Strategic Analysis and Valuation of ISS A/S

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Executive summary

The main objective with this thesis is, through a broad and holistic view, to address the value of the privately owned ISS in light of the failed acquisition offer made by G4S in the fall of 2011, based on a strategic analysis, an accounting analysis and a DCF valuation.

The first part of this thesis seeks to describe and analyze internal factors within ISS and external strategic factors, which lead to a forecasted budget of operational drivers of ISS. ISS is a highly leveraged global and dominant service provider. Based on the strategic analysis, I find the single service industry characterized as a very competitive industry. There are, however, organic growth opportunities present within the integrated facility service industry, especially on the developing markets. It is concluded that ISS's strategic aim is organic growth; they are mainly positioned on the European market and are vulnerable to financial and macroeconomic turbulence. The profitability of ISS is negative and caused by negative SPREAD, declining ROIC and a low operating margin. However, the profitability is expected to rise in the future. It is forecasted that the future annual growth rates will be at a moderate 5-6% level, combined with cost reduction, which will result in a positive yearly profit margin.

The second part applies the findings and assumptions of the strategic analysis and the budgeting by the use of different valuation methods. The Discounted Cash Flow method represents the primary valuation method using the secondary valuation method, the peer group multiple valuation, as a sanity check. While determining the value of ISS, the owner's cost of debt and the owner's required rate of return on equity are calculated to be 7.35% and 6.66%, respectively. This results in a WACC of 5.9% and an ISS equity value of DKK 15,258 million. The peer group multiple valuation of ISS is used as a comparable method to the DCF; here, the Equity value is calculated to be in the range from DKK 14,551 million to DKK 16,147 million. The primary valuation method is considered to be within a reasonable spread from the secondary method. In the fall of 2011 G4S made a bid to acquire ISS at a price of approx. DKK 13,000 million, which is less than the calculated value of ISS.

First of all, the thesis was produced close to a year after the bid with new internal and external conditions. Secondly the sensitivity of the DCF method is characterized as significant, where small changes in WACC especially, including beta and the market premium, can explain the difference in value. The ISS equity value of DKK 15,258 million is thus characterized as being fair.

Table of contents

1 Introduction

This introductory section lays down the framework for the thesis beginning with the motivation for selecting the overall theme. A problem statement is formulated followed by an illustrated graphic diagram of the thesis structure. The methodology, theory and other informational sources are substantiated. The introduction is finalized with argumentation explaining the delineations used throughout the thesis.

1.1 Motivation

In May 2011, ISS announced a prospect for an initial public offering (IPO) on the Danish stock exchange, OMX. Due to turbulent market conditions associated with the instability in Libya and Greece, unexpected low stock price bids from potential new ISS stockholders were made. ISS's owners, EQT and Goldman Sachs, found the price unsatisfying and decided to cancel the IPO at the last minute.

Half a year later, on October 17th, 2011 it was revealed that, to many people's surprise, the British security company, G4S, had made a bid to acquire ISS. The following weeks became fairly turbulent for the forthcoming acquisition, due to the skepticism of major shareholders in G4S.

The main concern was the lack of future synergy effects on an acquisition, which, in the eyes of the G4S shareholders, made the bid price of DKK 44.3 billion equaling approx. DKK 130 per share or an equity value of approx. DKK 13,000 million over valued[1]. This resulted in G4S announcing the termination of their Share Purchase Agreement pursuant to G4S's proposed acquisition of ISS A/S on November 1st, 2011.

The motivation for the thesis is to analyze the company ISS and the surrounding market, in order to assess the current fair price of the company a year after the failed G4S acquisition attempt.

[1] (Søgaard, 2011)

1.2 Problem statement

The main goal for the thesis is expressed by following a superior problem statement:

Based on a strategic analysis, an accounting analysis and a conclusive valuation of ISS A/S, what is the fair price of ISS A/S in the light of the G4S bid?

In order to address the main topic of the thesis, several sub-questions are stated in the following. The main purpose of the analysis is to pinpoint, which factors are of significant importance to the company's future operations. It is also of interest to analyze the historical trends of ISS's profitability, in order to assess the company's foundation for future trends in the subsequent chapter on budgeting.

Market trends and internal factors, which influence ISS's future development, are interesting factors that give thought to the following questions: What significant external factors surround ISS, and how do they affect operations? How is ISS's profitability affected by the competition in the facility service market? How does the growth strategy affect the value of ISS?

By reformulating the financial data and analyzing the accounting statements, what is the historical trend of the profitability of ISS's operations?

A valuation is based on future operational expectations and is formalized in a forecasted budget. How are the future earnings of ISS expected to develop after considering the strategic future issues and the historical profitability?

The calculated budget will serve as a foundation for the valuation of ISS. In order to reach a tested and valid value, the valuation will be calculated from two models, a primary model and a secondary model.

Scholars[2] suggest that the discounted cash flow model theory is the preferred model when valuing a company, and is thus the primary valuation method in the thesis. In the light of the main theme of the thesis and when using the discounted cash flow model, what is the current value of ISS?

As secondary valuation is done, based on a peer group market analysis, which provides a perspective to the price level on the related market. What is the current value of ISS when calculated as a comparable valuation using the peer group multiples?

Not only will a secondary valuation try to verify the primary valuation, but as a test and to give a broader understanding of primary valuation of ISS, a accuracy and sensitivity analysis is done. By changing the variables in the primary valuation, how sensitive does the result tend to be?

[2] (Petersen & Plenborg, 2007)

1.3 Delineation

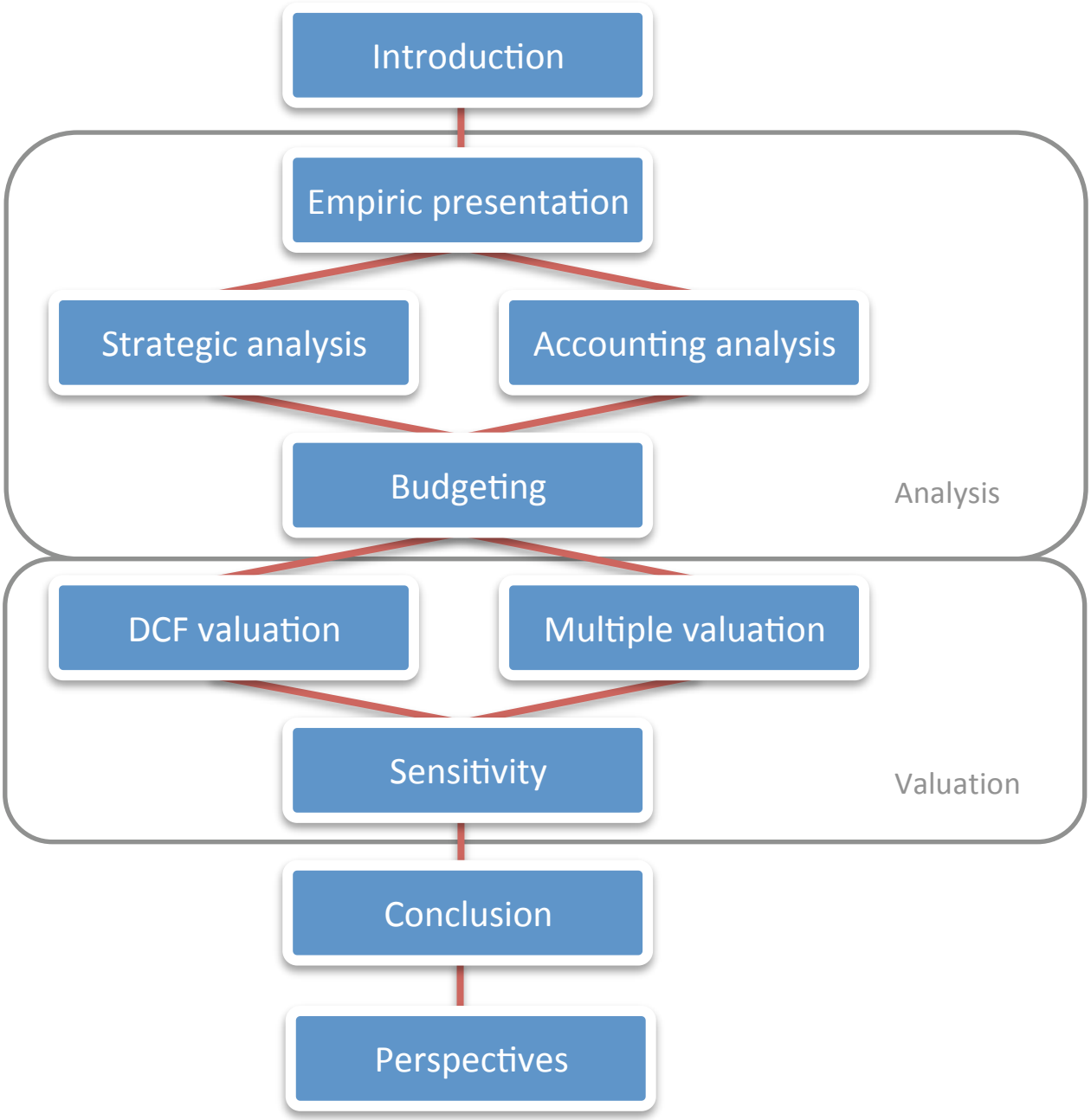
The thesis assume to delineate the following topics:

- Information released after September 2012 has not been taken into consideration
- Analyzing ISS is done at corporate level where relevant examples at business unit level are included occasionally
- The valuation is an estimate of ISS as a stand-alone entity, whereas synergies realized in a potential acquisition are not included
- The capital structure and the valuation is assumed to be based on the two propositions made by Modigliani and Miller (1958)
- CAPM is used as a basis for the valuation, although the model has been subject to criticism. The thesis assumes that the linearity of the model is true in the long term. No risk premium has been present during the last 10–12 years.
- The valuation model used assumes that a linearity correlation between return and risk exists, which is a simplification
- It is assumed that no IPO will occur during the forecasted period
- While analyzing the service industry and the markets, the thesis will mainly focus on the European market due to the dominating role that ISS has in this market

1.4 Structure

The structure of the thesis is can be divided into two general sections. First an analysis section is done, where the ISS and their surroundings are analyzed and used for creating a forecast of the performance of ISS. Secondly a valuation section takes place, where the value of ISS is calculated by using two different valuation methods, followed up by a sensitivity analysis of the primary DCF valuation method.

A conclusive chapter summarizes the findings of the thesis, which are discussed and reflected upon in a what-if-analysis in the perspectives chapter.



1.5 Methodology

The methodology section will explain the investigation process as to how the questions in the problem statement are sought answered. The valuation of ISS is done at corporate level, rather than business unit level. The general structure of the thesis is based on a strategic analysis and an accounting analysis that, together, form the basis for a budget used in the final valuation.

1.5.1 Strategic analysis

The strategic analysis will discover the non-financial aspects of importance in describing internal and external factors, which affect the future life of ISS. More precisely, three models are used to analyze the economic environment of ISS and their strategic position in the industry, in which they act.

First off, the external factors that affect ISS are highlighted through the PESTEL framework. The model frames the political, economic, sociocultural, technological, ecological and legal factors that will likely influence the future of operations in ISS.

Secondly, the sources of competitive surroundings within the industry of ISS are analyzed. Porters Five Forces are used in this manner to get a grasp of the entry barriers in the facility service industry, competitors with substitute products and the bargaining power of buyers and suppliers.

Lastly, Ansoff's growth matrix will describe the strategy that ISS is pursuing and the opportunities this has for future growth.

On behalf of the analytical models mentioned above, and as a conclusive part of the strategic analysis section, external opportunities and threats, as well as internal strengths and weaknesses are identified in the light of ISS. The SWOT analysis gives a punctual and visible outline of the company's general strategic issues and is an ideal stepping stone for subsequent chapters in the thesis, such as budgeting.

1.5.2 Accounting analysis

The goal of the accounting analysis is to give a valid historic overview of ISS's financial performance. The primary sources of data in this analysis originate from ISS's annual reports from 2007 to 2011. This period includes the time prior to the financial crisis in 2008, the IPO initiative and acquisition cases in 2011 that involved G4S and ISS.

The choice of data and time period is thus suitable for a successful analysis of how the invested capital has developed and how changes in the global market will affect the future of ISS.

The accounting statements will be rearranged, the balance sheet will be changed to show operations and invested capital separately by using the operation method and the financial method and, lastly, a profitability analysis will be performed using the extended DuPont model.

1.5.3 Budgeting

The budget will be divided into two time periods. First, the budget will consist of a budgeting period followed by a terminal period. Both budget periods are based on the strategic analysis and the historic value drivers found in the previous accounting analysis.

The budgeting period depends on the strategic analysis and will continue until the budget has reached a steady state. After this point, the terminal period will be calculated on behalf of the assumed expectations of constant future growth.

1.5.4 Valuation

The valuation is based on two methods, a primary and a secondary method, consisting of the well-known and respected Enterprise Discounted Cash Flow Model (DCF) and a multiple valuation.

Due to the fact that it solely relies on the cash flow in and out of the company, the DCF valuation is the most accurate and flexible model preferred by many practitioners and academics. The DCF will be followed up by a sensitivity analysis in order to test the robustness of the model due to changes in the variables that were used.

The secondary model is a multiple analysis, which compares the company's multiples with related and similar companies, also called a peer group. This can help test the plausibility of cash flow forecasts and explain differences in performance between the market players.

The model used is based on the EV/EBITDA multiple, a preferable model when dealing with companies that are not listed on the stock exchange and companies with different accounting standards.

1.5.5 Reliability and validity

The research made prior to the preparation of the thesis can be divided into two main empirical types of sources: primary source and secondary source.

The primary source of empirical material is based on quantitative material directly related to ISS and qualitative research. Primary quantitative sources such as annual reports and corporate announcements are used as a foundation for the various analyses in the thesis, especially when doing numerical and accounting analysis.

Qualitative research is done in order to gain insight knowledge, first of all into the Facility Management industry, but also into the movements within M&A in the relating industry. A semi-structured interview was conducted with Peter Søgaard and Jarn Schauby, two experienced corporate finance and M&A advisors from the consulting firm Nordic Corporate Finance, which is part of Global M&A.

Secondary material is based on other quantitative data, a variety of written sources, such as announcements, statistical databases, market reports, scientific papers and articles. The main source in this case is ISS annual reports, statements and other publicly available company information.

In order to give an overview of the sources used in the thesis, a table of primary and secondary sources is shown in Appendix 1.

When dealing with a diversity of sources, as was the case for this thesis, it is important to have a sense of criticism. Regarding the ISS annual reports, it is necessary to have a critical perspective due to the fact that the reports are produced internally by ISS. That being said, it is acknowledged that the independent auditors from KPMG inform that the statements give a true and fair view of the company's assets.

The consistency in the accounting standard throughout the analysis period is also a crucial factor when analyzing the annual reports. ISS has followed the International Financial Reporting Standards (IFRS) throughout the entire analysis period, so it is assessed that the reports give a true and fair picture of the company's economic situation.

Other sources, such as industry reports and articles, have content that needs a critical view. Due to the subjectivity of reports produced by trade and industry associations, conclusions drawn by these associations need particular critique when using the information.

2 Empirical presentation of the company

A thorough understanding of the company ISS is essential to be able to analyze the strategic and financial issues. In order to do so, the company's history, organization, corporate governance, strategy, products and markets will be described, which will lead to an understanding of ISS's business model. This will be followed up by the following factors: ownership and economy with an impact on the company's financial opportunities.

2.1 History

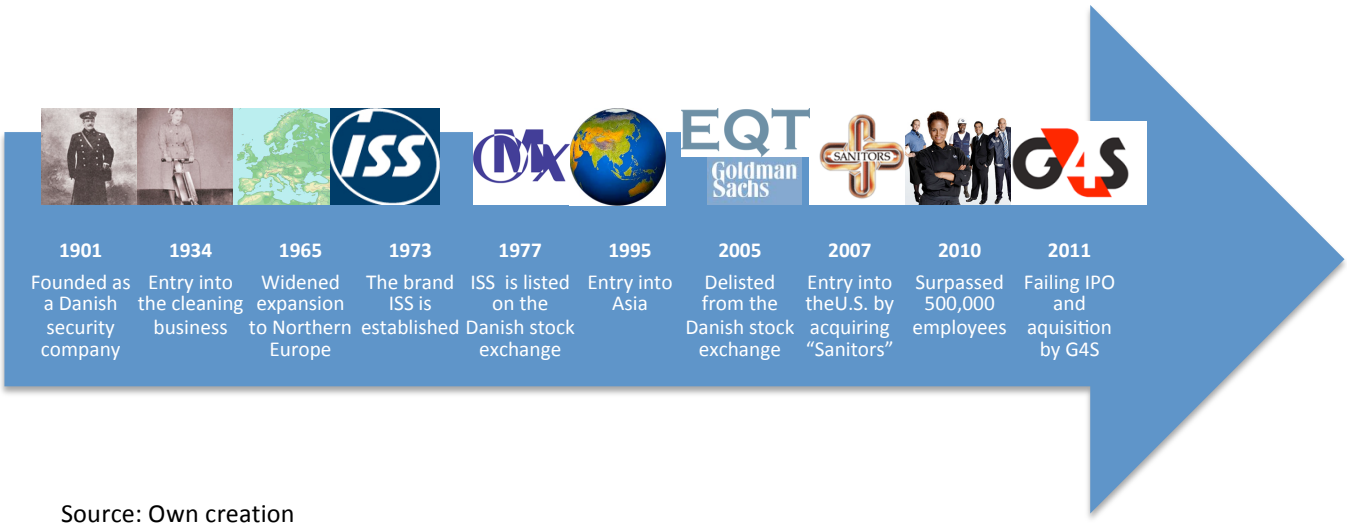
ISS was founded in 1901 in Copenhagen, Denmark as a small security company with 20 night watchmen and was originally named Kjøbenhavn-Frederiksberg Nattevagt (Copenhagen-Frederiksberg Night Watch). Back then, management began to develop special services as they had discovered a market niche in the mornings between the time when security staff left the buildings until the beginning of regular business hours. Why not add a cleaning function to the security during that time?

In 1934, ISS thus established a new branch of the company called DDRS, Det Danske Rengørings Selskab A/S (The Danish Cleaning Company PLC). It soon became evident that this new service was profitable and in high demand. With the new and more diverse business profile, ISS expanded into Sweden in 1946 and, later on, into Norway in 1956.

1962 was an important year for the company when young Poul Andreassen became the new CEO. Due to his characteristic management style that mixed inspiration, creativity and strong social values, the company soon went through a period of professional and visionary development. After growing heavily in the Nordic market, mainly through the Danish public health sector with growth rates of approx. 25%, ISS began expanding into new geographical markets, beginning with the European markets.

In 1973, the company, now consisting of many business units, changed the name of the parent company from DFVS to "ISS International Service System A/S". Through acquisitions and joint ventures, the global expansion strategy led to ISS being represented in 13 European countries plus Brazil and Australia and employing around 42,000 people in 1977. That same year, ISS was listed on the Copenhagen Stock Exchange. In the early eighties, ISS began an intense expansion strategy through acquisitions of minor service companies. The effect of the strategy was celebrated in 1989 by employing the 100,000th employee in ISS.

Figure 1 – ISS's historical time line



Source: Own creation

The company's largest acquisition ever was made in 1999 when ISS acquired Abilis, the second largest provider of cleaning and specialized services in Europe. In 1998, Abilis had an annual revenue of DKK 5,200 million with over 50,000 employees. The acquisition was worth DKK 3,600 million.[3] With a structured approach to acquisitions and divestments, the ISS acquisition strategy accelerated at the beginning of the millennium by selectively acquiring smaller companies in order to strengthen its competencies, enhance its service offerings and establish critical mass. From 2000 to 2011, ISS integrated over 600 external businesses in 48 countries, resulting in a company of more than 535,000 employees in 2012.

In the spring of 2011, ISS planned to make an IPO on the Danish stock exchange, but failed, due to the low bid price presented by the potential new investors. Instead, G4S made an offer of buying ISS in July 2011, which was significantly higher than the price presented earlier that year.[4] In the last hours of the deal-making process between the owners of ISS and G4S, the acquisition was cancelled, due to disagreements from the major shareholders of G4S.

As discussed later in the thesis, the reason may have been a lack of synergy effects of the acquisition. Now, the ISS management is doing business as usual and is focusing on continuous organic growth in the core business of ISS.

[3] (ISS, 2012)
[4] (Borsen, 2011)

2.2 Organization

By currently employing over 535,000, ISS is now the fourth largest company in the world measured in number of employees[5]. ISS navigates on the global market and operates in 53 countries and on every continent.

Referring to the ISS vision: *"Lead facility services globally by leading facilities locally"*[6] *(The ISS Way)*, ISS encourages each country to be independent and operate locally by controlling and developing their own market. On top of each country, ISS has developed an organizational structure with seven global managerial regions that are able to both meet the strategic goals while maintaining strong local entrepreneurship.

The organization within ISS can be defined as a horizontal and decentralized organizational structure, which gives each geographical department the flexibility to adapt to their individual market trends, see Appendix 2. The organizational structure also moves the company close to its customers, which gives them the feeling off presence from ISS. The focus on a strong corporate culture and high-quality products are values that are highly prioritized and ensure the satisfaction of a customer's needs for tailor-made service solutions built on aligned quality products.

This decentralized structure that, to a large extent gives the local managements more responsibility, makes them a highly important asset for the company.

It is, on the other hand, a complex apparatus to control, when the organization is built upon a horizontal structure, where thoroughly described working procedures and quality regulations are necessary to enable streamlined operations and products.

2.3 Corporate governance

As is often the case in the northern European countries, ISS has a two-tier board system consisting of the supervisory Board of Directors, selected by the shareholders, and the Executive Group Management Board (EGM). In this case, the EGM is responsible for the daily operations and the Board of Directors lays down the overall strategic outlines.

The former Group CEO and later board member of ISS, Jørgen Lindegaard, was one of the pioneers in Danish corporate governance. In 2001, he and three highly respected business executives, formally known as "The Nørby Committee", were requested by the government to compose a study of the quality

[5] (ISS, 2011)
[6] (ISS, 2008)

of the governance in Danish companies and, if necessary, make recommendations for improvement. Jørgen Lindegaard was appointed CEO form 2006 to 2010 and stepped down from the EGM in December 2011[7]. While serving ISS, he had a positive influence on implementing change and development of the management structure, which created a broad and competent management group in ISS[8].

In April 2010, the Board of Directors appointed former ISS COO and CFO, Jeff Gravenhorst, Group CEO of ISS. With approx. ten years of managerial experience within ISS, Mr. Gravenhorst started the job with a deep insight into ISS. For a complete list of the group management of ISS, please see Appendix 3.

After the failed acquisition by G4S in December 2011, now former Group CFO, Jakob Stausholm, left ISS. Instead, Henrik Andersen took over the role as Group CFO. Mr. Andersen has held positions with ISS for 11 years, such as Group Treasurer and Internal Business Director in Finland, Russia, the Baltics and, more recently, in the UK[9].

Ole Andersen has been a member of the Board of Directors since EQT and Goldman Sachs took over ISS in 2005. Mr. Andersen is currently Chairman of the Board in ISS and served as a senior partner in EQT from 2003 to 2008. He thus represents the strategic involvement from EQT in ISS, who holds the majority of 40% of the shares in ISS, as we will see later in 2.7.

Table 1 – ISS Board of Directors

Board of Directors Name	Position	Other positions
Ole Andersen	Chairman	Chairman of: Chr. Hansen, Hamlet and B&O
Leif Östling	Deputy Chairman	President and CEO of Scania; Chairman of: AB SKF, Svensk Näringsliv and Teknikföretagen
Harry Klagsbrun	Member of the Board	Partner in EQT and member of the board in: Gambro and AcadeMedia
Steven Sher	Member of the Board	Managing Director of Goldman Sachs Int.; Member of the board in: Ahlsell, Edam Acquisition I Cooperatief and Nybrojarl New
Jennie Chua	Member of the Board	CCO of CapitaLand; Chairman of Sentosa Cove Pte Ltd. and Alexandra Health Pte Ltd.
Michel Combes	Member of the Board	CEO Vodafone, Europe; Chairman of Assystem SA and member of the board in Vodafone Plc.
Jo Taylor	Member of the Board	VP in Ontario Teachers' Pension Plans Private Capital
Pernille Benborg	Employee Representative	Head of Compliance at ISS World Services A/S
Joseph Nazareth	Employee Representative	Head of Group Health, Safety and Environment and ISS World Services A/S
Palle Fransen Queck	Employee Representative	Head of Process Innovation at ISS World Services A/S

Source: Own creation, www.issworld.com, (ISS, 2011), ISS Investor Announcements 15-12-11, (ISS, 2011)

[7] (Corporate Governance, 2012)
[8] (ISS, 2010)
[9] (ISS, 2011)

The constellation of the Board is a broad mixture of representatives from the major stakeholders, autonomous business executives and ISS employees. Employee representatives account for 3/10 of the total Board of Directors, which indicates that the voice of the general employee is appreciated. The independency of the Chairman and the diversity of the remaining representatives of the Board seems valid and can therefore be categorized as a board of good corporate governance practice.

2.4 Strategy

In 2008 ISS launched the "*ISS Way*" strategy, which consists of four strategic cornerstones: customer focus, people management, the integrated facility services (IFS) strategy and multi-local approach. On top of this strategy lie the ISS corporate values where honesty, entrepreneurship, responsibility and quality form the foundation of the company, which is driven by its overall vision: *"Lead facility services globally – by leading facility services locally"*[10].

These values are closely associated with the horizontal organizational structure and give the employees the space to work and act as individuals while the company provides the requirements of quality and responsibility of each employee.

The four strategic cornerstones are can be elaborated as follows:

2.4.1 Customer focus

ISS aims at putting the customer in focus by trying to fulfill his or her needs through local, regional and global services. The sustainability of their customer group is ISS's highest interest.

2.4.2 People management

By focusing on leadership skills, HR, HSE policies, employee training and common knowledge sharing within the company, people management has become a core competence within ISS. This is due to their belief that ISS will deliver excellence in their service offerings, e.g. through people management.

2.4.3 IFS strategy

The integrated facility service strategy is at the top of ISS's corporate strategy agenda. In the near future, the company will seek to integrate all business unit services into one "ISS House"[11] by offering self-delivered and multiple site-based services to the customer. This package of services is being tailor made and seamlessly integrated into the customers' organization.

[10] (ISS, 2011)
[11] The ISS House – for further information see Figure 2

2.4.4 Multi-local approach

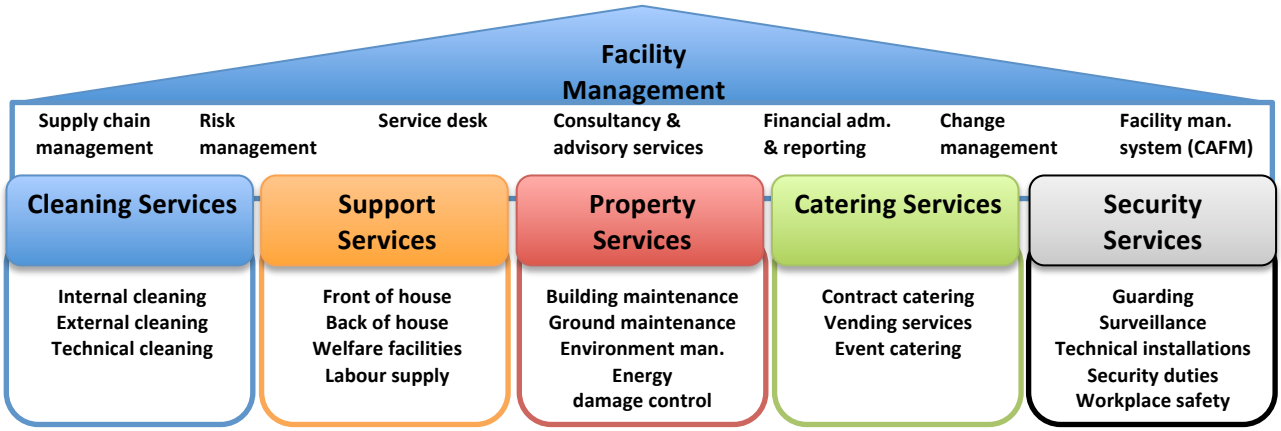
As described earlier, ISS is structured locally, but with a global mindset. The purpose of the multi-local approach strategy is to adapt quickly to local market changes and demands through strong local leadership and autonomy in the various regional offices. In addition to the local strategy, ISS has implemented strict corporate standards and policies that enable the company to maintain a high level of global continuity and quality in their services.

2.5 Products

Through the IFS strategy, ISS's future goal is to create the ISS House where as many services as possible are gathered under one roof for each customer, so to speak. ISS offers the following six services:

- Cleaning services
- Property services
- Support services
- Catering services
- Security services
- Facility management

Figure 2 - The ISS House



Source: Own Creation, (ISS, 2010)

2.5.1 Cleaning Services

Cleaning Services is the largest business unit and the flagship of ISS. General cleaning services include daily office and facility cleaning for commercial customers, washroom and dust control services and specialized cleaning services. Daily cleaning and facility cleaning is by far the largest area within cleaning services. Washroom services include complete solutions, which also provide products, such as hardware. Dust control mainly provides cleaning of floor mats. ISS also offers specialized services that meet industry-specific requirements, such as those of pharmaceutical companies.

Cleaning Services represent 52% of the total ISS Group revenue, totaling DKK 38.4 billion a year. The recent years' development within cleaning services relative to the company's total revenue has been constant, which is in compliance with the 2005 strategy, unlike an increase in other business units.

2.5.2 Property Services

The property services offered by ISS consist of building maintenance and technical services, landscaping, damage control and pest control services. Property Services contributed 21 % of the total revenue in 2010, more specifically DKK 14.6 billion.

2.5.3 Support Services

ISS offers a wide range of support services, such as call centres, and reception and switchboard services. In addition, Support Services cover office logistics, including handling of mail, copying of documents, etc. as well as manpower supply and outplacement services. After cross-selling supply services to existing cleaning service clients, the business area experienced a 1% increase in revenue to DKK 5.6 billion in 2010, which represents 8% of ISS's the total revenue of.

2.5.4 Catering Services

In-house restaurants and external dining facilities can be provided by ISS Catering Services and range from production floor canteens to executive dining rooms, hospital cafeterias and catering services to remote sites, corporate catering and office catering services, such as coffee points. In 2010, Catering Services generated revenue of DKK 5.6 billion, which represented an increase of approx. 1% compared to the previous year.

2.5.5 Security Services

In 2007, Security Services were discontinued and (re-) established as an independent business area within ISS. Security Services consist of manned security, access control and patrolling of customer facilities as well as the installation of alarms and access control systems. Since 2007, the Security Services business area in ISS has increased annually and represents 7% of the total ISS revenue, which is equivalent to DKK 5.2 billion.

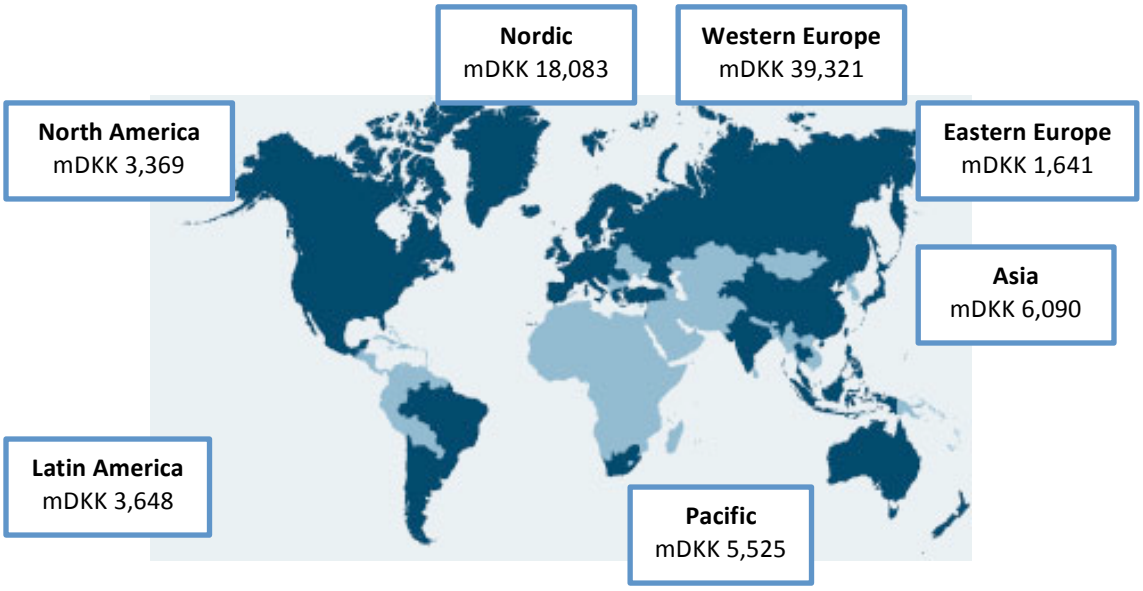
2.5.6 Facility Management

ISS provides a range of facility management services, on-site based as well as off-site services, such as supply chain management, risk management, service desk operations, consultancy & advisory services, financial administration & reporting, change management and facility management systems. Facility Management combines all the services required by the customer and integrates them into the company as one package. In 2010, the revenue generated from Facility Management services totaled DKK 3.2 billion, equivalent of 4% of the total ISS Group revenue.

2.6 Markets

ISS is a global player on the facility services market and is represented in 53 countries around the world.

Figure 3 – ISS Revenue by markets



Source: Own creation, (ISS, 2011)

The biggest contributors to the ISS revenue are the Western Europe and Nordic regions, which represent 51% and 23% of the Group's revenue, respectively. These regions can be characterized as developed regions, and conditions have been challenging in recent years, particularly in Greece where the European downturn has made its presence.

Developing markets, such as Asia, Pacific and Latin America, have performed with high growth rates. They each represent 8%, 7% and 5% of the total Group revenue but have increased their revenue by 13%, 10% and 19%, respectively, in 2011, compared to the previous year.

An interesting comparison of ISS revenue per market and the number of ISS employees per market reveals that the Asian market generates 8% of the total ISS revenue and the market employs 32% of the total ISS work force[12].

North Americas has experienced the highest annual revenue growth rate in 2011 of 28% and represents 4% of the total group revenue. Due to the financial crisis, Eastern Europe has experienced modest growth of 2% in 2011 and contributed to 2% of the total Group revenue.

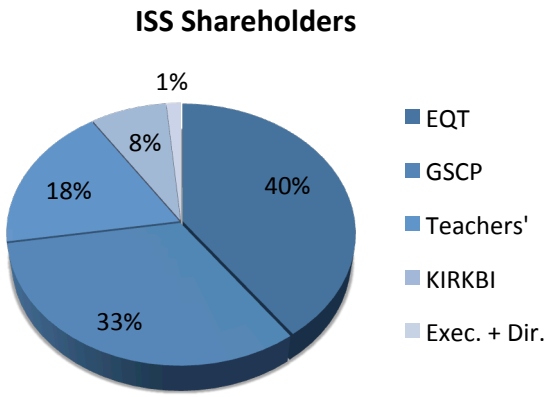
[12] (ISS, 2011)

2.7 Shareholders

The 2005 accounting year was a turning point for ISS, particularly due to the change of ownership. On January 1st, 2005, ISS was listed on the Copenhagen Stock Exchange with a share capital of DKK 946.7 million consisting of 47,335,000 shares of DKK 20 nominal value each. Back then, the share price was DKK 305.5 per share[13].

On March 29th, 2005, FS Funding A/S launched a voluntary public tender offer to acquire the shares of ISS. FS Funding A/S was a newly incorporated Danish company, which was owned indirectly by funds advised by EQT Partners and Goldman Sachs Capital Partners. The offer price was DKK 470 per share, which constituted a premium of 31% higher than the last quoted share price. Upon expiration of the mandatory tender offer, FS Funding A/S held 98.30% of ISS shares and was thus de-listed as of June 21st, 2005. EQT Partners and Goldman Sachs Capital Partners then owned 54% and 44% respectively. The remaining 2% was owned by the principal shareholders, i.e. 148 executives and officers in the ISS Group[14].

Figure 4 – ISS Shareholders



Source: Own creation, (ISS, 2011), (ISS, 2012)

On August 16th, 2012, it was announced that long-term investors Ontario Teachers' Pension Plan (Teachers') and KIRKBI Invest A/S (KIRKBI) had agreed to invest EUR 500 million (approx. DKK 3,721 million) in ISS. The capital injection of DKK 2,605 million and DKK 1,116 million from Teachers and KIRKBI respectively has given the parties ownership of 18% and 8% of the ultimate holding company of ISS. This has changed the ownership structure so that EQT and GSCP now own 40% and 33% of ISS, respectively, and the executive board members and directors now own 1% of ISS. EQT and GSCP have not sold any shares and will still remain majority owners of ISS.

[13] (ISS, 2005)
[14] (ISS, 2010)

2.8 Economy

ISS has generally grown over the past five years within many parameters of their key financial figures. A five-year horizon is chosen when illustrating the key financial figures of ISS. This is done to draw a picture of the sustainability of the core operations of ISS before, during and after the peak of the 2008 economic downturn.

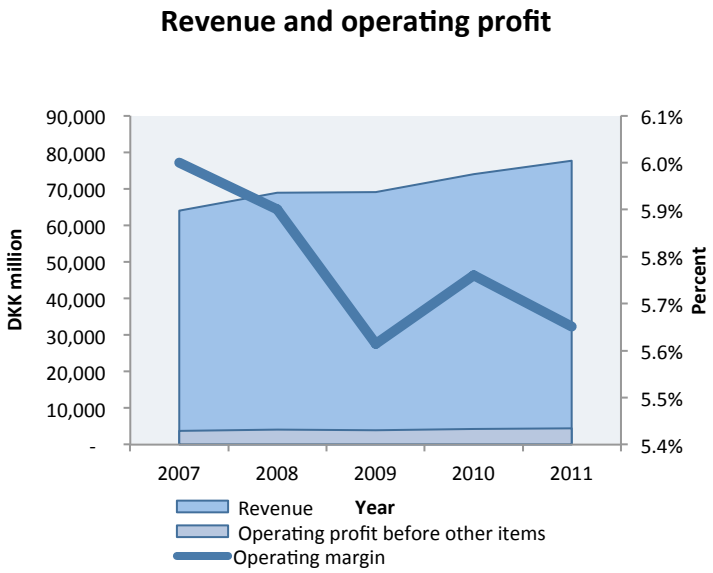
Table 2 – ISS Key figures

Key figures, DKK million	2007	2008	2009	2010	2011
Revenue	63,922	68,829	69,004	74,073	77,644
Operating profit before other items	3,835	4,061	3,874	4,267	4,388
EBITDA	4,501	4,636	4,182	5,042	5,020
Net profit/(loss) for the year	-442	-631	-1,629	-532	-507

Source: Own creation, (ISS, 2011)

The ISS revenue development over the past five years shows that it has grown each year, although with a recession tendency between the years 2008 and 2009. The revenue grew by 24.7% over the last five years, from DKK 66,922 million in 2007 to DKK 74,664 million in 2011. Operating profit before other items had the same tendency as the revenue development, but far more drastic with a decrease of 5% between 2008 and 2009.

Figure 5 – ISS revenue and operating profit



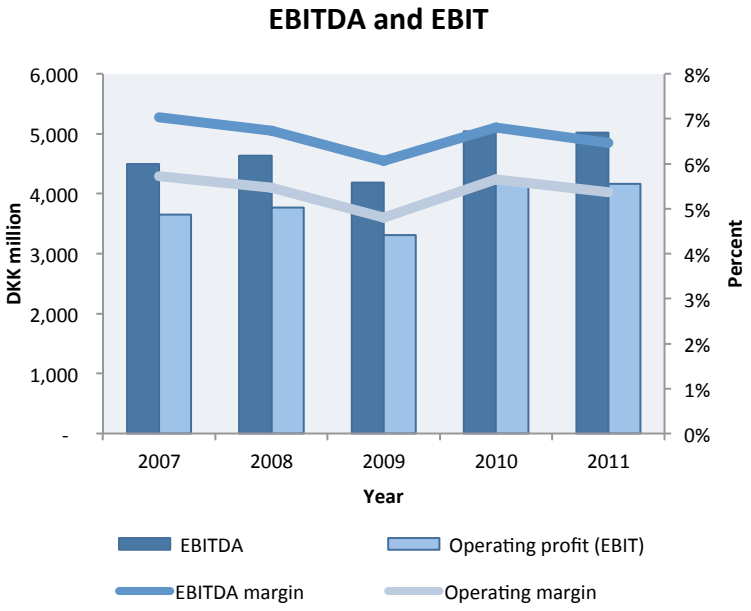
Source: Own creation, (ISS, 2011)

As illustrated by the operating margin, which highlights the relationship between the revenue and the operating profits before other items, the financial crisis affected ISS's profitability from 2007–2009. As a result of cutting costs and streamlining the company, ISS managed to raise the operating margin by 3% to a 5.8% margin in 2010. Environmental turbulence has then affected the margin by decreasing it to 5.65% in 2011.

EBITDA grew from 2007–2011, but showed unstable tendencies with a decrease in 2009 from DKK 4,636 million in 2008 to DKK 4,182 million in 2009. In 2010, EBITDA had a 17% turnaround and ended up at DKK 5,042 million. In 2011 EBITDA was DKK 5,020 million. During the five-year period, the EBITDA margin was kept at a level of 6%–7% level ending up at 6.47% in 2011.

The EBIT and EBIT margins showed the same overall tendencies as the EBITDA and EBITDA margins. The EBIT increased from DKK 3,835 million in 2007 to DKK 4,388 million in 2011.

Figure 6 – ISS EBITDA and EBIT

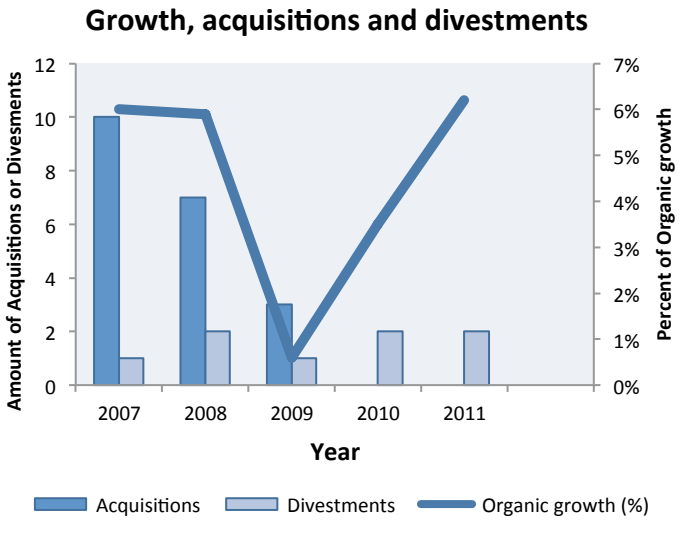


Source: Own creation, (ISS, 2011)

Since the Private Equity acquisition in 2005, ISS has been a highly leveraged company. The debt ratio was 88.7% in 2006 and increased steadily to 95.3% in 2010. This is an important factor when risk is taken into consideration. Moody's ranked ISS B2 on July 25th, 2011, and Standard & Poor's ranked ISS BB- (stable) on March 23rd, 2011, which, according to literature, characterizes the company as a junk bond. As a result of the news of the forthcoming capital injection in ISS by Teachers and KIRKBI in the fall of 2012, Moody's changed their rating to B1[15] whereas S&P changed the credit rating to BB- (positive)[16]. The capital injection of DKK 3,271 million is decreasing the debt ratio to 82.2% at the end of 2012.

The "ISS Way" strategy is being notably implemented when looking at the focus on organic growth and thus the decrease in acquisitions.

Figure 7 – ISS organic and acquisition growth



Source: Own creation, (ISS, 2011)

[15] (Moody's Investors service, 2012)
[16] (Standard and Poor's, 2012)

The huge fall in organic growth, from 5.9% in 2008 to 0.6% in 2009, was a result of the economic downturn in Western Europe. In this region, the organic growth was negative by 1%, which was mainly offset by especially Turkey, Greece and Italy, who realized negative double-digit growth rates. ISS has been able to contentedly raise the organic growth in recent years, and it is now at the same level as before 2008/09.

Due to the constant fall in the number of acquisitions, it is clear that part of the ISS Way strategy is being successfully implemented. In 2010, ISS acquired only one company, and in 2011 none, which is a result of greater focus on maintaining their existing service concepts while developing robustness through organic growth.

2.9 Recent news and discussion of G4S merger

As briefly mentioned in the introduction, it has been a high priority of the owners of ISS over the last year to either re-introduce ISS into the Danish stock exchange or sell the company to G4S. As mentioned, both failed. So, what is the reason for these two failed transactions? And what initiatives are being taken in order to satisfy the current owners?

The G4S Board reveals through the acquisition circular the reasoning for acquiring ISS by creating economies of scale: In retrospect, there were many investor groups and advisors that showed their skepticism towards the proposed acquisition. Let me quote independent financial advisers in the setting of the G4S acquisition[17]:

> *"Creating the world's largest integrated security and facilities services group, with the capability to deliver excellence across a broad range of service lines."*,
>
> *"...compelling logic of the Acquisition and the excellent geographic, operational and cultural fit of the businesses of each group."*[l]
>
> (G4S, 2011)

Collins Steward Advisory downgraded their recommendation to G4S after the acquisition announcement[18]:

> *"In our view the ISS acquisition raises questions as to the G4S core strategy and we regard execution risk as high."*
>
> (Collins Stewart, 2011)

[17] (G4S, 2011)
[18] (Collins Stewart, 2011)

Bank of America Merrill Lynch saw some potential in the acquisition, but concluded that, due to the complexity of the merger, the risk was high[19]:

> *"G4S's deal for ISS looks like a high-risk move, in our view, given the size of the target and the inevitable complexity integrating it"*
>
> (Bank of America Merrill Lynch, 2011)

In light of the failed IPO and the environmental instability, G4S shareholders seemed to be critical when supporting the acquisition. The nature of shareholders is often that their mindset is fairly short-term regarding their investment, compared to a company's rather long-term perspectives. The short-term return on investment is hard to see when the belief in cultural and operational synergies is at a minimum and when the economic turbulence is still present. Why should the G4S shareholders pay DKK 130 per share when the ISS price was DKK 110 per share four months earlier?

Financial Advisor Peter Søgaard supported the skepticism and stated[20]:

> "*Although the two companies, ISS and G4S are offspring from same parents historically, the organizational structure and culture within the two are completely different. The integration process will in this case, be a difficult task, and is the main reason why I cannot see the significant synergies in the merger."*
>
> (Søgaard, 2011)

Now, a year after the failed acquisition, ISS continues with their original strategy within their core business. As described, the ownership structure has recently changed, resulting in lower leverage, which directly changes their risk profile to the better. Another positive factor for ISS is their increase in IFS contracts in the past year, which indicates a positive tendency in the process of successful execution of the IFS strategy. If this is a trend that will continue in the future, we might notice higher profit margins in ISS, which likely will lead to higher cash flow and thus value.

In the following, a strategic analysis of ISS will explore the strengths and weaknesses of the company and the opportunities and threats that surround the company, in order to elaborate on the direction and scope of ISS over the long term.

[19] (Bank of America Merrill Lynch, 2011)
[20] (Søgaard, 2011)

3 Strategic analysis

To get an understanding of the value of ISS, it is crucial to get an internal and an external insight into the current situation and the future scenarios for ISS. In order to do so, a strategic analysis is done based on three respected theoretical models. By complementing each other, the three models contribute to giving a thorough picture of ISS and its surroundings.

I chose to analyze the corporation ISS on behalf of a selective and limited amount of relevant scenarios within single business units of ISS in order to exemplify different strategic issues. The argument for not conducting a thorough individual analysis of all business units is that it would require an extended volume of the thesis and is beyond the scope of the thesis.

The strategic analysis will first consist of a macro environment analysis based on the PESTEL framework, secondly of Porter's Five Forces, an analysis of the sources of the competition surrounding ISS, and lastly of an analysis of the company's strategic development direction framed by Ansoff's growth matrix. The essential outcome of the three theoretical frameworks will form the basis of the conclusive SWOT matrix, which will bring an overview of ISS's strengths, weaknesses, opportunities and threats.

3.1 Environmental analysis

External environmental factors constantly surround and affect ISS, factors over which the company has no control. The factors are constantly changing, especially during these turbulent years, and will continue to create opportunities and threats that ISS will have to deal with in the future.

In order to identify these external factors, the PESTEL[21] framework will be used. The PESTEL framework categorizes macro-environmental influences on a company into six main types: political, economic, sociocultural, technological, environmental and legal. These factors are tools to help understand the key drivers of change, and how big of an impact they will have on the market and the company, both in the near future and long term.

Because of the strong connection between the political and legal factors, these are both analyzed in the following chapter.

[21] (Brealey, Myers, & Allen, 2008)

3.1.1 Political and legal factors

ISS is represented in over 60 countries, all with different political systems and laws, which make it rather complicated to manage. The decentralized organizational structure of ISS helps to adapt to changes locally and hence strengthens ISS's position to quickly seek new political and legal opportunities.

Due to the nature of the industry and the global reach of ISS's operations, substantial expenses and management resources are used to comply with increasingly complex and restrictive laws and regulations. Changes in such laws and regulations may constrain ISS's future ability to provide services to customers or increase the costs of providing such services.

ISS's organic growth strategy is increasingly focused on developing markets, and certain ISS activities are carried out in countries that may currently be considered to be politically or economically unstable. There are additional risks associated with operating in these countries, in particular, as well as in developing markets, where the political, economic and legal systems and economic conditions are generally less predictable than in countries with more developed institutional structures.

Non-economic risks, such as difficulty in adequately establishing, staffing and managing operations; changes in regulation and governmental policies; and risk of political and social instability, including war, civil violence and terrorism, are effects that stem from political decisions.

Not only in developing countries do the political and legal factors influence ISS. Appendix 4 showcases a situation where ISS Denmark is directly affected by government employee legislation. The case shows that the political and legal factors in a country have great influence on the competition on the market.

Dealing with over 535,000 employees globally, ISS has to take local human and employee rights into account. Depending on the country, there are different degrees of regulations. In many developing markets, such as Asia, Eastern Europe and South America, employee regulations are loose. Most EU countries have strict regulations to protect the rights of employees[22]. The different regulations can be challenging for ISS and can increase costs if a country changes its legislation regarding employee rights.

3.1.1.1 Tax issues:

During 2011, the Danish Tax Authorities (DTA) fought three lawsuits against ISS. The main case was centered on EQT and Goldman Sachs's organizational restructuring of ISS after the acquisition in 2005. DTA blamed the owners for creating FS Invest, a company in a tax haven, Luxembourg, whose main objective was to channel dividends out of the company through ISS Equity without paying Danish taxes.

[22] (Frost & Sollivan, 2009)

ISS was accused of tax fraud in the amount of DKK 1.5 billion. On December 19th, 2011, ISS was acquitted of all charges in Danish court[23].

Over the past three years, income taxes have fluctuated and are generally at a high level due to the termination of tax treaties between Denmark, France and Spain[24]. From 2007−2011 the effective taxation rates was between 30% and 55%. The effective taxation rates can be characterized as high compared to the Danish company tax rate of 25%, but is explained by historical tax issues between ISS and the Danish, French and Spanish governments.

The ISS tax case is a good example of how important it is to know all regulations pertaining to the company. Not only are ownership issues important, but also laws and regulations in every country where ISS is represented. A small lawsuit in a country can be harmful, not only for the regional department, but for the ISS brand as a whole.

Due to the trend in green technology, ISS anticipates[25] that an increasing number of countries will introduce taxes on the use of chemicals, such as cleaning materials, which are used regularly in their service activities.

Due to the highly leveraged capital structure of ISS, political decisions such as tax regulations and deductibility laws, is of high influence on ISS, and can, at best, create great opportunities for the company.

3.1.2 Economic factors

In 2008, the global economic downturn was offset by the credit crisis, first in Iceland, then in the USA and then quickly spread globally. Private banks have suffered greatly and even some of the big players have gone bankrupt. The economic crisis ended up affecting countries negatively and forcing usually robust countries into leveraging their economy and reducing their productivity, which has resulted in high unemployment rates. Governmental precautions are now taken to prevent a forthcoming double dip.

As mentioned in section 2.8 certain regions and customer segments of ISS's operations have experienced a negative effect on their revenue and operating margins during the recent economic downturn. A possible future recession and deflation is likely to have an impact on the demand on outsourcing services and thus payment terms as well.

[23] (Rizaus Bureau, 2011)
[24] (ISS, 2011)
[25] (ISS, 2011)

ISS believes[26] that the growth in demand for facility services is generally associated with economic conditions, including growth of the gross domestic product (GDP), in the countries in which they operate[27]. Later in the thesis (6.1.3.2) an analysis of the peer group within the service industry is done and the range of systematic risk, or beta, is sought. The beta ranges from 0.59 and 1.15, which indicates, that the revenue and earnings in the service industry might depend on the state of the business cycle.

Because of this correlation, I have produced an overview of the global GDP and the regional GDP development over the last five years and estimations of the development in GDP over the next five years.

Table 3 – Global GDP growth rates

Real GDP growth rates (market exchange rates)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	4.0%	1.2%	-2.4%	4.1%	2.5%	2.1%	2.6%	2.8%	3.0%	3.0%
North America	1.9%	-0.3%	-3.4%	3.0%	1.8%	2.1%	2.1%	2.1%	2.3%	2.3%
Western Europe	3.1%	0.0%	-4.3%	2.3%	1.7%	-0.4%	0.7%	1.2%	1.6%	1.5%
Asia & Australia (incl. Japan)	6.3%	2.8%	0.7%	6.8%	3.5%	4.2%	4.3%	4.5%	4.3%	4.3%
Latin America	5.7%	3.9%	-2.0%	6.0%	4.3%	3.0%	3.9%	4.2%	4.1%	4.2%
Middle East & North Africa	4.8%	4.4%	1.8%	4.6%	3.0%	4.0%	4.0%	4.7%	4.9%	4.9%

Source: Own creation, (The Economist, 2012), (Internationa Monetary Fund, 2012)

3.1.2.1 Western Europe

The development of the European economies has been very turbulent since 2007. High deficits of national economies and low production rates have dominated the picture during the European crisis. The European Central Bank (ECB) tried to inject liquidity into the banking systems, which in early 2012 eased the funding pressures on banks and independent economies, most notably Italy and Spain. Greece is in a deep recession that will most likely continue, although they met the conditions set by the EU and IMF on a €130 billion bailout in February 2012[28].

The Economist Intelligence Group[29] expects the western European GDP to experience negative growth in 2012 and to subsequently recover to a 1.5% annual growth in 2016.

[26] (ISS, 2011)
[27] (ISS, 2010)
[28] (Reuters, 2012)
[29] (The Economist, 2012)

3.1.2.2 United States

The U.S. economy has, in many ways, been similar to the European economy regarding downturn. The sub-prime loan meltdown in 2008, which affected private households, corporate banks and industries, caused the U.S. a huge economic setback. Recent data[30] shows that the U.S. economy has improved lately by creating more jobs in 2012. Figure 8 illustrates that the interest rate is being kept at a historical low of 0.25% by the Federal Reserve who anticipates maintaining this level until 2014. There is a negative outlook within the housing market in the U.S., which is not likely to recover in the near future due to the large number of unoccupied houses.

3.1.2.3 Emerging markets

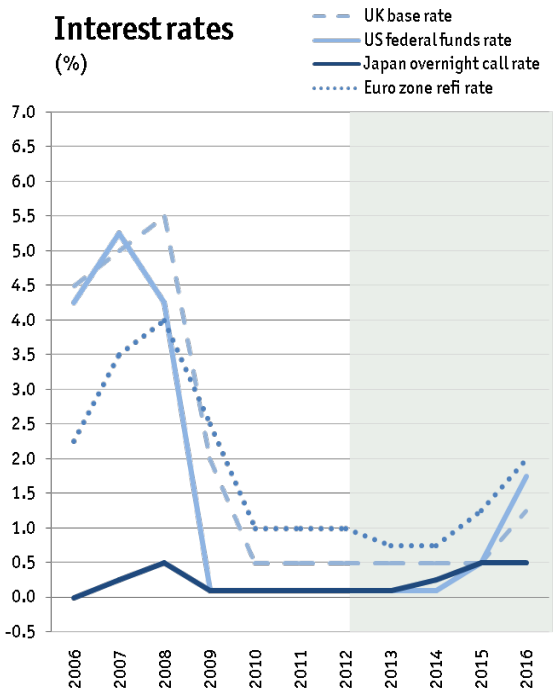
Referring to Table 3, the emerging markets (EM) have generally had positive GDP growth rates during the economic crisis. Only countries in Latin America experienced negative growth rates of -2% on average in 2009. Due to a fear of a global economic downturn, many EM central banks have cut interest rates over the last couple of years. In 2011, however, China was affected negatively by both the European downturn and problems in the housing market. The EM is forecast to recover rapidly and comfortably outperform the developed markets with growth rates above 4%.

3.1.2.4 Interest rates

In order to stimulate the economic growth in the developed western countries during the financial crisis, the federal banks, e.g. the European Central Bank, lowered the interest rates. The development of the interest rate on the main refinancing operation (MRO[31]) shows that drastic measures were taken in the first stages of the crisis in 2008 and lowered the U.S. federal fund rate to a steady 0.25% and to 1% in the Euro zone REFI.

The low interest rates of the past three years have resulted in favorable interests on loans, especially loans with variable interest rates. Companies' interest costs have thus been at a minimum level for the past few years and will continue in the near future. The Economist Intelligence Unit predicts a turnaround in

Figure 8 – Global interest rates



Source: Haver Analytics, (The Economist, 2012) February 15th 2012

[30] (The Economist, 2012)
[31] The interest rate on the main refinancing operations (MRO) provides the bulk of liquidity to the banking system.

the global economy in 2015 with higher productivity, lower unemployment rates and higher growth rates, which will increase interest rates globally.

3.1.3 Sociocultural factors

The development within social and cultural conditions in ISS's markets is affecting the future management in terms of attracting, recruiting and retaining employees and with regard to costumer and end-user demands.

The demographical changes will have a significant impact on the future for ISS. According to UN statistics, 3.2 billion people now live in urban areas, whereas in 2035, the number will increase to approx. 5 billion people[32]. The migration trend will be strongest in Africa and Asia where 300 million people are expected to migrate to the cities in China by 2033. Due to the fact that ISS mainly is a "suburban" company and not a "farmland" company, the demographic changes in emerging markets create future opportunities for ISS in terms of higher population density, higher education levels and thus an increase in the amount and size of private and corporate buildings, whish need to be serviced.

The increase in population and density will affect the field of talent and employee recruitment due to the demographical movement and the change in expectations of the new generation of talents. The urban migration trend also raises the standard of living in the developing countries where the relative size of the middle classes is increasing rapidly.

As mentioned, the FM and services industry is rather fragmented and national players that favour single-service provision dominate in many countries. FM companies with an agenda of increasing their international footprint often face cultural differences, particularly when hiring local employees[34]. They generally have to accept negotiations concerning a respect of employees' former social conditions, comparable wages, social benefits and pension fund contributions, etc.

3.1.4 Technological factors

Technological innovation is listed among the top factors to tackle the tough competition, and most IFM companies are eager to invest a significant part of their revenue in R&D in order to enhance their performance and optimize their processes[35]. In the long term, this can help to increase their customer portfolio and loyalty. In addition, standards and certifications have been introduced to the market with the aim to strengthen the market position.

[32] (McKinsey & Company, 2011)
[33] (McKinsey & Company, 2011)
[34] (Frost & Sollivan, 2009)
[35] (Frost & Sollivan, 2009)

Within the last decade, innovative technological movements have surrounded the FM industry. Developments in scientific fields, such as nanotechnology, biotechnology, materials technology and information and communications technology have been increasing, thereby creating multiple future opportunities for FM companies. These are technologies that all contribute to a more effective, greener and flexible industry.

My thoughts of opportunities for ISS within technological development are endless. For example, new online communication and evaluation tools can optimize operations and, in the end, cut costs. New products can be based on biotech and nanotech research and thereby increase the quality of new and more organic products, which can create marketing opportunities for ISS. In the cleaning and property services, robot technology might take over a great deal of originally laboured skills in the future, which ultimately can cut salary expenses and time.

3.1.5 Environmental factors

Sustainability and green technology are trends that have been a natural aspect of many companies in the Nordic countries; but these trends are slowly spreading globally.

The sustainability challenges are constantly developing with increasing oil prices, energy water usage and waste. The Stern review (2006)[36] states that the scientific evidence of the change in the global climate is overwhelming. The review reveals that, in 2000, buildings caused 8% of the total global greenhouse emissions. Another review claims that buildings and related infrastructure are estimated to be responsible for 40% of the global energy usage[37].

The 2009 UN Climate Change Conference in Copenhagen (COP15) was a result of the increased focus on CO2 emissions and sustainable industries. Although the full support of the environmental initiatives has been fragmented, some governments around the world have enforced sustainable initiatives in order to cut down on the usage of e.g. fossil fuels, thereby minimizing the CO2 emission. In those countries, particularly in the Nordic region, these initiatives have created opportunities for new and green business areas to evolve.

Sustainable challenges might have consequences for ISS and the FM- and service industries in the future, as they will affect supply and value chains, building design, management and maintenance. This indicates that both opportunities and threats can arise for ISS; an opportunity of new operational procedures and products arises, but there is also a potentially increased threat from new environmentally specialized competitors.

[36] (Stern, 2006)
[37] (Mathiesen, Lund, & Karlsson, 2009)

3.2 Competitive intensity

ISS is not only affected by the surrounding macro-economic factors, but also by the specific structural conditions within the FM industry itself. The structure of the industry has a strong influence on each company and determines the degree of competition and thus the potential for long-lasting profit.

The definition of an industry is a group of companies that manufacture products that are close substitutes for each other[38]. Companies acting within the FM industry are thus defined as companies that deliver outsourced services, such as cleaning services, property services, security services, catering services, support services and facility management.

In order to identify the factors that influence the competitive scenery, Porter's Five Forces model is used. Porter (1980) argues that five forces jointly determine the intensity of an industry's competition. Rather than focusing only on the competition among current competitors within an industry, Porter introduces forces such as entry, threat of substitution, and bargaining power of buyers and suppliers. He states that all are forces of competition and that the stronger the forces are, the lower the ultimate potential for profitability in the particular industry[39]. For a graphical presentation of the five forces please see Appendix 5.

3.2.1 Threat of entry

When entering a new industry, companies bring new capacity that reduces the prices and thus profitability. New entrants are likely to have a goal of gaining market shares through substantial resources or by lowering prices. Nevertheless, the degree of threat from new competitors determines future profitability in the FM industry and thus for ISS.

ISS has three different types of service solutions where single-service solutions are a basic, one-tiered product. More complex solutions are multi services and integrated facility services, where multiple, tailored and global solutions are integrated into one product.

It is important to elaborate on the different types of service solutions within the FM industry due to the significant differences in company capability, size and the amount of companies present within the different industry segments, which influence the barriers to entry.

Within single-service solutions, take for instance cleaning services: the entry barriers are fairly low due to the simplicity of the product. When entry barriers are low, new start-ups have easy access to the industry,

[38] (Porter, 1980)
[39] (Porter, 1980), p. 6

which is the case in the local cleaning service industry where every small opportunity is utilized, which maximizes the competition in the industry.

The IFM industry is global and much more complex than the single-service industry. In this case, it is powerful to be of considerable size due to the economy of scale in the industry, in order to provide a tailored and fulfilling product to the customer. Customers who demand IFM solutions expect flawless and flexible service packages of a global standardized quality. This requires experienced and diversified FM companies with a good reputation and a wide product range, which are all factors that increase the entry barriers of the industry.

Research[40] reveals that FM markets in developing countries are highly dominated by single-service solutions and post-emerging markets have developed towards more integrated and bundled services. Research from Frost & Sullivan (2011) shows that 75% of the Australian FM market is dominated by IFS and bundled-service solutions, whereas in Vietnam it is only 18%. Depending on the geographic market and the dominating structure and demand in the market, different entry barriers exist from country to country. All things being equal, the entry barriers for IFS in Australia might be higher than in Vietnam.

3.2.2 Threat of substitute products or services

The threat of direct product-for-product substitution is highly uncertain in the FM industry due to the fact that the different services are managed manually.

It is likely, however, that future technology development will make business more efficient within cleaning services, property services, support services and security services. A future outlook could be that the manual workforce is partly or totally removed by robots in cleaning services and property services, advanced software in support services, remote-controlled vehicles and camera surveillance in security services.

If these future outlooks become a reality, it will change the competitive field within FM and create stronger entry barriers and competitive advantages for first-mover companies.

Many companies still control FM internally and the management of service facilities is structured within the company as part of the organizational structure. This outsourcing trend has been increasing over the last decades, but the current economic turbulence can be a threat to the IFS industry due to rapid cost-minimizing restructuring in companies, which, in extreme cases, can lead to increased insourcing. The in-house management is thus treated as a threat from substitute products.

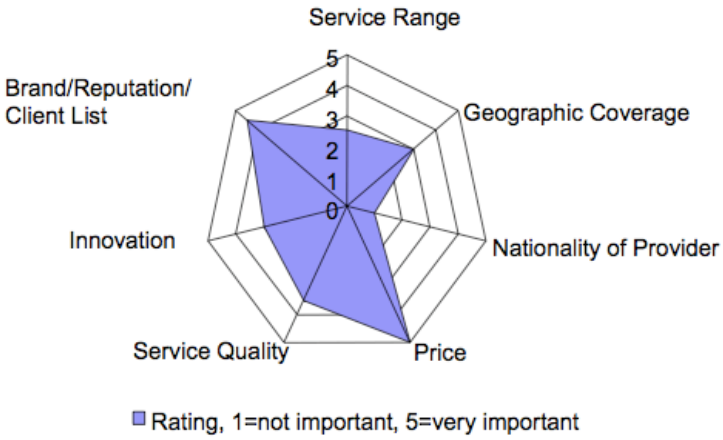
[40] (Frost & Sullivan, 2011)

3.2.3 Buyer and supplier bargaining power

The following two forces, buyer and supplier bargaining power, can be considered together due to their similar effect on the company's strategic freedom. The two forces can both influence margins and the profit potential of functions, such as supply, manufacturing and distribution.

A survey by Frost & Sullivan (2009) reveals the trends of end-user requirements when purchasing FM products. Cost saving and brand reputation are the main criteria when selecting a service supplier. The least important factor is the nationality of the service provider when searching for a service supplier. Not to be underestimated is the importance of service quality, innovation and geographical range. Indicators, such as being a respected global FM company and providing high value for money services, make IFS successful and highly attractive to end users.

Figure 9 - FM end-user criteria ranked by importance



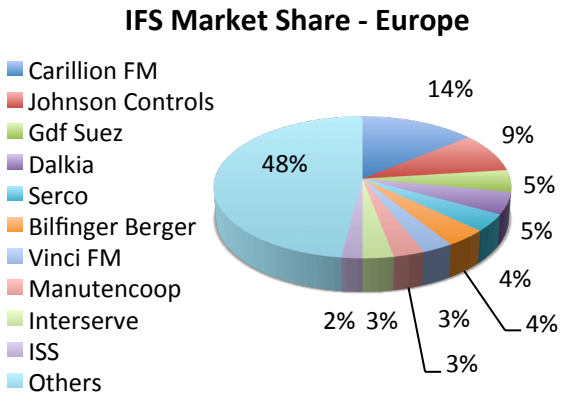
Source: (Frost & Sullivan, 2009)

3.2.4 Competition

In general, the competitive density of the FM industry can be characterized as highly fragmented. Simple facilities services, including general cleaning services, can be provided with limited resources and, as a result of these low entry barriers, this means that the market for basic facilities services consists of a large number of small local operators.

The chart in Figure 10 illustrates the competition within the European IFS market. The European market is used as an example because of the high degree of presence of ISS on the European service

Figure 10 – European IFS competition



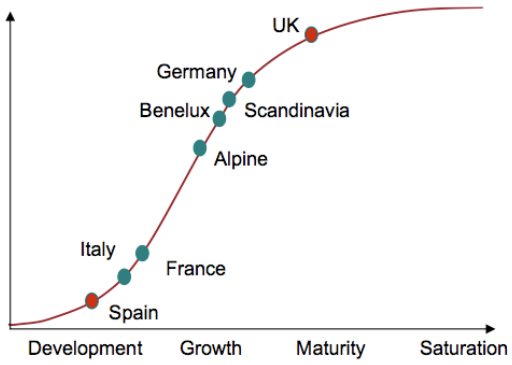
Source: Own creation, (Frost & Sullivan, 2009)

market in general. As a developed market, Europe has several big players and many small players, but it is difficult to compare these companies to ISS due to the differences in core operations.

In contrast, developing markets within FM, such as Malaysia or Indonesia[41], are more fragmented than the European market. The developing markets are highly dominated by small and highly specialized local competitors. There is also a tendency towards single-service being the dominating service type that is distributed on these markets.

As mentioned, ISS is in the field of Integrated Facility Services and provides multiple services across industries, whereas the closest large competitors focus more on their core business, such as catering and security. That being said, the trend is within global bundled service solutions, and the main players in the global FM industry have moved towards the IFS solutions in recent years.

Figure 11 – European IFS market life cycle



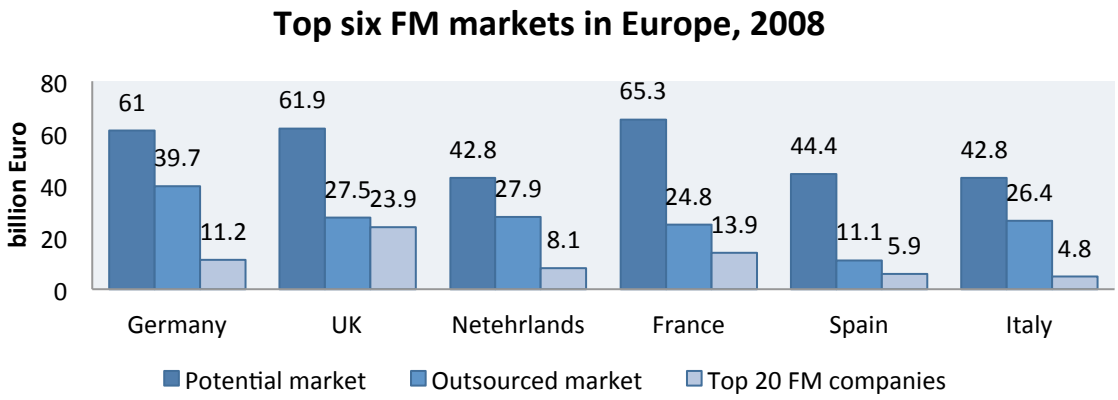
Source: (Frost & Sullivan, 2009)

The fragmentation of not only the number and type of competitors is interesting, but the growth rates of the different geographical markets are interesting as well when facing the competition within an industry. By plotting Western European countries into the life circle, it is illustrated in Figure 11 that the industry is fragmented with regard to development and thus allows for different growth opportunities. The UK is viewed as a mature market with saturated users and fierce competition dominated by an emphasis on efficiency and cost. Spain and Italy, on the other hand, are in the development stage of the life circle.

As the largest revenue generator for ISS, the European market, development and structure is thus of great importance for future opportunities here. De Toni et. Al. (2009)[42] has studied the biggest European FM markets scientifically. He elaborates on four different classifications of markets in Europe. The study gives a geographical overview of where each European country is at in the FM evolution, starting with defining markets in the pre-emerging and emerging phase and ending with markets of developed and advanced character. Pre-emerging markets, such as Spain, Italy, Greece and the Baltics, are dominated by single-service suppliers, whereas advanced markets, such as the Netherlands, Germany and the UK, who have a long history of service management, are dominated by strong players, more complex contracts and greater competition.

[41] (Frost & Sullivan, 2011)
[42] (De Toni, Ferri, & Montagner, 2009)

Figure 12 – European FM market potential



Source: (De Toni, Ferri, & Montagner, 2009) and own creation

Figure 12 shows that there is an interesting potential in the top six European FM markets, particularly in Spain and France where we see unconquered market opportunities and where only approximately 1/3 of the potential market is outsourced to FM companies. It is interesting to see the degree of competitive fragmentation within the big European markets. The domination of the top 20 FM companies is significantly low in all markets, except in the UK market where the top 20 FM companies dominate 90% of the outsourced FM market.

ISS currently operates in Ireland, Greece, Portugal, Italy and Spain, all of which are currently experiencing an uncertain economic environment. A further deterioration in economic conditions in the above-mentioned countries may have an adverse material effect on the results of ISS's operations and financial condition there in the near future[43].

Within each market, however, there are generally only a few providers with sufficient resources to provide customers with a full range of facilities services, and who can service large, multi-location customers. In general, the competition is fierce in each market and often dominated by national or regional service providers, as well as large international service companies.

The difference between the outsourced market and the potential market columns as illustrated in Figure 12 is generally big and can be explained by the many buildings that are traditionally managed autonomously within the company. Figure 12 reveals a high potential for growth in the European market and also illustrates that ISS faces competition from companies that handle facilities services on their own internally.

[43] (G4S, 2011)

Referring to Figure 10, only a few FM companies, such as Carillion FM, Jones Lang LaSalle and Johnson Controls and their subcontractors are market leaders in some markets. They can only be characterized as secondary competitors to ISS because they either do not operate globally or their service products differ from market to market.

Among the large international service companies are Compass Group (Compass) and G4S, both of the UK, and Sodexo of France. Compared to ISS, these companies are all quite similar in size; they all have an international profile and offer various service solutions. Whereas ISS's core business is cleaning services, Compass and Sodexo are strong market leaders in catering services. G4S is the global market leader in security services. All these companies pursue a similar IFM strategy. Among other competitors are Serco, a British FM company; Rentokil Initial (UK), which provides pest control and FM services. The last comparable competitor is the Swedish security company, Securitas, which actually has historic roots in G4S and ISS and is a significant global market player in security services.

Due to the similarity to ISS, the six competitors are used as a peer group later in the thesis in 6.4 where a multiple valuation is done on behalf of the peer group.

3.3 Growth strategy

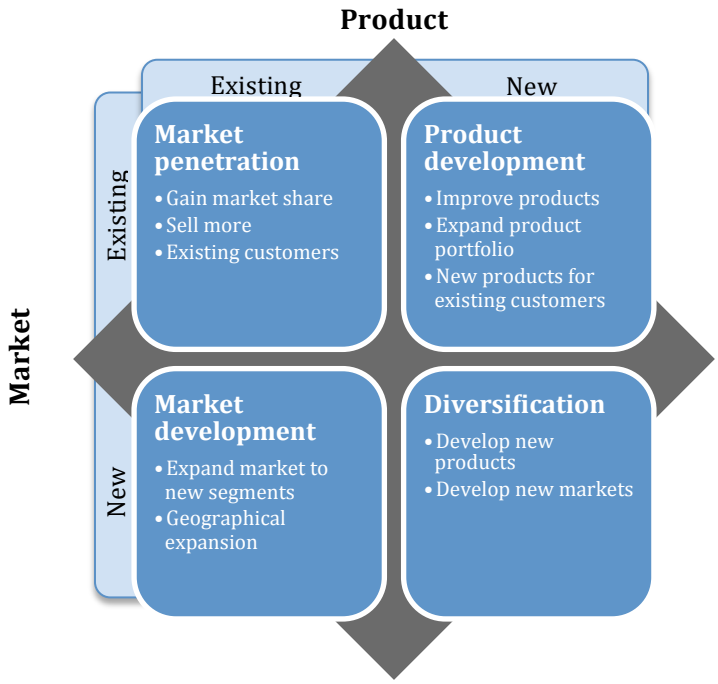
In order to identify directions for strategic development, Igor Ansoff developed the growth matrix[44]. Ansoff stated that the strategies: market penetration, market development, product development and diversification are different ways of pursuing growth according to the dimensions: products and markets.

Market penetration is a strategy that concerns protecting or building an organization's position in its current market. As market penetration pertains to gaining market shares within existing markets, market development however, is when an organization offers existing products to new markets. A third approach is product development where organizations develop modified or new products for an existing market. Diversification is a strategy where the organization creates new products for new markets and thus removes the company from the current business environment.

The four different strategies fit different scenarios of internal situations and market situations where market penetration is the least risky growth strategy and diversification the most risky. The four strategies are illustrated in Figure 13.

[44] (Ansoff, 1987)

Figure 13 – Ansoff's growth matrix



Source: Own creation, (Ansoff, 1987)

Over the past few years, ISS has changed their strategy from a strategy of aggressive expansion via a market development and penetration strategy where ISS gained market shares in both new and existing markets, to focusing on organic growth through the ISS Way strategy, which then applies the market penetration strategy.

The organic growth strategy is being implemented through market penetration where market shares are gained on existing markets by focusing on core competences that sustain or improve quality, innovation or increased market activity. The simplicity of market penetration enables ISS to have a higher success rate in the implementation phase compared to more complex strategies, such as diversification.

The current ISS Way strategy focuses on growth in operating margins and profitability by accelerating sales efforts on cross-selling bundled services and IFS to new and existing customers[45]. The increased attention on new revenue generators, in particular IFS, will have a marginal positive effect on current minor ISS business units: facility management, security, support and catering services. A marginal increase in these services can thus have a reducing effect on the internal ISS margins within cleaning services. It is thus assumed that further implementation of IFS contracts will tend to equalize the size of single services within ISS.

[45] (Berlingske Nyhedsmagasin, 2011)

It can be argued that the IFS focus is part of a product development strategy, where ISS develops a new integrated product to existing customers. This "new" product can be a source through which ISS differentiates from their competitors, and thereby creates higher total profit margins of the company.

By increasing their engagement within developing markets, such as Asia, the Middle East and Latin America, ISS intends to gain profitability and higher organic growth margins because of the efficiency of servicing large global customers with one single contract, and because of the general lower competition within the IFS market.

Since 2009, the development in ISS's organic growth margins increased steadily for eight consecutive months, from 0.6% in 2009 to 6.4% in Q3 2010[46], ending up with a 6.2% annual organic growth in 2011.

SDB Cisco Ltd. was the only company acquired by ISS in 2010. The Indian security company contributes by adding new security services to ISS's Indian portfolio, which makes them market leaders in outsourced services in India. The total SDB Cisco Ltd. purchase price was approx. DKK 164 million.

The only recent acquisition made by ISS (summer of 2012) is that of the Chinese company Shanghai B&A Property Management Co. Ltd.[47], which deals with provision and property management. The acquisition is seen in line with the new strategy as a build-up in strength on an existing market.

Compared to the ISS purchase price of DKK 914 million in 2009, when 22 companies were acquired, the ISS Way strategy and market penetration strategies are assumed to be effectively implemented from 2010 and onwards, due to the current low frequency of acquisitions.

[46] (ISS A/S, 2010)
[47] (ISS A/S, 2012)

3.4 SWOT

The strategic market conditions that affect the future operations, and thus the value of ISS, have now been identified. The findings from the strategic analysis will be compared in the forthcoming accounting analysis, which will finally be used to budget future operations of ISS.

The SWOT matrix will summarize the significant conditions that will have the greatest influence on ISS in the future. The company's strengths, weaknesses, opportunities and threats are listed in order to capitalize on internal competences, change or to improve internal weaknesses, utilize opportunities already available on the market and set up defense mechanisms or avoid external threats.

Figure 14 - SWOT

Strengths	Weaknesses
• Global operations • Integrated facility services • Market leader in cleaning • Strong brand • Economy of scale	• Low-tech products • High leverage • Mainly operating in Europe (internal revenue share) • Small margins
Opportunities	**Threats**

• Integrated services
• Green technology
• Increase in outsourcing (increasing demand in externally provided FM services)
• High growth rates in emerging markets
• Low interest rate
• Increase in urban and middle class demography in Asia
• Technological innovation
	• New entrants (low entry barriers in single services)
	• Unstable global macro economy
	• Change in local regulations
	  ○ Tax
	  ○ Law
	• Insourcing tendencies during crisis
	• Decreasing image due to IPO and G4S acquisition failure

The global stretch and the wide range of services provided by ISS, combined with the strong ISS brand are significant strengths of ISS. Being one of the global market leaders within cleaning services can be an offset for ISS to develop the already initiated IFS strategy, which contains opportunities of minimizing the competition and increasing organic growth. Speaking of opportunities of growth factors such as increasing green tech trend, opportunity of technological innovation solutions, increasing urban and middle class population and high growth rates in emerging markets and, lastly, the increase in outsourcing of services and demand of integrated service solutions, are opportunities that ISS can exploit in the near future.

The high leverage of ISS increases the risk for the current owners and the creditors, which can be a negative factor in a future IPO. The ISS revenue seems to correlate with the macro-economic environment, which makes ISS vulnerable during times of crisis. The threat of new competitor entrants in the single-service segment is high and consistent due to the low entry barriers, which seem to have minimized the ISS profit margins. Local political decisions, such as taxation and law changes, can have a significant effect on ISS due to the global reach of the company.

4 Accounting analysis

The following chapter contains an historical analysis of the key financial drivers in ISS with the annual reports as main sources. The aim is to develop a profitability analysis, which, combined with the prior strategic analysis, will form the basis of the budget.

A time series analysis of ISS is used as the theoretical tool in the accounting analysis. This method enables an investigation into the effect of the ISS Way strategy as well as the level and the development of the key financial figures, which are all essential factors, and which will be used to budget the future cash flows[48]. Due to the fact that only core operations are expected in the future, the extraction of these will be the main theme when analyzing the accounting figures. The core operations of ISS are analyzed in the strategic analysis.

In order for the profitability analysis to contribute thoroughly to the future budgeting, it is crucial to filter out the key analyzed figures from inconvenient mathematical noise. In this case, it is important to register significant changes in accounting policies, take these into account and then focus on actual changes in operating activities[49]. A validation analysis of the accounting policies will thus be done prior to the accounting analyses.

A company can fundamentally be described as the interaction between its core operations, investments and finance, where the primary value-adding drivers are the operating activities[50]. Unfortunately, the key figures in ISS's annual report are not divided into budget-friendly data. A reformulation of the consolidated income statement and the consolidated statement of financial position will therefore be done and divide the performance into core operations and finance.

In conclusion, a profitability analysis of the restated accounting statements of ISS will be made. The goal is to analyses the development of the key figures, which will be used later in the budgeting.

[48] (Petersen & Plenborg, 2007), p. 117
[49] (Petersen & Plenborg, 2007), p. 118
[50] (Petersen & Plenborg, 2007), p. 121

4.1 Validity of the annual report

In the following, the validity of the annual report and the accounting will be taken into consideration by identifying extraordinary factors that might have had a misleading effect on the calculated key figures.

The following factors can have a confusing misleading effect when performing a time series analysis[51]:

- Using distinct accounting policies during the analyzed period
- Extraordinary accounting statements
- M/A of business units

When using the time series analysis to analyses the profitability of ISS, is it important to filter out and streamline the accounting data if there have been any changes in the accounting standards. The direct link between changes in the key figures and changes in the underlying operations is thus assured.

During the analyzed period, 2007–2011, no changes were made to the use of accounting standards. The ISS annual reports (2007–2011) were all produced according to the International Financial Reporting Standards (IFRS) and approved by auditors from KPMG.

Changes in IFRS and IAS 27 accounting policy in 2010 resulted in a change in classification of interest on defined benefit plans etc., from staff costs to financial expenses. This reclassification has impacted the reported key figures in 2011, compared to prior years, and are thus compensated through adjustments in order to be comparable to standards prior to the 2010 changes.

4.1.1 M&A of business units

Mergers & Acquisitions and changes in strategic business objective can change the financial and operational structure in a company and thus create difficulties in keeping an analytical alignment in comparable historical key figures. It can be difficult to distinguish between acquisitional or organic growth, while significant structural changes are made in a company. Such changes can also affect the risk profile of a company and therefore expectations for future profitability.

In the analyzed period, ISS changed the overall strategic perspective from an aggressive acquisition strategy to a strategy aiming for organic growth. In 2007, ISS had 67 acquisitions where the most significant was entering the USA by acquiring Sanitors, Inc. The estimated annual revenue for Sanitors, Inc. was DKK 1.822 million[52]. Another new market entry for ISS was in Taiwan where ISS acquired Topman. In 2008, ISS strengthened their position in the USA by acquiring BGM Industries and thereby

[51] (Petersen & Plenborg, 2007), p. 118
[52] (ISS, 2007)

adding DKK 500 million in estimated annual revenue.[53] When entering new markets and countries, ISS normally acquires cleaning service companies and subsequently expands into other, relevant business areas.

As Jeff Gravenhorst mentions in the ISS Annual report 2011, they will keep the disciplined acquisition policy and, if any acquisition activities are to occur, these will happen in emerging markets where ISS aims to expand their presence in existing markets or to establish a new platform in new markets. This was the case in July 2012 when ISS acquired Shanghai B&A Property Management Co. Ltd. and thus significantly expanded their existing security service in China[54].

4.2 Reformulating the income statement and the balance sheet

The official income statement and balance sheet of ISS are reformulated, a method that extracts and separates the financial and operational key activities. The primary value-adding sources are the operational activities, whereas the financial activities are secondary. The operational activities are the main value creating drivers in a company, and are thus important to isolate.

The new separate reformulated income statement enables us to distract key figures, which are essential in the future profitability analysis. The main goal of reformulating the income statement is to extract the net operating profit after tax, NOPAT, due to its primary role when calculating the free cash flow as used in the DCF model.

The balance sheet of ISS in the annual report divides assets and liabilities into current and non-current categories. This is done to give a picture of ISS's ability to meet creditors claim on cash. When valuing ISS, however, it is more interesting to discover the company's ability to generate profit. Therefore a reformulation of the balance sheet into operating and financial assets and liabilities is done. In short, the operating assets and liabilities are those linked to selling goods and services. Raising cash for operations and disbursing excess cash from operations are, on the other hand, defined as financing assets and liabilities.

The complete reformulated income statement and balance sheet can be studied in Appendix 6 and Appendix 7. For further insight into corrected figures, please proceed to the notes in Appendix 8.

[53] (ISS, 2008)
[54] ISS Press release 6/7 2012, Acquisition strengthens ISS in China

4.3 Profitability analysis

The interpretation of future expectations of ISS highly depends on the profitability analysis due to the fact that the future budget development will be based on the underlying historical tendencies.

As the superior profitability measure, Return on Equity (ROE) shows the profitability of the owner's investments, which is the main source of value creation.

In order to understand the value drivers within ROE, a decomposition of the key figure is done. In this case, the DuPont model is used to provide a structured method in the decomposition, which is needed for the future valuation of ISS.

See Appendix 9 for further details about the DuPont model.

4.3.1 Return on equity

The return on equity (ROE) shows a company's profitability as a percentage of shareholders'/owners' invested equity and is the primary profitability measure in the DuPont model.

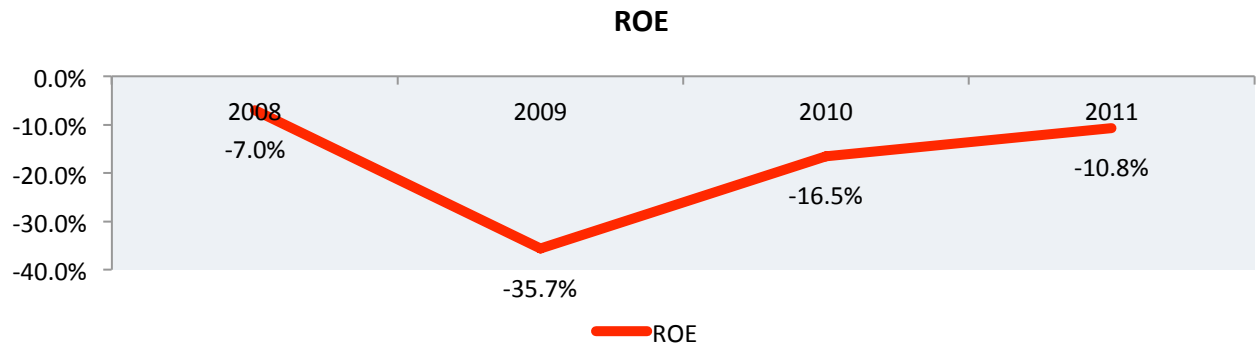
Equation 1

$$ROE = \frac{profit_{net}}{equity}$$

Source: Sørensen, O. (2009) p. 254

The negatively annually-generated net profit, combined with the low equity rate resulted in a negative ROE in each of the analyzed years. A significant decrease in ROE occurred in 2008/2009, falling from -7% in 2008 to -35.7% in 2009. The following year, the tendency did recover to -16.5% and has since increased slightly to -10.8% in 2011.

Figure 15 - ROE



As mentioned in the strategic analysis, ISS was affected by the global financial crisis, which mainly affected their goodwill negatively due to macro factors in Greece and other Mediterranean countries. The drastic decent of ROE in 2008 can also be explained by the large number of acquisitions (66) in 2008 and

the remaining integration process of Sanitors and the large costs associated with the entrance into the US market.

4.3.2 DuPont model - Level 1

In order to get a true understanding of the ROE, and in order to substantiate the above-mentioned tendencies, the key ratio is decomposed. The underlying drivers of ROE are affected by both financial and operational factors and can be divided into return on invested capital (ROIC), the difference between ROIC and *r* (SPREAD) and the financial gearing (FGEAR).

Equation 2

$$ROE = ROIC + (FGEAR * SPREAD)$$

ROE = Return on equity

FGEAR = Financial gearing

SPREAD = Diff. between ROIC and r

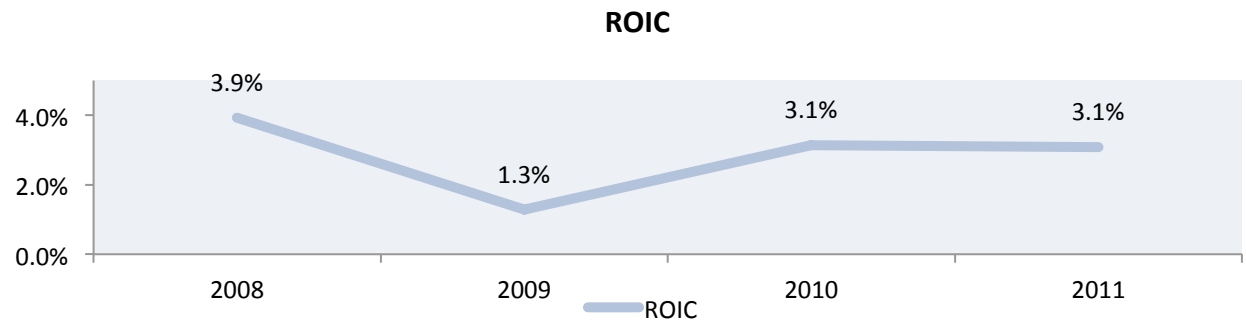
Source: Sørensen, O. (2009) p. 256

Appendix 10 includes a discussion of whether to include the entries: "amortization and impairment of brand and consumer contract" and "goodwill impairment", as operating and continuous entries. On behalf of this discussion, it is assumed that the two entries are defined as core and continuous, and are thus included in the NOPAT calculation, which is one of the drivers in the ROIC formula.

4.3.2.1 Operational activities – ROIC

ROIC is the main profitability measure of the operational drivers and reveals the company's efficiency in allocating its capital to generate return as a percentage. Koller (2005) argues that ROIC is a better analytical tool for understanding the company's performance than ROE due to the fact that ROE mixes the operating performance with capital structure, thereby making a peer group analysis and trend analysis less meaningful[55].

Figure 16



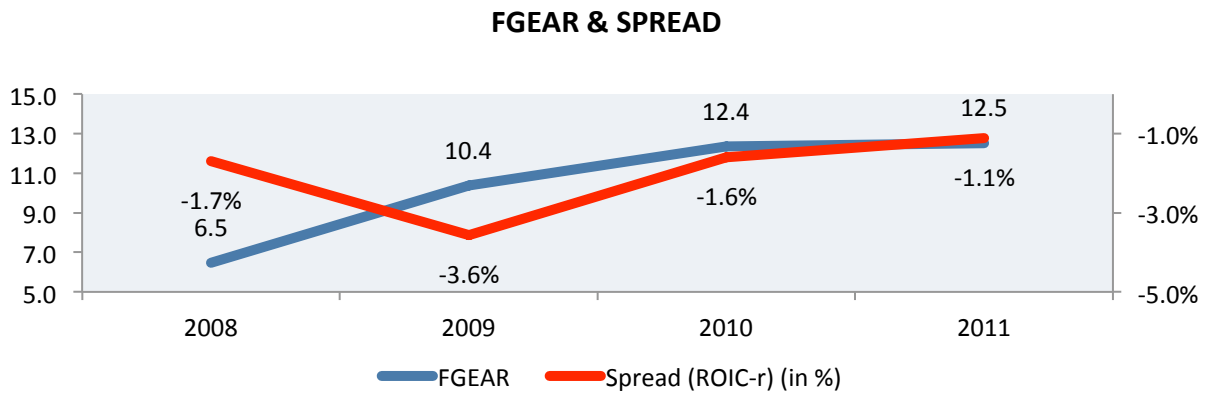
[55] (Koller, Goedhart, & Wessels, 2005), p. 185

During the analyzed period, ROIC fluctuated within the spectrum between 3.9% in 2008 and 1.3% in 2009. The decline of ROIC recovered from 2009 and remained at a constant level of 3.1% for the years 2010 and 2011. On the face of it, the level of ROIC is considered fairly low when compared to the WACC. Later in thesis WACC is calculated at 5.9%, which compared to ROIC is higher than any given ROIC. The economic value added for ISS is thus negative during the analyzed period. ROIC has had no positive or negative effect on ROE recently. Although ROIC has a neutral effect on ROE, it is still interesting to explore, whether underlying factors have had a negative and/or positive impact on ROIC.

4.3.2.2 Financial activities – FGEAR and SPREAD

The financial activities are the product of the financial gearing and the marginal rate, also referred to as SPREAD. The financial gearing thus has a positive effect on the value of the company, assuming that the marginal rate is positive. On the other hand, as a two-edged sword, FGEAR will have a negative effect on the value if the marginal rate is negative.

Figure 17



Throughout the analyzed period, the financial gearing increased from a gearing of 6.5 in 2008 to 12.5 in 2011, an increase of approx. 92% over four years. The marginal rate was negative throughout the period, decreasing form -1.7% in 2008 to -3.6% in 2009, and subsequently increasing steadily to -1.1% in 2011. Despite this increase, the financial gearing was a negative value driver for the owners of ISS due to the negative level of SPREAD.

In conclusion, the drop in ROE in 2008−2009 was negatively affected by ROIC and SPREAD when FGEAR had a constant positive influence on ROE and was the main influence in a stagnating tendency of ROE in 2010–2011.

The harm that SPREAD creates by being negative, should, in my opinion, be of great concern for the executives in ISS. In order to make the high level of gearing favorable, ISS has to create a positive SPREAD.

4.3.3 Level 2

As mentioned in the previous, ISS experienced a decrease in ROIC and SPREAD during the analyzed period, whereas FGEAR almost doubled. In order to thoroughly explain these tendencies, a decomposition of each driver is done.

4.3.3.1 Decomposition of ROIC in OM and TIC

ROIC is the product of the operating margin (OM) and the turnover rate for invested capital (TIC), which, all things being equal, gives them equal influence on the development of ROIC.

Equation 3

$$ROIC = OM * TIC$$

ROIC = Return on Invested Capital

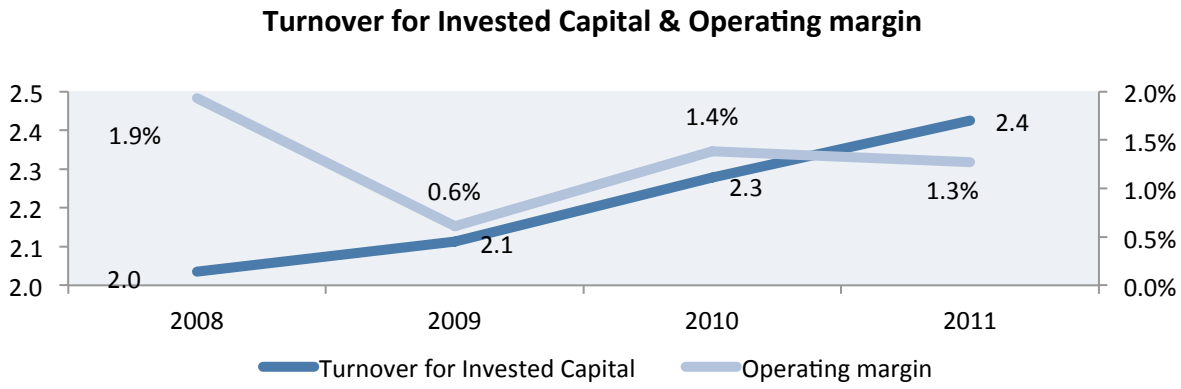
OM = Operating Margin

TIC = Turnover for Invested Capital

Source: (Sørensen, 2009) p. 256,

The OM has been unstable over the analyzed period, with ups and downs similar to the ROIC. The OM is at a low level, which is also expected due to the high level of competition in the FM industry, particularly with regard to pricing. The TIC, though, increased almost linearly from 2 in 2008 to 2.4 in 2011. The increasing tendency is a sign of greater efficiency within ISS and their increased ability to utilize their invested capital. Finally, it can be concluded that the TIC has a positive influence on the ROIC and thus evens out the high deviation from the OM, which has a slightly negative effect on the ROIC.

Figure 18



The constant increase in TIC or, in other words, ISS's ability to generate revenue on behalf of the invested capital, documents that a clear strategy is set by ISS. It is hard to say, whether the ISS Way strategy regarding IFS focus has been fully implemented. An implementation of an IFS strategy can be carefully viewed as a differentiation strategy, which, in theory, would strengthen OM. In a world of standard products, such as cleaning services, with fierce competition on the market, it is difficult to generate a high OM. A more focused strategy on creating critical mass by e.g. price reduction will theoretically help to strengthen the TIC. In this case, a price reduction strategy could still be ISS's current strategy.

4.3.3.2 Decomposition of FGEAR into Equity and NFL

FGEAR is the ratio between NFL (net debt) and equity. As mentioned above, the financial gearing increased during all analyzed years and had a particular impact on ROE in 2008–2009. Hence, decomposition of FGEAR will be done in order to illustrate the factors involved in the development of FGEAR.

Equation 4

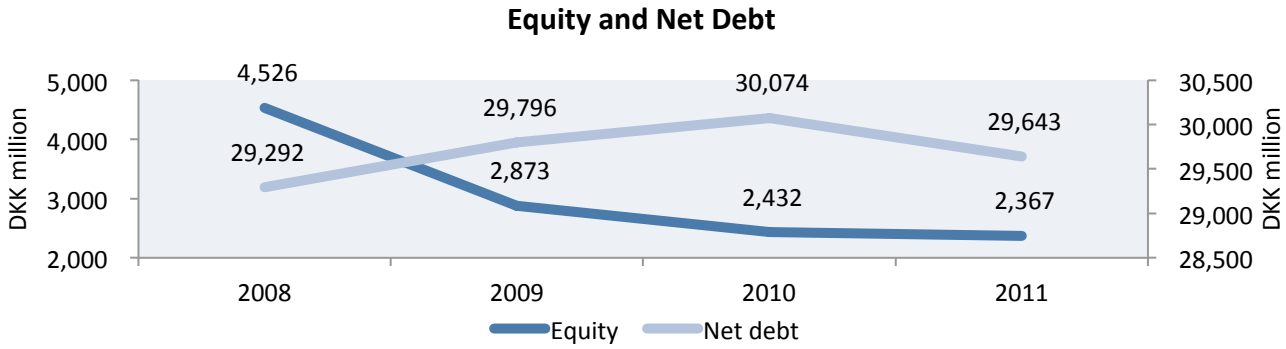
$$FGEAR = \frac{NFL}{Equity}$$

FGEAR = Financial Gearing

NFL = Net Financial Liabilities

Source: (Sørensen, 2009) p. 256

Figure 19



The level of equity fell by almost 50% during the period from 2008–2011, whereas the debt increased moderately from 2008–2010 and decreased from 2011. These are all factors that contributed to the increase in the total FGEAR.

4.3.3.3 Decomposition of SPREAD in ROIC and r

A decrease in SPREAD is observed from 2010–2011, which had a negative effect on the financial activities during that period. SPREAD is thus decomposed into ROIC and *r* to find the reason behind the decrease.

SPREAD is the difference between ROIC and *r,* and in order for SPREAD to contribute to a positive value creation for ISS, it requires a positive result.

Equation 5

$$SPREAD = ROIC - r$$

SPREAD = Diff. between ROIC and r

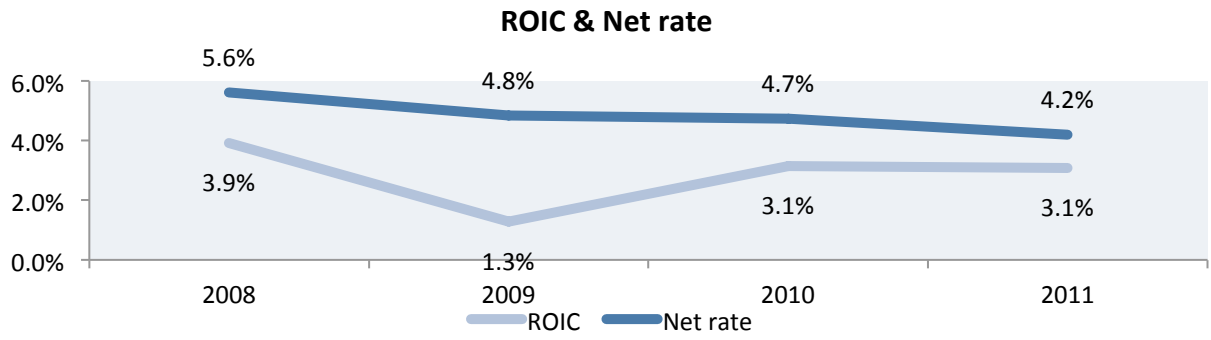
ROIC = Return on Invested Capital

r = Net rate

Source: (Sørensen, 2009) p. 256

Conclusions regarding the outcome of the effect of *r* should be carefully considered, as *r* subtracts interest income from expenses and thus assumes that loans and deposits have the same interest rate.

Figure 20



ROIC and *r* do not seem to follow the same pattern, whereas ROIC is more volatile and *r* was at a higher rate linearly declining from 5.6% in 2008 to 4.2% in 2011.

It can thus be concluded that the negative value in SPREAD, and thus the negative contribution to ROE, is due to the fact that ROIC was at a lower level than the net rate during the analyzed period. During the period 2010–2011, the gap between the two factors closed, which explains the increasing tendency of SPREAD.

4.3.4 Level 3

It was discovered in Level 2 that the operating margin had a negative effect on the operational activities in ISS. Therefore, a decomposition of the operating margin is done in the following in order to investigate the reasons behind this weak point.

4.3.4.1 Decomposition of OM in NOPAT and revenue

OM is the company's net operating profit after taxes (NOPAT) divided by the revenue. It describes the ratio between income and expenses within the operating activities.

Equation 6

$$OM = \frac{NOPAT}{revenue}$$

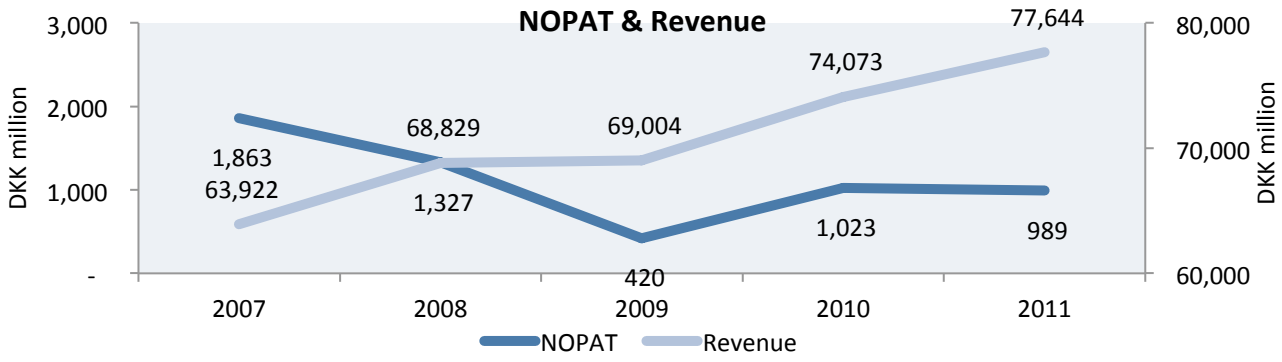
OM= Operating Margin

NOPAT= Net Operating Profit After Taxes

Source: (Sørensen, 2009) p. 261

Referring to Figure 21, it highlights the fact that NOPAT fluctuated moderately throughout the analyzed period, whereas the ISS revenue increase was more or less constant from DKK 63,922 million in 2007 to DKK 77,644 million in 2011 − an increase of 21.5%. NOPAT, though, declined during the same period, fluctuating between DKK 1,863 million and DKK 989 million, which corresponds to a decrease of 46.9%.

Figure 21



The negative trend of NOPAT can be explained by the great increase in costs related to goodwill impairment and tests in 2009. These are costs that increased due to impairment tests of the Mediterranean countries; costs that increase in times of turbulence. In order to take advantage of the high financial gearing it is thus important that ISS has a high focus on the impairment tests and the operations on especially the Mediterranean markets. The sensitivity of ISS towards macroeconomic factors is also substantiated by the PESTEL analysis in 3.1.

4.3.4.2 Decomposition of the TIC in invested capital and revenue

The turnover of invested capital (TIC) describes the relationship between the revenue and invested capital and shows the company's ability to regulate the invested capital to a given level of revenue[56].

The TIC is thus a productivity measure where the ability to create value for a company relies on the fact that the revenue is greater than the invested capital.

Equation 7

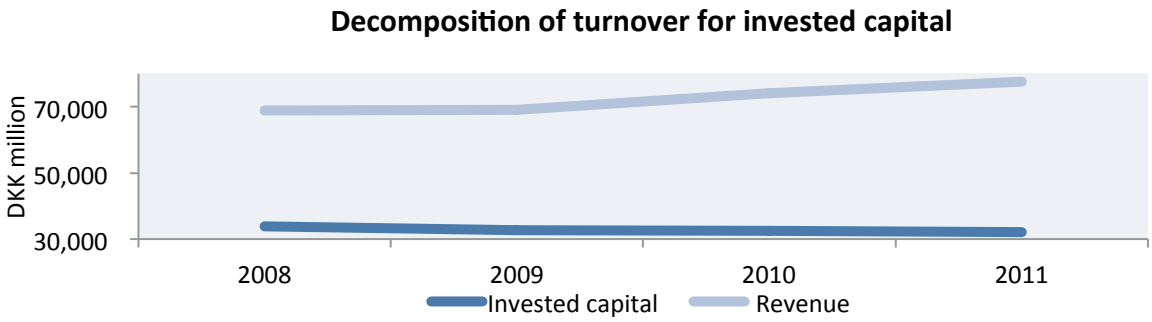
$$TIC = \frac{revenue}{Inv.Capital}$$

TIC = Turnover of invested capital

Inv. Capital = Invested capital

Source: (Petersen & Plenborg, 2007) p. 165

Figure 22



As the figure shows, there was a real increase in revenue during the period 2008–2011, increasing from DKK 68,829 million to DKK 77,644 million, which corresponds to 12.8%, whereas the invested capital fell steadily from DKK 33,817 million in 2008 to DKK 32,010 million – a decrease of 5.3%.

Both factors thus had a positive impact on the TIC, which explains the steady growth of TIC as described in 4.3.3.1.

4.3.5 Trend and common size analysis

Analyzing the development of key value drivers in the income statement and balance sheet through a trend and a common size analysis provides us with a more in-depth analysis of what generated value in the ISS operations.

The individual value drivers in the trend analysis are shown as an index of 2007 results, whereas the results in the common size analysis are shown as a percentage of the annual revenue.

[56] (Petersen & Plenborg, 2007) p. 165

During the initial years of the analyzed period, ISS was still executing an acquisition strategy and, with the acquisition of Sanitors, Inc. in 2007 as the biggest acquisition, a portfolio of 67 acquired companies was integrated into ISS that year. In 2008 ISS acquired 66 companies in 28 different countries, mainly within security and catering. These tendencies can be observed directly in the trend and common size analysis where catering services and security services, in particular, showed significantly increased revenue by 84 and 69 percentage points, respectively. As the two business areas with the highest growth rates, they obviously gained a greater share in the total revenue generation in ISS and increased from 7−10% and 5−7%, respectively.

Cleaning services and property services have each lost their marginal share of the total revenue, and decreased from a revenue share of 54−51% and 24−19%, respectively. Although cleaning services increased their total revenue by 14 percentage points during the analyzed period, mainly through organic growth and minor acquisitions, it still lost marginal share in revenue. Property services, in particular, experienced a decrease in revenue of 5 percentage points in 2008−2009 and underperformed significantly, compared to the other business areas throughout the period due to increasing divestments, particularly in Western Europe.

Table 4 – Trend and common size

Trend- and common size	2007	2008	2009	2010	2011
Cleaning	100	105	104	110	114
	54%	53%	52%	52%	51%
Property services	100	101	96	96	99
	24%	22%	21%	20%	19%
Catering services	100	136	148	168	184
	7%	8%	9%	10%	10%
Support services	100	107	128	144	159
	6%	6%	7%	8%	8%
Security services	100	128	137	154	169
	5%	6%	7%	7%	7%
Facility management services	100	108	105	128	143
	4%	4%	4%	4%	5%
Total Revenue	**100**	**108**	**108**	**116**	**121**
	100%	100%	100%	100%	100%
Staff costs	100	108	109	117	122
	-64%	-64%	-65%	-65%	-64%
Consumables	100	109	108	113	120
	-9%	-9%	-9%	-9%	-9%
Other operating expenses	100	108	106	116	125
	-20%	-20%	-19%	-20%	-20%
EBITDA	100	105	101	109	112
	7%	7%	7%	7%	7%
Depreciation and amortization	100	103	103	101	101
	-1%	-1%	-1%	-1%	-1%
Tax on EBIT	100	138	124	145	207
Net impairment	100	138	246	191	120
NOPAT	100	71	23	55	53
	3%	2%	1%	1%	1%

There was a linear link between the development in staff costs and revenue throughout the analyzed period. The operating expenses increased compared to the total revenue, more specifically 25 percentage points from 2007−11 compared to a 21 percentage-point increase of revenue. The increasing operating expenses are an outcome of higher costs related to subcontractors; mainly a result of the increased number of contracts in countries with no ISS operations.

The EBITDA trend developed only 12 percentage points in the five analyzed years, and is significantly lower than the revenue development. The explanation for this trend can be the development of the above-mentioned staff costs and other operating expenses, which represent 84% of the negative common size of revenue, with a higher growing trend, which affects the EBITDA negatively.

Depreciation and amortization costs have been constant throughout the analyzed period, and have thus been reduced relatively compared to the development of the ISS revenue.

When studying the trend of NOPAT, it is interesting to see the negative development in the years 2007–2010. As mentioned in 4.3.4.1 when decomposing NOPAT and FGAER, the decline was explained to originate from the increased impairment cost in the year 2009 in particular. Another negatively influencing factor of NOPAT can be the tax on EBIT, which was significantly higher than the revenue growth in the years 2008, 2010 and 2011. As mentioned in the tax section (3.1.1.1) in the strategic environmental analysis, ISS has been facing double taxation problems in France and Spain, which may be the cause of the high tax on EBIT. Considering these two factors as being significant negative influencing factors of the generation of NOPAT, it is advised that ISS investigate and attend to these cost-intensive sources.

5 Budgeting

In the following, historically founded value drivers, which are based on tendencies in the accounting analysis, are combined with the strategic analysis, 2.4, in order to create a future budget for ISS.

An ISS budget is created in consideration of the applied analytical models in the strategic analysis at corporate level. The single business units are introduced to specify the ISS revenue; other issues and drivers in the budget are considered at corporate level. The argument for dealing with, e.g. the forecasted costs at corporate level, is that there is a sufficient information level for successfully executing the subsequent valuation.

The budget is basically divided into two periods: the budgeting period and the terminal period. The forecasting length in the budgeting period can vary from case to case but must be long enough to set a steady state where the company's growth is at a constant rate, the company's earnings are at a constant rate of return on new capital invested and, lastly, the company earns a constant return on its basic level of invested capital[57].

In conclusion, the company will reach a steady state in the terminal period, and the future profitability profile can thereby be described in eternity. This is of course a simplifying technicality within budgeting methodology, used in an attempt to solve the practicality problems when budgeting for the long term.

The future development of the value drivers will basically be determined by the total growth in revenue, where the growth in each business unit of ISS is essential and therefore budgeted in detail.

Additionally, the future development in current assets and the working capital for ISS will be calculated at an equal rate as the development of the revenue growth.

5.1 Historical value drivers

All value drivers, except depreciation and amortization, are calculated as a percentage of the revenue because each operational driver is fundamentally linked to the sales of the company. Depreciation and amortization are percentages of the total operating fixed items.

The revenue growth rates are computed as the percentage change of the given annual revenue compared to the revenue in the previous year. Other value drivers represent the proportion of the given value driver compared to either revenue or total operating fixed items.

[57] (Koller, Goedhart, & Wessels, 2005), p. 234

The chosen value drivers are selected due to their relevance in further forecasted calculations and due to their prerequisite when computing the future profitability measures.

Below is an overview of the annual historic growth rates of the ISS value drivers and the calculated average of these on the right side of the table.

Table 5 – ISS Historical value drivers

Annual growth weights Percent	2007	2008	2009	2010	2011	07-11 Average
Organic growth	6.0%	5.9%	0.6%	3.5%	6.2%	3.4%
Acquisitive growth		1.2%	-0.3%	3.3%	-1.6%	0.5%
Cleaning, revenue growth		4.8%	-1.3%	6.1%	2.8%	3.1%
Property services, revenue growth		1.5%	-6.3%	0.8%	2.5%	-0.4%
Catering services, revenue growth		26.7%	7.6%	12.2%	8.4%	13.7%
Support services, revenue growth		6.4%	16.8%	11.1%	9.0%	10.8%
Security services, revenue growth		21.6%	7.0%	10.9%	9.0%	12.1%
Facility management services, revenue growth		7.3%	-3.0%	17.9%	10.4%	8.2%
Total revenue growth		**7.1%**	**0.3%**	**6.8%**	**4.6%**	**4.7%**
EBITDA	**7.3%**	**7.2%**	**6.9%**	**6.9%**	**6.7%**	**7.0%**
Depreciation and amortization as % of total operating fixed items	-2.1%	-2.2%	-2.3%	-2.2%	-2.3%	-2.2%
Net impairment as a % of revenue	-1.3%	-1.6%	-2.9%	-2.1%	-1.3%	-1.8%
Net financials as % of debt	-10.2%	-9.3%	-7.6%	-7.9%	-9.4%	-8.9%
Effective tax rate	-30%	-40%	-37%	-40%	-55%	-40.4%
Fixed assets as a % of revenue	63%	56%	55%	51%	47%	54.5%
Working capital as a % of revenue	-2%	-3%	-3%	-3%	-2%	-2%
Long-term liabilities as a % of revenue	-6%	-5%	-5%	-5%	-4%	-5%
Net debt as a % of invested capital	84%	89%	93%	92%	93%	90%

5.2 Forecast of core operations

Significant core operational drivers are now processed by combining these with the key strategic findings in the strategic analysis (3.4); this enables us to elaborate on forecasted future operations of ISS.

The future revenue of ISS is determined by the six individual business units and is thus budgeted independently due to their individual reaction to influencing factors from the general macroeconomic environment and more specific market-related factors. The forecast is under the assumption that ISS retains their organic growth strategy.

To provide an outlook on the future revenue, "The ISS Way" strategy is reviewed in 2.4, as are other official related statements from ISS and market research generated by independent research companies in 3.

ISS is officially steering towards the IFS market where bundled services with single contracts are in focus. In this regard, it is interesting to look at the future revenue growth within the three different ways of delivering services: single services (SS), multi services (MS) and integrated facility services (IFS).

Historically, MS and IFS have increased their revenue margin in ISS, both by 2% from 2010 to 2011, which consequently means that SS revenue share fell by 4% during the same period. This is a trend that is expected to continue in the near future due to the beforementioned strategy in 2.4. An independent report from Frost and Sullivan[58] also mentions this trend and elaborates on the European IFS market, which, unlike the single-service growth rates, is in a growth phase driven by the proposition of cost savings and the demand of single-contract solutions for outsourced services. The annual revenue growth rate for the European IFS market is estimated to increase from 3.8% in 2011 to 5% in 2016[59]. ISS is expecting to match this development, with increasing annual growth rates. This assumption is elaborated in the following.

5.3 Revenue forecast for business areas

A detailed forecast for the future development of revenue in each business area within ISS is performed to include the difference in market conditions and unit performance.

As analyzed in 2.8, ISS will be pursuing an organic growth strategy in the future, which I assume will be the general source of growth within each business unit. The revenue growth rate of each business unit during the terminal period is assumed to decrease and ending up at a steady state and follow the calculated GDP growth of 2.35%. Due to the fact that the majority of ISS revenue is generated from European markets, the 2.35% terminal growth rates are calculated as a weighted average of the regionally forecasted GDP growth rates in 3.1.2 and ISS revenue generation rates in each market. See Appendix 13 for further calculations.

Table 6 – Forecasted revenue growth

Revenue growth weights	07-11 Average	2012	2013	2014	2015	2016	Terminal
Cleaning, revenue growth	3.1%	3.0%	3.5%	3.7%	3.5%	3.3%	2.35%
Property services, revenue growth	-0.4%	2.5%	2.7%	3.0%	2.8%	2.2%	2.35%
Catering services, revenue growth	13.7%	9.5%	11.0%	11.0%	9.0%	8.0%	2.35%
Support services, revenue growth	10.8%	7.7%	9.0%	9.0%	8.0%	5.0%	2.35%
Security services, revenue growth	12.1%	10.0%	10.0%	10.0%	7.0%	4.0%	2.35%
Facility management services, revenue growth	8.2%	15.0%	15.0%	15.0%	15.0%	10.0%	2.35%
Total revenue growth	**4,7%**	**4.8%**	**5.4%**	**5.6%**	**5.1%**	**4.1%**	**2.35%**

[58] (Frost & Sullivan, 2009)
[59] (Frost & Sullivan, 2009)

5.3.1 Cleaning services

Cleaning services have been the core of ISS's services for many years, but have recently experienced a decrease in representation of the total ISS revenue, falling from 54% in 2007 to 51% in 2011. ISS claims that the reason for the decline in revenue margin is a change in strategy from the acquisitioned approach to the focus on organic growth. A steady decrease is expected for the next few years due to the organic strategy, but also because of the higher focus on IFS, which is mentioned in 2.4.3. Higher annual revenue growth rates in other business areas will marginally decrease the total revenue margin of cleaning services.

5.3.2 Property services

Property services are experiencing decreasing revenue margins of 1% point in 2010−11 compared to the total ISS revenue due to executed divestments in France, Spain, Norway, Germany and Belgium. Future development of property services is regarded as global product integration in IFS, where the acquisition of the Chinese company, Shanghai B&A Property Management Co. Ltd.[60], which deals with provision and property management, has more interest, and similar developments will affect the future growth within the business.

5.3.3 Catering, support and security services

Catering services have successfully been cross-selling to existing customers, resulting in a DKK 0.7 billion growth in revenue and representing 10% of the total ISS revenue. Support services have also affected the revenue positively due to the full year's effect on the acquisition of Indian SDB Cisco Ltd., which represents 8% of the total ISS revenue. Cross-selling to cleaning clients had a significant positive influence on facility services, which kept the revenue margin at a level of 7% of the total ISS revenue[61].

According to the trend analysis in 4.3.5, all three businesses have areas experienced double-digit revenue growth rates over the past five years and managed to get through the financial crisis successfully. The average growth rates over the preceding five years were 13.7%, 10.8% and 12.1%, respectively. As stated in the strategic analysis in 3., these business areas are expected to continue the double-digit, or close to double-digit, growth in years ahead. It is assumed that the growth rates will have a decreasing tendency in

[60] (ISS A/S, 2012)
[61] (ISS, 2011)

2015 and 2016 and reach a steady state for competitive reasons and due to the fact that the contribution to the IFS strategy is at a contented level.

5.3.4 Facility management

As assumed in the conclusive SWOT analysis (Figure 14) facility management is expected to grow significantly in the upcoming years because of the close association to IFS and the expected future growth within. The positive 10.4% growth in 2010−11 was mainly achieved by increasing the number of supporting mining facilities in Austria and new FM contracts in Latin America. An even greater growth is expected in the near future for FM and is expected to be at a 15% level in a couple of years and subsequently be reduced to a 10% growth rate level. This high growth rate is due to the expected increase in IFS, which is highly dependent on FM.

5.3.5 Total revenue

Multiplying the forecasted revenue development in the single services, it is carefully forecasted that the total future revenue growth of ISS will grow at moderately higher margins than in the past. This is mainly due to the increasing implementation of the IFS strategy and the higher activity on the developing markets, as analyzed in the strategic analysis in 3. The reason behind a moderate increase of revenue only is the continuous financial instability on the European market. As mentioned in 2.8, the ISS revenue growth is highly associated with the development of GDP growth in the macroeconomic environment. The forecasted total revenue growth of ISS relates perfectly to this assumption and is calculated to develop at a level approx. two percentage points higher than the average world GDP growth.

5.4 Forecast of income statement

In the following, a forecast of the remaining items in the income statement is done as a percentage of the revenue, except depreciation & amortization and net financials, which is a percentage of the "total operating fixed items" and "debt", respectively.

Table 7 – Forecasted value drivers, ISS income statement

Annual growth weights	07-11 Average	2012E	2013E	2014E	2015E	2016E	Terminal
EBITDA	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Depreciation and amortization							
As a % of total operating fixed items	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%
Net impairment as a % of revenue	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
Net financials as a % of debt	-8.9%	-8.9%	-8.9%	-8.9%	-8.9%	-8.9%	-8.9%
Effective tax rate	-40.4%	-25%	-25%	-25%	-25%	-25%	-25%

5.4.1 Forecast of EBITDA

En estimate of the future development of EBITDA is done in the following. EBITDA contains the earnings before interest, tax, depreciation and amortization, which means that it includes future staff costs, consumables, other operating expenses and other income expenses.

Staff costs are truly the single biggest expense in ISS and will continue to be so due to the high labour density in the business. Despite the many acquisitions in 2007 and 2008, the margin of staff costs has been stable during the analyzed period, averaging 64.5% of the total revenue. As discussed in 3.1.4 technological opportunities could increase efficiency, e.g. cutting time and staff costs, when providing servicers within the foreseeable future. The forecasted staff costs in the budget period are not expected to be replaced by innovative technology and are estimated to follow the average trend in the future.

Consumables, other operating expenses and other income expenses also have a very stable tendency in their historical development and are not expected to fluctuate in the near future; these are all forecasted to develop at the historic average, -8.7%, -19.8% and -0.3%, respectively, of the total future revenue.

This has resulted in a historically stable EBITDA, with an average of 7% as a percentage of the total company revenue. Referring to the strategic analysis, the cost structure is not expected to change in the budgeting period; hence the EBITDA is expected to represent 7% of the revenue in the future.

5.4.2 Depreciation and amortization

The depreciation and amortization value driver is calculated as a percentage of "total operating fixed items" due to the dependence between the two drivers, rather than a general percentage of the revenue.

Referring to the empirical presentation of the company in 2., no extraordinary events have caused the depreciation and amortization to fluctuate during the analyzed period, and no events are expected to occur in the near future, which means that the 2.2% historic average level compared to the annual total of operating fixed items will remain stable in the future.

5.4.3 Tax

The statutory income tax rate in Denmark is 25% and has been at that level during the entire analysis period. The effective tax rate of operations has changed annually at a higher tax level than that of the Danish company tax rate, mainly due to double taxation in Spain and France.

It is expected that the international cooperation on taxation matters between countries will be sorted out in the future, which would thus lead to an effective future tax rate of approx. 25%, such as the Danish corporate tax level.

5.5 Forecast of invested capital

The main value drivers from the balance sheet, such as core operating current assets, working capital and net debt, are forecasted as a percentage of the expected revenue and invested capital. The forecasted value drivers from the analytical balance sheet are calculated with the reformulated balance sheet as reference, which can be studied further in Appendix 7.

Table 8 - Forecasted value drivers, ISS balance sheet

Analytical balance sheet	07-11 Average	2012E	2013E	2014E	2015E	2016E	Terminal
Fixed assets as a % of revenue	54.5%	46.8%	46.3%	45.8%	45.3%	44.8%	44.8%
Working capital as a % of revenue	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%
Long-term liabilities as a % of revenue	-5%	-5.2%	-5.2%	-5.2%	-5.2%	-5.2%	-5.2%
Net debt as a % of invested capital	90%	82.2%	82.2%	82.2%	82.2%	82.2%	82.2%

5.5.1 Fixed assets

The intangible assets have decreased during the analyzed period, mainly because of the decrease in customer contracts and the annual decrease of goodwill, which has led to a constant decrease in fixed assets. It is estimated that ISS will continue to decrease the abovementioned value drivers in the budget period, due to the fact that ISS will continue to focus on organic growth and only acquire strategically important entities at a moderate pace, as mentioned in the internal company and strategy analysis in 2.4. Following the declining trend, it is thus assumed that the future development of fixed assets will decline with 0.5 percentage points annually until the terminal period when it will stabilize to a constant ratio level.

5.5.2 Working capital

The working capital is calculated as the difference between the short term receivables and the short term payables. Referring to the reformulated balance sheet in Appendix 7 it can been seen that ISS ha a yearly negative working capital, which historically is unfortunate and indicates that ISS has issues regarding their control of their short term liquidity flow. The working capital has historically remained unchanged compared to the development of revenue, at a negative 2.5% level, and is therefore expected to continue to amount to 2.5% of the share of revenue in the future.

5.5.3 Long-term liabilities

As appears from the reformulated balance sheet in Appendix 7, the operating long-term liabilities have been fairly stable with a slight declining tendency. The decrease was mainly affected by the declining differed tax liabilities. Due to the assumption above, where the company tax is constant in the future, it is also assumed that the differed tax liabilities will remain constant in the future. It is thus assumed that the annual operating long-term liabilities will be at a 5.2% level compared to the annual revenue.

5.5.4 Net debt

The net debt ratio is calculated as a percentage of invested capital because of the direct link. Compared to invested capital, the net debt increased steadily throughout the analyzed period, mainly due the annual decrease in equity. As mentioned in 2.7, ISS has received a cash injection from two investors in 2012, which will lower the debt level of the year 2012 to 82.2%. The ongoing future development of equity and invested capital is expected to even out and stabilize, which means that the marginal net debt will do the same.

5.6 Sub-conclusion: Forecasted key value drivers

It was noted in the profitability analysis in 4.3 that ISS has had a negative ROE and an unfortunate SPREAD due to NOPAT and thus OM. As analyzed in the strategic analysis, it is expected that ISS will focus on core operations, organic growth and optimize their integration of acquired companies, which will result in a higher annual NOPAT.

With the increase in optimization of operations and effectively exploiting the IFS opportunities, ISS is expected to increase their return on invested capital (ROIC) in the future, mainly due to an increase in the operating margin (OM). The turnover for invested capital (TIC) is expected to remain fairly constant in the future, due to the continuous fact that the facility service industry will remain as an industry with low investment costs and entry barriers. ISS is thus expected to easily adapt the amount of invested capital to the level of future revenue generation.

Table 9 – Forecasted key value drivers

Key value drivers	07-11 Average	2012E	2013E	2014E	2015E	2016E	Terminal
ROIC	2.9%	6.7%	6.8%	6.9%	7.1%	7.2%	7.2%
Operating margin	1.3%	2.6%	2.6%	2.6%	2.7%	2.7%	2.7%
Turnover for invested capital	2.21	2.56	2.59	2.62	2.66	2.69	2.69

As advised in the trend and profitability analysis in 4.3.5, it is also expected that the focus will be on other operating expenses and impairment costs and on how to minimize these costs. As mentioned in 5.4.3, the tax rate is set indefinitely at an annual rate of 25%. This will also have a positive effect on NOPAT and ultimately increase the ROIC and operating margin.

Referring to the strategic analysis in 3, it can be concluded that, by focusing on the opportunities within IFS, mainly on the growth markets, and by strengthening the position on existing markets by continuing the organic growth strategy, ISS can gain a higher NOPLAT and an operating margin that is twice as lucrative, which will affect the ROIC positively.

The cash injection in late 2012 will change the FGAER from 12.5 in 2011 to 4.6 in 2012. The net rate in 2012 is expected to be 6.66%, the ROIC will be 6.72%, which equals an expected SPREAD of 0.06%. This will result in a positive ROE of 7% in 2012, compared to the -10.8% ROE in 2011. The strategic initiatives combined with the cash injection will thus immediately have a positive effect on the ROE of ISS and will increase the profitability of the company in the eye of the shareholders.

As a result of the forecasted value drivers the forecasted income statement, balance sheet and cash flow statement is illustrated in Appendix 11. These key figures will lay the fundament for the valuation of ISS.

6 Valuation

By using the previous estimated and calculated key value drivers and budget, it is possible to make a valuation of ISS primary by using the DCF method. This type of valuation discounts future streams of cash flows with the weighted average cost of capital as discount factor. The final equity value of the company is calculated by subtracting the present value of the cash flows from the value of net debt in year t = 0. A sensitivity analysis is done to evaluate the degree of effect that each factor has on the valuation model.

The DCF is a popular method of many practitioners and academics because it relies solely on the flow of cash in and out of the company and not on historical accounting results[62].

An analysis is only as accurate as the forecast that it is based on. Subsequently, the given DCF value is therefore compared with multiple analyses based on key figures from the competing peer group of the analyzed company. The multiple analyses can help test the plausibility of cash flow forecasts and picture the strategic differences of the target company and the closest rivals on the given market.

[62] (Koller, Goedhart, & Wessels, 2005)

6.1 WACC

When determining the value of operations, each forecasted cash flow is discounted from time and risk. In order to do so, the weighted average cost of capital (WACC) is used because it represents the risk that every investor faces. In other words, WACC represents the expected return on an alternative investment with an identical risk[63].

Equation 8: WACC

$$WACC = \frac{D}{D+E}k_d(1-T) + \frac{E}{D+E}k_e$$

WACC	Weighted average cost of capital
k_d	Required rate on debt
k_d	Required rate on equity
T	Marginal tax rate
D	Debt
E	Equity

Source: (Koller, Goedhart, & Wessels, 2005) p. 113

The WACC is based on the firm's current characteristics, but is used theoretically and in this context to discount future cash flows. It doesn't matter if the risk and debt ratio remains constant. If the future risk and debt ratio is expected to change, is it important to follow up by changing the WACC as well.

In order to use WACC in the DCF model, the consistency of assumptions and definitions between the models is a must. Due to the fact that the cash flows are calculated in nominal terms, the rates in the WACC calculation must be calculated in nominal terms as well.

Tax is included in the WACC calculation because of after-tax calculation of the free cash flows in the DCF model. In addition, the required rate of return on debt is assumed to include the given tax shields, which explains the multiplication of the inverse future tax level (1-T).

As stated, it is assumed that the capital structure is constant during the forecasted period, but is this simplification sufficient? Referring to Modigliani & Miller (1958)[64] and their proposition 1: *"The market value of any firm is independent of its capital structure"*, and their proposition 2: *"The rate of return they can expect to receive on their shares increases as the firms debt/equity ratio increases"*, the value doesn't change, but the risk increases when debt rises and therefore the shareholders' required rate of return increases.

The MM propositions assume a perfect capital market, which, in the real world, doesn't exist. Imperfect markets create opportunities and may allow companies to borrow more cheaply than e.g. private individuals, due to economies of scale or governmental regulations. One of the main complications of the MM theory is tax and the deductibility of interest paid on a company's borrowings from taxable income, which is the (1-T) in the WACC. Tax shields provided by debt can thus be valuable assets.

Referring to the PESTEL analysis in 3.1, it is thus relevant to take local company taxes, local deductibility rules and current interest rates into account when considering the capital structure of ISS.

[63] (Koller, Goedhart, & Wessels, 2005), p. 328
[64] (Modigliani & Miller, 1958)

Another important assumption of WACC is that it requires a static capital structure. When a company develops, the market value may increase dramatically; a rebalancing of the WACC is thus necessary to keep the constant debt ratio. This mechanical method is not sufficient in the real world, where gradual and steady adjustments are of more practical use for long-term targets. The Miles & Ezzell (1980)[65] formula is ideal when continuously yearly rebalancing is sought. The need thing about the formula is, that it takes the next year's interest tax shield and this year's debt ratio into consideration.

Taking the different WACC approaches into consideration and addressing the flaws in the WACC model, it is assumed to use the fixed WACC and debt/equity ratio due to the simplification of the thesis.

6.1.1 Capital structure

The enterprise value of a company (EV), is basically determined by the sum of the market value of debt (D) and equity (E). The capital structure explains the company's debt and equity levels and thus the level of the financial gearing. WACC is based on the forecasted assumption, which means that the capital structure also has to be based on assumptions of future levels.

Equation 9: Capital structure

$$EV = D + E$$

EV	Enterprise value
D	Debt
E	Equity

Source: (Brealey, Myers, & Allen, 2008)

As mentioned in 2.7, the target debt is going to change from the early budgeting period due to capital investment in ISS from Teachers' and KIRKBI in 2012. Teachers' and KIRKBI will significantly deleverage the company by repaying the 11% Senior Notes that are due in 2014 after the December 2012 call date and thus inject DKK 3.721 million in capital into ISS.

The new capital injection could be a weak indicator and a preparatory move of an IPO of ISS in the foreseeable future. CEO Jeff Gravenhorst has also mentioned that an IPO might be an opportunity in the future.

Besides the IPO rumors, there are no solid indicators or announcements from ISS with regard to what the target capital structure is aimed to be in the future.

In accordance with the many factors of uncertainty that determine the exact IPO execution date, it is assumed, that an IPO will not be initiated within the budget period and that the capital structure is therefore constant during the entire budget period. It is assumed that the capital structure changes during

[65] (Miles & Ezzell, 1980)

the early budget period and then remains constant. Hence, we are able to determine the value of ISS by using the DCF model.

Iteration makes it possible to compute the future capital structure in the valuation despite the circular reference of the WACC and the equity when calculating the capital structure.

The target capital structure for ISS is computed to be:

D/EV = 66% and E/EV = 34%

6.1.2 Rate of return for debt

The rate of return on debt is the sum of the risk-free rate and the risk premium.

In theory[66], the risk-free rate is the return of a risk-free bond or a portfolio of assets without any risk and is independent and not associated with the development in the surrounding economy.

Equation 10: Rate of return on debt

$$k_d = (r_f + r_s)$$

r_f	Risk-free rate
r_s	Risk premium

Source: (Brealey, Myers, & Allen, 2008)

In order to fulfill these requirements, the yield of the 10-year Danish government bond is used as the risk-free rate to secure the minimization of the risk of each payment. While assessing this case, the actual rate of return on this risk-free bond reached a significantly low level of 1.3% on August 8th, 2012[67]. As analyzed in 3.1.2.4, it is forecasted that the different government bond interest rates will increase in the near future. The assumed expectation is that the yield of the 10-year Danish government bond will increase to 2.2% over the next five years, which is calculated as a combination of the recent historic spread of the 10-year Danish government bond and the future expectations mentioned above. In order to have a consistency when using future-based drivers in the valuation, the future expected yield of the Danish bond is used as the risk-free rate. It should be mentioned that the future risk-free rate is difficult to estimate and can change rapidly depending on macroeconomic variations. A conservative approach is thus taken when estimating the future rate.

One could argue in favour of using an international bond rate because of the international scope of ISS. The Danish 10-year government bond is used as the risk-free rate as this is assumed to represent the western European market where the majority of ISS's revenue is generated.

The risk premium is a factor that describes the creditors' demand for compensation when lending to the company instead of investing in risk-free assets.

[66] (Brealey, Myers, & Allen, 2008)
[67] Borsen, 20.08.2012

The method of estimating the risk premium for ISS was done on behalf of the S&P credit rating of ISS, which is BB- with the current capital structure, and a risk premium table generated by professor Damodaran[68], BB- cannot be directly registered in the table. The risk premium for ISS is thus calculated as the average of B+ and BB, which corresponds to a risk premium of 5.15%. For further information regarding the risk premium table please see

Appendix 12.

The sum of the risk-free rate and the company-specific risk premium equals the rate of return on debt. Therefore, the rate of return on debt for ISS is 7.35%.

Calculation 1: Rate of return on debt

r_f	2.2%
r_s	5.15%

$k_d = 0.022 + 0.0515 = \underline{7.35\%}$

Source: Own creation

6.1.3 Rate of return for equity (CAPM)

In order to determine the cost of equity (k_e), we rely on the capital asset pricing model (CAPM) that converts the stock's risk into an expected return. The CAPM is built upon three variables to determine a stock's return: The risk-free rate, the expected market risk premium and the company's beta.

The risk-free rate is determined in the previous section and will therefore not be elaborated further.

The CAPM model is a simple one-factor model that only relies on the beta, as described below in 6.1.3.2 CAPM has a lot of simplifying assumptions, which makes it easy to use in theory, but is criticized for not representing the real world. Black, Jensen, & Scholes[69] have questioned the CAPM simplicity of the model and argue that there are more factors that affect the risk and return. Empirical tests of the CAPM including Jensens *alpha* indicate that the theoretical security market line (SML) tends to be more moderate (flatter) in the real world[70]. The theoretical arguments within the paper do not explain what these factors are, but it is noted that e.g. other macroeconomic factors and irrationality are influencing factors in the real world. They thus suggest that a two-factor model (or multi-factor model, as suggested by Ross[71], is better equipped for describing the risk-return relationship in the real world.

Equation 11: CAPM

$$k_e = r_f + \beta\left[E(r_m) - r_f\right]$$

k_e	Expected return on equity
r_f	Risk-free rate
β	Beta equity
$E(r_m)-r_f$	Market risk premium

Source: (Koller, Goedhart, & Wessels, 2005) p. 300

[68] (Damodaran, 2012)
[69] (Black, Jensen, & Scholes, 1972)
[70] The empirical test of CAPM by Jensens *alpha* suggests that the alphas on individual assets depend in a systematic way on their betas: that high-beta assets tend to have negative alphas, and that low-beta assets tend to have positive alphas.
[71] (Ross, 1976)

Referring to the PESTEL analysis of ISS and the external factors found, secondary factors might be appropriate when using a multi-factor model. Factors that can be carefully mentioned are the macroeconomic turbulence, outsourcing trends etc.

Due to the complexity in finding other relevant factors, the remaining valuation in the thesis is based on the assumption of the CAPM and thus the one-factor model.

6.1.3.1 Market risk

The market risk is defined by the difference between the expected return on the market portfolio and the risk-free rate.

The market risk premium is the difference between the market's expected return and the risk-free rate. In other words, the market risk premium is the level of which creditors claim in compensation premium for lending assets to a given company rather than investing in risk-free assets.

An explorative report[72] containing statistics of the market risk premium, based on interviews of 43 Danish professors, analysts, and financial companies, has determined the market risk premium for the Danish stock market as per June of 2012. The report concludes that the market risk premium is 5.0% for the Danish stock market. It can be argued that the market risk premium characteristics relating to ISS are closer to those of international corporations than to those of Danish companies due to the majority of their revenue generation being international. Assuming that ISS's headquarters will remain in Denmark and that the main markets will remain the European and the Nordic markets, the Danish risk premium was chosen.

6.1.3.2 Beta

Beta measures how much a stock and market move together. Beta is the undiversified risk of an asset, also called the systematic risk. In mathematical terms, the beta is the covariance between the return on assets and the market portfolio compared to the variance of the return on the market portfolio.

The common way is to historically observe a stock and the related market return. However, because of the private equity ownership structure of ISS, it is not possible to determine the return on their assets. In this case, it is necessary to observe a peer group of companies with some of the same characteristics as ISS and to determine their beta values. This requires the assumption that the peer group acts on related markets, is of similar size and, most importantly, has similar risk profile.

When using the median of the peer groups or an industry's raw beta, it is paramount that one thing is taken into consideration, namely leverage. The beta is a function of both the operating and the financial

[72] (Fernandez, Aguirreamolloa, & Corres, 2012)

risks that a company takes, which means that the higher the debt, the greater a risk is taken by the shareholders. To compare companies it is thus essential to extract the financial risk so that we are left with a similar operating risk. This is called unlevering a company or an industry's beta.

The levered beta of the peer group is found on the two financial databases Thomson and Bloomberg and is unlevered by using the formula: $\beta_e=\beta_u(1+D/E)$[73] and has an average of 0.54. By adding the debt/equity level of ISS to the unlevered beta, the estimated beta for ISS is calculated. By doing so, the beta for ISS is: 0.89, which is expected due to the high level of correlation with the market and its fluctuations.

6.1.3.3 *Calculation of the rate of return on equity*

When calculating the rate of return on equity, the CAPM model is used. The risk-free rate, the beta and the market risk premium determine the rate of return on equity, which is calculated to be 6.66%.

Calculation 2: Rate of return on equity

r_f	2.2%
β	0.89
$E(r_m)-r_f$	5%

$k_e = 0.022 + 0.89 * 0.05 = 0.0666 = \underline{6.66\%}$

Source: Own creation

6.1.4 Calculation of WACC

In addition to the tax rate, each driver that is included in the WACC is defined above. As mentioned in the forecasting section, it is assumed that the future company tax rate will be 25% indefinitely. Based on this assumption, the WACC for ISS is calculated to be 5.9%.

Calculation 3: WACC

k_d	7.35%
k_e	6.66%
D/EV	66%
E/EV	34%
(1-T)	0.75

WACC = 5.9%

Source: Own creation

6.2 DCF

The discounted cash flow model (DCF) is the primary valuation model and is based on discounted net present values of the company's future cash flows. The future free cash flows are a result of the earnings before interests, taxes, depreciations and amortizations (EBITDA), by subtracting tax of operations, impairment costs, change in working capital and net investments.

FCF = EBITDA – Δ Working capital - tax of operations - impairment cost - net investments

[73] According to Modigliani and Miller, (Koller, Goedhart, & Wessels, 2005), p. 319

The discounted cash flows thus do not include financial costs of any kind and solely represent the total amount of after tax cash flows available to all investors (debt holders and equity holders). In order to determine the current value of the cash flows, these are simply discounted back to N=0 by using the weighted average cost of capital (WACC).

It is assumed that ISS will continue to do business forever, which makes it difficult to predict (each year indefinitely). Therefore, the perpetuity-based continuing value model is used by dividing the forecast period into two valuation periods: a budget period and a terminal or continuing period.

The enterprise value (EV) can be calculated by the two formulae beneath where the value of the company during the budget period is calculated on behalf of the discounted free cash flows during the explicit forecasting period, 0 to *t*. The value of the terminal period is based on more simple assumptions and reflects the value of the company, beginning after the explicit forecasting period.

$$EV = \sum_{t=1}^{T} \frac{FCF_t}{(1+WACC)^t} + \left(\frac{NOPAT_{t+1} * \left(1 - \frac{g}{RONIC}\right)}{WACC - g} \right) * (1+WACC)^{-t}$$

Source: (Koller, Goedhart, & Wessels, 2005)

The terminal value is based on the key value driver formula, which is superior to other methodologies because it is based on cash flows and also links the cash flow to growth and ROIC. The model assumes that the growth after the explicit forecasting period is constant, which means that growth (*g*) in EBITDA and NOPAT and the return on invested capital will remain at a constant rate indefinitely.

The theoretical formula above can be computed to a more practical model, which calculates the terminal value as a product of the discounted value of the forecasted free cash flows during the terminal period. The following formula is used in the DCF valuation:

$$EV = \sum_{t=1}^{n} \frac{Cash\ Flow_t}{(1+WACC)^t} + \frac{Cash\ Flow_{n+1}}{WACC - g} \times \frac{1}{(1+WACC)^n}$$

Source: (Koller, Goedhart, & Wessels, 2005)

The forecasted key figures of ISS, illustrated in Appendix 11, are the fundament for the final valuation of ISS. The figures illustrated the forecasted income statement, balance sheet and cash flow statement.

As described in the forecasting section, the future growth is tied to the related forecasted macroeconomic conditions in order for the growth to not overvalue the future value of the company. The growth rate is

expected to be 2.35% for revenue EBITDA and NOPAT. The terminal growth rate is calculated as the weighted average product of the expected regional GDP growth and the regional distribution of ISS revenue as of 2016. See Appendix 13 for further information.

Table 10 – DCF valuation

Discounted Free Cash Flow (DCF) in mDKK	2012E	2013E	2014E	2015E	2016E	Terminal
EBITDA	5,716	6,039	6,397	6,741	7,031	7,196
Tax of operations	-1,215	-1,286	-1,365	-1,441	-1,506	-1,541
Change in working capital	334	114	127	121	103	58
Net impairment	-1,500	-1,585	-1,679	-1,769	-1,845	-1,889
Operating cash flow	3,334	3,282	3,480	3,651	3,782	3,824
Investments in fixed assets	-1,424	-1,726	-1,911	-1,761	-1,373	-1,054
Depreciations	-855	-893	-936	-975	-1,006	-1,030
Change in long-term liabilities	809	240	266	255	215	123
Net investments	-1,470	-2,379	-2,580	-2,481	-2,164	-1,962
Free Cash Flow	1,864	902	899	1,170	1,618	1,862
Discount factor	0.94	0.89	0.84	0.80	0.75	
PV Cash Flow	1,760	805	757	930	1,214	

DCF Output *in mDKK*	Public
PV (Terminal value)	39,318
Sum of PV (Cash Flow)	5,466
Enterprise Value	**44,784**
- Net debt 2011	-29,526
Equity Value early 2012	**15,258**
Number of shares (in million)	100
Share price (in DKK)	**152.58**

WACC	5.90%
Terminal growth	2.35%
Beta	0.89

In order to find the concluding equity value of ISS the net debt is subtracted from the enterprise value. The book value of net debt is used, due to the complexity of utilizing the market value of the net debt of ISS, which would include an extensive option based valuation of all the loans that ISS has.

6.3 Sub-conclusion - valuation

The DCF valuation reveals the present value of the cash flow during the budget period to be DKK 5,466 million; and the present value of cash flow in the terminal period to be DKK 39,318 million. The total ISS enterprise value is the product of the two and is calculated to DKK 44,784. Subtracting the net debt from the enterprise value, gives an equity value of DKK 15,258 million.

When comparing the share price of DKK 152.58 per share, assuming that ISS has 100 million shares, with the share price offered at the G4S acquisition prospect in 2011 of DKK 130 per share, it can be concluded that the share price is within a reasonable spread.

When determining the value of ISS, it can be comparatively useful to use both the DCF and the EVA models. In Appendix 14, the EVA calculation illustrates that the equity value of ISS is obviously similar to the DCF result of DKK 15,258 million due to the same underlying valuation method.

There are pros and cons when using the DCF and the EVA model as valuation models. Both models use the WACC as discounting factors, and therefore both models include the company-specific risk rate when calculating the free cash flows of the future.

The DCF is calculated solely based upon the expected cash flows, which the company can generate, and is thus independent of accounting standards and policies. The EVA model, on the other hand, is dependent on the actual accounting policies because ROIC is used as a valuation factor.

EVA can be a great tool when evaluating the company's performance on a year-by-year basis because it is possible to directly compare ROIC or the TIC with the WACC, which clearly indicates if the company generates value for its owners.

Both models are very sensitive to the inputs that the models are built upon. The sensitivity is thus evaluated in the following section.

6.4 Multiples

Even though the DCF method is the primary valuation tool, a comparable valuation based on multiples can be a handy tool. The multiples analysis contains a great deal of uncertainty and should not stand alone. That being said, it provides a useful sanity check of the DCF model and provides valuable insight into a given industry[74].

[74] (Koller, Goedhart, & Wessels, 2005), p. 390

In order to conduct a proper multiple analysis, the inconsistency in accounting methods between the selected companies must be eliminated. This is done by solely elaborating the multiples for valuation on behalf of the companies' EV/EBITDA multiple, due to the fact that EBITDA is the value of earnings from operations before interests, tax, depreciation and amortization, and therefore eliminates any differences in depreciation policies between the companies.

Unlike when the price-earnings (P/E) ratio is used, EBITDA is not affected by the capital structure and the net income is calculated before non-operating gains, which makes it ideal to use when comparing companies with different capital structures[75].

When selecting the peer group it is essential to choose companies with similar risk profiles and growth potentials, because the multiple analyses do not take these factors into account.

The potential differences in accounting formats and policies within the peer group and ISS can create valuation noise, which arguments that using multiples for valuation only can be used as a comparable valuation to the DCF method and should not stand alone.

The multiples are calculated as the expected development of the peer companies EBITDA on a three-year forecasted horizon from 2012−2014. The forecasted data is an average of analysts' expectations with regard to the development of the peer group's EBITDA, and is gathered from Thomson's database: Datastream. The enterprise value is also gathered from Datastream and represents the average value registered on August 28th, 2012.

Table 11 – Peer group earnings

Peer Group	EBITDA				EV	EV/EBITDA (fixed 2011 EV)		
m/DKK	2012	2013	2014	CARG	2011	2012	2013	2014
G4S	6,370	7,052	7,539	8.8%	52,588	8.26	7.46	6.98
Rentokil	4,088	4,450	4,487	4.8%	21,519	5.26	4.84	4.80
Serco	3,584	3,841	4,214	8.4%	27,684	7.72	7.21	6.57
Securitas	3,792	4,000	4,199	5.2%	28,568	7.53	7.14	6.80
Compass	13,573	14,421	15,566	7.1%	125,386	9.24	8.69	8.05
Sodexo	9,238	9,922	10,873	8.5%	77,721	8.41	7.83	7.15
Median						7.99	7.33	6.89

Source: Datastream August 28th, 2012

During the period 2012–2014, the future EBITDA of ISS is forecasted to have a CAGR of 5.8%, which is somewhat lower than the peer group average of 7.1% CARG. This is, however, a minor deviation and is considered acceptable and the forecasted growth of ISS can be considered comparable to the peer group.

[75] (Koller, Goedhart, & Wessels, 2005), p. 379

The development of the individual companies EBITDA in the peer groups is compared to the actual enterprise values (EV) of each company in the year 2011. The median of the peer group's EV/EBITDA multiples are found in the years 2012–2014, which are subsequently used in the secondary valuation of ISS.

Table 12 – ISS valuation using peer group multiples

ISS valuation using multiples DKK million	2012	2013	2014
Multiple factor	7.99	7.33	6.89
EBITDA	5,716	6,039	6,397
EV	45,673	44,283	44,077
Net debt 2011	29,526	29,526	29,526
Equity value	16,147	14,757	14,551
Stock price	161	148	146

The valuation of ISS using multiples is illustrated in the figure above. When calculated, the equity value of ISS ranges between DKK 16,147 million and DKK 14,551 million. As appears, the estimated EV declines as we proceed further into the future due to the fact that the EV is held at a constant level in the forecasted EV/EBITDA multiples.

Figure 23 - Comparing DCF and multiple valuations

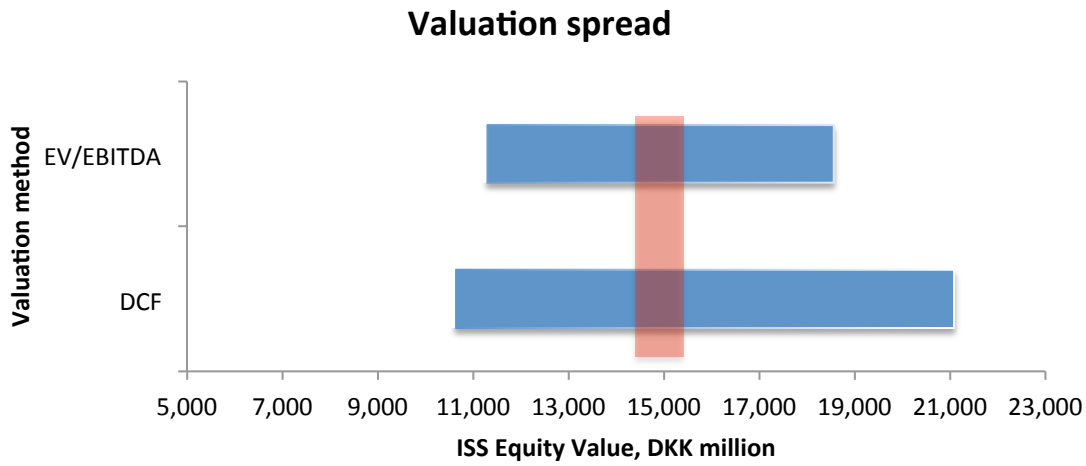


Figure 23 illustrates the spread of the primary DCF valuation and the secondary multiple valuation. The spread of the DCF valuation is based on the sensitivity analysis of a +/- 5% change in the terminal growth and the WACC, whereas the multiple valuation spread represents the ISS value range calculated on behalf of the two EV/EBITDA extremes within the peer group. Represented by the red field in the figure, is the interval of the accurate calculated equity value between the two valuation methods.

6.5 Sensitivity analysis

Now that the primary and the secondary valuation methods have been executed, it could be tempting to finalize the report without any further work. This would be an insufficient analysis, however, because of the lack of testing of the primary model in particular. A final check of the drivers within the DCF model will be done in order to determine the robustness of the model when exposed to alternative assumptions.

Using the most sensitive factor in the DCF model, a graphical presentation of the main drivers is created. Figure 24 illustrates the isolated effect that each variable has on the equity value when changing only one variable, assuming every other variable is equal. The percentage changes of the variables are illustrated horizontally and the effect of these changes is illustrated vertically as equity value.

Figure 24 - DCF Sensitivity

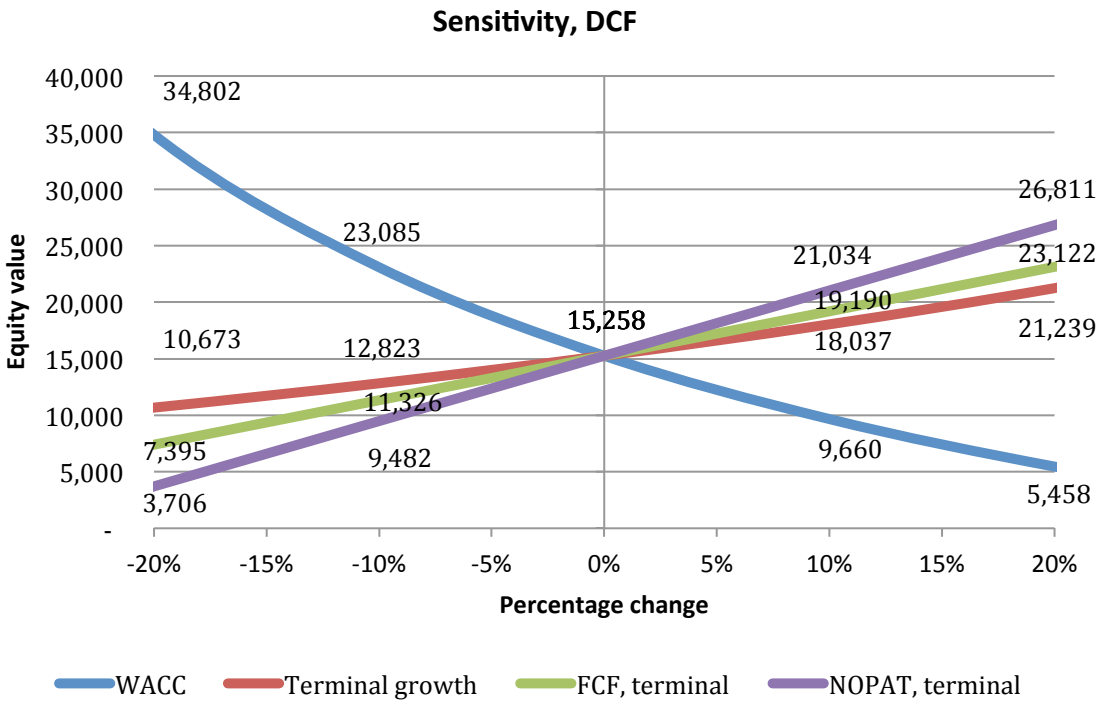


Figure 24 provides a good overview of the degree of sensitivity of each variable. It can be deduced that the terminal growth and the FCF have the least effect on the equity value when changed.

The NOPAT, and especially the WACC, have the highest sensitivity on the equity value. First off, the NOPAT has a linear correlation with the equity value and when changed +/-20%, NOPAT affects the equity value by 75% and will be in the equity value range of DKK 3,706 million and DKK 26,811 million. While changing the WACC by 20%, an even greater sensitivity is measured on the equity value. The WACC has an exponentially negative sloping curve and will, in this case, affect the equity value so that it is between DKK 5,458 million and DKK 34,802 million. When reducing the WACC by 20%, the equity value increases by 128%.

In order to avoid overestimating the value of ISS, the terminal growth that is used should not be greater that the growth of the global economy. In these times of economic turbulence, it can be hard to estimate the future growth rate. As stated previously, the terminal growth rate is set at 2,35%. The interesting part is to then observe the sensitivity when changing both the terminal growth rate and the WACC. In the matrix below, different outputs of ISS equity value are illustrated as a percentage change of the WACC and the terminal growth. For example, when changing the WACC by +5% and the terminal growth by -5%, the ISS equity price will total DKK 17,952 million, or a 17% increase. It can therefore be concluded that the sensitivity of the DCF model in the case of ISS is fairly significant.

Table 13 – DCF sensitivity matrix

DCF		Terminal growth Equity value										
		2.05%	2.11%	2.17%	2.23%	2.29%	2.35%	2.41%	2.46%	2.52%	2.58%	2.64%
		-12.5%	-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%	12.5%
	5.16%	-12.5%	22,583	23,477	24,407	25,374	26,380	27,428	28,521	29,661	30,852	32,097	33,399
	5.31%	-10.0%	20,143	20,952	21,791	22,662	23,567	24,508	25,487	26,506	27,568	28,675	29,831
	5.46%	-7.5%	17,915	18,650	19,411	20,199	21,017	21,865	22,747	23,662	24,614	25,605	26,638
	5.61%	-5.0%	15,873	16,543	17,236	17,952	18,694	19,463	20,260	21,086	21,944	22,836	23,762
WACC	5.75%	-2.5%	13,995	14,608	15,240	15,894	16,570	17,269	17,993	18,742	19,519	20,324	21,160
	5.90%	0.0%	12,261	12,823	13,403	14,002	14,620	15,258	15,918	16,600	17,306	18,037	18,794
	6.05%	2.5%	10,656	11,174	11,707	12,256	12,823	13,408	14,012	14,635	15,279	15,945	16,634
	6.20%	5.0%	9,166	9,643	10,135	10,641	11,163	11,700	12,254	12,826	13,415	14,024	14,653
	6.35%	7.5%	7,778	8,220	8,675	9,143	9,624	10,119	10,629	11,155	11,696	12,255	12,831
	6.49%	10.0%	6,484	6,894	7,315	7,748	8,193	8,651	9,122	9,607	10,105	10,619	11,149
	6.64%	12.5%	5,273	5,654	6,046	6,448	6,861	7,285	7,720	8,168	8,629	9,103	9,591

By decomposing WACC in Table 14, which was found to be the most sensitive factor in DCF model, it becomes clear that beta and the market premium are both sources for this high sensitivity. While changing both parameters by +/- 12.5%, the WACC level will be within the interval: 5.55% and 6.31%. When using the matrix above, it can be observed that this correlates to a change in ISS equity value between approx. DKK 10,119 million and DKK 19,463 million.

Table 14 – WACC sensitivity matrix

	WACC		Beta										
			0.78	0.80	0.82	0.85	0.87	0.89	0.91	0.94	0.96	0.98	1.00
			-12.5%	-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%	12.5%
	4.38%	-12.5%	5.55%	5.58%	5.61%	5.65%	5.68%	5.71%	5.75%	5.78%	5.81%	5.85%	5.88%
	4.50%	-10.0%	5.58%	5.61%	5.65%	5.68%	5.72%	5.75%	5.78%	5.82%	5.85%	5.89%	5.92%
	4.63%	-7.5%	5.61%	5.65%	5.68%	5.72%	5.75%	5.79%	5.82%	5.86%	5.89%	5.93%	5.96%
	4.75%	-5.0%	5.65%	5.68%	5.72%	5.75%	5.79%	5.83%	5.86%	5.90%	5.93%	5.97%	6.01%
	4.88%	-2.5%	5.68%	5.72%	5.75%	5.79%	5.83%	5.86%	5.90%	5.94%	5.98%	6.01%	6.05%
Market premium	5.00%	0.0%	5.71%	5.75%	5.79%	5.83%	5.86%	5.90%	5.94%	5.98%	6.02%	6.05%	6.09%
	5.13%	2.5%	5.75%	5.78%	5.82%	5.86%	5.90%	5.94%	5.98%	6.02%	6.06%	6.10%	6.13%
	5.25%	5.0%	5.78%	5.82%	5.86%	5.90%	5.94%	5.98%	6.02%	6.06%	6.10%	6.14%	6.18%
	5.38%	7.5%	5.81%	5.85%	5.89%	5.93%	5.98%	6.02%	6.06%	6.10%	6.14%	6.18%	6.22%
	5.50%	10.0%	5.85%	5.89%	5.93%	5.97%	6.01%	6.05%	6.10%	6.14%	6.18%	6.22%	6.26%
	5.63%	12.5%	5.88%	5.92%	5.96%	6.01%	6.05%	6.09%	6.13%	6.18%	6.22%	6.26%	6.31%

The sensitivity analysis showcases that many variables have a significant effect on the final valuation estimate of ISS. Especially the WACC and the terminal growth rate have a great impact when using the DCF valuation method. WACC seems sensitive to beta and the market premium. Changes in the capital structure have a direct effect on the ISS beta by affecting WACC and thus the value of ISS. Unforeseen recession or economic upturn in the macroeconomic environment can also have a significant effect on the estimation of the terminal value and thus the total estimated value of ISS.

By testing the sensibility of the DCF valuation model, it has been proven that the conclusive calculations greatly rely on the assumptions and observations made in the strategic and accounting analyses. When interpreting the results of the thesis, it should be noted that the thesis was produced during the fall 2012 when the global economy still seems to be volatile. Keeping the sensitivity analysis in mind, it is difficult to estimate the exact value of ISS.

7 Conclusion

By addressing the main problem of the thesis, it is sought to analyze the strategic issues and opportunities of ISS and to subsequently compute the value of ISS and thereby estimate, whether or not the proposed acquisition price offered by G4S was overestimated.

First of all, the strategic analysis showed that, due to the global reach of ISS, local political and legal factors could potentially play a significant role in the decision-making of ISS. By analyzing the historical performance of ISS, it can be concluded that the correlation between the global growth in GDP and the growth of ISS's revenue is high, which indicates that ISS is highly effected by macroeconomic changes. This gives ISS opportunities within emerging countries with high development growth rates, such as China. Environmental trends and technological improvements can be factors that ISS needs to keep an eye on due to the potential impact that these factors could have on shaping the industry.

Regarding the market-specific conditions within the FM industry, it has been concluded that market situations highly depend on the service type (single services or integrated facility services). The market within single services can be characterized as a fierce competitive playground, where the entry barriers and the profit margins are low. Generally, it seems like the market condition on the IFS market is more dominated by truly global companies with the capacity to provide a multiple service portfolio. The IFS market tends to have fewer players due to the higher entry barriers. It is concluded that the different market characteristics and potentials vary depending on geographical conditions and tendencies. It is advised that each local market is treated independently with regard to the engagement process towards the individual potentials in the markets.

By focusing on gaining market shares in existing markets and selling more services in existing markets to current customers, ISS is pursuing a market penetration strategy. By downgrading the number of acquisitions, ISS has implemented a strategic approach towards organic growth. Depending on the future development of the IFS strategy and the ability of ISS to successfully provide the service to a larger number of customers, the future growth rates will stay moderate due to the organic growth strategy. Potential double-digit growth rates are possible within ISS, but are determined by the level of activity and engagement in developing countries, such as China.

The accounting analysis starts with a reformulation of the ISS income statement and balance sheet into analytical statements where operational and financial figures are separated. The operations are then analyzed by performing a profitability analysis the purpose of which is to extract the minor positive and negative drivers by decomposing the return on equity. The historical return on equity of ISS has been negative during the analyzed period, mainly caused by the negative SPREAD and the declining return on invested capital. The reason for the declining return on invested capital is the low level of the operating

margin, which is mainly caused by fierce competition and low margins within the industry that ISS operates in. It may indicate that the IFS strategy is not fully implemented with regard to ISS. By decomposing the operating margin it is observed that NOPAT is the main negative driver where cost related to goodwill and impairment costs in the Mediterranean markets have affected NOPAT negatively. By analyzing the positive drivers, it is concluded that the TIC has increased, which means that increasing value creations of the operations have occurred for ISS due to increasing revenue and declining invested capital.

Based on the outcome of the strategic analysis, the historic accounting analysis and the profitability analysis, a future estimate of the ISS operations are made. Estimations of the revenue are done conservatively due to the uncertainty of the macroeconomic environment, especially relating to the financial environment in Europe and the USA. The total revenue growth rates are still expected to increase in the near future because of the increasing engagement in developing markets and the continued expected growth within IFS. It is expected that ISS will focus on core operations and optimize their integration of acquired companies resulting in a higher yearly NOPAT. This will have a positive effect on the operating margin, which is estimated to increase ROIC during the five-year budget period.

The primary valuation model that is used to determine the value of ISS is the DCF model, which relies on the forecasted cash flow of the firm. WACC is used as a discount factor and is calculated to 5.9% as a result of the owner's cost of debt (7.35%), the owner's required rate of return on equity (6.66%), the debt/enterprise-value equaling 66% and the company tax of 25%.

By using the DCF method, the equity value of ISS is calculated to be DKK 15,258 million, which equals a share price of DKK 152.58 per share.

As a sanity check of the DCF valuation a peer group analysis is done by calculating the average EV/EBITDA multiple of the peer group. By using the multiples to valuate ISS, the equity value range of ISS was estimated to be DKK 14,551 million and DKK 16,147 million.

By analyzing the sensitivity of the factors, which are included in the DCF model, it is found that the DCF model is particularly sensitive to changes in WACC. Further investigation shows that WACC is very sensitive to changes in beta and the market risk premium. Small changes to one single factor can change the calculated equity value of ISS significantly. It is advised that the conclusions of the model be cautiously elaborated.

8 Perspectives

In the following, I will discuss and reflect upon the correct value of ISS from a philosophical point of view, as well as the different ways of interpreting the G4S bid and the calculated theoretical valuation that was done in the thesis.

"Only one true company value exists: The price that the buyer is willing to pay"

Source: Citation: Christian Aarosin, Ernst & Young; from M&A course at CBS 2009

The estimated value of ISS calculated in the thesis is not necessarily the true value, based on the fact that the thesis is based on specific assumptions and expectations. When valuing a company, it is important to note when the valuation is done, the company's current situation and surroundings and whom the valuation is targeted at.

The following perspectives of the fair value of ISS is seen from a practical point of view as a company analyst. This means that it is chosen to keep theoretical perspectives out of consideration, such as, perspectives regarding the methodology and possible improvements of the DCF model etc. Even though it is not included, a theoretical discussion has potential to enhance the methods used and may have resulted in a more accurate theoretical estimate of the fair value of ISS.

As mentioned in the thesis, the G4S proposal to acquire ISS at an equity value of approx. DKK 13,000 million in October 2011 failed to be realised due to sceptical G4S shareholders. In this particular case, ISS was worth less at that particular time with that particular buyer. *"The scale of the acquisition and the perceived complexity against the backdrop of current macroeconomic uncertainty"* (G4S Chairman: Alf Duch-Pedersen)[76] was the announced reasoning behind the acquisition failure. Some[77] were sceptical due to the lack of potential synergies after a successful merger, and others[78] blamed the G4S Chief Executive, Nick Buckles, for not thoroughly having included the 14 top shareholders in the information process.

Nevertheless, the acquisition failed. But what is the current theoretical value of ISS one year after the failed G4S acquisition? That is what this thesis has tried to outline.

[76] (Reuters, 2011)
[77] (Søgaard, 2011)
[78] (Hume, 2011)

In the current year, the macroeconomic situation has changed slightly for the better and internal factors have changed compared to the situation in October 2011. The European markets are still volatile, but slight optimism is spreading throughout the Mediterranean countries. Two new shareholders have changed the ownership structure of ISS marginally and ISS have strengthened their position in China by acquiring Shanghai B&A Property Management Co. Ltd. – a strategically valuable company. In addition, ISS has successfully negotiated several new global IFS contacts with clients, such as Barclays Bank, the pharmaceutical company Novartis and the postal service company PostNord. These are the main factors, which can explain the higher theoretical value of ISS compared to the value proposed by G4S.

In the sensibility analysis, it was concluded that macroeconomic and internal factors, such as government bond interest rates, GDP growth rates and the internal D/EV rate have a great influence on the value of ISS. Reflecting on the potential changes of these factors, a what-if analysis is done to provide alternative perspectives to the prior conclusions in the thesis. My personal thoughts on possible external and internal scenarios are discussed in the following.

What if the global economy stabilises and Europe and the U.S. see sustainable GDP growth rates?

As analysed in the thesis, a correlation between the GDP growth and the performance of ISS exists, where a positive development of the economic environment in Europe and the U.S. most likely would have a direct positive effect on the organic growth rates of ISS. I think, that higher macroeconomic optimism would also raise interest rates, which could have both negative and positive effects on ISS.

What if the management initiates an IPO within the budget period?

It is assumed in the thesis that no IPO will occur during the budget period. But if an IPO were to be initiated within the next five years, some likely consequences would include a change to the shareholder structure and a drop in the D/EV level. Depending on the new shareholder structure and the degree of diversity of new major influencing shareholders, corporate governance issues, such as changes to the board and the executive management are realistic scenarios after an IPO. This might have an effect on the strategic direction of ISS.

What if ISS divests in sick business areas and focuses on core IFS in global developing countries?

My analysis indicates that, implementing an IFS-only strategy would, in the short term, result in lower total revenue due to the exit from the single service markets. On the other hand, I think, ISS would experience lower competition and higher profit margins due to the fact that ISS are able to utilise their economy of scale and thus cut costs. The global potential in the developing markets would also generate higher organic growth rates in the ISS group.

What consequences would it have for ISS if the competition within the IFS industry increases?

Currently, first mover advantages seem to be present within the global IFS industry when elaborating on the analysis done in the thesis. However, these are likely to be eliminated in the long term. Other facility service companies are already upgrading their service portfolios and are seeking new potential IFS markets, which ultimately will increase the competition within the IFS industry. Consequently, I believe that ISS has to establish themselves long term on the global IFS scene, first of all, and especially gain market shares in the high-potential developing markets. In addition, ISS is advised to focus on their core competences, which, in my opinion, include their unique people-management skills. I believe that these improved initiatives would serve as valuable defence tactics when the competition turns fierce at some point.

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Appendix

Appendix 1 – Sources

Primary sources	
Source	Type
ISS *Peer group*	Annual reports, press releases, company documents, web page
Peer group and Jan Schauby, *Advisors, Nordic Corporate Finance*	*Interview*

Secondary sources	
Source	
Reports	
- Thomson Datastream - The Economist Global Forecasting - Global Business Insider - Bloomberg	- Frost & Sullivan - McKinsey & Company - Moody's - Standard and Poor's
Newspapers	
- Dow Jones Business News - The Wall Street Journal - Berlingske Newspaper	- Berlingske Nyhedsmagasin - Borsen Newspaper - Reuters
Public institutions	
- Eurostat	- Danmarks Statistik

Appendix 2 - ISS corporate structure

Source: (ISS, 2011)

Appendix 3 – ISS Group management

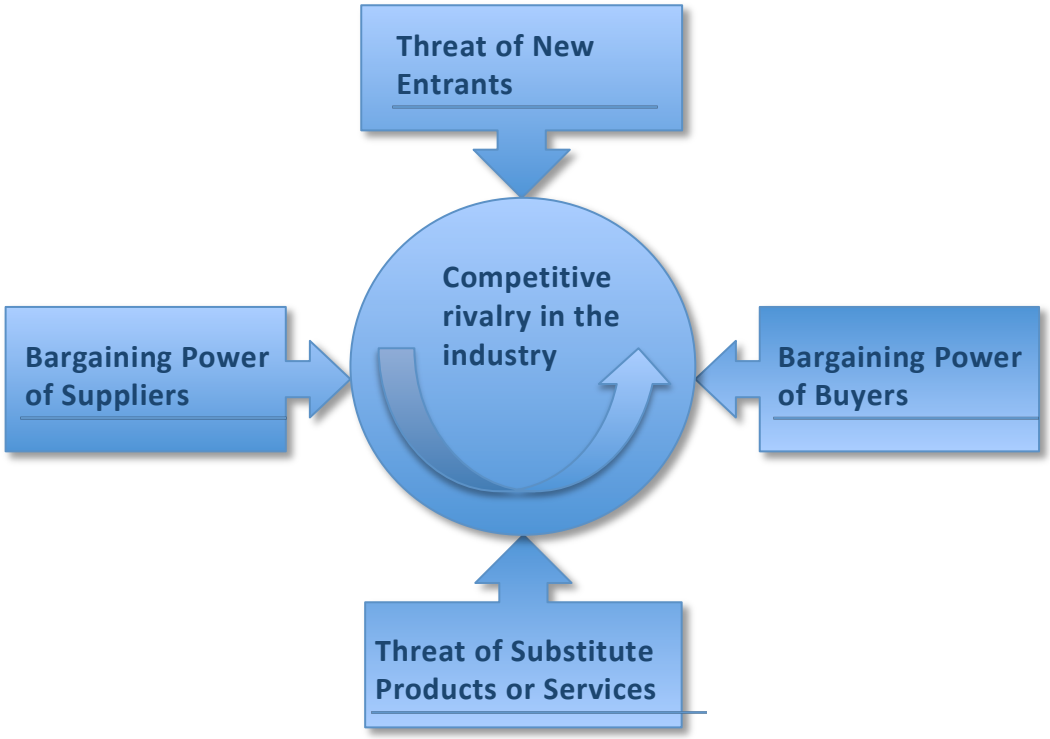
Group Management Name	Position	History
Jeff Gravenhorst	Group CEO	ISS Group COO & CFO, ALTO, Clarke Industries Inc., Wittenburg and Arthur Andersen
Henrik Andersen	Group CFO	ISS CEO UK
Luis Andrade	CEO Iberia & Latin America	Climex
Troels Bjerg	CEO Nordic & Eastern Europe	Stenhøj Group, Daimler and Mercedes-Benz
Jacob Götzsche	CEO Central Europe	PWC, BDO ScanRevision and Baltica Holding
David Openshaw	CEO North America, UK, Ireland, South Africa and Middle East	Pritchard Services Group
Martin Gaarn Thomsen	CEO Western Europe	Coca Cola and PA Consulting Group
Daniel Patrick Brennan	Head HRM	Hewlett-Packard, Electronic Data Systems, Radian Communication Services and Xerox
Thomas Hinnerskov	CEO ASPAC, SVP	ISS country manager, TEMA Kapital, McKinsey
Henrik Langebæk	COO-Projects	Danionics, The East Asiatic Company and Arthur Andersen
Todd O'Neill	Head of Group Strategy and Corporate Development	SEB Enskilda, Alfred Berg and Citicorp
Andrew Price	Head of Global Corporate Clients	ISS UK, COO, Taylorplan Services, Securiguard Group
Bjørn Raasteen	Group General Counsel	Jonas Bruun Law Firm, Hjejle, Gersted & Mogensen

Source: Own Creation, www.issworld.com, (ISS, 2011)

Appendix 4 – ISS Denmark case

Through the Danish media, Maarten van Engeland, former CEO of ISS Denmark, has stated his criticism towards governmental institutions, who, prior to an open-tender procedure for new cleaning clients, cut DKK 40 million off the original contract. These price reductions are unrealistic if the service supplier has to staff with Danish employees and at the same time meet the regulated security requirements. Van Engeland finished his criticism by blaming competitors in the Danish cleaning industry for using operational methods that are morally and legally unacceptable, mainly by hiring foreign workers who get paid without taxation. He thus urged the Danish Serious Fraud Office and the Danish Ministry of Taxation to take a thorough look at the cases in order to reinforce an acceptable working environment and thus a healthy competition within the industry[79].

Appendix 5 - Porters five forces



Source: Own creation, (Porter, 1980)

[79] (Danmarks Radio, 2012)

Appendix 6 – ISS Reformulated income statement

Note	Analytical Income Statement DKK million	2007	2008	2009	2010	2011
	Revenue	63,922	68,829	69,004	74,073	77,644
1	Staff costs	-40,998	-44,156	-44,781	-47,990	-49,937
	Gross profit	**22,924**	**24,673**	**24,223**	**26,083**	**27,707**
	Consumables	-5,614	-6,134	-6,044	-6,359	-6,751
1	Other operating expenses	-12,618	-13,604	-13,430	-14,595	-15,720
	EBITDA	**4,692**	**4,935**	**4,749**	**5,129**	**5,236**
	Depreciation and amortization	-845	-869	-868	-850	-855
	EBIT	**3,847**	**4,066**	**3,881**	**4,279**	**4,381**
1	Net financials	-3,009	-2,728	-2,304	-2,358	-2,771
	EBT	**838**	**1,338**	**1,577**	**1,921**	**1,610**
	Paid tax	-254	-531	-588	-760	-887
2	Other income and expenses	-208	-313	-604	-130	-252
	Net profit before impairment	376	494	385	1,031	471
3	Net impairment	-818	-1,125	-2,014	-1,563	-978
	Net profit	**-442**	**-631**	**-1,629**	**-532**	**-507**
	Effective tax rate	-30%	-40%	-37%	-40%	-55%
	Tax on EBIT	-1,166	-1,614	-1,447	-1,693	-2,414
	NOPAT before impairment	2,681	2,452	2,434	2,586	1,967
	Net impairment	-818	-1,125	-2,014	-1,563	-978
	NOPAT	**1,863**	**1,327**	**420**	**1,023**	**989**
	Tax shield	912	1,083	859	933	1,527
	Net financials after tax	**-2,097**	**-1,645**	**-1,445**	**-1,425**	**-1,244**
	Other income	-208	-313	-604	-130	-252
	Net profit	**-442**	**-631**	**-1,629**	**-532**	**-507**

Appendix 7 – ISS Reformulated balance sheet

Note	Analytical Statement of financial position DKK million	2007	2008	2009	2010	2011
	Operating fixed items (Long term)					
	Intangible assets	37,150	36,001	35,452	35,358	34,097
	Property. plant and equipment	2,223	2,276	2,004	2,055	2,077
	Investments in associates	28	24	21	9	7
	Deferred tax assets	598	472	514	655	551
	Total operating fixed items	**39,999**	**38,773**	**37,991**	**38,077**	**36,732**

	Less:					
	Operating current items					
	Inventories	249	264	303	318	334
	Trade receivables	10,114	10,097	10,130	10,896	11,871
	Contract work in progress	161	182	195	125	129
	Tax receivables	277	228	308	386	330
4	Receivables	1,036	776	551	348	449
5	Payments	619	-	525	546	639
	Trade payables	-2,750	-2,835	-2,624	-2,830	-3,466
	Tax payables	-151	-123	-306	-411	-422
7	Other liabilities	-10,494	-10,461	-10,478	-10,946	-11,296
	Provisions	-327	-435	-423	-379	-255
	Working Capital	**-1,266**	**-2,307**	**-1,819**	**-1,947**	**-1,687**

	Less:					
	Operating long term liabilities					
6	Pensions and similar obligations	-724	-834	-837	-1,053	-1,048
	Deferred tax liabilities	-2,786	-2,498	-2,356	-2,305	-2,051
	Provisions	-326	-397	-379	-361	-338
	Long term operational liabilities	-3,836	-3,729	-3,572	-3,719	-3,437
	Invested capital	**34,897**	**32,737**	**32,600**	**32,411**	**31,608**
	Equity					
	Total equity attributable to owners of ISS A/S	5,459	3,498	2,190	2,626	2,070
	Non-controlling interests	59	35	23	25	12
	Equity	**5,518**	**3,533**	**2,213**	**2,651**	**2,082**
	Financial liabilities					
	Loans and borrowings	30,882	31,210	28,649	29,032	28,181
8	Loans and borrowings	1,039	1,279	5,710	5,212	5,774
	Liabilities related to assets held for sale	351	-	379	255	90
	Financial liabilities	**32,272**	**32,489**	**34,738**	**34,499**	**34,045**
	Financial assets					
	Other financial assets	-229	-238	-276	-290	-300
	Securities	-83	-86	-97	-19	-17
	Cash and cash equivalents	-2,581	-2,961	-3,364	-3,606	-4,037
	Assets held for sale	-	-	-614	-824	-165
	Financial assets	**-2,893**	**-3,285**	**-4,351**	**-4,739**	**-4,519**
	Net debt	**29,379**	**29,204**	**30,387**	**29,760**	**29,526**
	Invested capital	**34,897**	**32,737**	**32,600**	**32,411**	**31,608**

Appendix 8 – Notes to the reformulated income statement and financial statement

Note 1

Change in classification	2007	2008	2009	2010	2011
Operating profit increase 2011					36
Additional staff costs				-149	-152
Additional operating expenses				192	188
Restated from 2011 Annual report				43	36

Note 2

Other operating income	2007	2008	2009	2010	2011
KPMG					
Audit fees	-40	-42	-40	-41	-40
Tax and VAT advisory services	-10	-13	-10	-12	-10
Other services	-26	-16	-10	-5	-3
Other operating fees (operational)	-76	-71	-60	-58	-53
Other assurance services - exit process (financial)	-12	-5	-7	-12	-29
Total KPMG	-88	-76	-67	-70	-82

Note 3

Net impairment	2007	2008	2009	2010	2011
Goodwill impairment	-128	-399	-1,246	-938	-501
Amortization and impairment of brands and customer contracts	-1,101	-1,008	-1,129	-869	-708
Tax effect on impairment	411	282	361	244	231
Total net impairment	-818	-1,125	-2,014	-1,563	-978

Note 4

Other receivables	2007	2008	2009	2010	2011
Other receivables	1,036	776	551	348	434
Change in accounting policy					15
Receivables	1,036	776	551	348	449

Note 5

Prepayments	2007	2008	2009	2010	2011
Prepayments	619	-	525	546	674
Change in accounting policy					-35
Payments	619	-	525	546	639

Note 6

Pensions and similar obligations	2007	2008	2009	2010	2011
Pensions and similar obligations	-724	-834	-837	-1,053	-1,172
Change in accounting policy					124
Pensions and similar obligations	-724	-834	-837	-1,053	-1,048

Note 7

Other liabilities	2007	2008	2009	2010	2011
Other liabilities	-10,494	-10,461	-10,478	-10,946	-11,188
Change in accounting policy					-108
Other liabilities	-10,494	-10,461	-10,478	-10,946	-11,296

Note 8

Loans and borrowings / non-current liabilities	2007	2008	2009	2010	2011
Loans and borrowings	1,039	1,279	5,710	5,212	5,778
Change in accounting policy					-4
Loans and borrowings	1,039	1,279	5,710	5,212	5,774

Assumptions:

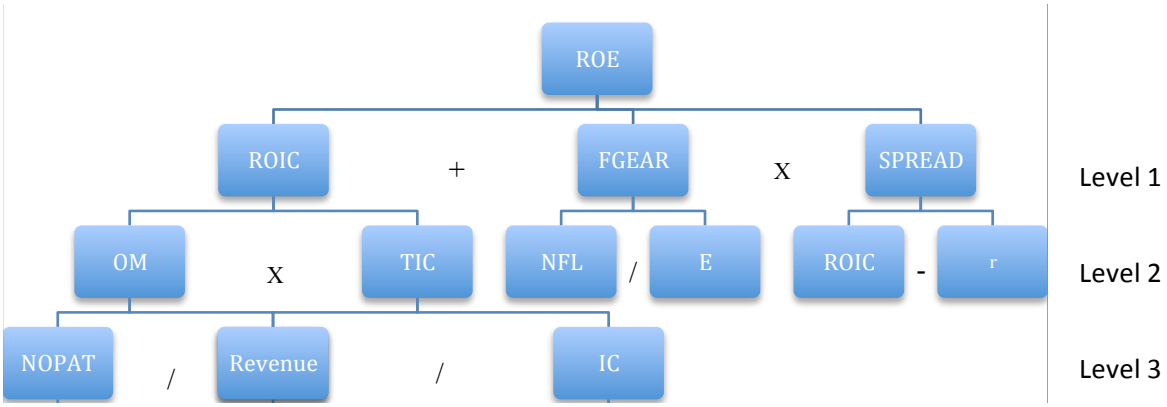
- Due to a change in classification from ISS annual report 2010 and 2011, compensation has been done in 2011 figures in order to be comparable to previous years. I hereby assume that the changes in 2011 are similar to 2010.

- Change in classification of interest on defined benefit plans etc. from staff cost to finance expenses. Note 1, ISS Annual Report 2011.

- Note 1: Due to a lack of information in the annual report, I have assumed that additional staff cost has increased by DKK 3 mill. from 2010 to 2011.

- Note 1: Additional operating expenses are assumed to have increased by DKK 4 mill. from 2010 to 2011.

Appendix 9 – DuPont model



Appendix 10 - Calculation and discussion of ROE

Depending which analytical glasses you wear, the result of ROE can differ. As mentioned, the capital structure of ISS is heavily debt-financed and has a great influence on the comparison of ROE and ROIC. When digging into the income statement of ISS, and particularly within the category of questionably extraordinary items, "amortization and impairment of brand and consumer contract" and "goodwill impairment", allow for theoretical thought. The question is whether the entries are made every year and whether they are closely related to the core business operations. Should the entries be included in the NOPAT calculation or are they extraordinary entries and should thus be excluded in a future valuation?

The instability of the cost level, and the fact that the entries include amortization of acquired brands and losses from impairment tests and write-down of divestments, it can be argued that the two entries are not core activities.

The argument for including "amortization and impairment of brand and consumer contract" in NOPAT is the fact that it is an entry that is defined by amortization, which fundamentally is included in a company's operations. Regarding the fact that the ISS brand is defined as having an indefinite useful life also argues for it as a continuous core entry. Also, "Goodwill impairment" is argued as a core activity because of the inclusion of the write-down of goodwill, which is an operational entry and because it is done continuously every year.

Appendix 11 - Forecasted income statement, balance sheet and cash flow statement

Analytical Income Statement						
DKK million	2012E	2013E	2014E	2015E	2016E	Terminal
Cleaning	40,654	42,077	43,634	45,161	46,651	47,746
Property services	15,378	15,793	16,267	16,723	17,090	17,492
Catering services	8,442	9,371	10,402	11,338	12,245	12,533
Support services	6,636	7,234	7,885	8,516	8,941	9,151
Security services	6,344	6,978	7,676	8,213	8,542	8,742
Facility management services	4,062	4,671	5,372	6,177	6,795	6,955
Revenue	**81,517**	**86,124**	**91,235**	**96,128**	**100,265**	**102,619**
EBITDA	**5,716**	**6,039**	**6,397**	**6,741**	**7,031**	**7,196**
Depreciation and amortization	-855	-893	-936	-975	-1,006	-1,030
EBIT	**4,861**	**5,146**	**5,461**	**5,765**	**6,024**	**6,166**
Tax of operations	-1,215	-1,286	-1,365	-1,441	-1,506	-1,541
NOPAT before net impairment	**3,646**	**3,859**	**4,096**	**4,324**	**4,518**	**4,624**
Net impairment	-1,500	-1,585	-1,679	-1,769	-1,845	-1,889
NOPAT	**2,146**	**2,274**	**2,417**	**2,555**	**2,673**	**2,736**
Net financials	-2,332	-2,433	-2,544	-2,645	-2,722	-2,786
Tax shield	583	608	636	661	681	697
Other income						
Net profit	**396**	**450**	**509**	**571**	**631**	**646**
Investment in NPV=0	3,190	-206	-239	-325	-444	-491
Retained earnings	3,586	244	270	246	188	155

Analytical balance						
DKK million	**2012E**	**2013E**	**2014E**	**2015E**	**2016E**	Terminal
Fixed assets	38,156	39,883	41,793	43,554	44,927	45,982
Working Capital	-2,021	-2,135	-2,262	-2,383	-2,486	-2,544
Long term operational liabilities	-4,246	-4,486	-4,752	-5,007	-5,222	-5,345
Invested capital	**31,890**	**33,262**	**34,779**	**36,164**	**37,219**	**38,093**
Equity primo	2,082	5,668	5,912	6,182	6,428	6,615
Retained earnings	3,586	244	270	246	188	155
Equity ultimo	5,668	5,912	6,182	6,428	6,615	6,771
Net debt	26,222	27,350	28,598	29,736	30,604	31,322
Invested capital	**31,890**	**33,262**	**34,779**	**36,164**	**37,219**	**38,093**

Cash Flow statement DKK million	2012E	2013E	2014E	2015E	2016E	Terminal
EBITDA	5,716	6,039	6,397	6,741	7,031	7,196
Tax of operations	-1,215	-1,286	-1,365	-1,441	-1,506	-1,541
Change in working capital	334	114	127	121	103	58
Net impairment	-1,500	-1,585	-1,679	-1,769	-1,845	-1,889
Operating cash flow	**3,334**	**3,282**	**3,480**	**3,651**	**3,782**	**3,824**
Investments in fixed assets	-1,424	-1,726	-1,911	-1,761	-1,373	-1,054
Depreciations	-855	-893	-936	-975	-1,006	-1,030
Change in long term liabilities	809	240	266	255	215	123
Net investments	**-1,470**	**-2,379**	**-2,580**	**-2,481**	**-2,164**	**-1,962**
Free Cash Flow	**1,864**	**902**	**899**	**1,170**	**1,618**	**1,862**

Appendix 12 – Risk premium and capital structure

If interest coverage ratio is			
>	*≤ to*	*Rating is*	*Spread is*
-100000	0.2	D	12.00%
0.2	0.65	C	10.50%
0.65	0.80	CC	9.50%
0.8	1.25	CCC	8.75%
1.25	1.50	B-	6.75%
1.5	1.75	B	6.00%
1.75	2.00	B+	5.50%
2	2.25	BB	4.75%
2.25	2.50	BB+	3.75%
2.5	3.00	BBB	2.50%
3	4.25	A-	1.65%
4.25	5.50	A	1.40%
5.5	6.50	A+	1.30%
6.5	8.50	AA	1.15%
8.50	100000	AAA	0.65%

Source: Damodaran online (2012)

ISS is currently rated as B-, which cannot be traced in the above table. The B- risk premium is thus calculated as the mean of the B+ risk premium and the BB risk premium.

$$B - risk\ primium = 5.5\% - 0.35\% = 5.15\%$$

Appendix 13– ISS revenue weight & GDP growth by region

Area	ISS Revenue weight	2016 GDP Growth rate
Western Europe	51%	1.5%
Nordic	23%	2.5%
Asia	8%	4.3%
Pacific	7%	4.3%
Latin America	5%	4.2%
North America	4%	2.3%
Eastern Europe	2%	3.0%

Weighted average	**2.35%**

Appendix 14 – EVA Valuation

An alternative method to value ISS is to use the economic valued-added method (EVA). Unlike the DCF model, the EVA model highlights how and when the company creates value. The neat thing is that the valuation leads to identical results of the enterprise DCF model.

The EVA model measures the value created by the company in a single period, and can be described as the following formula:

EVA = NOPAT - (Inv. Capital primo * WACC)

Source: (Koller, Goedhart, & Wessels, 2005) p. 118

The sum of the single EVA values + the terminal value are discounted back to t = 0. This means that the EVA model represents the operating value of the company, which equals the book value of the invested capital, plus the present value of all future value created.

$$\text{Value}_0 = \text{Inv. Capital}_0 + \sum_{t=1}^{\infty} \frac{EVA}{WACC - g}$$

Economic Value Added in DKK million	2012E	2013E	2014E	2015E	2016E	Terminal
NOPAT	2,146	2,274	2,417	2,555	2,673	2,736
Invested capital (primo)	31,608	31,890	33,262	34,779	36,164	37,219
Cost of capital	1,866	1,882	1,963	2,053	2,135	2,197
ROIC	6.8%	7.1%	7.3%	7.3%	7.4%	7.4%
Economic value added	280	392	454	502	538	539
Discount factor	0.94	0.89	0.84	0.80	0.75	
PV(RI)	264	350	382	399	404	

EVA output *in DKK million*	Public
PV (terminal value)	11,377
Sum of PV(EVA)	1,799
Invested capital (primo)	31,608
Enterprise value	44,784
- Net debt 2010	-29,526
Equity value early 2011	**15,258**
Number of shares (in million)	100
Share price (in DKK)	**152.58**
DCF check	0

The ROIC during the terminal period is calculated by dividing NOPAT with invested capital and is expected to be 7.4% in the terminal period. ROIC is higher than WACC (5.9%), which means that ISS will be profitable in the future.