decrease the percentage. However, the scale of destruction is so high that inflation would not have changed the conclusion.

Table 12.3.7 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of shares outstanding	460	484	484	485	485	489	491	490	460	460
Preference Shares	2	2	2	2	2	2	2	•	ı	ı
Common Stock	458	482	482	482	483	486	489	490	460	460
Actually amount of shares in circulation	458	482	482	482	483	486	489	490	460	460
Cancellation of b-shares	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	8	N/A
Holding of treasury shares	N/A	2,76	1,36							
Diluted number of shares outstanding	458	482	482	482	483	486	489	490	457	459
Share price, GBP	2,49	3,40	3,15	3,12	4,73	5,63	7,75	4,45	4,01	4,33
Equity market value	1,139	1,638	1,518	1,502	2,283	2,739	3,785	2,180	1,832	1,985
Increase of equity market value		498	-120	-16	781	456	1,046	-1,606	-348	153

Source: Tate & Lyle, Annual Reports from 2000-2009

The amount of shares in Tate & Lyle has been very stable over the years, and first recently has some shares been cancelled while some has been purchased in the market. The holding of treasury shares does not receive dividends and these therefore have a diluting effect.

The changes in the equity market value have mainly been driven by changes in s share price that peaked in 2006, and over the years has gained approximately 75 %. Overall, the equity market value was decreased in four out of the nine years.

Table 12.3.8 Created Shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	498	-120	-16	781	456	1,046	-1,606	-348	153
Dividend	68	85	84	87	89	93	98	105	104
Other payments to shareholders	0	0	0	10	1	0	0	159	0
Outlays by shareholders	0	0	0	2	11	16	16	8	3
Shareholder value added	566	-35	68	876	535	1,123	-1,524	-92	254
Shareholder return	50 %	-2 %	4 %	58 %	23 %	41 %	-40 %	-4 %	14 %

Note: Numbers in 1,000,000

Source: Tate & Lyle, Annual Reports from 2000-2009

Most of the capital allocated to the investors has been through dividend payments and only once have shares been bought in the market, but seven times have shares been issued to settle stock option programmes.

Table 12.3.8 showed how the dividend payout in 2003 exceed the fall in equity market value and the shareholder return ended up being at 4 %, and the shareholder return therefore positive in 6 of the 9 years.

Table 12.3.9 Created Shareholder value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity market value	1,139	1,638	1,518	1,502	2,283	2,739	3,785	2,180	1,832	1,985
Shareholder return		49.7 %	-2.1 %	4.5 %	58.4 %	23.4 %	41.0 %	-40.2 %	-4.2 %	13.8 %
Cost of equity capital, Ke		-12.0 %	-18.8 %	11.9 %	7.0 %	14.1 %	9.5 %	3.7 %	-24.6 %	19.5 %
Created shareholder value		703	273	-113	772	213	864	-1,662	444	-103

Source: Own creation by adapting the template of Fernández

As seen previously, a return on 4 % is not always enough when the cost of equity capital is taking into consideration. Table 12.3.9 shows how the expected return in 2003 was 12%, and shareholder value destruction is still the case.

Opposite, the corporation outperformed the market expectations in both 2002 and 2009, and created shareholder value even though the shareholder return was negative. But this does not change the fact that value was destroyed in three of the years, but just different years than the ones with a negative shareholder return.

## 12.3.4. Plantronics, Inc.

Plantronics is an American corporation and is traded on the New York Stock Exchange. It has no preferred shares; only common ones with a nominal value of \$0.01. The share is not part of any index, but the broad S&P 500 has been chosen to represent the market index.

The corporation has been issuing restricted shares since 2005, and these are part of the company's stock award programme and used to settle stock options. These do not receive dividend and are deducted the total amount of shares outstanding.

## 12.3.4.1. Detection of Shareholder Value Creation

The company has only recently begun to issue new shares due to stock option programmes; previously it went in the market to buy common stocks.

Table 12.3.10 Increase in equity market value

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount of shares in circulation	57.6	59.1	59.2	59.7	63.6	65.1	66.3	66.6	67.3	67.8
Cancellation of common-shares	2.2	1.5	0.1	0.5	3.9	1.4	0.9	0.3	0.6	0.4
Holding of treasury shares	8.7	9.9	13.4	16.1	16.0	16.7	18.7	18.6	18.4	18.9
Diluted number of shares outstanding	48.9	49.2	45.9	43.6	47.6	48.4	47.5	48.1	48.9	48.9
Share price, USD	47.0	25.5	15.1	32.7	41.5	28.3	21.2	26.0	13.2	26.0
Equity market value	2,298.1	1,254.1	693.8	1,424. 8	1,974. 2	1,370. 6	1,007. 8	1,249. 7	646.1	1,269. 7
Increase of equity market value		1,044.1	560.2	731.0	549.4	-603.7	-362.7	241.9	603.6	623.6

Note: Numbers in 1,000,000

Source: Plantronics, Annual Reports from 2000-2009

Many fluctuations have characterised the share price in Plantronics, with peaks in 2000 and 2004, and it has over the whole period lost close to 47 %. This affects the equity market value, which has decreased in more than half of the period.

In many years, Plantronics did not pay dividends to the investors, but instead allocated capital to the investors through share buy-back programmes. First in recent years has Plantronics started to pay out dividends and it has increased the different cash flows between the parties.

Table 12.3.11 Created Shareholder return

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Increase of equity market value	-1,044	-560	731	549	-604	-363	242	-604	624
Dividend	N/A	N/A	N/A	N/A	7	9	10	10	10
Other payments to shareholders	40	72	45	2	28	70	4	2	18
Outlays by shareholders	18	4	4	67	32	21	8	15	12
Shareholder value added	-1,022	-492	771	484	-600	-304	247	-607	639
Shareholder return	-44 %	-39 %	111 %	34 %	-30 %	-22 %	25 %	-49 %	99 %

Note: Numbers in 1,000,000

Source: Plantronics, Annual Reports from 2000-2009

Previously, Plantronics distributed cash to the shareholders by buying shares in the market, but for many years they have also issued new common stock been under different stock plans. However, no distribution has been large enough to offset the loss created by the drops in the stock price.

Table 12.3.12 Created Shareholder value

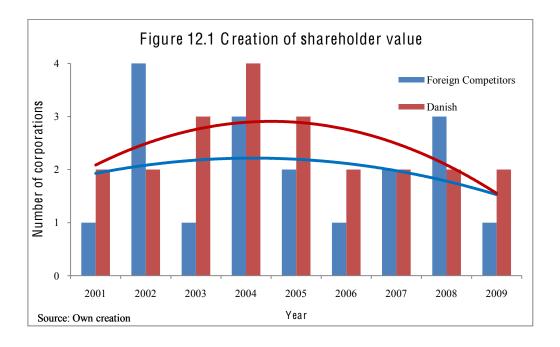
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity market value	2,298	1,254	694	1,425	1,974	1,371	1,008	1,250	646	1,270
Shareholder return		-44.5 %	-39.2 %	111.2 %	34.0 %	-30.4 %	-22.2 %	24.5 %	-48.6 %	98.9 %
Cost of equity capital, Ke		-24.6 %	-40.7 %	40.5 %	12.6 %	2.1 %	19.3 %	3.2 %	-63.0 %	36.0 %
Created shareholder value		-456	19	490	305	-641	-568	215	179	407

Source: Own creation by adapting the template of Fernández

Overall, Plantronics managed to create shareholder value in six of the years while an increase in the equity market value was only seen in four years.

## 12.4. Who has outperformed the market expectations?

A calculation of each company's ability to create shareholder value during the research period showed very mixed results. The results of the analysis are pictured in figure 12.1, where the number of companies creating shareholder value each year is shown.



Interpreting these results isolated can be difficult since they are a result of the corporate governance declaration. When comparing the total number of years with value creation, the Danish research group beats their foreign competitors with 22 to 18. The two trend lines (polynomial of second order) indicate the tendency for each group; the trends are the same but the Danish group have performed better.

When looking at the numbers of years where a negative equity market capital was increased to a positive shareholder return through a capital allocation back to investors, the foreign corporations performed better. However, the Danish corporations were better at creating a return that could beat the market expectations and therefore add shareholder value.

To increase the reliability of the shareholder value creation analysis, it might be better to include CPH with the foreign corporations due to its large amount of foreign owners while Fraport should be grouped with the rest of the Danish companies; the result is shown in appendix. A.12. Now, the total amount of years with an increase of shareholder value is equal, and the trend lines are much aligned. What is worth to remark is that in both figures, the Danish group has underperformed the foreign group in 2008.

### 13. Discussion

The aim of the thesis is to detect how an internationalization process of the Board of Directors has affected the payout policy and the shareholder value creation in Danish corporations. The pivotal point has been the principal-agent relation; the one existing between the corporation and its investors. The literature review argued how payouts can be a tool to narrow this gap of interests.

The analysis emphasized the importance of payouts, which are mentioned in the literature review as being ubiquitous. However, there exist different views on the importance of dividends. The first group is represented by M&M who argues that dividends have no influence on the value of the corporation. The other group undermines this argument by introducing taxes, risk, and agency costs, but both of these groups are taking a very monetary perspective.

Another argument emphasizes the importance of the signals attached to payouts, and argues that it is an opportunity for the Board of Directors to indicate their expectations of the future. This argument stresses the importance of human assumptions and argues for a social and cultural regulation of the payout strategy.

Fidrmuc and Jacob (2010) found evidence supporting that especially three of the cultural dimensions of Hofstede (1991) have significant influence on the payout. By combining the subdivision of the observed nationalities with the national scores on the cultural dimensions, it was possible to predict possible changes in the payout strategy followed by the new board compositions.

Even though the importance of dividends are based solely on signalling, one cannot neglect an economic perspective; one need to look at the different payouts in numbers. If these payouts are just hot air, then the company will waste cash that could fund future investments and therefore destroy value for the investors. The latter can be detected in the shareholder value analysis which incorporates the market expectations.

A natural starting point will be to discuss the influence of the share price. The literature review revealed that managers should abandon the assumption that only a high share price is good; they should recognise that an overvalued stock price can be just as dangerous as an Page 87 of 118

undervalued one. But dangerous or not, the analysis emphasized the importance of the stock price when measuring the shareholder value. It was shown, that each corporation on average only managed once to increase a negative equity market value to a positive shareholder return.

One shall remember, that the investor's belief and confidence in the corporation's ability to perform in the future, is reflected in the prize the investor is willing to pay for a "share" of the future net income. The argumentation is now, that the Board of Directors can send signals about future expectations through payouts, thereby influencing the investor's willingness to pay for a share, which should lead to a higher P/E ratio.

That this argument automatically leads to a higher shareholder value creation is not the case since the signalling also increases the market expectations. The signals will influence the market expectations and the corporation has to create a shareholder return that can offset these. Otherwise, the signals would just have been hot air.

The analysis included a P/E analysis, which should reveal if one of the two research groups were better at declaring long-term goals that the investors believed in. Thus, the expectations to the regression analysis should therefore be based upon the recent changes in the total payout ratio.

The ratio analysis showed how both Novo and Danisco have lacked behind their competitors for many years, but is now taking the lead, measured on the total payout ratio. In addition, CPH has outperformed Fraport almost every year.

The dividend per share analysis showed an increasing trend for most of the Danish corporations, with the trends for Danisco and Tate & Lyle being pretty equal. Thus, in terms of signalling, the Danish corporations have through an increased payout ratio increased the expectations to future net income.

The regression analysis showed that three out of four Danish corporations were attached with a higher P/E ratio, which indicates that the Danish corporations are more optimistic about the future.

But can one conclude that the Director's in the Danish Boards are more optimistic than their foreign counterparts? Or is the result just reflecting that the investors believe in the signals sent to the market? If the latter is correct, then it is not enough just to detect the different dividend payouts, the corporation's ability to create shareholder value over a longer period are also essential to analyse.

The danger attached to an overvalued share price can take its proper right now; when calculating the added shareholder value are the CAPM, and thereby also the alpha approach, indicating the investor's expected rate of return for a given investment.

When determine if a given shareholder return offsets the market expectations will the conclusion be based on historically stock prices. It means that whether or not one believes in dividends influence, the value of the corporation and thereby the stock price is important when measuring the shareholder value creation.

Thus, a Board of Directors paying dividends as hot air will not meet the market expectations and therefore not add any shareholder value. Figure 12.1 showed how the Danish corporations were better at adding shareholder value than their foreign competitors, a finding supporting that their increased payouts are aligned with the results obtained by the corporations.

When looking at the different corporate governance declarations, it becomes clear that both the long-term goal and dividend policy are more outspoken for the Danish corporations. Of the Danish corporations have three of them mentioned that excess capital should be allocated back through either dividends or long-term share buyback programmes, while it was only made clear by one of the foreigners.

Then, the Danish corporations have through their corporate governance declarations advocated a focus on the long-term commitment, and this has been signalled to the market through an increased dividend per share. The expectations are adopted by the investors that are willing to pay a higher P/E ratio, and in the end are the Danish corporations able to fulfil these expectations measured on the creation of additional shareholder value.

This justifies the importance of the board members and how these are nominated in order to secure the highest shareholder return possible. When the different board compositions were dispersed, it became clear that the foreigners in the Danish boards, mainly consisted of members from countries with a significant importance as trading partner to the country as a whole.

Many of these countries are having a national culture similar to Denmark and the analysis revealed that these countries often are located in the same quadrant or cluster as Denmark. These findings indicate that these board members should not, based on their cultural perceptions, have any significant impact on the payout policy.

When looking at the differences in the nomination criteria, the Danish corporations have declared a wish for board members with international experience and knowledge. This requirement has been less pronounced by the foreign corporations, who expressed an eager for members with expertise and knowledge that can support and act as complementary to the ones of the rest of the board.

So the question is then, does "international experience" mean experience from markets with a significant importance on the net income, or is it a broad representation of the markets operated on?

When looking at the important trading partners, for the respective countries included in the foreign research group, it was found that the top five included more nationalities than detected for Denmark. This finding is consistent with the higher degree of nationalities found in the foreign boards. Another interesting remark is that only two of all corporations have nominated members from the Middle East, Africa or South America.

The analysis revealed that there can be found an exception among the Danish corporations; the only Danish board members in CPH are the employee elected. However, CPH has in general performed well compared to both the Danish group and the German competitor.

The decomposition of the boards made it clear, that Fraport's board mainly consist of German Directors, who prefer, due to stronger uncertainty avoidance and medium power distance, to keep the money in the corporation and avoid large changes. This could imply, as previous Page 90 of 118

mentioned, both a fear and a lack of curiosity for nominating foreign board members with different national cultures.

The case seems to be a clear indication of a corporation where the composition of foreign board members is aiming for both a higher dividend payout, of course backed by strict corporate governance, and a better creation of shareholder value. CPH is the corporation with the most out spelled goal:

"CPH's goal is to create shareholder value (CPH, Annual Report 2009:49)"

The goal of CPH is very well-defined, but how is the success measured? The board in CPH is mainly from Australia and Great Britain, representing two very aligned national cultures, that should advocate a lower dividend payout than the general Danish corporations but higher than its competitor from Germany.

The payout ratios of CPH increased exponential when the majority of shares were acquired by Macquarie. But, if the minority investors thought of the payouts as being unrealistic high and not reflecting the future return properly, then the P/E should be lower for CPH than for Fraport.

However, this was not the case, and indicates that higher payout might not be linked to the composition of the board. The German Board of Directors might give their management the opportunity to invest in projects with a negative net present value, with the result that Fraport is underperforming the market expectations.

One of the Danish corporations has stated, in its corporate governance declaration, it want at least one member with in-depth market knowledge from Finland. A finding supporting that markets of significant influence, are where the "international" experience shall be found.

It is revealed that the Finnish market has significant importance for Danisco, but it is not revealed how the success of this criterion shall be measured. The analysis showed that the total payout ratio of Danisco was following the one of Tate & Lyle, who was also, attached a higher P/E. Their trends for the dividend per share were equal, and likewise were their ability to add shareholder value. Why this strategy then?

If one assumes that the foreign corporations *are* implying that their markets are more widespan, as the top five of the trading partners, it could answer why Danisco is not outperforming Tate & Lyle. Even though Danisco are nominating board members that advocate a higher dividend payout, and therefore increase the market expectations, are they not able to outperform their competitor.

This support, that there is no need to nominate members with different nationalities if the corporation are not securing the future through a consistency of its corporate governance declaration and the payouts.

Accepting that all corporations are working in the interest of the investor, then the aim of nominating a Director with a specific nationality should be to secure additional shareholder value. It can be argued that the shareholder value creation is starting with the signals sent through a corporate governance declaration that strengthens the focus on securing future needs. That one is not determined by the board members nationality, but the investor protection in place.

### 14. Conclusion

The literature review made it clear, that there can be found different opinions about dividends and payouts. However, the analysis stressed that dividends are ubiquitous for many corporations and therefore of importance when measuring the shareholder value creation.

In order to detect the internationalization process of the Board of Directors, has the board composition for eight corporations been analysed. These eight formed the *research group* and were analysed in order to answer the research questions.

The principal-agent relation was the pivotal point, and it was argued how the Board of Directors are the highest authority in the corporation. They function to narrow the gap between the interest of the investors and the daily management; which can be done by an allocation of excessive capital.

M&M argued, based on three assumptions, that dividends have no influence of the valuation of the corporation. Opposite opinions used more real-life circumstances to undermine their proportion; tax, risk and costs were all introduced. However, one argument can be concluded to be more appropriate in light of the problem statement; the importance of the signals attached to the payouts. This argument also explains why some corporations pay out dividends or buy-back shares in years with deficit.

It can be concluded, that payouts are attached information about the management's expectations for the future, and therefore opens for a discussion and introduction of social relations and cultural variables.

This argument is a good approach towards an answer of the first of the two research questions. It calls for the need to decompose each board on represented nationalities, which are used to describe how national cultures can influence the payout strategies.

It was revealed, that while the four foreign corporations already had a stable amount of foreigners nominated during the research period, the Danish corporations increased this number during the research period. It was found, that the foreign boards represented more nationalities, while the Danish boards were less diversified.

The analysis revealed, that the internationalization process for the Danish corporations meant, that a majority of the foreigners elected had a nationality that was aligned with one of the most important trading partners of Denmark. For the foreign corporations it can be concluded, that they have been undergoing an internationalization process for a longer period and have nominated a higher degree of different nationalities, which is very consistent with their more dispersed list of important trading partners, respectively each country.

The Danish corporations used their corporate governance declarations better than their foreign competitors to include a long-term perspective, and outlined that capital should only be allocated back to the investors when future requirements were secured. Therefore, the investors having read the different declarations would know that payouts are a signal of secured future earnings. On the contrary, the foreign corporations only mentioned little about the future and its connection to the payouts.

The analysis was therefore forced to include a section looking into different payout ratios for the research group. These ratios were the *total payout ratio*, the *dividend per share*, and the *earnings-per-share ratio*; a clear conclusion was reached.

Of the Danish corporations, Novo and CPH have paid a higher ratio of the net income back to their investors than their competitors, while the picture was a little mixed for Danisco and GN.

Almost the same picture was seen when analyzing the dividend paid per share; it has for both Novo and CPH increased faster than for their competitors. GN in recent years have expelled the dividend, which makes the analysis less reliable, but indicate that cash is held in the corporation to secure future profitability.

If the investors trusted the signals sent by the Board of Directors, they would be willing to pay a higher price for the share, to get a piece of the future net income, leading to a higher P/E. Based on the result from the regression analysis can it be concluded, that the Danish corporations in general had a higher P/E, indicating a trust in the signals sent through the increased levels of payouts decided by the Board of Directors.

The shareholder value analysis showed how the Danish corporations outperformed the market expectations in more years than their foreign competitors, 22 to 18 years. This advocate, that the Danish corporations were better at outperforming the market expectations.

Thus, the expectations, indicated through the dividends and afterwards incorporated in the market expectations, are outperformed when a corporation add shareholder value. The thing to be discussed now is the relationship between the signals and the national composition of the Board of Directors.

It is concluded, that the Danish corporations have increased the number of foreigners nominated to their boards, but spread between a more limited number of nationalities, meanwhile the foreign corporations have been outperformed measured on years of adding shareholder value.

The Danish corporations are representing far less nationalities, but more nations located in the same cluster or quadrant, in the three indices used when mapping the national cultures. In the work by Fidrmuc and Jacob, it was advocated how the degree of *individualism*, *power distance*, and *uncertainty avoidance* had significant influence on the chosen payout strategy.

These "new nationalities" included in the boards, are having cultural variables similar to the Danish ones, and should therefore not propose radical changes in the payout strategy. The national cultures, represented in the Danish boards, are primarily advocating higher payout, and meanwhile are the Danish corporations better to state, through their corporate governance declarations, that dividends are only paid, if future needs are secured.

However, the Danish corporations are not just more optimistic, the signals are reflected in the market expectations, which they were also better to meet than their foreign competitors.

The result of the analysis is, that a combination of nationalities favouring large payouts, combined with a strong corporate governance declaration securing the long-term requirements, are doing best.

It can be concluded that the Danish boards have nominated more members with a foreign nationality, but in general from countries favouring a high payout. It was shown, that the Danish corporations are not using the payout-signals as hot air, since they have been able to create a shareholder return in excess of the market expectations in a total of 22 years.

The competitor group kept a stable number of foreigners, but many more nationalities were represented. It was found that more of the represented nationalities favoured lower dividends, and meanwhile, the foreign corporation were also weaker in having corporate governance declarations stating the long-term focus.

However, a lower level of total dividends would likewise generate lower market expectations, and still put the foreign corporations in position to outperform these. But the foreign competitors did not perform better than the Danish research group.

Therefore, nominating a broader range of foreign board members, instead of electing some with an in-depth knowledge about a market with significance importance to the corporations, has no effect on the value creation.

What has effect is a strong link between the corporate governance declaration and the payout policy. The corporation's ability to outperform the market expectations will not be based on the composition of nationalities in the Board of Directors since the signals sent with the payouts will be incorporated in the market expectations.

Thus, Drejer argued that Danish corporations should seek for new and foreign members that could contribute with different and enriching perspectives to the board discussion, but Danish corporations are so fare doing better their competitors. Curiosity might be good, but too much might destroy the shareholder value.

### 15. Reflections

The conclusion ended a thesis with results, which ended at a crossroad. The stage is now set to either verify or understand the findings, and which way to follow shall be based on the approach taken. This thesis utilized an inductive approach, which can be taken even further; one can expand the research group in terms of both size and criteria. This would ultimately test both the findings and their reliability. However, this approach would not detect any reason why the results are as they are.

What would be more interesting would be to take on a more deductive approach. The analysis advocated how the Danish corporations nominated more foreign board members, but the foreign corporations were better at dispersing the nationalities elected. However, the Danish corporations outperformed measured on shareholder value creation.

The results seem to indicate that none of the corporations are taking full advantage of the possibilities of culturally diverse teams. Robert Moran (2007:125) describes how the goal for cross-cultural management is a concept called cultural synergies:

"Cultural synergy develops new solutions to problems that leverage
the cultural differences among all cultures involved
while respecting each culture's uniqueness"

Even though the Danish corporations were outperforming their foreign counterparts, they may not be fully realizing the advantages of "each culture's uniqueness". If they nominated a greater range of nationalities, while utilizing cultural synergies where possible, a higher level of performance might be experienced.

The deductive approach should therefore expand the understanding of how each research group is handling the cultural diversities and how synergies are trying to be fostered. Such methodology may change the conclusion of this thesis, in which more nationalities may actually have a *positive* impact on the investor's shareholder value.

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### <u>Databases</u>

Data Stream

Orbis

**Danish Statistics** 

### National Bank of Denmark

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## - A Danish perspective

# A.1 - Board Composition - Board members with another nationality than Danish

Novo Nordisk A/S					
Board member	Nationality	Joined in	Retired in	Independent	Comments
Ulf J. Johanson	Swedish	1998	2005	No, board member in Novo A/S	
Kurt Briner	Swiss	2000	2009	Yes	
Göran A. Ando	Swedish	2005	_	No, board member in Novo A/S	Deputy Chairman, 2006
Pamela J Kirby	British	2008	_	Yes	
Hannu Ryöppönen	Finnish	2009	-	Yes	
Copenhagen Airports A/S					
Board member	Nationality	Joined in	Retired in	Relation	Position
Rolf Börjesson	Swedish	2002	2005	Yes	
Ivar Samrén	Swedish	2004	2005	Yes	Deputy Chairman
Martyn Booth	British	2005	2007	Global Head of Macquarie Airports	
Phillippe Hamon	French	2005	2009	Head of Business Development, Macquarie Airports	
Hamish de Run	Australian	2005	2006	Yes	
John Stent	British	2006	2008	Yes	
Kerrie Mather	Australian	2006	_	CEO, Map	
Max Moore-Wilton	Australian	2007	_	Chairman, Map	Deputy Chairman
Andrew Cowley	Australian	2007	2009	Deputy CEO, Macquarie Airports	
Luke Kameron	Australian	2008	-	Head of Aviation, Map	
Martin Stanley	British	2009	-	Head of Macquarie Capital. Fund in Europe	
Danisco					
Board member	Nationality	Joined in	Retired in	Independent	Position
Bo Berggren	Swedish	1993	2004	Yes	
Heimo Karinen	Finnish	1999	2004	Yes	
Matti Vuoria	Finnish	1999	2009	Yes	Deputy Chairman, 2002-2005
Håkan Björklund	Swedish	2004	-	Yes	Deputy Chairman, 2009 -
Diego Bevilacqua	British	2009	-	Yes	
GN Store Nord A/S					
Board member	Nationality	Joined in	Retired in	Independent	Position
Per Wold-Olsen	Norwegian	2008	-	Yes	Chairman, since 2008
William E. Hoover, Jr.	American	2007	-	Yes	Deputy Chairman, 2008
Mike R. van der Wallen	Dutch	2007	2008	Yes	

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Wolfgang Reim

German

2008

- Yes

# A.2 Board Composition, Foreign corporations

- Board members with another nationality than the native of the corporation

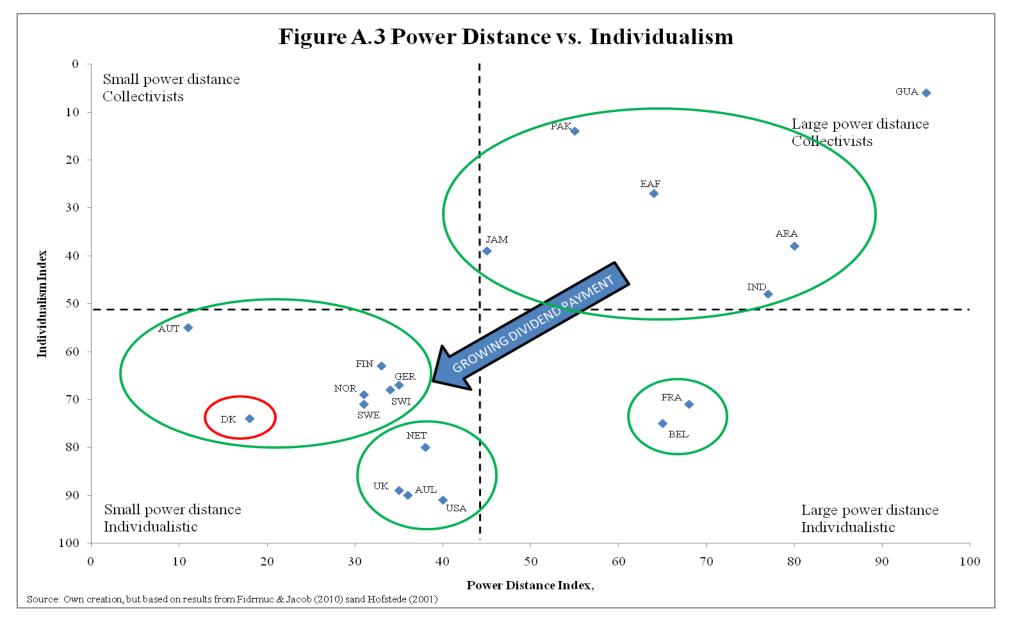
Eli Lilly					
Board member	Nationality	Joined in	Retired in	Independent	Comments
Sidney Taurel	Moroccan	1991	2008	No	Executive-Director Chairman, 1999
Franklyn G. Prendergast	Jamaican	1995	-	Yes	Non-Executive-Director
Sir Winfried Bischoff	German	2000	-	Yes	Non-Executive-Director
Sir John Rose	Scottish	2003	2005	Yes	Non-Executive-Director
Ralph Alvarez	Cuban	2009	-	Yes	Non-Executive-Director
Fraport AG					
Board member	Nationality	Joined in	Retired in	Relation	Position
Prof. Karel van Miert	Belgian	2002	2004	Yes	Non-Executive Director
Wolfgang Mayrhuber	Austrian	2008	-	Yes	Non-Executive Director
Tate & Lyle	1				
Board member	Nationality	Joined in	Retired in	Independent	Position
Dr Barry Zoumas	American	2005	-	Yes	Non-Executive-Director
Stanley Musesengwa	Zimbabwean	2003	2008	No	Executive-Director
Mary Jo Jacobi	American	1999	2004	Yes	Non-Executive-Director
Carole Piwnica	Belgian	1996	2006	Yes	Non-Executive Vice-Chairman
Allen Yurko	American	1996	2005	Yes	Non-Executive-Director
Larry Pillard	American	2003	2004	Yes	Non-Executive-Director
Kai Nargolwala	Indian	2004	2007	Yes	Non-Executive-Director
Plantronics					
Board member	Nationality	Joined in	Retired in	Independent	Position
Saleem Muqaddam	Pakistani	1999	2002	Yes	Part of controlling shareholder
Roger Wery	Belgian	2001	-	Yes	Non-Executive-Director

# A.2.1 The Composition of the pie chart

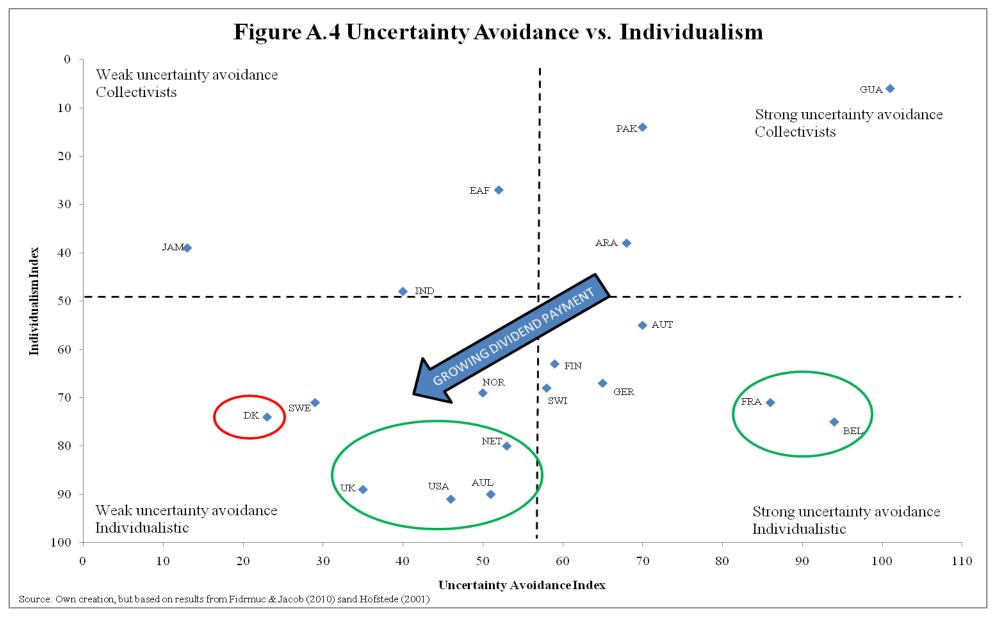
The Danish corporations	2000-2004	2005-2010
Nordic	7	8
British	0	5
German	0	1
Swiss & Dutch	1	2
French	0	1
American	0	1
Australian	0	5
Total of foreigners	8	23

The foreign corporations	2000-2004	2005-2010
Nordic	0	0
British & Scottish	1	1
German	1	1
Swiss & Dutch	0	0
Austrian	0	1
Belgian	3	2
American	3	2
Indian & Pakistani	3	2
Moroccan	1	1
Australian	0	0
South American	1	2
Total of foreigners	13	12

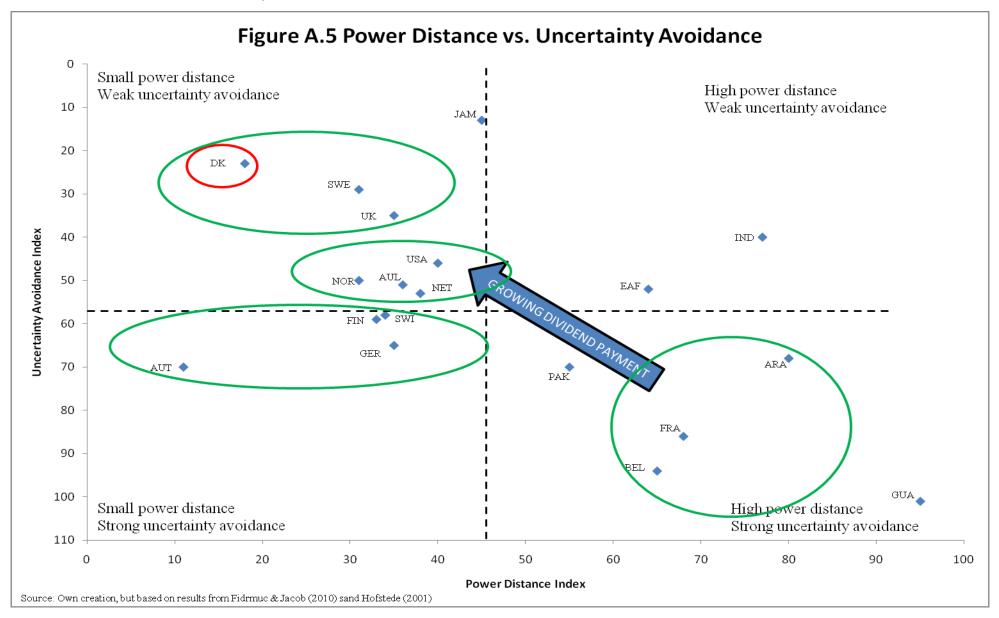
## A.3 Power Distance vs. Individualism



# 18. A.4 Uncertainty Avoidance vs. Individualism



## A.5 Power Distance vs. Uncertainty Avoidance



- A Danish perspective

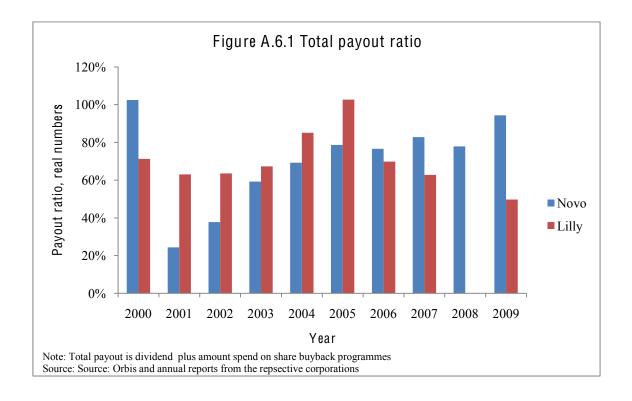
# A.5.1 – Short names for the included countries

Code	Country	Comments
ARA	Morocco	Not included by Hofstede, so the scores of "The Arabian Region" are chosen as an indication
AUL	Australia	
AUT	Austria	
BEL	Belgium	
DK	Denmark	
EAF	Zimbabwe	Not included by Hofstede, so the scores of "The East African Region" are chosen as an indication
FIN	Finland	
FRA	France	
GBR	United Kingdom (incl. Scotland)	
GER	Germany	
GUA	Cuba	Not included by Hofstede, so the scores of Guetamala are chosen as an indication
IND	India	
JAM	Jamaica	
NET	The Netherlands	
NOR	Norway	
PAK	Pakistan	
SWE	Sweden	
SWI	Switzerland	
USA	The United States	

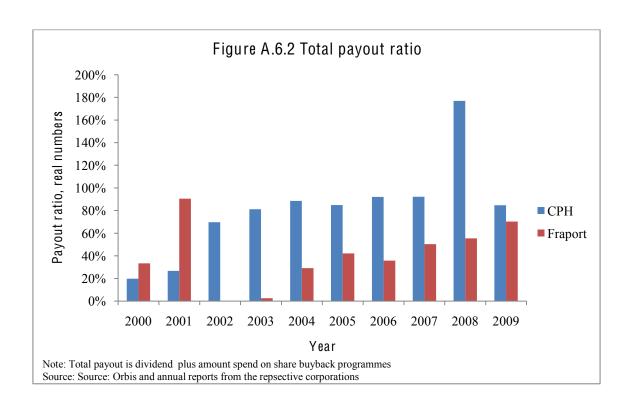
# - A Danish perspective

## A.6 Dividend per share

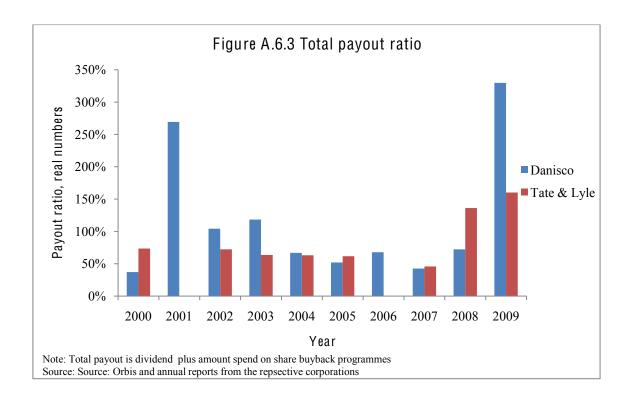
# A.6.1 Total Payout Ratio Novo & Lilly



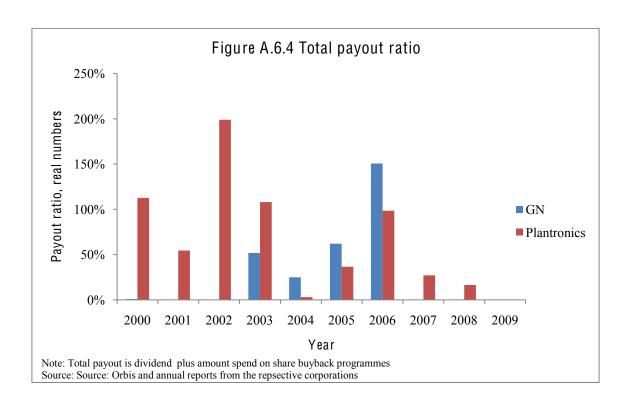
# A.6.2 Total Payout Ratio CPH & Fraport



## A.6.3 Total Payout Ratio Danisco & Tate

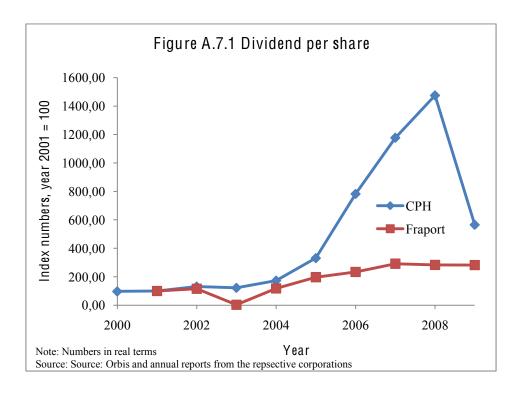


# A.6.4 Total Payout Ratio GN & Plantronics

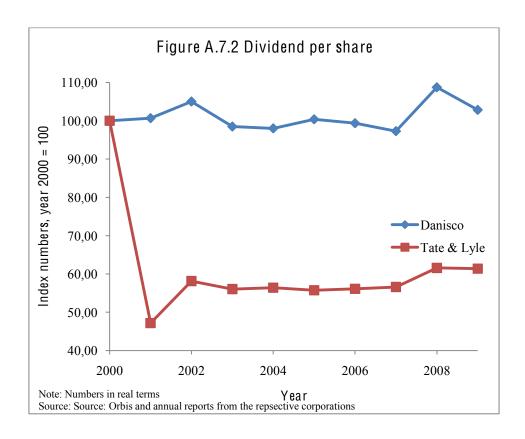


## A.7 Dividend per share

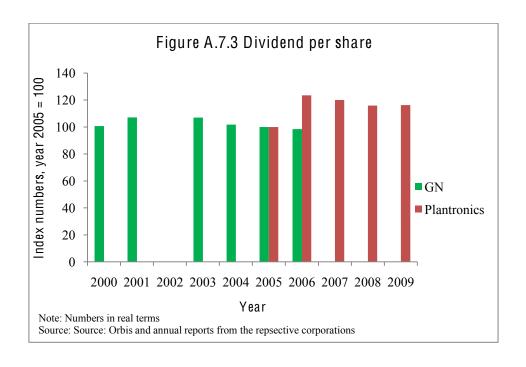
# A.7.1 Dividend per share CPH & Fraport



## A.7.2 Dividend per share Danisco & Tate



# A.7.3 Dividend per share GN & Plantronics



# A.8 Price-Earnings Overview

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Novo	14,93	13,30	7,51	7,49	8,98	9,10	10,33	21,21	14,79	15,80
KBHL	14,17	14,46	13,34	14,57	16,34	21,95	20,69	16,33	11,64	15,65
Danisco	11,40	69,81	17,02	12,47	14,65	15,23	43,45	20,42	12,15	81,81
G N	2,44	NA	NA	32,75	25,53	21,46	51,60	NA	NA	NA
Lilly	34,29	31,75	26,34	30,89	35,52	32,33	22,16	20,52	NA	9,49
Fraport	NA	66,33	NA	51,90	20,86	25,40	21,55	23,63	14,94	22,22
Tate & Lyle	6,20	NA	12,88	11,39	14,84	18,76	NA	10,19	9,50	30,62
Plantronics	41,95	20,49	24,72	47,02	42,37	18,89	17,31	34,55	12,99	NA

## Note:

Amount of shares outstanding before treasury holding But without preferred share

Source: Own calculations

# A.9 Dataset for the "Capital Asset Pricing Model"

Market Index

OMXC20 - PRICE INDEX	DAX 30 (XETRA) - PRICE INDEX	FTSE 100 - PRICE INDEX	S&P 500 - PRICE INDEX
DKKFXIN	XETRDAX	FTSE100	S&PCOMP

Date	Yearly	Change									
31-12-1999	255,7		31-12-1999	6958,1		31-12-1999	6930,2		31-12-1999	1469,3	
29-12-2000	313,9	22,8%	29-12-2000	6433,6	-7,5%	29-12-2000	6222,5	-10,2%	29-12-2000	1320,3	-10,1%
31-12-2001	270,7	-13,8%	31-12-2001	5160,1	-19,8%	31-12-2001	5217,4	-16,2%	31-12-2001	1148,1	-13,0%
31-12-2002	199,5	-26,3%	31-12-2002	2892,6	-43,9%	31-12-2002	3940,4	-24,5%	31-12-2002	879,8	-23,4%
31-12-2003	244,3	22,5%	31-12-2003	3965,2	37,1%	31-12-2003	4476,9	13,6%	31-12-2003	1111,9	26,4%
31-12-2004	286,7	17,3%	31-12-2004	4256,1	7,3%	31-12-2004	4814,3	7,5%	31-12-2004	1211,9	9,0%
30-12-2005	393,5	37,7%	30-12-2005	5408,3	27,3%	30-12-2005	5618,8	16,6%	30-12-2005	1248,3	2,9%
29-12-2006	441,5	12,3%	29-12-2006	6596,9	21,1%	29-12-2006	6220,8	10,6%	29-12-2006	1418,3	12,7%
31-12-2007	464,1	5,3%	31-12-2007	8067,3	22,0%	31-12-2007	6456,9	3,5%	31-12-2007	1468,4	3,1%
31-12-2008	247,7	-46,6%	31-12-2008	4810,2	-40,4%	31-12-2008	4434,2	-31,3%	31-12-2008	903,3	-38,5%
31-12-2009	336,7	35,9%	31-12-2009	5957,4	23,8%	31-12-2009	5412,9	23,2%	31-12-2009	1115,1	25,2%

Source: Datastream

Risk-free Interest Rate

	2000	2001,00	2002	2003	2004	2005	2006	2007	2008	2009
	1	1				T		1		
Denmark	5,20%	5,15%	4,45%	4,46%	3,87%	3,30%	3,95%	4,48%	3,31%	3,62%
Germany	4,85%	5,00%	4,20%	4,29%	3,68%	3,31%	3,88%	4,31%	2,95%	3,39%
United Kingdom	4,94%	5,12%	4,42%	4,89%	4,59%	4,14%	4,79%	4,51%	3,02%	4,07%
United States	5,18%	5,10%	3,85%	4,29%	4,27%	4,44%	4,76%	4,03%	2,21%	3,79%

Source: The Danish Statistics - DNUDAAR: Pengemarkeds- og statsobligationsrente i udvalgte lande

# A.10 Regression Analyses

# A.10.1 Regression Analysis - Lilly

Friday, May 28, 2010 9:23 PM 1

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Dependent Variable | Lilly

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Ord	Ordinary Least Squares Estimates					
SSE	2562.5541	DFE	9			
MSE	284.72823	Root MSE	16.87389			
SBC	86.1431022	AIC	85.8405171			
MAE	15.0734955	AICC	86.3405171			
MAPE	61.3351095	Regress R-Square	0.6411			
<b>Durbin-Watson</b>	0.2902	Total R-Square	0.6411			
NOTE: No inter	NOTE: No intercent term is used. R-squares are redefined.					

<b>Durbin-Watson Statistics</b>					
Order	DW				
1	0.2902				

					Approx
Variable	DF	Estimate	Standard Error	t Value	Pr >  t
Novo	1	1.6408	0.4092	4.01	0.0031

# A.10.2 Regression Analysis - Fraport

Friday, May 28, 2010 9:24 PM 1

## Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Dependent Variable | Fraport

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Ord	Ordinary Least Squares Estimates						
SSE	3915.44231	DFE	9				
MSE	435.04915	Root MSE	20.85783				
SBC	90.3823406	AIC	90.0797555				
MAE	14.2426617	AICC	90.5797555				
MAPE	30.9351566	Regress R-Square	0.6050				
<b>Durbin-Watson</b>	3.1309	Total R-Square	0.6050				
NOTE: No inter	cent term is	used Risquares are	redefined				

<b>Durbin-Watson Statistics</b>					
Order	DW				
1	3.1309				

Variable	DF	Estimate	Standard Error	t Value	Approx Pr >  t
KBHL	1	1.5117	0.4072	3.71	0.0048

# A.10.3 Regression Analysis - Tate & Lyle

Friday, May 28, 2010 9:25 PM 1

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Dependent Variable | Tate & Lyle

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Ord	Ordinary Least Squares Estimates						
SSE	1096.36032	DFE	9				
MSE	121.81781	Root MSE	11.03711				
SBC	77.6530166	AIC	77.3504315				
MAE	9.6399916	AICC	77.8504315				
MAPE	62.437835	Regress R-Square	0.4621				
<b>Durbin-Watson</b>	1.8915	Total R-Square	0.4621				
NOTE: No inter	cent term is	used Requeres are	redefined				

<b>Durbin-Watson Statistics</b>					
Order	DW				
1	1.8915				

					Approx
Variable	DF	Estimate	Standard Error	t Value	Pr >  t
Danisco	1	0.2502	0.0900	2.78	0.0214

# A.10.4 Regression Analysis - Plantronics

Friday, May 28, 2010 9:26 PM 1

### Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Dependent Variable Plantronics

## Regression Analysis with Autoregressive Errors

The AUTOREG Procedure

Ordinary Least Squares Estimates							
SSE	5481.85437	DFE	9				
MSE	609.09493	Root MSE	24.67985				
SBC	93.7474919	AIC	93.4449068				
MAE	20.0327038	AICC	93.9449068				
MAPE	82.2670526	Regress R-Square	0.3782				
<b>Durbin-Watson</b>	1.0518	0.3782					
NOTE: No intercept term is used. R-squares are redefined.							

<b>Durbin-Wats</b>	on Statistics
Order	DW
1	1 0518

					Approx
Variable	DF	Estimate	Standard Error	t Value	Pr >  t
GN	1	0.8289	0.3543	2.34	0.0440

# A.11 Important trading partners of the respective countries

1	9.	

United States	Export		Import		United Kingdom	Export		Import	
	Canada	20,1%	China	16%		US	14%	Germany	13%
	Mexico	11,7%	Canada	16%		Germany	12%	US	9%
	China	5,5%	Mexico	10%		Netherlands	8%	China	8%
	Japan	5,1%	Japan	7%		France	8%	Netherlands	7%
	Germany	4,2%	Germany	5%		Ireland	8%	France	7%

Note: Numbers from 2008 Notes: Numbers from 2008

Source: https://www.cia.gov/library/publications/the-world-factbook/geos/us.html

https://www.cia.gov/library/publications/the-world-factbook/geos/uk.html

Germany	Export		Import		Denmark	Export		Import	
	France	10%	Netherlands	9%		Germany	18%	Germany	21%
	US	7%	China	8%		Sweden	15%	Sweden	14%
	Netherlands	7%	France	8%		UK	8%	Netherlands	7%
	UK	7%	US	6%		Norway	6%	Norway	6%
	Italy	6%	Italy	6%		US	5%	China	6%

Numbers from 2009 Numbers from 2008

Source:https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html
Source:https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html

# A.12 Shareholder value creation analysis – change grouping

