VALUATION OF DSV A/S
-A STRATEGIC AND FINANCIAL ANALYSIS-

Andri Mar Helgason

Handed in 11th June 2012, Copenhagen Business School

M.S in Finance and Strategic Management

Supervisor: Jens Borges

Institute of Finance

Number of characters, excluding front page and appendixes: 121.869 equivalent to 70 pages

Executive summary

The main objective of this thesis is to estimate the share value of one DSV A/S share on the 22nd February 2012.

DSV is originally a Danish based transport and logistics company founded in 1976. However it has mainly grown with organic growth and acquisitions of other companies and has therefore transformed into an international transporting company. The recent financial crisis has affected DSV considerably with decrease in revenue but DSV has been recovering well in the last three years, the company is sensitive to changes in the overall world economy especially in Europe because a high portion of their revenue is generated in Europe.

To have a possibility to valuate DSV a strategic analysis was performed with a focus on internal and external factors. From the strategic analysis it can be assumed that DSV has a flexible business model with emphasis on the asset light model and their capability to adjust costs very fast. Regulations from the regulatory bodies in Europe can affect DSV in the near future with new legislation regarding environmental issues.

Financial analysis followed the strategic analysis. All key financial drivers have been increasing from 2009 after the impact from the financial crisis. Two large acquisitions were finalized in 2006 and 2008 and the financial drivers in the years after were looked at, it looks like these acquisitions were successful.

The strategic and financial analysis were used with the reformulated income statement and balance sheet to forecast the future net operating profit less adjusted tax and free cash flow. The valuation was done with the discounted cash flow model and then compared with valuation from selected multiples.

The discounted cash flow model result was a share price of DKK 172.78, compared with the closing price of February 22nd 2012 the estimated share price is about 41% higher than the actual share price. This could indicate that the share of DSV is undervalued by investors and they should be recommended to buy DSV shares as a long-term investment.

Table of Contents

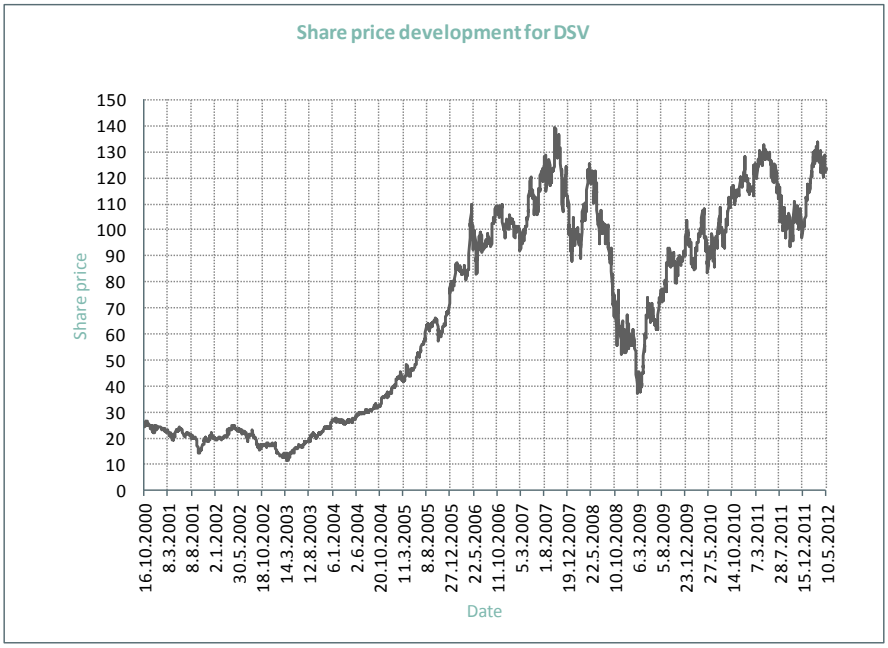
1 Introduction

The transport industry in Europe and all over the world is still recovering from the financial crisis that started at the end of 2007 with executives getting more optimistic that revenue will continue to grow for the year 2012, more than in previous years.

A hesitant recovery from recession, sharply rising fuel prices has created unique challenges for the transport industry for the past few years. DSV A/S (DSV) has been able through their flexible business model that consists of asset light investment in assets in the forms of trucks and facilities and not at all in ships and airplanes. This asset light model has proven to have certain benefits, particularly in a period of recession, as it ensures a flexible cost structure that keeps the fixed costs of DSV at a minimum level. Also in their model there is comprehensive outsourcing, and the company aims to generate no more than 5% of the total sales volume itself.

A continuous increase has been in share value since being publicly listed in the Copenhagen stock exchange in 1987, its share value began to decline for the first time in the beginning of the year 2009. In figure 1 is the development from October 2000 to May 2012.

Figure 1 – DSV share price development



Source: NASDAQOMX and own creation

The object of this thesis will be to estimate the fair value of DSV as of 22nd of February 2012 or the day after the announcement of the 2011 annual report. Strategic and financial analysis will be used to answer whether DSV stock price reveals the company´s fair value and if the stocks is an interesting investment choice for investors with medium to long holding period.

1.2 Problem Statement

The main purpose of this thesis will be to analyse and answer the following question:

What is the estimated value per share of DSV when only published data is be used?

The thesis will demonstrate that while using different methods to value the price per share the estimated price per share will fluctuate between methods. Given that the estimated price per share will be different from the published stock price could indicate the trading price is not reflecting its true value or potential value.

In order to estimate the value of DSV the analysing will be split into two parts, a strategic analysis and a financial analysis. In the strategic analysing the following issues will be looked at, overall strategy of DSV, SWOT analyses and what is the strategic position and direction of DSV. The financial analysing will be based on external and published data such as, annual reports from 2007 through 2011 and share prices.

The sub question is:

Is DSV overestimating the goodwill on their balance sheet and how does the goodwill affect the return on invested capital (ROIC)?

More detailed goodwill analysis is in chapter 4.6.

1.3 Thesis Structure

To make a valuation of DSV it is important to decide wisely which models and valuation methods to use so that the result will be accountable. The following models and methods were chosen:

- Strategic Analysis
- Financial Analysis
- Forecasting
- Valuation

The above methods will each have individual chapters within in thesis; the structure of the thesis is shown below in figure 2

Figure 2 - Structure of the thesis

Source: Own creation

1.4 Methods and Models

The next step is to have a brief description of the chapters and their purpose and what models will be used. The information will be gathered through secondary sources and DSV annual reports. All analysis will be performed by the author using the data and information gathered and the relevant models and methods that are generally accepted by both the business world and the academic community.

1.4.1 Method

The intent of this thesis is to estimate the value of DSV using only published data available to everyone. The analysing will probably be more detailed than the average investor would do and therefore the analysing is more like an informed investor would do when deciding to buy, sell or hold DSV stock. The analysing will be structured as follow.

Chapter 2: DSV A/S

This chapter will cover a historic overview of the company, including an examination of the ownership structure, organizational issues, management and finance as well as the markets in which the company operates. The main purpose of this chapter is to generate a good overview of the company.

Chapter 3: Strategic Analysis

The strategic analysis will be split into two parts, internal and external analysis. Cash flow estimates and other forecast will be based indirectly on the strategic analysis and therefore the company's strategy must be concrete.

Chapter 4: Financial Analysis

Here past performance will be evaluated using annual reports. There will be an equity overview of changes in the equity, balance sheet and the income statement will be reformulated. Breakdown of return on invested capital will be done. Also an in-depth analysing of goodwill will be conducted from the annual report as goodwill accounts for a high percentage of the company's total assets.

Chapter 5: Forecast

Estimation of future cash flows and future prospects will be generated in this chapter, the foundation for these forecasts will be content matter already discussed in the preceding chapters.

Chapter 6: Valuation

Here the actual valuation of the company will be done using the information and assumptions from previous chapters. Two models will be used:

- Discounted Cash Flow (DCF) model
- Multiple valuation

Before using these models it is vital to determine DSV cost of capital, i.e. the company´s Weighted Average Cost of Capital (WACC). Also in the valuation chapter there will be usage of sensitivity analysis to determine how changes in certain variables will affect the estimated share price of DSV.

Chapter 7: Conclusion

Main conclusions of the thesis will be presented and discussed.

Chapter 8: Perspective

Purpose of the perspective is to expand the project and provide new perspective on the work and results.

1.4.2 Models

The methodology structure is explained above but to fully utilize it, it is important to use a wide array of models, to summarize the usage of the strategic analysis below is a brief description of the models that will be used in the strategic analysis and in the valuation.

Strategic analysis:

The purpose of the macro-environment analysis is to determine what opportunities and threats are for DSV and what external factor might impact the company. The PESTE model will be used to analyse the macroeconomic factors and influences that can affect the freight transportation industry.

Industrial analysis will be done to analyse competition in the industry. Porter's Five Forces model will be used to analyse the competitive structure of the industry and the model suggest that competition in an industry is rooted in its underlying economic structure and goes beyond the behavior of current competitors.

Internal analysis can determine the company´s strength and weaknesses. Porter's Value Chain model will serve the purpose of analysing DSV internal matters. With Porter's Value Chain it is possible to identify resources and capabilities inside the company, in order to recognize cost drivers and organizational efficiency. The VRIO framework that is based on Resource Based View (RBV) will be used but the framework is used to see if companies have sustainable competitive advantages over their competitors.

Finally the result from the above analyses will be summarized into SWOT and will reflect on the key conclusion.

Valuation:

Discounted cash flow (DCF) model will be used for discounting free cash flow (FCF) to estimate the present value of DSV and therefore the estimated share price of DSV shares.

Multiple valuations is sometimes referred to the "quick and dirty" method to value company´s shares using certain ratios and selected multiples will be compared with DSV competitors.

It is necessary to determine the required rate of return on the company's stock using the capital asset pricing model (CAPM) it is also essential to calculate the company's cost of debt given the capital structure and to do that the weighted average cost of capital (WACC) will be used.

1.5 Limitation

There are some limitations when writing a thesis only based on published information's due to irrelevance and limited resources. Relying on information published by DSV and other data gathered by secondary sources contains some limitation and must therefore be taken at an arm´s length. Data will be collected from various sources such as annual reports, quarterly reports, analysis and other financial information from DSV. Data gathered from DSV must be categorized as subjective because companies have an interest in making their annual reports as positive as possible.

DSV consist of three divisions Air & Sea, Road and Solutions but in the strategic analysis and valuation DSV will be analysed from a single brand perspective instead of analysing each division separately. DSV pursues a general strategy for all three divisions.

From mid year 2007 the world of finance has been a dynamic environment and because this thesis is written over a time period of several months some relevant information and data might develop and change during the writing process. Therefore all information released after the announcement of the 2011 annual report will not be used.

Theory used in this thesis is well recognized academic literature from respected scholars with high expertise within the field and should therefore be relevant for this thesis.

2. DSV A/S

2.1 History

DSV was founded in 1976 by 10 independent Danish haulers, since the establishment of the company is has achieved rapid expansion and international presence mainly through acquisitions of competitors and maintained a key position in the global transport industry.

DSV was listed on the Copenhagen Stock Exchange in 1987 and was at the time focusing on the Danish transport market but that changed in 1989 when their vision to enter the international transport market was made with the acquisition of two competing export companies Borup Autotransport A/S and Hammerbro A/S-Bech Trans[1]. In 1997 and 1999 DSV acquired Samson Transport Co A/S and Svex Group A/S continuing to broaden their international presence. In 2000 the biggest step in the company´s history was taken by the acquisition of DFDS Dan Transport Group, which led to a new era and strategy[2]. It strengthened their global network but they also entered new market segments such as overseas transport to US and Asia Pacific markets.

In 2005 DSV's position in the air and sea transport industry was further strengthened with the acquisitions of the German company J.H. Bachmann, the following year DSV acquired the Dutch company Frans Maas and advanced its position from being a Scandinavian player to being a true Pan-European road transport and logistics player. In 2008 DSV acquired the Belgium company ABX Logistics and gained presence in South America and is now present in all continents. Since 2008 there has been a mergers and acquisitions timeout and capital has been allocated into buy-back of DSV shares and increase in dividend payout.

DSV is one of Denmark's most successful international companies; it is listed on the NASDAQOMX in Copenhagen and is included in the OMXC20 index as one of the 20 most actively traded stocks. As mentioned above DSV has mainly grown through acquisitions of several companies from 1989 to 2008 but from 2008 their growth has mostly been organic.

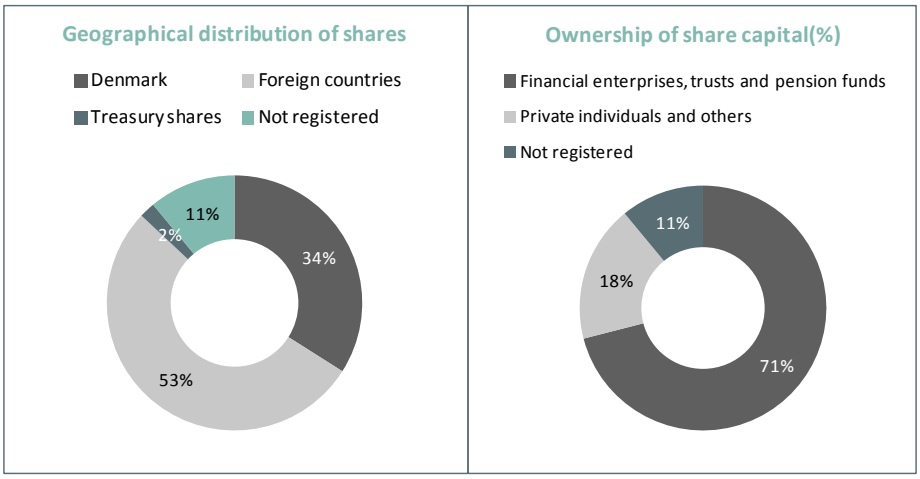
In 2001 DSV separated their operations into three divisions, Road, Air & Sea and Solutions, further discussion in chapter 2.5.

[1] www.dsv.com
[2] www.dsv.com

2.2 Ownership

Ownership of DSV consists of investors with diverse horizons and different investment strategies. There is only one class of shares listed for DSV and therefore no shares carry any special rights over others. Below are geographical and segment overviews that show the ownership structure of the shares as of 31.12.2011.

Figure 3 - Overview of Ownership



Source: DSV annual report 2011 and own creation

The largest 25 of these shareholders own about 40% of the entire share capital and there is only one shareholder with ownership of more than 5% of the share and thus required by law to give public notices of their holding. The largest individual owner as of 31.12.2011 is Lone Pine Capital LLC with 5.4% ownership of the shares. Lone Pine Capital is a privately owned hedge fund. There has not been much change in ownership structure from 31.12.2010 both looking at the geographical distribution and the compositions of shareholders.

According to (Thomson, 2008) there should be a complete interest alignment between large and small investors in terms of maximizing the firms profit because all parties receive return in accordance to the amount of invested capital.

2.3 Management

To better understand DSV as company it is vital to establish an overview of the company internal functions.

2.3.1 Board structure

Management of most companies in Scandinavia follows the two-tiered board system and DSV is not an exception of that it consists of a supervisory board and management board (Thomson, 2008). DSV supervisory board is called the board of directors and the management board is called the executive board. The board of directors is elected by shareholders and the board members are typically non-executive directors, the board of directors then selects the executives that handles day to day operations and also sits on the executive's board. Four out of seven boards of director's members are independent[3].

In the traditional Scandinavian two-tiered model the board of directors may and can include members of the staff and are thus elected by the employees of the company (Thomson, 2008). That is not the case with DSV. In appendix 1 is a figure of the model.

The board of directors supervises the overall vision, strategies and objectives for DSV, whereas the executive's board is responsible for the day to day management and implementation of the strategy.

2.3.2 Remuneration

One of the roles that the board of directors has is to decide the salaries, share options or cash bonuses for the executives based on the company's performances[4]. But it is not stated in the annual report for 2011 how the boards decides how the incentive program is comprised, how much is based on financial results and on other measurements. The board of directors is paid a flat salary and is therefore does not receive any share options or cash bonuses.

2.4 Strategy and financial targets

2.4.1 Elements of strategy

One of the main goals for DSV is to strengthen their position among the world's leading transport and logistics companies by providing efficient services to their customers.

All three divisions of DSV are using the same strategy to achieve the goals set for them, below is the elements of DSV strategy as it was published in the annual report for 2011.

[3]DSV Annual report 2011
[4]DSV Notice of Annual General Meeting 2012 No 437, 23 February 2012

Figure 4 - Elements of the DSV strategy

Source: DSV annual report 2011

The strategy of DSV is based on the following elements shown in table 1.

Table 1 – Elements of the DSV strategy

Element	Overview
Customer Focus	Offer one-stop shopping model within all customer segments that would allow customers to focus on their core business. Increasing demand for solutions that are tailored to the customer's business area.
Growth	Opportunities to win market share both through acquisitions and organic growth.
Organization	Decentralized organizational structure focusing on empowerment and direct communication channels at all levels to facilitate smooth information flow between management and employees.
Asset Light	A flexible business model which means that DSV does not invest in fixed assets in the form of trucks, ship or aero planes. This implies comprehensive outsourcing and has certain benefits.
Business Processes	Are optimized on an ongoing basis to increase productivity and enhance the focus on customer profitability and revenue per shipment.

2.4.2 Financial targets

DSV focuses on increasing the return on invested capital (ROIC) and this should be achieved through increased earnings and a reduction of invested capital. Targets are set for DSV as a whole and for each division. Table 2 consist DSV long term financial targets.

Table 2 – Long term financial targets

Targets	DSV	Air & Sea	Road	Solutions
Growth in freight volume*		Above market volume		
EBITA margin	7%	7-8%	5%	7%
Conversion ratio	30%	35%	25%	25%
ROIC before tax (including goodwill)	25%	25%	25%	20%

Source: DSV annual report 2011

*Growth is defined as growth in freight volume on the markets where DSV operates

EBITA margin is operation profit before impairment of goodwill and special items multiplied by 100 and divided by revenue and the conversion ratio is EBITA multiplied by 100 and divided by gross profit and finally ROIC before tax is EBITA multiplied by 100 and divided by average invested capital including goodwill and customer relationship. These three ratios are good indicators whether DSV is fulfilling their financial targets set by the board of directors.

Target for capital structure for DSV are solid financing structure to increase the return on invested capital and have sufficient financial flexibility to meet the strategic objectives. The target set for financial gearing ratio is 2.0 to 2.5, the net interest bearing debt to EBITDA ratio may exceed 2.5 in extraordinary periods due to major acquisitions[5].

Free cash flow is what remains after operating and investment activities and DSV aims to spend the free cash flow on:

- Repayment of net interest bearing debt in periods when the financial gearing ratio is above the capital structure target
- Acquisitions if there are attractive candidates
- Distribution to the company's shareholders by means of share buy-backs and dividends

From March 2010 DSV has been buying-back shares using the Safe Harbor method to hedge the incentive programs and adjust the capital structure in accordance with the corporate strategy.

For 2012 DSV has allocated non recurring expenses in order to reduce overhead cost. This is done to make DSV enable to meet future challenges and maintain the positions as best in class in terms of productivity and profitability in order to achieve the company's targets.

[5]DSV Annual report 2011

2.5 Division overview

DSV is a global supplier of transport and logistics services and the group has more than 20,000 employees worldwide and subsidiaries in more than 60 countries[6]. DSV is separated into three divisions and all divisions are using the same strategy as mentioned before, more specific financial and strategic detail are in the following subchapters. In table 3 is an overview of few key numbers from the income statement of DSV from 2007 to 2011.

Table 3 – Overview from the income statement

Disvision		2007	2008	2009	2010	2011
Air & Sea	Revenue	8.845	13.307	13.307	18.436	18.145
	Gross profit	1.857	2.998	3.424	3.795	4.090
	EBITA	691	906	929	1.213	1.355
	Conversion ratio*	37,21%	30,22%	27,13%	31,96%	33,13%
Road	Revenue	21.943	18.987	17.256	19.726	20.985
	Gross profit	4.808	3.993	3.914	4.105	4.280
	EBITA	998	874	597	771	834
	Conversion ratio*	20,76%	21,89%	15,25%	18,78%	19,49%
Solutions	Revenue	4.111	5.141	5.522	4.400	4.580
	Gross profit	1.130	1.221	1.561	1.460	1.483
	EBITA	222	212	196	268	278
	Conversion ratio*	19,65%	17,36%	12,56%	18,36%	18,75%
DSV A/S	Revenue	34.899	37.435	36.085	42.562	43.710
	Gross profit	7.704	8.175	8.898	9.320	9.819
	EBITA	1.882	1.936	1.703	2.202	2.426
	Conversion ratio*	24,43%	23,68%	19,14%	23,63%	24,71%
	Net profit	1.114	1.233	191	1.194	1.449

*Source: DSV annual report 2011 and own creation, *Conversion ratio (EBITA/Gross profit)*

2.5.1 DSV Air & Sea

Revenues between 2010 and 2011 decreased about 2.5% because of lower average freight rates in 2011 compared with 2010 however EBITA increased between the years because of an increase in freight volume as well as higher gross profit because of decrease in directs costs and therefore the conversion ratio increased between the years.

The Air & Sea division goal is to roll out some of their IT system and only use one IT system as of 2013 that should hopefully enable DSV to facilitate efficient business processes and lower their IT cost.

[6]DSV Annual report 2011

In the first half of 2011 there was a strong growth both in sea and air freight however the global economic crisis caused a slowdown in activity in the second half of the year. Therefore the market development for 2012 is in great uncertainty but DSV expects that sea freight volume will grow by 4-5% in 2012 and air freight measured by volume will be in line with 2011.

2.5.2 DSV Road

Increased revenue generating of the Road division has mostly been through organic growth between 2010 and 2011. The current market position and strong European network at DSV Road is the main reason for the organic growth in most countries that the division operates in. Revenues, gross profit and EBITA have been increasing from 2010 and all of the division revenue comes from Europe. The customer portfolio of the division comprises of small and medium sized companies as well as a number of large global customers.

DSV Road operates almost only with one IT system in almost all the European locations and that platform enables the division to offer the customers more efficient business process and online booking and track and trace functionalities.

The European markets were characterized by uneven development in 2011 as the severity of the impact of the economic crisis and uncertainty differed in various countries[7]. Southern Europe experienced stagnation and recession whereas Northern and Eastern Europe saw a more positive development. Because of uncertainty in the European economy market development for 2012 is subjected to great uncertainties. Still DSV management is fairly optimistic and expects the overall European road transport market to grow by 1-2%.

2.5.3 DSV Solutions

Organic growth explains about 6.3% of revenue growth between 2010 and 2011. All of the division revenue is from different parts of Europe. DSV Solutions goal is to grow faster than the market and expanding its market positions among leading European logistics providers and doing so with organic growth. To achieve their goal the division works closely with the other two divisions of DSV in offering integrated services that gives the customers competitive advantages.

[7]DSV Annual report 2011

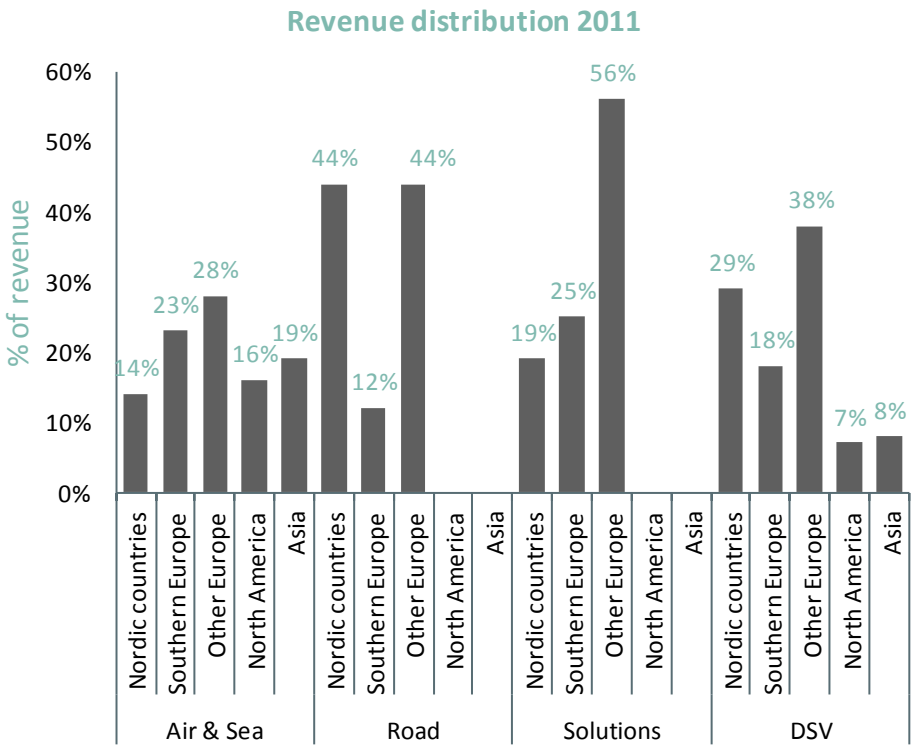
As the other two divisions of DSV, Solutions is working on implementing one IT system. The main reason for this implementation is to support the division goal of offering efficient logistics services which allows customers to monitor the financial and operational efficiency of their orders.

Logistics demand rose in the first part of 2011 however the second half of 2011 the market development declined because of uncertainty about the European economy. DSV expects that growth in 2012 will be about 1-2% and hopes to gain market share and improve productivity and capacity utilization.

2.5.4 Revenues of DSV

In figure 5 is an overview of how revenue of DSV are distribution between country segments.

Figure 5 – Revenue distribution



Source: DSV annual report 2011 and own creation

As shown on the figure above about 85% of DSV revenue is coming from countries in Europe and because of that the macroeconomic development of Europe is important for DSV as a company. DSV assumes in their annual report for 2011 that the situation will continue to become more stable in the markets in which the company operates in.

From 2010 revenues and EBITA have been increasing from the decline that occurred in 2009 while gross profit has been increasing from 2007.

2.6 Summary

DSV has evolved a lot since its foundation in 1976 and has been a successful investment choice in the NASDAQOMX Copenhagen stock exchange. The company is mostly a product of acquisition of other companies until the economic crisis started and affected them in 2008. The company is divided in three divisions, Air & Sea, Road and Solutions and all of them are using the same strategy.

The government system of DSV is set up by a model that has proved to be very efficient (Thomson, 2008). Compensation to managers is done through an incentive plan which is linked to the company's performance. The ownership of the shares is very well distributed between investor and there is no one with majority voting rights and there is only one class of shares.

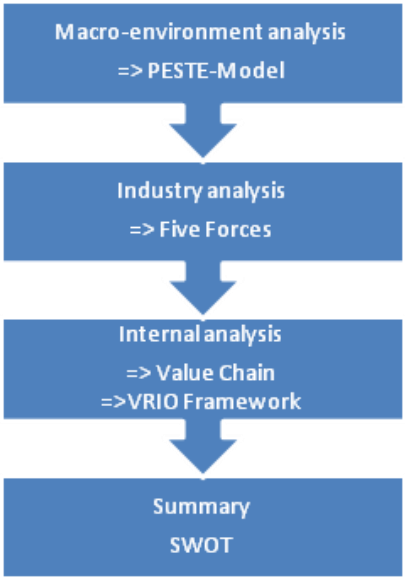
DSV has set an overall strategy for their three divisions and financial targets, some they have reached and some they have not. It seems that the company is regaining the revenues and EBITA after the decline in 2009 but is still of course very dependent on the macroeconomic development in Europe.

3 Strategic Analysis

The purpose of the strategic analysis it to analyse the non-financial value drivers of DSV. By using the strategic and financial analysis they will provide information and insight into future earnings potential. The main objective in this chapter is to identify and analyse internal and external factors that have an impact on DSV. DSV will be analysed as a single entity since all three divisions of the company are using the same strategy and a large part of the company´s revenues are generated in Europe.

In figure 6 is an overview of how this chapter will be constructed, first is the external analysis which will assess the external environment affecting the freight transportation industry. Second is the industry analysis which will provide an outside-in perspective on the competitive situation within the freight transportation industry. Third is the internal analysis which will identify and analyse the value creating activities within the company and finally a summary using SWOT which will summarize the company´s strengths and weaknesses and opportunities and threats.

Figure 6 – Overview of strategic analysis models



Own creation

3.1 External analysis

The external or macro environment analysis will be conducted using the PESTE framework and Porters five forces model will be used to analyse the transporting industry.

3.1.1 PESTE framework

In the PESTE framework factors are divided into political, economic, social, technological and environmental factors. The framework is a useful strategic tool for identifying and understanding factors that may affect the industry growth or decline, attractiveness and direction. The traditional PESTE framework consists of the factors below affecting each part of the framework (Johnson, Scholes & Whittington, 2008).

- Political – e.g. Government stability, taxation and foreign trade regulations
- Economic – e.g. Business cycles, GDP trends, interest rates and unemployment
- Social – e.g. Demographics, lifestyle changes, consumerism
- Technological – e.g. New discoveries, speed of technological transfer, rates of obsolescence
- Environmental – e.g. Climate change

Political – The political and regulatory factors will be analysed together because the legislation is controlled by the policy makers in individual countries and also in the European Union (EU). The internal European market is a single market where free movement of goods, services, capital and persons is ensured and in which European citizens are free to live, work, study and do business[8]. This has been an advantage for the European businesses to locate and recruit skilled workers from other European countries without major complications.

In 2008 the EU established a new climate policy that is a major challenge for the transporting industry, where the main effect from the policy is that CO_2 emission should be reduced by 10% in 2020 from the CO_2 emission levels in 2005 in transport, housing and agriculture and more renewable energy should be used[9]. The aim of the policy is to restructure the EU transportation system in whole, reduce transportation by road and guide it more towards rail and waterborne transport. Also there is a risk that the EU will attempt to increase cost in terms of tax or technological requirements on the road transportation in the near future.

EU legislation about driving and resting times is very strict. The maximum driving time per day is 9 hours and after each 4.5 hours of driving the driver must take an uninterrupted break for 45

[8] http://europa.eu/legislation_summaries/internal_market/index_en.htm
[9] http://www.dtl.eu/Nyheder/DTL%20mener/Klima.aspx

minutes. The legislation has set to reduce accidents related to transporting in roads. Laws on competition in the EU implies that large companies must have approval from the EU Commission before they can merge, that is to prevent large companies that dominate the market to acquire smaller companies and delete competition. This has not been a problem for DSV because the companies within the transportation industry do not have large market share. Since DSV is a Danish company and Denmark is part of the EU the political risk is very low.

DSV is only partly affected by some of the regulations mentioned above because of their asset light model which transfers most of the cost due to regulation changes on to its subcontractors. This will of course translate into higher prices for DSV but it will not require direct capital investment to upgrade the trucks, airplanes and ships. However EU policy towards more rail transportation could affect DSV significantly due to the fact that DSV has no rail transportation and the business structure is heavily dependent on road transportation.

Economic – The financial crisis in Europe that started in 2008 and is still continuing after a fairly good start to 2011 is still affecting the transportation industry in Europe and North America. The crisis has led to a sharp drop of production for several European and international companies and this has affected the transportation industry. The overall health of the global and specially the European economy is vital to DSV.

The real GDP growth for the 27 EU countries for 2008 was 0.3%, -4.3% in 2009, 2% in 2010, 1.5% in 2011 and the forecast for 2012 is 0% stagnation in real GDP growth[10].

Oil price fluctuations have a significant impact on the total price of transport service. DSV concludes customer agreements to separate invoicing of variable fuel surcharges to mitigate this risk[11].

Foreign currency risk could affect DSV but a large proportion of their revenue is in Euros and most of other currency risk is delimited through currency hedging.

Inflation within the 27 EU countries is generally low or around 2 to 2.5% per year. Interest rates are also historically very low in Europe for the period.

[10] http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tsieb020&language=en
[11] DSV Annual report 2011

This shows how demanding the economic environment in Europe is for the moment. DSV is affected by the general world economic development and declining economic activity impacts directly on the demand for transport and logistics service. The idea behind the asset light model is to maintain a flexible cost structure and therefore DSV is faster to adjust their direct cost than their fixed costs.

As mentioned before the majority of DSV revenue is generated in Europe, Northern and Eastern Europe have been showing better results than Southern Europe and market outlook is more positive for the Northern and Eastern part of Europe.

Social – The transportation industry was very affected by the financial crisis that is still ongoing. It has reflected in reduction of freight volume because of decrease in transportation by consumers and companies around the world.

More environmental awareness is possible being generated among consumers and companies. In recent years energy consumption has been increasing in Europe and that could affect consumers and companies to think more about the environment. Therefore many companies in the transportation industry have generated a Corporate Social Responsibility (CSR) policy as part of their strategy. DSV has implemented a CSR policy and it is determined by four areas, human rights, labor rights, the environment and anti corruption, which is then implemented into contracts with their subcontractors. It is then vital for DSV to fulfill their CSR policy so that the subcontractors are willing to use the policy.

Technological – Keeping up with technological advancements is important for the transporting industry whether it is in IT systems or new technology in trucks, airplanes or ships. Being up to date could help optimizing processes. DSV is implanting a new IT system in the Road division and therefore all three divisions are mainly using one IT system and that should help DSV to optimize business processes and service their customers more efficiently. It is important for company like DSV to have the best IT system as possible in the fierce competitive environment that the transportation industry is.

Environment – The transportation industry has wide range of problems regarding the environment like CO_2 emissions and noise problems for example. The environmental impact on DSV is mostly caused by the transport activities carried out by their subcontractors. A reduction of the

environmental impact can be achieved mainly through DSV dialogue with and requirements of its subcontractors. DSV could use their CSR policy to enlighten their subcontractors about their environmental strategy.

3.1.2 Porter's Five Forces

The Porter's Five Forces framework was developed by Michael Porter in 1979 and is used for industry analysis and business strategy development. Using the framework can indicate which factors are influencing DSV, who its main competitors are and how the company can gain competitive advantage. It also suggests that competition in an industry is rooted in its underlying economic structure and goes beyond the behavior of current competitors (Porter M. E., 1979). According to Porter the earning potential in an industry is affected by five forces that are shown below in table 4 and upon which the definition is based on (Johnson, Scholes & Whittington, 2008). To have as good overview as possible it is necessary to look separately at each division in this analysis.

Table 4 – Overview of Porter's Five Forces framework

Forces	Definition
Threat of Entry	Profitable businesses that yield high returns will attract new firms. Scale and experience: here can economic of scale me extremely important. Is there a high capital investment required to entry? Access to supply or distribution channels is important. Legislation or government actions can affect possible entry.
Threat of substitution	Often managers focus on their competitors in their own industry and neglect the threat of possible substitutes. Extra-industry effects are when a substitute comes from outside the incumbents industry and should not be confused with competitor's threats from within the industry.
Bargaining power of buyers	Customers are essential for the survival of any business. But sometimes customers – here buyers can have such high bargaining power that their suppliers are hard pressed to make any profit at all. Concentrated buyers, where a few large customers account for the majority of sales, buyer power is increased. Low switching cost is when buyers can easily switch between one supplier or another, they have strong negotiating position and can squeeze suppliers who are desperate for their business.
Bargaining power of suppliers	Suppliers are those who supply the organization with what it needs to produce the product or service. Concentrated suppliers are when few producers dominate supply; suppliers have more power over buyers.

	High switching cost, if it is expensive to move from one supplier to another, then the buyer become relatively dependant and correspondingly weak.
Competitive rivalry	Competitive rivalries are organizations with similar product and service aimed at the same customer group. Competitors are of roughly equal size there is the danger of intense competition as one competitor attempts to gain dominance over others. Industry growth rate is important, when growth is strong an organization can grow with the market but in situations of low growth or decline any growth is likely to be at the expense of rival. Industries with high fixed cost tend to be highly rivalrous. Existence of high exit barriers tends to increase rivalry. Low differentiation within the products or service can cause increased rivalry because there is little to stop customers from switching between competitors.

A figure of Porter's Five Forces can be viewed in appendix 2.

3.1.2.1 Threat of entry

One of the possible threats of entry is good earning potential within the transportation industry, the global transport industry has evolved significantly over the recent decades. Freight measured per ton has been increasing from 1970 and markets are getting back in shape after the financial crisis that started in mid 2007. There has been a great growth increment in the industry over the past years and has mainly been driven by increased international trade.

There are typically two ways to enter a new market or market segment and that is with establishing a new transporting company or when an existing company enters new markets. With the establishment of a new company it usually does not pose a threat due to their small size and their lack of distribution network. The second possible threat is when an existing company enters a new market and gains market share from the current operative in the market.

Air & Sea division

Competition in the field of Air & Sea is very high because of many suppliers in the market but DSV is one of the top ten players[12]. Looking at both air and sea freight the ten top companies have a market share of about 43.8% of which DSV has about 2.1% market share. They gained that position after their acquisitions of ABX Logistics. The world market for air and sea freight consists of many suppliers therefore there is no one with large market share. Most suppliers provide both

[12]DSV, Capital Markets Day 2011

kinds of services that are air and sea freight transportation. About 41% of DSV revenue are generated within the Air & Sea division.

The air and sea freight transportation market is relatively easy to operate in as companies often do not own the equipment but instead outsource the service to airlines and shipping companies. There are several things that affect the earning potential within this business, the size of the companies and their transportation network. These factors can have a positive effect on the earning potential therefore it can be important for companies to grow larger through acquisitions or organic growth. There is no heavy capital investment needed to enter this market because of the similar business model the current suppliers use.

Therefore the barrier to entry is low and not much capital investment is needed or economies of scale as leasing and outsourcing is possible, the switching cost in the industry is low, looking at all those factors it is safe to say the market has little barriers to enter.

Road division

The Road divisions can be placed in the same category as the Air & Sea division, there are many suppliers in the market and severe competition to attract customers. DSV market position is ranked number three in Europe in regarding to revenue[13]. About 49% of DSV revenue is generated within the Road division.

Because most of the suppliers within the road transportation in Europe use a similar model as DSV there are low entry barriers to enter the market. Therefore heavy capital investment is not needed and no large fixed costs to undertake. Also because of the internal market within Europe there are no significant barriers to establish a transporting company with transporting network through Europe. There is also a low switching cost and low level of differentiation in the industry that furthers lowers the entry barriers.

Solutions division

The Solutions divisions' role is to establish long term business relationship with their customers. This is necessary because many companies today are outsourcing the transporting and logistic part

[13]DSV, Capital Markets Day 2011

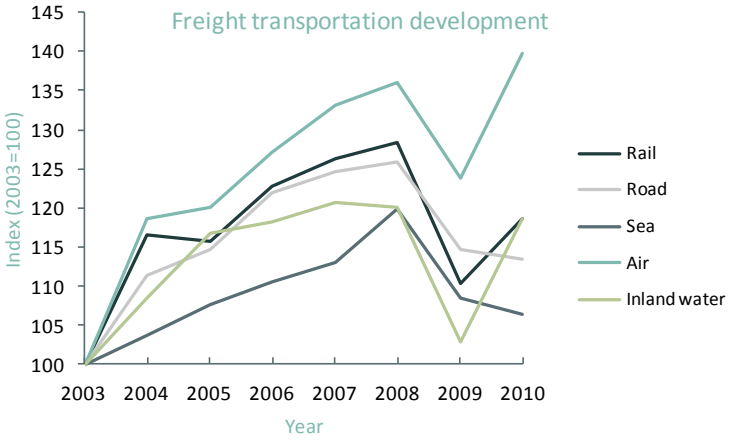
of their supply chain. DSV is a small player and is not among the five biggest players in the logistics solutions[14].

The industry has relatively high barriers to enter because of the need of complete IT logistic system and capital investment for it. Collaborate with other divisions such as Air & Sea and the Road division in order to offer the customers a fully integrated transporting solution and the final point is the necessity for know-how. Therefore the threat of new entrants is low.

3.1.2.2 Threat of substitutes

The threat of substitutes in the transporting industry is relatively low because most of the companies in the industry are offering air, sea and road transportation. As mentioned before in the PESTE analysis there is a considerable political focus on moving road transportation to a more environmental friendly transportations such as rail and maritime transports. In figure 7 is the development of freight transportation per ton from 2003 to 2010.

Figure 7 – Development of freight transportation in Europe



Source Eurostat[15] and own modification

Looking at the figure above it can be assumed that some of the politician's goals are being reached as there has been more increase in sea, inland water and rail freight transportation than road. But air freight transportation has had the most relative increase in freight volume from 2003. It can therefore be assumed that the pressure that politicians are putting on the transporting industry is partly working but their goal is to decrease CO_2 emission with more environmental transportation.

[14]KUEHNE & NAGEL, Capital Market Day 2011
[15]http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/data/main_tables

Since most companies in the transporting industry have integrated air, sea and road freight transportation in the business model there is only one substitute for them and that is moving freight by rail. DSV has no plan to integrate rail network into their business model unlike Kuehne & Nagel that have over 20 years used rail in their model and have been gaining market share in previous years[16]. This could be a weak link for DSV in near future or when CO_2 emission code will be more widely used.

3.1.2.3 Bargaining power of buyers

The customer aspect for DSV is built up off well diversified customers groups that are split into small and medium sized and they are the key segment for DSV and on the other hand large global customers. Because of how the customer group is constructed there should not be much bargaining power for customers within the small and medium sized group because of their size. But large global customers can have some bargaining power because of their size and volume of product to move.

However after the downturn of the global economic the consequences for DSV were decrease in demand and overcapacity in freight volume. Because of that bargaining power of buyers did increase for some time. But with actions of the freight transportation suppliers to reduce capacity in the market the bargaining power of buyers was eliminated. But there are more factors than price that buyers are looking at, things like flexibility, reliability and stability are also important when choosing a supplier.

Switching cost for buyers also matters for their bargaining power. Low switching cost is when buyers can easily switch between suppliers or they have strong negotiating position.

Thus the normal condition is that bargaining power for small and medium size customers should be low but higher for large global customers.

3.1.2.4 Bargaining power of suppliers

Suppliers for DSV are companies providing trucks, airplanes, ships and warehouses where DSV operates. It is possible to evaluate the bargaining power of suppliers by defining the numbers of suppliers, the switching cost to change suppliers and their level of differentiation.

[16]KUEHNE & NAGEL, Capital Market Day 2011

Air & Sea division

The air and sea market is increasingly dominated by fewer and larger suppliers, the suppliers are shipping and airline companies. The suppliers in the sea freight market are companies Maersk Line, Hapaq-Lloyd and CMA CGM all with large assets on their balance sheet. Suppliers in the air freight market are companies like Lufthansa, KLM, SAS and DHL all with large balance sheet like the sea freight companies.

DSV and the companies mentioned above have all been affected by the financial crisis and the consequences of the crisis. Overcapacity and low freight rates meant that the companies had to remove capacity from the market by temporarily removing some of the airplanes and ships from the market. The air and sea market was on a recovery path in 2010 but changed again in the second half of 2011. The development impacted the sea freight market in particular, surplus capacity resulting in falling freight rates, the market also experienced several rate increase warnings from the shipping companies, most of which never materialized. The air freight market saw a similar development, although less turbulent.

The level of differentiation and the cost of switching between suppliers for the air and sea markets is defined as low. But for the suppliers in whole they have a high level of bargaining power based on small numbers of suppliers and their control of capacity levels.

Road division

Most of DSV suppliers in the road division are European independent carriers. As a result of the financial crisis many carriers were left with overcapacity problems and need to cut down on their assets to reduce capacity. In 2010 and 2011 the balance between supply and demand in the European road transport market improved. With these changes from going from overcapacity to a scarce hauler capacity in 2010 and 2011 DSV suppliers gained more bargaining power and that caused an increase in the price to DSV. The switching cost between suppliers in the road division can be defined as low because of little differentiation between suppliers.

Thus in normal economic conditions the level of bargaining power of suppliers can be defined as low but when market conditions are tough their bargaining power does increase.

Solutions division

The same development has been in the Solutions division as mentioned in the two divisions before. Recovery in 2010 and first half of 2011 but markets started to decline in the second half of 2011 in step with the growing uncertainty about the European economy. The suppliers for the Solutions division are owners of warehouses and suppliers of material for DSV logistics operations.

The bargaining power of suppliers here has the same trend as in the sea, air and road freight market. Their bargaining power was lower in 2008-2010 due overcapacities in their warehouses but that changed in 2010 and 2011 as demand and supply for warehouses did stabilize and therefore bargaining power of suppliers can be defined as moderate. The switching cost between suppliers can be defined as low.

3.1.2.5 Competitive rivalry

There are many companies providing the same service as DSV therefore there is no big market leader within any of the divisions. Thus the competition within the freight transporting industry is intense. Growth in the air and sea market in 2011 was about 3% for the sea market segment and there was DSV growth below the market, the air market segment did not experience any increase in freight volume but DSV gained about 5% market share. The road freight transporting market in Europe rose about 2-3% in 2011 while DSV Road division increased their market share about 6% when measured in total freight volume. Finally the market growth within the solutions market was about 2-3% when DSV Solutions divisions gained market share about 2% measured by number of order lines.

The intensity of competition between providers in the transport industry is influenced by several different factors including competition, size of the companies and the availability of service. As mentioned before there are not high barriers of entry for the sea, air and road market however the entry barriers to the solutions markets are high.

The industry is characterized by many factors and low profit margins because of how many companies are competing. Due to globalization there has also been a huge growth in the industry over the past several years. There are many small players within the market and it is likely that there will be mergers and acquisitions in coming years with the effort to gain market share and increase revenue and profit.

3.2 Internal analysis

3.2.1 Porter's Value Chain

According to (Porter M. E., 1985) competitive advantage cannot be understood by looking at a firm as a whole therefore Porter's value chain will be used to examine activities that DSV performs and how they interact is necessary for analysing the source of competitive advantage. The original value chain is designed with references to a manufacturing firm. Organizations activities are divided into two main categories, primary and support activities and together they form the organizations value chain. The primary activities are split into five main categories whose ultimate function is to create and deliver a product or service; the categories are (Johnson, Scholes & Whittington, 2008):

- Inbound logistics – receiving, storing and distributing inputs
- Operations – transforming inputs into products
- Outbound logistics – collecting, storing and distributing products
- Marketing and sales – create awareness around the product
- Service – enhancing and/or maintaining a product

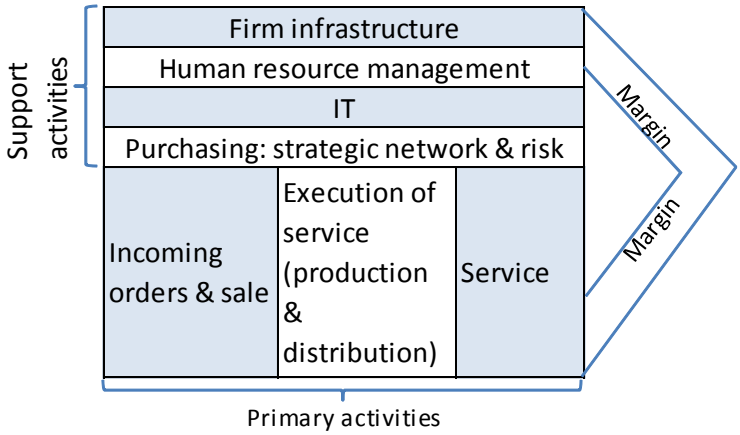
Next are the supporting activities but their mission is to help the primary activities to improve their efficiency and effectiveness, the supporting activities are the following:

- Procurement – acquiring inputs for the primary activities
- Technology development – research and development (R&D), know-how and procedures
- Human resource management – recruit, train, rewarding people within the organization
- Firm infrastructure – consists of general management, planning, finance, accounting, legal and government affairs

A figure of Porter's Value Chain can be viewed in appendix 3.

Because the original value chain was based on a manufacturing firm it is necessary to adjust the value chain to analyses DSV internal matters, it is important to identify if DSV has some competitive advantages. Figure 8 shows the adjusted value chain.

Figure 8 – Adjusted Value Chain



Source: Porter's value chain and own modification

As shown on the figure above the primary activities for DSV are three instead of five in the original value chain, they are incoming orders and sale, execution of the service (production and distribution) and finally service. These are the factors that mostly affect DSV as a freight transporting company. In the following analysis three primary activities and one support activity will be analysed.

3.2.1.1 Incoming orders, sales and service

This part of DSV operations is vital for the company because here is where the organic growth is created, in order to increase their revenue DSV must constantly be working on getting new business. In recent years DSV has been very imaginative when it comes to making new business connection with new customers. For example the "Get Custer" program in Sweden where employees and the public work as agents for DSV, they can tip DSV of new customers and collect points for doing so. If the new customer starts ordering from DSV the agent receives points and when the agent has gathered enough points he will be rewarded with cash[17].

The sales and service function is very dependent on superior IT systems therefore is DSV rolling out some older IT systems to make them fewer and at the same time implementing one global IT system for most operations within the company. With this implementation of a new IT system staff of DSV and their customers gain more and better information about their orders and tracking of their shipments. In mid 2007 DSV introduced a new approach within the company to cut down

[17] DSV Moves No.2 2009

cost through Lean approach in many areas such as working hours, postage and vehicles to name some. One of consequence of this is that all bookings, shipment orders and billing are done electronically.

Incoming orders, sales and service is an essential part of the DSV value chain, new contacts to customers are made here and creation of organic growth.

3.2.1.2 Execution of the service

In service companies like DSV the employees are the most important link in the value chain in the implementation of the service. They manage day to day communication with the customers. DSV is heavily dependent on key personnel with special professional skills and know how about the customer. Thus DSV does much to attract and retain qualified and committed staff. DSV is much aware of the importance of their staff and therefore with constant focus on staff conditions to create an attractive workplace. Senior staff members are offered incentive pay as part of their remuneration schemes, by this DSV has managed to maintain a low employee turnover over the years[18].

3.2.1.3 Purchasing: The strategic network and risk

This part is an adaptation to the support activity procurement. The purchase part of the value chain is the strategic network DSV has with their various suppliers such as financial institutions, petroleum companies and subcontractors and many other companies which supply goods and service to DSV. With this strategic network DSV is able to minimize their risk, risk can be defined as the probability that an event occurs. Events for example like increase in fuel price, striking employees, change in exchange rate and debtor's bankruptcy are all risks facing DSV.

DSV customer portfolio is well diversified with a good combination of small and medium size companies and few large global companies. Their customer's profession is spread across many numbers of areas, for example pharmaceutical companies, agriculture companies and many other. DSV is therefore not dependant on few suppliers or/and customers' and that helps the company to minimize their risk in the market.

Risk factors can be divided into two categories, market risk and specific risk. Market risk can be described as general changes in the market and thus these changes will affect all the companies in

[18]DSV Annual report 2011

the market, this risk is very hard to handle. While the specific risk can be split into operational and financial risk, the specific risk only affects the individual company but not necessary their competitors, companies can to some extent manage this risk. The more a company diversifies itself the lower the specific risk is, however a company cannot fully diversify all the specific risk away. If a company wants to achieve higher earnings it must be willing to take more risk, it is up to the executive board to determine in which direction the company should go concerning the risk it takes. In the end it will be the shareholders that will pay the price of the risk the company has taken. Because DSV is using the asset light model they can adapt quickly to changes in the market and with this model they are quicker to adjust direct costs than adjusting the fixed costs.

3.2.2 Resources based view

The resources based view (RBV) of the firm provides a useful perspective for explaining firm growth and sustainable competitive advantage ((Penrose, 1959),(Peteraf, 1993)). According to (Barney, 1991), firm resources includes all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enables the firm to conceive of and implement strategies that improve its efficiency and effectiveness. A competitive advantage can be attained if the current strategy is value creating and not currently being implemented by present or possible future competitors.

To gain sustainable competitive advantages it is necessary to add on the previous definition that other firms are unable to duplicate the benefits of the strategy (Barney, 1991). The RBV is an approach to study the firm's internal strength and weaknesses and is based on the two following assumptions. It is assumed that a firm can be thought of, as bundles of productive resources and those different firms possess different bundles of these resources, this is the assumption of resource heterogeneity. Also it is assumed that some of these resources are either very costly to copy or inelastic in supply, this is the assumption of resource immobility.

To have the ability to have competitive advantages and sustainable competitive advantages it is required to identify the firm's potential key resources and evaluate whether these resources fulfill the VRIO framework presented by (Barney, J., 2002). The VRIO framework acts like a four step analysis for which resources firms can gain competitive advantages, it can also provide an answer

how well firms are managed. There are four questions that are needed to answer in the VRIO framework.

- Value: Do a firm's resources and capabilities enable firms to respond to environmental threats and opportunities?
- Rarity: Is a resource currently controlled by only a small number of competing firms?
- Imitability: Do firms without resources face a cost disadvantage in obtaining or developing it?
- Organization: Are a firm's other policies and procedures organized to support the exploitation of its valuable, rare and costly to imitate resources?

A general answers to these questions and DSV position are summarized in table 1 and 2 in appendix 4 and how the relationship between the VRIO framework and organizational strengths and weaknesses. The chain is as strong as its weakest link and therefore dependent on the resource displaying each of the four characteristics to be a possible source of sustainable competitive advantage (Barney, 1991). In table 5 are answers for the four questions above for DSV.

Table 5 – DSV answers to the VRIO framework

Question	Answer for DSV
Value	Here the value involves in the asset light model and DSV flexibility to general changes in the economic environment. They have been able to increase their revenue and decrease their costs. Therefore the answer here is yes.
Rarity	Even though the asset light model helps DSV to adjust to changes it is not rare and relatively easy to copy. Therefore the answer here is no.
Imitability	Because it is easy to copy the asset light model and easy to establish business connection with trucking, shipment companies and airlines to start up a business. The answer is no.
Organization	Even though DSV has through the years established much know-how in the freight transporting business it is easy for current or new companies in the market to imitate their resources. Therefore the answer here is no.

Using the tables in appendix 4 it can be assumed that DSV has competitive parity meaning that DSV is no better or worse off than its competitors and this option would leave DSV at a normal economic level.

3.3 Summary - SWOT analysis

The SWOT analysis will summarize DSV internal strengths and weaknesses as well as the external opportunities and threats the company is facing. SWOT summary is in table 6.

Table 6 – SWOT summary

Strengths	Weaknesses
• Asset light model	• No rail network
• Acquisition expertise	• No sustainable competitive advantage
• Extensive network	
• Decentralized management	

Opportunities	Threats
• Expansion of Solutions division	• Intense rivalry and low differentiation
• Expansion into railway	• Regulations decreasing freight transport by road
	• Environmental impact concerns
	• Economic stagnation in Europe

Strengths

The asset light model enables DSV to adjust their costs rapidly in response to changes in the economic environment. DSV strategy allows them to avoid large capital investments when there are changes in the regulation and technological environment. Even though DSV has been focusing on organic growth from 2008 due to the state of the financial markets they have much experience and know-how in the acquisitions process and that knowledge will help them when the financial market will stabilize. DSVs road network within Europe allows them to service a large geographical market and because of decentralized management it allows them to response very rapidly in the localized markets.

Weaknesses

DSV has no rail network and no plan to implement one into their strategy. That could hurt them in the future because of regulations changes that are trying to shift freight transport from the roads

to the rails, sea and waterborne transportation. DSV has no sustainable competitive advantages that competitors cannot mimic or acquire from other companies.

Opportunities

If DSV manages to expand the Solutions division with emphasis on customer growth that provides opportunities in the other divisions simultaneously. Given that new customers at the Solutions division would very likely have the need for the services that the other divisions are offering. Also if DSV would integrate railway into their business model it could generate sales opportunities that are not currently available to DSV.

Threats

There is high level of competition and many companies within the freight transportation industry and that reflects in low levels of differentiation and switching costs puts pressure on profit margins. While the Road division generates most of DSV revenues any regulation aimed to decrease freight volume by road could have a negative impact on DSV revenues. Also if DSV and their subcontractors do not keep up with changes in the CO_2 emissions it could have a negative media and public opinion and could lead to decrease in revenue. DSV services are highly correlated to the general economical outlook, particularly in Europe. If the current stagnation in Europe does not change it could hurt DSV in establishing and maintaining their customers relationship and revenue generation.

4 Financial Analysis

The aim of this chapter is to create a clear overview of DSV financial profitability and indentify DSV core financial drivers, key financial ratios and goodwill analysis. The following analysis is primarily based on DSV 2011 annual report but in some cases however it is necessary to analyse previous annual reports.

To have the best possible financial analysis it is important that the reported financial statement will be reformulated. The reason for this reformulation is to separate operating activities and financing activities apart as the operating activities are a central part in creating value for the future, whereas the financing activities show how the operating activities are financed. The following items from the annual report will be reformulated, equity statement, balance sheet and the income statement.

By reformulating the balance sheet it will be possible to identify the invested capital (IC) and with adjusting the income statement it will be possible to interpret the net operating profit less adjusted tax (NOPLAT) and with these two parameters it is possible to calculate the return on invested capital (ROIC).

4.1 Accounting policies

To ensure that the financial statements used for the financial analysis are identical for the whole period that is being analysed it is necessary to look at the accounting policies used in DSV annual report and see if there have been any changes over the years.

DSV submits their annual reports in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and Danish disclosure requirements for listed companies, this has been done from 2005.

DSV accounting policies have not changed in the period and the company has announced that adopting new IFRS standards as required by law has not had significant changes on its financial statement. Therefore it is not necessary to make adjustments to the reported financial statements to ensure comparability for the period.

The independent auditor, KPMG has reviewed and approved DSV annual reports for the period and according to them the reports gives a true and fair view of DSV financial position in

accordance with IFRS as adopted by the EU and Danish disclosure requirements for listed companies.

4.2 Equity statement

The main purpose of reformulating the equity statement is to map all the changes in equity and include them in the following analysis, if using only the net result from the income statement it is possible that it does not include value changes incorporated directly in the equity. With this reformulating it detaches and illustrates how the equity is comprised between the company´s shareholders and the total income. To fully identify the value changes made on the equity statement it is important to isolate the so called dirty surplus, dirty surplus is other comprehensive income, net of tax, an expression of the entries that are entered directly in equity outside profit and loss under current accounting legislation and guidelines.

The formula below shows the relationship between equity EOY (end of year) and equity BOY (beginning of year):

Equation 1 – Equity relationship

$$\text{Equity EOY} = \text{Equity BOY} \pm \text{total income} \pm \text{changes in owner's equity}$$

The equity statement from the 2011 annual report for DSV can be seen below in table 7 as well as a summary of the reformulated equity statement from 2007-2011 can be seen in table 8. In appendix 5 is the equity statement for 2007-2010 shown as well as the full reformulated equity statements.

Table 7 – Equity statement

Statement of changes in equity 2011								
DKKm	Share capital	Hedging reserve	FX Translation reserve	Retainted earnings	Proposed dividends	Total share capital	Non-controlling interests	Total equity
Equity at 1 January 2011	209	-110	66	6.279	105	6.549	36	6.585
Total comprehensive income after tax		4	-8	1.144	105	1.245	9	1.254
Share-based payments				34		34		34
Dividends distributed					-105	-105	-5	-110
Purchase and sale of treasury shares, net				-2.418		-2.418		-2.418
Capital reduction	-19			19				
Acquisition/sale of non-controlling interest				-16		-16	-10	-26
Dividends on treasury shares				4		4		4
Tax on transactions with owners				-14		-14		-14
Total changes	-19	0	0	-2.391	-105	-2.515	-15	-2.530
Equity at 31 December 2011	190	-106	58	5.032	105	5.279	30	5.309

Source: DSV annual report 2011 and own modification

Table 8 – Summary of reformulated equity statement

Reformulated Equity statement (DKKm)	2007	2008	2009	2010	2011
Equity BOY	3.844	3.649	3.857	5.530	6.585
Total comprehensive income after tax	1.031	962	234	1.360	1.245
Transactions with owners	-1.273	-629	1.428	-349	-2.524
Other	47	-125	11	44	3
Change in equity	-195	208	1.673	1.055	-1.276
Equity EOY	3.649	3.857	5.530	6.585	5.309

Source: DSV annual reports 2007-2011 and own modification

Transactions with shareholders in the years 2007 and 2008 were mostly through dividend payout and buy-back of shares because of the incentive program within DSV. In 2008 DSV bought ABX Logistics and because DSV debt ratio was high in the beginning of the year 2009 they issued new shares to fund the acquisition. In 2010 most transactions with shareholders were through dividend payout and buy-back of shares to fulfill the incentive program. However in 2011, DSV according to their free cash flow strategy used excess cash to double their dividend payout and bought back about 11% of outstanding shares in the year 2011.

4.3 Balance sheet

Because traditional balance sheet as published in annual reports are not organized for assessments of operating performance and value because it mixes together operating assets, non-operating assets and source of financing. Therefore reformulation of the balance sheet will be done based on methods from (Koller, Goedhart & Wessels, 2005). The most fundamental rule of accounting is the equation below:

Equation 2 – Balance sheet

$$Assets = Liabilities + Equity$$

Assets consist primarily of operating assets (OA), such as receivables, inventory, and property, plant and equipment (PPE). Liabilities consist of operating liabilities (OL), such as accounts payable and accrued salaries and interest bearing debt (D), such as notes payable and long term debt. Equity (E) consists of common stock, possibly preferred stock and retained earnings. Using a more explicit breakdown of assets, liabilities and equity will lead to an expanded version of the balance sheet relation:

Equation 3 – Expanded balance sheet

$$Operation\ assets = Operating\ liabilities + debt + equity$$

The traditional balance sheet equation mixes together operating liabilities and source of financing therefore it is necessary to rearrange the formula to separate them that leads to invested capital:

Equation 4 – Invested capital

$$Operating\ assets - Operating\ liabilities = Invested\ capital = Debt + Equity$$

The equation reflects more accurately capital used for operations and the financing provided by investors to fund those operations. Now it is possible to find the drivers behind return on invested capital (ROIC) and what affects it.

The table below shows the development in invested capital and which factors affect the invested capital, table 9 below is shown including goodwill but in appendix 6 there is a table excluding goodwill. Companies according to (Koller, Goedhart & Wessels, 2005) use a little less than two percent of cash of their gross profit as operating working capital here one percent of cash will be deducted of gross profit and defined as an operating activity.

Table 9 – Reformulated balance sheet

Reformulated balance sheet (including Goodwill) DKKm	2007	2008	2009	2010	2011
Operating assets					
Intangible assets	5.114	8.436	8.721	8.772	8.683
PPE	3.795	5.093	4.975	4.782	4.503
Investment in associates	7	7	9	19	26
Deferred tax assets	328	257	402	449	430
Fixed assets total	**9.244**	**13.793**	**14.107**	**14.022**	**13.642**
Trade receivables and other securities	6.438	9.185	7.399	8.405	8.565
Cash (1% of gross profit)	77	82	89	93	98
Operating current assets	**6.515**	**9.267**	**7.488**	**8.498**	**8.663**
Total operating assets	***15.759***	***23.060***	***21.595***	***22.520***	***22.305***
Operating liabilities					
Retirement benefit obligation or similar	405	810	884	871	975
Deferred tax liabilities	300	429	449	576	527
Provision non-current	178	379	562	309	391
Provision current	147	288	373	332	215
Trade payable	5.857	7.802	7.108	7.833	7.938
Corporate tax	183	68	0	228	427
Total operating liabilities	***7.070***	***9.776***	***9.376***	***10.149***	***10.473***
Invested capital	**8.689**	**13.284**	**12.219**	**12.371**	**11.832**
Net working capital	-555	-509	-1.888	-1.651	-1.810
Financial assets					
Securities non-current	118	149	96	121	144
Cash (for financial activities)	306	434	278	270	269
Financial assets held for sale	121	82	211	174	16
Financial assets total	**545**	**665**	**585**	**565**	**429**
Financial liabilities					
Non-current and current financial liabilities	5.504	10.057	7.257	6.235	6.952
Liabilities associated with assets held for sale	81	35	17	116	0
Financial liabilities total	**5.585**	**10.092**	**7.274**	**6.351**	**6.952**
Net financial liabilities	***5.040***	***9.427***	***6.689***	***5.786***	***6.523***
Equity	3.649	3.857	5.530	6.585	5.309
Invested Capital = Debt + Equity	**8.689**	**13.284**	**12.219**	**12.371**	**11.832**

Source: DSV annual reports 2007-2011 and own modification

4.4 Income statement

DSV revenue and expenses as published in the annual reports incurs both through operating and non-operating activities. It is therefore necessary to reformulate the income statement to find the net operating profit less adjusted tax (NOPLAT) which is the after tax profit generated from core operations, excluding any gains from non-operating assets or financing expense such as interest. NOPLAT is the profit available to both debt holders and equity holders (Koller, Goedhart &

Wessels, 2005) whereas net income of the profit is only available to equity holders. There are few things that are important to keep in mind when calculating the NOPLAT:

- Interest is not subtracted from operating profit because interest is considered a payment to the company's financial investors, not an operating expenses and by reclassifying interest as a financing item, NOPLAT becomes independent of the company´s capital structure.
- All non-operating income generated from assets that have been excluded from invested capital should be excluded when calculating NOPLAT.
- Reported taxes are calculated after interest and non-operating income, therefore a function of non-operating items and capital structure. NOPLAT must focus only on operation activities and therefore the effects of interest expenses and non-operating income must be removed from taxes. To calculate operating taxes it is important to start with the reported taxes add back the tax shield caused by interest expense and remove the taxes paid on non-operating income. The resulting operating taxes should be equal to the hypothetical taxes that would be reported by an all-equity, pure operating firm.

The bullets above are based on (Koller, Goedhart & Wessels, 2005). Below in table 10 and 11 are the reformulated income statement and the calculations of taxes on operating and financial activities.

Table 10 – Reformulated income statement

Reformulated income statement (DKKm)	2007	2008	2009	2010	2011
Revenue	34.899	37.435	36.085	42.562	43.710
Direct cost (Cost of goods sold)	27.195	29.260	27.187	33.242	33.891
Gross profit	***7.704***	***8.175***	***8.898***	***9.320***	***9.819***
Other external expenses	1.862	1.843	1.988	1.955	2.092
Special items	28	-78	688	5	0
Staff costs	3.716	3.994	4.671	4.644	4.752
Share of associate's profit, net of tax	7	3	8	-1	-7
Operating profit before special items (EBITDA)	***2.091***	***2.413***	***1.543***	***2.717***	***2.982***
Amortization, depreciation and impairment	244	402	536	519	549
Operating profit before interest and tax (EBIT)	**1.847**	**2.011**	**1.007**	**2.198**	**2.433**
Taxes (of operating profit)	537	477	406	601	656
Net operating profit less adjusted taxes (NOPLAT)	**1.310**	**1.534**	**601**	**1.598**	**1.778**
Financial income	109	121	202	116	119
Financial expenses	-370	-522	-749	-654	-557
Net financial items	**-261**	**-401**	**-547**	**-538**	**-438**
Net financial items after taxes	**-196**	**-301**	**-410**	**-404**	**-329**
Consolidated profit (Annual report)	***1.114***	***1.233***	***191***	***1.194***	***1.449***
Non-controlling interests	-47	-6	-6	-10	-9
Net profit	***1.067***	***1.227***	***185***	***1.184***	***1.440***

Source: DSV annual reports 2007-2011 and own modification

Table 11 – Calculation of taxes

Calculation of taxes on operating and financial activities	2007	2008	2009	2010	2011
Tax rate	25%	25%	25%	25%	25%
Reported taxes	-472	-377	-269	-466	-546
Financial items net	-261	-401	-547	-538	-438
Tax of financial items (Tax shield)	-65	-100	-137	-135	-110
Operating taxes	-537	-477	-406	-601	-656
Net financial items after tax	-196	-301	-410	-404	-329

Source: DSV annual reports 2007-2011 and own modification

4.5 ROIC breakdown

To better understand DSV operating performance of their core operations it is necessary to furhter analyse which factors are influencing the ROIC. Information from the reformulated income statement and balance sheet will be used. ROIC is independent of the debt structure and other items which are not targeted for the core operating activities of DSV. This ROIC breakdown will be based on the ROIC tree from (Koller, Goedhart & Wessels, 2005).

Goodwill will be included in the ROIC breakdown because DSV has through the years grown largely with acquisitions of other companies and the reason goodwill exists on the DSV balance sheet is

because they have paid a premium to book value and used real resources in the acquisition. Thus, when measuring historical performance for DSV goodwill should be included.

ROIC measures how effectively companies allocates the capital invested in its operations. It is defined as the return the company earns on each dollar invested in the business (Koller, Goedhart & Wessels, 2005). ROIC focuses solely on the company's operations and is therefore a better analytical tool to understand the company's performance than return on equity (ROE) and return on assets (ROA). ROE mixes operating performance with capital structure, making peer group analysis and trend analysis less meaningful, ROA is inadequate because the ratio double counts any implicit financing charged by suppliers (Koller, Goedhart & Wessels, 2005).

The equation below shows how ROIC is calculated.

Equation 5 – ROIC calculation

$$ROIC = \frac{NOPLAT}{Invested\ Capital}$$

As NOPLAT and invested capital are independent of the financial structure and non-operating assets, so is ROIC. Using ROIC it is possible to measure how DSV core operating performance has changed from 2007 to 2011, without the effects of financial structure and other non-operating items misrepresenting the analysis. Table 12 contains the calculation of ROIC for DSV from 2007 to 2011.

Table 12 – ROIC from 2007-2011

Calculation of ROIC (DKKm)	2006	2007	2008	2009	2010	2011
NOPLAT	874	1.310	1.534	601	1.598	1.778
Invested capital incl goodwill	8.473	8.689	13.284	12.219	12.371	11.832
Average IC		8.581	10.987	12.752	12.295	12.102
ROIC		15,26%	13,96%	4,72%	12,99%	14,69%

Source: Own creation

As seen above the ROIC for 2007 and 2008 is similar but in 2009 there is an immense change in the ROIC related to the acquisition on ABX Logistics were NOPLAT decreases significantly because of one off restructuring cost paid in connection with the integration of ABX Logistics. If this one off expense would be equal to zero the ROIC for 2009 would be around 10 %. Invested capital also increases noticeably in 2008 because of the acquisition, the largest change was with goodwill

which increased about 62 % which is discussed in more detail in chapter 4.6. Therefore looking at the historical ROIC DSV has been performing relatively well.

4.5.1 ROIC tree

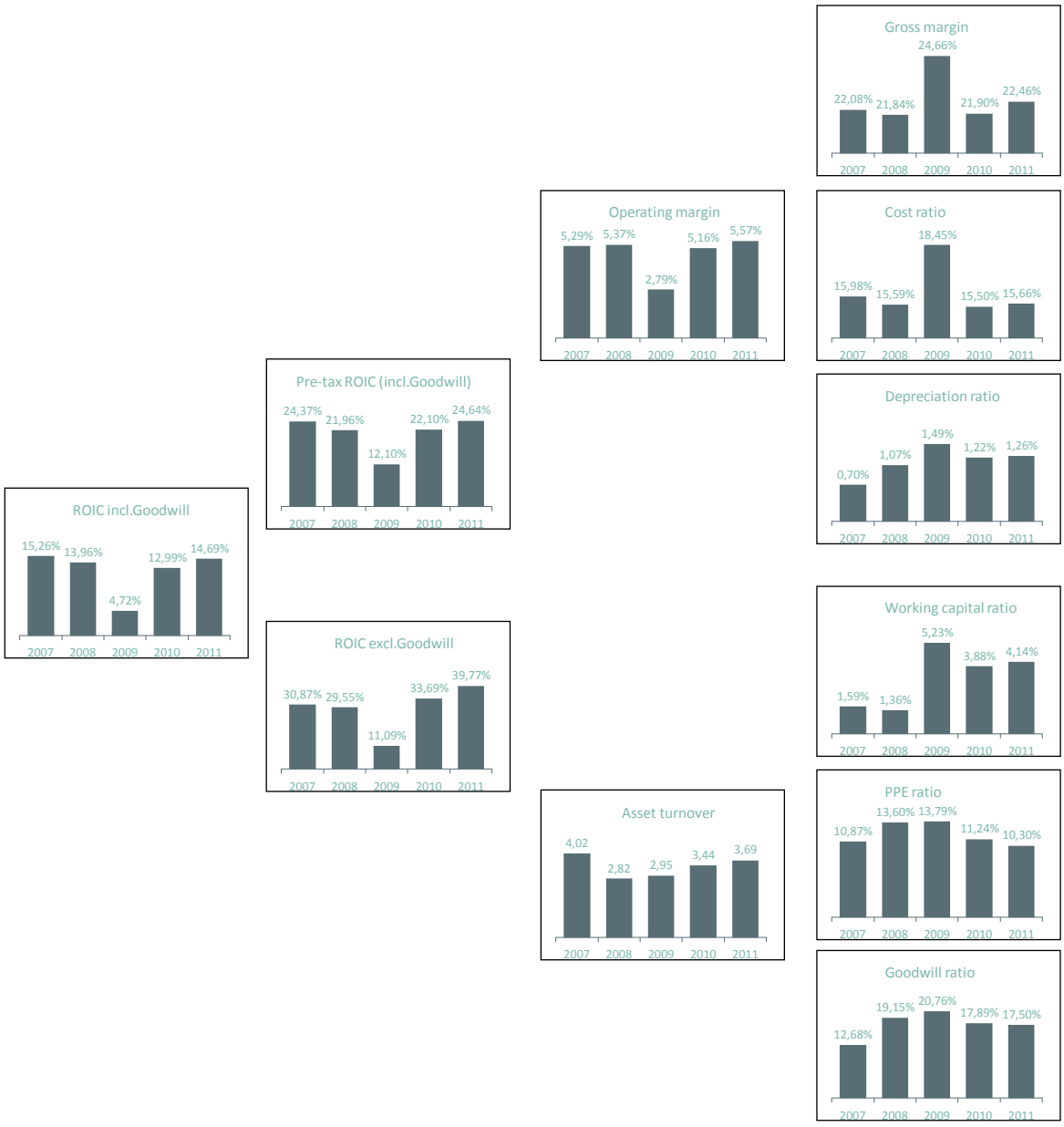
Following analysis of certain ratios and margins will be based on figure 9 on next page. The ROIC tree is separated into four branches; branches 3 and 4 have revenue as a denominator.

As mentioned earlier ROIC including goodwill has been performing well in previous years particularly if ROIC for 2009 is adjusted. DSV acquisitions in 2005 and 2008 have been expanding their balance sheet both in intangible and fixed assets and that has had a negative effect to the ROIC for these years. Pre-tax ROIC has had the same development as ROIC including goodwill because of those acquisitions. Next are two meaningful parameters when analysing ROIC, the operating margin and asset turnover.

Operating margin for DSV from 2005 to 2011 has been stable if 2009 is excluded and indicates that DSV has been able to create enough revenue to pay for expenses like staff cost and payments on loans. The operating margin also reveals the profitability of each DKK of sales as a percentage. A operating margin of 5% shows that the company generates 0.05 ore in profit for every 1 DKK that is generated, therefore all things equal a high operating margin is what companies want.

Asset turnover for DSV from 2005 to 2011 has been increasing escalating from 2008 after the acquisition of ABX Logistics, both invested capital and revenue has been increasing. This is probably related to that DSV and their former acquisitions are making more business synergy. Asset turnover measures the company's ability to generate revenue from invested capital. If used as an inverse, i.e. 1/ATO = IC/Revenue, it shows the amount of invested capital which is used to generate 1 krone of sales. If the ATO is 2 it means that for every 1 krone invested in the company, revenue of 2 krone is generated. All things equal it is attractive for companies to have high ATO (Penman, 2010). In appendix 7 are the formulas behind each graph in figure 9.

Figure 9 – ROIC tree



Source: DSV annual reports 2007-2011 and own modification

4.6 Goodwill analysis

Goodwill is located on the balance sheet and is defined as the amount to which the purchase price exceeds the identifiable assets and liabilities measured to their fair value (Schultze & Weiler, 2010). Goodwill is reviewed annually to determine whether impairment has incurred. Goodwill is recognized at cost in the balance sheet and subsequently measured at cost less accumulated impairment losses.

DSV goodwill has been increasing extensively from 2006 with the acquisition of Frans Mass in 2006 and the acquisition of ABX in 2008. The development of goodwill is demonstrated in table 13. It is obvious how these two acquisitions increased the goodwill, customer relationship and total assets of DSV. At the same time equity did not change much except in 2009 when DSV raised funds with capital increase and sale of treasury shares because of ABX acquisition in 2008 and in 2011 it decreased again because of DSV buy-back of shares.

As mentioned earlier goodwill is reviewed once a year to find out if impairment on goodwill is necessary. Each division in DSV is responsible for this impairment test and is required to base their valuation on parameters such as revenue development, gross profit, EBITA margin and growth expectations in the terminal period. So far DSV has not impaired the goodwill generated in these two acquisitions which indicates that DSV believes that these acquisitions were successful.

Looking at the ratio between goodwill and total assets it is apparent that goodwill is a high portion of total assets. The ratio has been increasing from 2006 until 2011 which is normal because DSV has been expanding with buying other companies. However if DSV had to impair large amount of their goodwill through retained earnings it would affect the equity therefore DSV is not in a good position to do that.

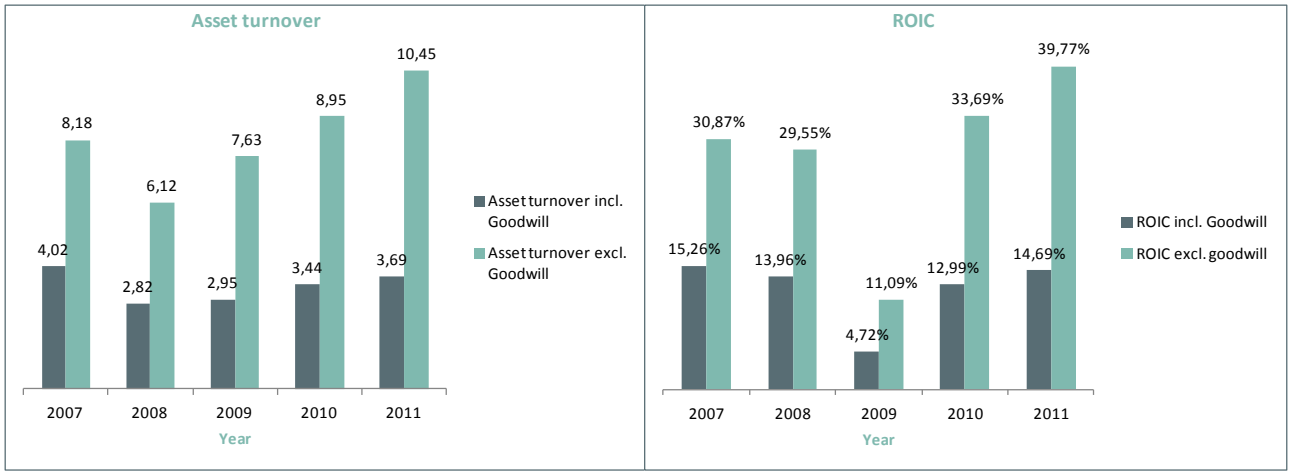
Table 13 – Goodwill development

Year (DKKm)	2005	2006	2007	2008	2009	2010	2011
Intangibles	3.109	4.936	5.114	8.436	8.721	8.772	8.683
Goodwill	2.854	4.252	4.424	7.170	7.491	7.615	7.649
Software	99	148	133	270	361	409	435
Customer relathionship	121	503	477	866	768	675	568
Other intangibles	24	0	0	5	2	2	2
Intangibles in progress	11	33	80	125	99	71	29
Equity	3.323	3.844	3.649	3.857	5.530	6.585	5.309
Total assets	10.449	16.062	16.304	23.725	22.180	22.085	22.734
Goodwill/Equity	85,89%	110,61%	121,24%	185,90%	135,46%	115,64%	144,08%
Goodwill/Total assets	27,31%	26,47%	27,13%	30,22%	33,77%	34,48%	33,65%
Changes between years:							
Intangibles		58,76%	3,61%	64,96%	3,38%	0,58%	-1,01%
Goodwill		48,98%	4,05%	62,07%	4,48%	1,66%	0,45%
Software		49,49%	-10,14%	103,01%	33,70%	13,30%	6,36%
Customer relathionship		315,70%	-5,17%	81,55%	-11,32%	-12,11%	-15,85%
Other intangibles		-100,00%	0,00%	0,00%	-60,00%	0,00%	0,00%
Intangibles in progress		200,00%	142,42%	56,25%	-20,80%	-28,28%	-59,15%

Source: DSV annual reports 2007-2011 and own modification

It is also essential to look at both ROIC and asset turnover with and without goodwill to identify if these two large acquisitions were a good finance and strategy decision.

Figure 10 – ROIC and asset turnover with and without goodwill



Source: DSV annual reports 2007-2011 and own modification

It seems by looking at the graphs above that DSV has been performing well and reporting high ROIC specially when excluding goodwill. Also looking at asset turnover it seems that DSV is generating high amount of revenue with its invested capital, revenue has been increasing while invested capital both with and without goodwill has been decreasing which reflects in higher asset turnover. Therefore is possible to estimate that the integration of Frans Mass and ABX into DSV business was successful and it geographically diversifies the company operations and enhances the existing infrastructure of DSV.

4.7 Pension obligation

DSV pension obligations are significant in Great Britain, the Netherlands, Belgium, Germany, Sweden and Italy. Significant parts of the pension obligations are not funded. In 2011 the company's pension obligations stood at DKK 2.228 million as compared to the planned assets of DKK 1.253 million, resulting into an unfunded status of DKK 975 million. Unfunded pension obligations will force DSV to make regular cash contributions to bridge the gap between pension assets and liabilities.

4.8 Summary

The financial analysis of DSV was conducted in order to create a clear overview of DSV financial profitability and indentify DSV core financial drivers and key financial ratios.

Reformulating the official financial statement was done to separate operating activities and financing activities as the operating activities are a central part for creating value for the future, whereas the financing activities show how the operating activities are financed.

Thereafter an analysis of ROIC development was conducted in order to see how the profitability of DSV has been developing. ROIC has been positive and relatively stable from 2007 to 2011 when 2009 numbers are adjusted both with and without goodwill therefore DSV has been performing reasonable.

Goodwill analysis indicates that the two large acquisitions of Frans Mass and ABX were successful when comparing and analysing the ROIC and asset turnover for DSV for the analysed period.

In the near future pension obligation will have a impact on DSV cash flow because of pension obligations that are facing the company.

5 Forecast

Fundamental part of company valuation is the forecast i.e. to estimate future cash flow in order to be able to determine the present value of them in the DCF analysis. It is however, not easy to predict the future therefore estimates are calculated with influence from the strategic and financial analysis and also from information from DSV. The forecast will be based on the reformulated balance sheet and income statements.

As mentioned above it is hard to predict the near future therefore the forecast will be split into two parts: the explicit forecasting period and a terminal period. For the explicit period the forecast is based on DSV reformulated statements combined with the knowledge gained from the strategic and financial analysis. While the terminal period assume that DSV has reached a steady state where the company will grow at a constant rate.

The chosen forecast period will be five years because forecasting a longer period will raise some difficulty in forecasting individual items in the reformulated income statement and balance sheet. Therefore the forecast period will be from 2012 to 2016 and 2017 will be the year DSV is assumed to have reached a steady state.

Acquisitions of other companies are virtually impossible to forecast even though it is in DSV strategy to grow through acquisitions to increase revenue therefore there will be no forecast for future acquisitions.

5.1 Income statement forecast

Probably the most important forecast based on the income statement is the revenue forecast. Most of other items in the income statement will be forecast as a percentage of revenue. Therefore it is necessary to have the revenue forecast as accurate as possible. Three revenue forecasts will be conducted or one for each division of DSV and other calculations will be based on the sum of revenue from the three divisions.

5.1.1 DSV Air and Sea

Revenue generation for this division is as mentioned before mainly from Europe or about 65% of total revenue therefore the future macroeconomic development in Europe is important. According

to the International Monetary Fund (IMF)[19] the GDP forecast for 2012 is about 1.4% increase and for 2013 about 1.9% increase for EU. For North America the forecast from IMF for the G7 countries will be used therefore the GDP forecast is about 1.6% increase for 2012 and 2.1% increase for 2013. For Asia IMF forecasts about 6.5% increase in 2012 and 7.1% increase for 2013.

Uncertainty is DSV main concern for the current global economic situation however they predict a growth in the sea freight market and probably a status quo in the air freight market for 2012. However there are growth opportunities in the Asian market and North America while Europe is still recovering from the financial crisis. Cautious growth for the Air & Sea division will therefore be forecasted to be around 3%-4% growth in revenue for the forecasted period.

Table 14 – DSV Air & Sea division

DSV Air & Sea (DKKm)	2006	2007	2008	2009	2010	2011	Average	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	7.582	8.845	13.307	13.307	18.436	18.145	14.408	18.689	19.250	19.924	20.721	21.550	22.412
Change		16,66%	50,45%	0,00%	38,54%	-1,58%	20,81%	3,00%	3,00%	3,50%	4,00%	4,00%	4,00%
% of net revenue		25,34%	35,55%	36,88%	43,32%	41,51%	36,52%	41,88%	42,06%	42,23%	42,42%	42,73%	43,14%

Source: DSV annual reports 2006-2011 and own calculations

5.1.2 DSV Road

All of Road division's revenue is generated in Europe and therefore the revenue is highly influenced by how the European economy is performing. Different areas of Europe have been experiencing different economic changes from 2008, stagnation in South-Europe while Northern and Eastern Europe have been recovering better. As mentioned above the IMF forecast for GDP for EU has some increase for 2012 and 2013. DSV is fairly optimistic that the European road transport market will grow by 1%-2% in 2012. Thus, the growth forecast for the Road Division will be about 1%-3% growth in revenue for the forecasted period.

Table 15 – DSV Road

DSV Road (DKKm)	2006	2007	2008	2009	2010	2011	Average	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	23.401	21.943	18.987	17.256	19.726	20.985	19.779	21.195	21.619	22.159	22.824	23.395	23.862
% change		-6,23%	-13,47%	-9,12%	14,31%	6,38%	-1,62%	1,00%	2,00%	2,50%	3,00%	2,50%	2,00%
% of net revenue		62,88%	50,72%	47,82%	46,35%	48,01%	51,15%	47,50%	47,23%	46,97%	46,73%	46,39%	45,93%

Source: DSV annual reports 2006-2011 and own calculations

[19] http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/weorept.aspx?sy=2009&ey=2016&scsm=1&ssd=1&sort=country&ds=%2C&br=1&pr1.x=73&pr1.y=6&c=001%2C110%2C163%2C119%2C203%2C123%2C998%2C200%2C904%2C901%2C505%2C511%2C205%2C406%2C603&s=NGDP_RPCH&grp=1&a=1

5.1.3 DSV Solutions

The Solutions division differs from the other two divisions as the division offers services within the warehouse and logistics within DSV and to external buyers. The business is of course highly correlated to the economic development in Europe because all of the division revenue is generated in Europe. The limited presence in the European market could provide opportunities for excellent growth in the market. The growth forecast for the Solutions Division will be about 3.5%-4.5% growth in revenue for the forecasted period.

Table 16 – DSV Solutions

DSV Solutions (DKKm)	2006	2007	2008	2009	2010	2011	Average	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	989	4.111	5.141	5.522	4.400	4.580	4.751	4.740	4.901	5.098	5.301	5.487	5.679
Change		315,67%	25,05%	7,41%	-20,32%	4,09%	66,38%	3,50%	3,40%	4,00%	4,00%	3,50%	3,50%
% of net revenue		11,78%	13,73%	15,30%	10,34%	10,48%	12,33%	10,62%	10,71%	10,80%	10,85%	10,88%	10,93%

Source: DSV annual reports 2006-2011 and own calculations

5.2 Costs in the income statement

There are three main cost drivers and three minor cost drivers affecting the DSV income statement:

- Direct cost: comprises of costs paid to generate the revenue per year. Direct costs include settlements of accounts with haulage contractors, shipping companies and airlines.
- Staff cost: includes wage and salaries, pensions, social security costs and other staff cost.
- Other external expenses: includes expenses relating to marketing, IT rent, training and education, office premises, travelling and communications as well as other selling costs and administrative expenses.
- Special items: include material income and expenses not directly attributable to the operating activities of DSV, restructuring costs and other significant non-recurring items.
- Share of associate's profit: proportionate share of the result after tax of associate's
- Net financial items: financial income and expenses include interest, exchange rate gains and losses on and impairment of securities, payables and foreign currency transactions.

All the expenses above have been about 92% to 94% of revenue between 2007 and 2011. DSV has implemented an adjustment program to decrease overhead cost as a non-recurrent expense in 2012 with the agenda to lower staff cost. Direct cost is unlikely to get any lower if DSV is to be able to maintain their organic growth. Thus, direct cost will be estimated as 77% of revenue for the forecast period and staff cost will be estimated as 10.5% of revenue for the forecast period. DSV

has been reviewing the IT system and software and their strategy is to have one IT system for all their divisions therefore they should be able to lower their IT costs. Estimation for other external expense will therefore be 5.3% of revenue for the forecast period. The income statement forecast is in appendix 8.1.

5.3 Corporate tax rate

The current corporate tax rate in Denmark is 25% and it is expected to remain the same in the forecasting period.

5.4 Balance sheet forecasting

Estimations for the reformulated balance sheet for 2012 to 2017 will be forecasted as function of expected revenues and equity in the balance sheet will be used as "the plug" to balance the balance sheet.

Intangible assets

A company records goodwill when the price it paid for an acquisition exceeds the target's book value (Koller, Goedhart & Wessels, 2005). DSV strategy is to grow using organic growth and acquisitions but because it is hard to predict the future, future acquisitions will not be estimated and therefore goodwill will be kept constant at its current level of 2011 over the entire period. Intangible assets less goodwill will be forecasted by looking at the ratio of intangible assets less goodwill against revenue and the development of that ratio from 2007 to 2011 plus the goodwill of 2011 which will be constant. The forecasting growth for intangible assets less goodwill will be 2.5% of revenue for the forecasted period.

Property, plant and equipment (PPE)

PPE will be estimated as percentage of revenue because over a long period company ratios of PPE and revenue tend to be quite stable (Koller, Goedhart & Wessels, 2005).

Cash

As mentioned before in the financial analysis, working cash is estimated to be 1% of gross profit for the forecasting period. The forecasted balance sheet is in appendix 8.2.

5.5 Summary

The above forecast is based on many assumptions and predictions and therefore it is likely that the actual development for DSV will be different from this forecast.

Forecast for the reformulated financial statements can be found in appendix 8. In table 17 below are the most relevant key numbers from the forecast.

Table 17 – Key numbers from forecast

(DKKm)	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	44.625	45.770	47.181	48.846	50.431	51.953
Operating profit before special items (EBITDA)	3.186	3.268	3.369	3.488	3.601	3.709
Operating profit before interest and tax (EBIT)	2.648	2.724	2.817	2.928	3.033	3.133
Net operating profit less adjusted taxes (NOPLAT)	1.875	1.929	1.995	2.074	2.148	2.220
Consolidated profit	1.540	1.585	1.641	1.707	1.770	1.830
Net profit	1.524	1.569	1.625	1.690	1.752	1.812
Invested capital	12.058	12.171	12.310	12.475	12.632	12.782

Source: DSV annual reports 2006-2011 and own calculations

6. Valuation

Valuation of DSV will be the topic of the following chapter. First there will be an introduction of the valuation models used to conduct the valuation of DSV. Internal and external factors which were analysed in previous chapters will be making the ground for the valuation.

There are of course several methods available to make a valuation of a company, these valuations can be divided into two main categories:

- Relative valuation
- Absolute valuation

Valuation models from both methods above will be used and are introduced below.

6.1 Discounted Cash Flow model (DCF)

The chosen valuation method for the absolute valuation will be the discounted cash flow (DCF) model. This type of valuation method has an advantage because it is a long-term valuation technique accounting for future development with horizons that are as long as the analyst finds necessary. The DCF model relies solely on the cash flow in and out of the company, independent of the accounting policies used. Free cash flow is discounted i.e. the cash flow available to all investors both equity and debt holders as well as non-equity investors, at the average weighted cost of capital (Koller, Goedhart & Wessels, 2005).

The two stage DCF model used can be expressed in the following formula:

Equation 6 – Two stage DCF formula

$$EV_0 = \sum_{t=1}^{n} \frac{FCF_t}{(1+WACC)_t} + \frac{FCF_{n+1}}{WACC - g} * \frac{1}{(1+WACC)^n}$$

Where:

EV_0: enterprise value at time of valuation
FCF_t: free cash flow at time t
WACC: weighted average cost of capital
g: growth for the terminal period
n: length of the budget period

The explicit forecasting period is represented in the first part of the formula and discounted with the WACC. The terminal period is the second part of the formula and is based on Gordon's growth model where the growth is expected to have reached a steady state and therefore the growth estimation is kept constant. Valuation using DCF will be done later in chapter 6.6.

6.2 Multiples

The relative valuation model chosen is a more practical multiples-based approach which usually provides a more broad dispersion of results and is therefore highly debatable. This approach is commonly used by analysts and can serve as a quick and dirty tool for valuation and to compare its results with the results from the absolute valuation to evaluate if the absolute models are in a realistic range. When using a multiples based approach the inputs are often market based which makes them relative to market performance and can therefore be useful in a second stage of valuation as it enables comparison of values to comparable firms (Fernandes, 2002).

Calculating and understanding multiples is relatively easy and is therefore an advantage for this valuation method and it enables comparisons between companies within an industry. There are of course many multiples available and they are usually divided into three main groups:

- Multiples based on capitalization (equity value)
- Multiples based on the company value (E+D)
- Growth referenced multiples

Four appropriate multiples have been chosen for the relative valuation and are listed below. They will be used to evaluate the estimated share price from the DCF model for DSV and also compared with the actual share price as of February 22nd 2012 and the share price from the DCF model.

- Price/Earnings – (P/E)
- Price/Book Value – (P/BV)
- EV/EBITDA
- EV/EBIT

Valuation using multiples will be done later in chapter 6.8.

6.3 Weighted average cost of capital (WACC)

When valuating a company with DCF it is necessary to discount each year's forecast of free cash flow (FCF) for time and risk. The weighted average cost of capital (WACC) will provide the required rates of return for debt and equity based on their market based valuation. Because free cash flow is available to all investors the discount factor for free cash flow must represent the risk faced by all investors which makes the WACC the appropriate discount factor. The WACC represents the opportunity cost that investors face for investing their funds in one particular investment instead of others with similar risk. WACC is defined as follows (Koller, Goedhart & Wessels, 2005):

Equation 7 – Weighted average cost of capital (WACC)

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

Where:

D: market value of the company's debt

E: market value of the company's equity

V: total market value of the company

k_d: the cost of debt

k_e: cost of equity

T: the company's operating tax rate

Applying the WACC is relatively straightforward however it has some disadvantages. Using the WACC to discount all future cash flow with a constant cost of capital implies that the company manages their capital structure to a target rate. To estimate the WACC it is necessary to determine the target capital structure, the cost of equity and the cost of debt after tax. In order to reduce uncertainty regarding the calculation of WACC the following assumptions have been made, a constant capital structure throughout the period, constant cost of equity and cost of debt and a constant operating tax rate. In the following sub-chapters different parts of the WACC will be discussed and calculated.

6.3.1 DSV capital structure

The ratio between equity and debt can be viewed as the capital structure of the company. In theory the market value of DSV equity and debt should be used however in practice the book value of net financial obligations and the market value of equity are most often used (Koller, Goedhart & Wessels, 2005). When estimating DSV capital structure the book value of net financial debt and the market value of equity will be used. Table 18 shows the development of the DSV capital structure from 2007 to 2011.

Table 18 – Capital structure

Market value of DSV equity	2007	2008	2009	2010	2011
Closing rate	111,75	56,5	94	123,3	103
Total shares	188.382	182.872	208.699	206.507	185.644
Market value of DSV equity (DKKm)	21.052	10.332	19.618	25.462	19.121
Net financial obligations (DKKm)	5.040	9.427	6.689	5.786	6.523
Historical capital structure					
D/V	19,32%	47,71%	25,43%	18,52%	25,44%
E/V	80,68%	52,29%	74,57%	81,48%	74,56%

Source: DSV annual reports 2007-2011, www.nasdaqomxnordic.com and own calculations

The fluctuations in D/V and E/V have been relatively high in the previous five years. The large increase in D/V ratio in 2008 can be linked to the acquisition of ABX Logistics, decrease in 2009 is linked to the high debt level of DSV at the end of 2008 and the issue of new shares to fund the acquisitions of ABX. The increase in D/V ratio in 2011 is because of DSV shares buy-back program. The average D/V for the period is 27.28% and average E/V is 72.72% and because of the fluctuation in these two ratios it is necessary to take them into account when estimating the future capital structure for the WACC. Thus, for the forecasted period the capital structure will be estimated as the average of previous periods i.e. D/V will be 27% and E/V will be 73%.

6.3.2 Cost of equity

The capital asset pricing model (CAPM) will be used to determine the cost of equity. The CAPM allows investors to determine the appropriate measure of the risk and return for any asset when the markets are in equilibrium. Over the years there has been criticism about the CAPM model because it is based on unrealistic assumptions like the markets are perfectly efficient, all investors can borrow and lend at risk free rate and there is no transaction cost and all investors are equally

rational and have the same expectation of return (Elton, Gruber, Brown & Goetzmann, 2002). Several models have been made in order to estimate the cost of equity, for example the Fama-French three factor model and the Arbitrage Pricing Theory model (APT). Even so the CAPM model is still the most widely used model and is therefore used in this valuation (Koller, Goedhart & Wessels, 2005).

The cost of equity is expressed as follows:

Equation 8 – Cost of equity

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

Where:

K_e: cost of equity

r_f: risk free interest rate

β: the stock's sensitivity to the market (Beta)

$E(r_m\text{-}r_f)$: the expected market risk premium

When using the CAPM the risk free rate and market risk premium are common to all companies it is only the beta that varies across companies (Koller, Goedhart & Wessels, 2005).

6.3.2.1 Risk free rate

When estimating the risk free rate it is not possible to observe them directly in the market. Ideally when estimating the risk free rate the cash flow should be discounted using a government bond with similar maturity as the cash flow. Therefore, the most common proxy is the 10 year government bond (Koller, Goedhart & Wessels, 2005). Using a bond longer than 10 years is not acceptable because they are less liquid than the 10 year bond which could cause stale prices and yield premiums. Therefore, the risk free rate is based on a 10 year Danish government bond. The effective interest rate as of 22nd February 2012 is 1.91%[20]

6.3.2.2 Beta

When measuring the company's stock sensitivity to the market it is helpful to use the Beta because it measures the company's market risk (Koller, Goedhart & Wessels, 2005). It reflects the

[20] http://www.nasdaqomxnordic.com (Bonds-Denmark-3St.I.21 Ticker: DK0009922676)

covariance with the market and since the market portfolio is the portfolio of all stocks, it is possible to measure how much the return on a specific stock on average changes in relation with the market portfolio. Therefore Beta can be interpreted in the following way:

β = 0 risk free investment

β < 1 the investment is less risky than the market portfolio

β = 1 the investment has the same risk as the market portfolio

β > 1 the investment is more risky than the market portfolio

To calculate the Beta it is essential to gather the right data for the calculation therefore a weekly closing price for DSV stocks was gathered and also data for the NASDAQOMX Copenhagen (OMXC20) index. The approach is as follows:

- Chosen period for data is May 8th 2007 to December 31st 2011
- Time series for weekly prices are gathered
- The above is transformed into returns using: $\mathrm{LN}(\mathrm{Price}_1/\mathrm{Price}_{t-1})$
- The volatilities for the market and DSV returns are determined along with the covariance between DSV and the market

Equation 9 – Beta

$$\beta = \frac{\sigma_{im}}{\sigma_m^2}$$

Where

σ_{im}: the covariance between stock i's return and the market

σ^2_m: the variance of the market return

Originally five years of monthly return was used to estimate the Beta but here the weekly data is used to estimate the Beta in order to increase the preciseness of the Beta estimation (Koller, Goedhart & Wessels, 2005).

Using regression with the data gathered the Beta is estimated to be 1,269 with R squared as 0,693. Outcome and graph from the regression are in appendix 9.

6.3.2.3 Market risk premium

The market risk premium is defined as the difference between the market's expected return and the risk free rate. Because the expected return on the market is unobservable and there is no model which has gained acceptance to estimate the market risk premium therefore the market risk premium is an estimation factor. Koller et al. estimate the market risk premium varies between 4.5% and 5.5% while historical estimation often report a number around 8%, these numbers are too high for valuation purposes because they compare the market risk premium versus short term bonds and use only 75 years of data and are biased by the historical strength of the U.S. market.

The chosen market risk premium is therefore 5% in the following calculations. With the information gathered in previous sub-chapters it is possible to calculate DSV cost of equity, the calculation is shown in table 19:

Table 19 – Cost of equity

Cost of equity calculation	
Risk free rate	1,91%
Beta	1,269
Market risk premium	5,00%
Cost of equity	8,26%

Source: own contribution

6.3.3 DSV operating tax

Current corporate tax rate in Denmark is now 25% and will be used in the calculations of WACC and as mentioned in chapter 5 it is assumed the corporate tax rate will not change in the forecasted period.

6.3.4 Cost of debt

DSV has not issued bonds in any stock exchange therefore estimating their cost of debt is a bit hard and also DSV does not have any credit rating from any of the credit rating agencies. By looking at DSV annual report for 2011 and finding the interest expense related to interest bearing debt the cost of debt is about 6.8%. When looking at the yield over U.S Treasuries by the bond rating for Koller et al. companies with credit rating BBB and maturity of their debt about 1-10 years the risk premium is between 2.92% and 3.4%. DSV debt maturity is from the year 2013 to

2016 therefore with risk free rate as 1.91% and the risk premium estimated as 4% the cost of debt before tax is 5.91% and will be used in the WACC calculation.

6.3.5 WACC estimation

Parameters for the WACC formula have been estimated and are the WACC calculations are shown in table 20 below.

Table 20 – WACC estimation

WACC estimation	
Cost of debt	5,91%
Cost of equity	8,26%
Tax	25%
Target D/V	27%
Target E/V	73%
WACC	**7,22%**

Source: own contribution

6.4 Estimating the growth rate in the terminal period

It is important to estimate the constant growth used to calculate the terminal period in the valuation when using the discounted cash flow because the terminal value weights heavily in the final valuation. The terminal period is when a company has reached the steady state and the forecast assumptions are expected to grow with a constant growth rate in the future. DSV has potential to grow more in the future assuming the world economy will recover from the recent financial crisis, DSV has growth potential within the Solutions division and also in North and South America and Asia.

Based on the above the reasonable growth rate will be set at 2.5%.

6.5 Free cash flow

Free cash flow is the cash flow available to all investors and is independent of leverage. It also is the cash flow generated by the company's operations, less any reinvestment back into the business and provides the basis for the DCF valuation. The free cash flow is calculated for the explicit period 2012 to 2017 and is calculated as shown in table 21.

Table 21 – Free cash flow

Free cash flow calculation
NOPLAT
+Depreciation
=Gross cash flow
Change in working capital
CAPEX
=Gross investment
=Free cash flow

Source: own contribution, based on Koller et al (2005)

Gross cash flow is generated with adding back depreciation to NOPLAT both coming from the reformulated income statement and balance sheet. The gross cash flow is the cash flow generated by the company's operations and is available for investment and investors payout, without having to sell non-operating assets (Koller, Goedhart & Wessels, 2005).

Gross investment is subtracted from gross cash flow which then shows the free cash flow. CAPEX includes both changes in PPE and intangible assets. Table 22 shows the calculations for the free cash flow.

Table 22 – Free cash flow calculations

Free cash flow calculation (DKKm)	2012E	2013E	2014E	2015E	2016E	2017E
NOPLAT	1.875	1.929	1.995	2.074	2.148	2.220
Depreciation	538	544	551	560	568	576
Gross cash flow	2.413	2.473	2.546	2.634	2.717	2.796
Change in working capital	-42	-48	-59	-69	-66	-63
CAPEX	802	693	735	776	774	774
Gross investment	760	645	676	707	708	711
Free cash flow	1.652	1.827	1.870	1.926	2.008	2.085

Source: own contribution

6.6 Valuation using DCF

Using the previously stated information calculated above it is possible to calculate the theoretical value for one DSV share using the DCF model. As mentioned before when using the DCF model the free cash flow is discounted with the WACC. Table 23 shows the DCF calculations for one DSV share.

Table 23 – DCF valuation

	Explicit					Terminal
DCF Model (DKKm)	**2012E**	**2013E**	**2014E**	**2015E**	**2016E**	**2017E**
Free cash flow	1.652	1.827	1.870	1.926	2.008	2.085
WACC	7,22%	7,22%	7,22%	7,22%	7,22%	7,22%
Discount factor	0,9326	0,8698	0,8112	0,7565	0,7056	
Present value (PV) of explicit period	1.541	1.589	1.517	1.457	1.417	
Sum of PV of explicit peroid	7.522					
Present value of terminal peroid	31.149					
Enterprise value	38.670					
Interest bearing debt	6.585					
Non-controlling interests	9					
Equity value	32.076					
Outstanding shares	185.644					
Price per share (DKK)	**172,78**					

Source: own contribution

The estimated price from the DCF model is DKK 172.78 per share at February 22nd 2012. The closing share price for DSV at Copenhagen NASDAQOMX the same day was DKK 124.2. Thus, it can be concluded that the share price for DSV is undervalued by investors and it should be recommended that investors should buy DSV shares as a long term investment.

6.7 Sensitivity analysis on DCF valuation

Valuating a company using the DCF model is done with many assumptions and uncertainty. Therefore it could be valid to do a sensitivity analysis on some of the central value drivers in the DCF valuation model. Both growth estimation and the WACC are two of the major factors which affect the outcome from the DCF model and it is obvious from table 23 that the terminal value is a large part of the enterprise value and is highly changeable with the two factors mentioned. When using sensitivity analysis it is possible to focus on how small changes in growth estimation and WACC will affect the share price while other factors are kept fixed. In table 24 are the results from the sensitivity analysis when changing the growth estimations and WACC.

Table 24 – Sensitivity analysis

		WACC				
		6,02%	6,62%	7,22%	7,82%	8,42%
Growth	2,00%	214,74	181,97	156,73	136,69	120,40
	2,25%	228,55	192,04	164,35	142,62	125,13
	2,50%	244,31	203,34	172,78	149,12	130,25
	2,75%	262,48	216,10	182,16	156,25	135,83
	3,00%	283,66	230,61	192,65	164,12	141,92

Source: own contribution

When analysing table 24 it can be observed that small changes in the two factors will have a relatively large influence on DSV estimated share price. Share price is more sensitive to changes in the WACC than the growth estimation.

6.8 Multiples valuation

As mentioned before four multiples will be used for the relative valuation. They are shown below, for each multiples there will be more detailed explanations in each sub-chapter:

- Price/Earnings – (P/E)
- Price/Book Value – (P/BV)
- EV/EBITDA
- EV/EBIT

6.8.1 Price to earnings value

The price to earnings ratio uses the current share price of a company and compares it´s to earnings per share. High P/E ratio could indicate that investors are expecting higher earnings growth in the future compared with companies with a lower P/E. The P/E ratio shows how many times an investor is paying for the company's earnings but the downside of the ratio is it is affected by the capital structure of the company. This ratio is a classic ratio and widely used because it is easy to use and provides a base to understand if a stock is priced reasonable. Koller et al. can exhibit flaws even when comparing companies with identical prospects, since it comingles operating and non-operating items.

Equation 10 – P/E ratio

$$\frac{P}{E} = \frac{\text{Share price (end of year)}}{EPS}$$

Where:

Share price (end of year) is DKK 103

Earnings per share (EPS) is the average of EPS of last four years

Therefore is the P/E ratio 19.99. Using the P/E ratio to estimate the share price of DSV it is possible to use equation 11 below.

Equation 11 – Share price using P/E

$$\text{Share price} = \frac{\text{Net earnings (end of year)} * {}^{P}/_{E}}{\text{Number of shares}}$$

Result from the equation above estimates the share price of DSV to be DKK 156.03 which is slightly lower than the DCF model estimated. Appendix 10 contains the calculated equation 11.

6.8.2 Price to book value

The price to book value ratio is derived from the price per share of the book value, using outstanding shares and equity and the end of year (31.12.11) price per share as listed in the NASDAQOMX in Copenhagen.

Equation 12 – P/B ratio

$$\frac{P}{B} = \frac{\text{Book value per share}}{\text{Price per share}}$$

Where:

Book value per share (end of year) is 28.60

Share price (end of year) is DKK 103

Therefore is the P/B ratio 3.60. The P/B ratio can be plugged into equation 13 to estimate the share price of DSV.

Equation 13 – Share price using P/B ratio

$$\text{Share price} = \frac{{}^{P}/_{B} * \text{Average equity}}{\text{Outstanding shares}}$$

The average equity is derived from the reformulated balance sheet and is the average of equity for the explicit forecasting period. After plugging the data into equation 13 the share price is DKK 109.18 which is considerable lower than the estimated share price from the DCF model. Appendix 10 contains the calculated equation 13.

6.8.3 EV/EBITDA ratio

Using the EV/EBITDA ratio it tells more about the value of company's because it is not dependent on the capital structure (Koller, Goedhart & Wessels, 2005). This ratio is often used as an alternative to P/E ratio to estimate the share price. The EV/EBITDA ratio for DSV is 12.97 and using equation 14 it is possible to estimate the share price.

Equation 14 – Share price using EV/EBITDA

$$\text{Share price} = \frac{\text{Ratio} * \text{Average EBITDA} - \text{Debt}}{\text{Outstanding shares}}$$

After plugging the data into the equation the estimated share price for DSV is DKK 204.55 which is considerable higher than the estimated share price from DCF model. The average EBITDA is the EBITDA forecasted in the explicit period in the reformulated income statement. Appendix 10 contains the calculated equation 14.

6.8.4 EV/EBIT ratio

The EV/EBIT ratio is almost the same as the EV/EBITDA the only difference is that the EV/EBIT ratio is taking into account depreciation and amortization therefore the estimated share price should differ from the EV/EBITDA ratio. For DSV the difference should not be high because they do not have many assets to depreciate and amortize. The EV/EBIT ratio is 15.89 and using equation 15 it is possible to estimate the share price.

Equation 15 – Share price using EV/EBIT

$$\text{Share price} = \frac{\text{Ratio} * \text{Average EBIT} - \text{Debt}}{\text{Outstanding shares}}$$

The estimated share price is DKK 211.10 after plugging the data into the equation. It is of course higher than the estimated share price from the EV/EBITDA ratio and also higher than the estimated share price from the DCF model. The average EBIT is the EBIT forecasted in the explicit period in the reformulated income statement. Appendix 10 contains the calculated equation 15.

6.9 Multiples comparison with competitors

The DFC model is only as accurate as the forecasts it relies on. To confront the valuation from DCF model a multiples comparison between competitors of DSV will be done. Multiples comparison is done with similar companies in the transporting industry and they should have similar trends and exposed to comparable risk factors.

The firm chosen are the Swiss based Kuehne & Nagel, the German Deutsche Post, the Danish DFDS A/S and finally the Dutch TNT Express NV. All have their headquarters based in Europe and are competing in the same industry.

Using multiples comparison does have its imperfections, it is important that the companies being compared do have a similar growth potential and follow the same accounting standards which is the case with the chosen companies for the comparison.

Valuation is based on expectation on future values and therefore should the multiples comparison also do that. A further supporting argument for using forward looking multiples is that they are usually normalized values, reducing any impact from past one time charges (Koller, Goedhart & Wessels, 2005). The chosen multiples were gathered from Bloomberg. Bloomberg is a well respected source of information.

6.9.1 EV/EBITDA, P/E and P/B

It is the opinion of Koller et al. (2005) that when using multiples comparisons EV/EBITDA ratio should always be used because it is not dependant on the capital structure of the company. Table 25 shows the three chosen comparisons multiples.

Table 25 – Multiples comparisons

Company	EV/EBITDA	P/E	P/B
DSV A/S	10,09x	19,13x	4,46x
Kuehne & Nagel	13,18x	24,48x	5,24x
Deutsche Post	4,61x	12,60x	1,51x
DFDS A/S	5,01x	6,51x	0,41x
Tnt Express NV	13,07x	NA	1,77x
Average	9,19x	15,68x	2,68x
DSV A/S (thesis estimations)	**12,97x**	**19,99x**	**3,60x**

Source: Bloomberg and own contribution

Looking at the EV/EBITDA multiple and comparing it with the other companies, DSV is fairly valued and is in line with the average for the chosen companies. The P/E multiple for DSV from Bloomberg is in line with the estimations from the thesis and the P/E multiple for DSV is positioned above the average level. The P/B multiple for DSV is above the average level but still in line with Kuehne & Nagel which is probably the most similar company to DSV.

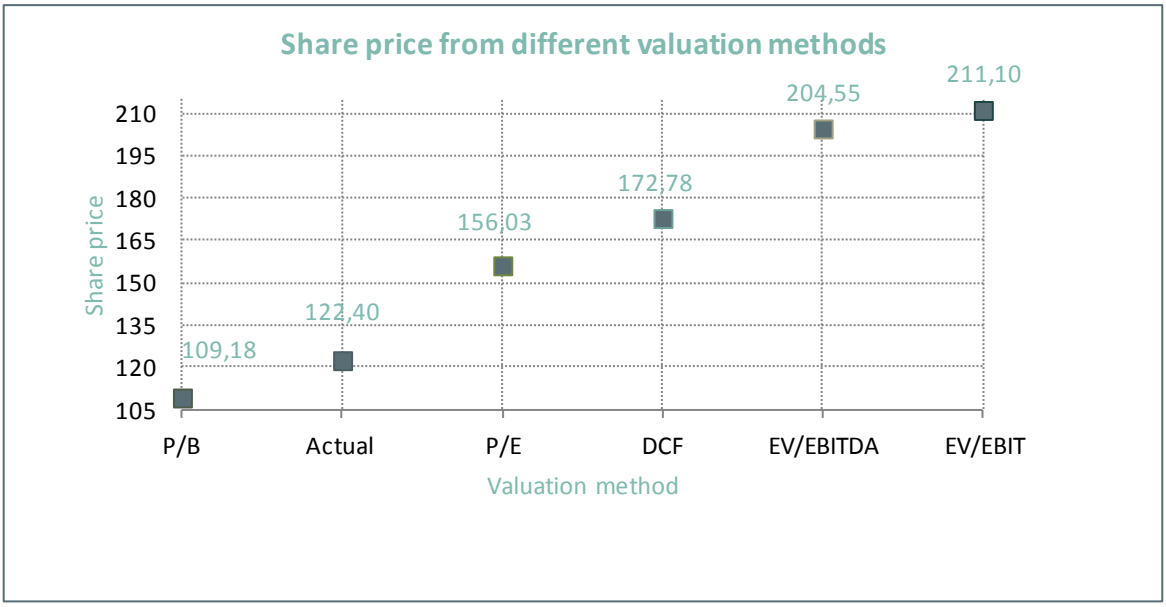
6.10 Summary

The valuation chapter has focused on analysing and calculating the fair value or estimated share value of DSV as of February 22nd 2012.

Both absolute and relative models where used to valuate the expected share price and the results have been re-analysed through sensitivity analysis and multiples comparison. The DCF model valuation which is based on the forecasted and reformulated income statement and balance sheet with WACC equals to 7.22% and the growth factor in the terminal period of 2.5% estimates the share price to be DKK 172.78.

The growth estimation and changes in WACC do have a great impact on the share price valuation with the DCF model. Changes in WACC do influence the share price more than fluctuation with the growth estimation. Changes in the WACC can be interpreted as changes in the beta as well as changes in the market risk premium therefore it is crucial for DSV to try manage these factors to ensure the future success of the company.

Figure 11 – Share price differentiation



Source: own contribution

In figure 11 is a summary of different share price estimations from the absolute and the relative models used and also the actual share price of DSV as of February 22nd 2012. Both the multiples based on enterprise value (EV) estimate the share price higher than the actual share price and the estimated share price from the DCF model. All the valuations in figure 11 except the P/B share price suggested that the actual share price of DSV is undervalued. This thesis estimates the fair value for DSV share should be DKK 172.78 from the DCF model.

7 Conclusion

The main object of this thesis was to analyse DSV and the transporting industry with the final goal to determine the fair value of shares on February 22nd 2012. The final valuation was based on the strategic analysis as well as the financial analysis.

Strategic analysis

With strategic analysis it was possible to indentify the different non-financial drivers, both external and internal which have an effect on DSV future growth and earnings potential. DSV is one of the biggest transportation companies in Europe with a large market share in road transporting and air & sea and have good growth potential within its solutions division.

When analysing DSV is was clear that their main strength is their asset light model which enables them to keep costs down and avoid large capital investments. After the financial crisis DSV has been focusing on organic growth but in-house experience regarding acquisitions is still present in the company which will help them acquiring companies in the near future when the world economy will regain its former strength. DSV has a large and effective road network in Europe which does assist them in providing excellent transporting service in Europe and supports other transportation products which the offer to customers. DSV main problem which could affect them in the near future is their lack of rail network transportation because regulators are trying to move freight transportation into a more environmentally sustainable transportation.

At the same time as the none existence of rail network is a weakness of DSV is it also an opportunity for DSV to add rail network into their strategy. With adding the rail network through outsourcing like almost all of their other business they can provide a wider range of transporting service to customers and lower the CO_2 emissions. Expanding the solutions divisions is another opportunity that could help DSV to increase service to customers and increase their revenues. Integrating the solutions divisions more into their core business will probably do DSV good in the effort of increasing revenue. The factors that can threaten DSV are mainly political and economical, the more the regulators try to implement new legislation regarding the decrease of CO_2 emissions the more it does influence DSV possibility to generate revenue. Some factors DSV cannot influence by itself such as the general economic state of Europe and other countries they

operate in. Also there is a high level of competition within the freight transportation industry which reflects in low level of differentiation and intense rivalry between companies.

Financial analysis

To be able to analyse the financial statement, a reformulation of the income statement was nesessary to identify the NOPLAT and reformulation of the balance sheet was necessary to identify the invested capital.

When analysing the ROIC it is clear that it has been increasing until 2009 when it plummeted down and that is related to the acquisition of ABX Logistics where the NOPLAT decreased significantly because of an one-time expenses event. Then again in 2010 and 2011 the ROIC has been increasing and that suggested that DSV has been effectively allocating capital into its operations. Both operating margin and asset turnover have been increasing after 2009 and that indicates that DSV has been generating enough revenue to pay their expenses and deliver profit for their shareholders.

A high proportion of DSV assets is goodwill which is understandable because the company has through the years mainly grown through acquisitions of other companies. Annually DSV conducts an impairment test on goodwill and so far it has not been necessary to impair it. Also the development of the ROIC excluding goodwill indicates that DSV has been performing well and the acquisitions of Frans Mass and ABX Logistics were right strategic and financial decisions.

Valuation

The valuation chapter is based on findings from the strategic and financial analysis and data from the forecast chapter is the basis for the estimated share price for DSV. The two valuation models used are described, the DCF valuation model and the multiples valuation method.

Two of the most fundamental factors influencing the estimated share price are the WACC and the estimated growth, the WACC was calculated and estimated to be 7.22% and growth was estimated to be 2.5%. The estimated share price from the DCF model is DKK 172.78 per share which is about 41% higher than the actual share price on NASDAQOMX Copenhagen stock exchange on the 22nd February 2012, which was DKK 122.40. The valuation based on the multiples model gave a range of share price from DKK 109.18 to DKK 211.10.

There are many assumptions and uncertainties when estimating the share price using the DCF model therefore a sensitivity analysis was conducted and the two key factors influencing the share price were changes, the WACC and the estimated growth. The sensitivity analysis showed that the estimated share price fluctuated more when changes the WACC then the estimated growth.

With the estimated price per share from the DCF model is about 41% higher than the actual closing price of 22nd February 2012 and all the multiples valuation except one gave a higher price than the closing price mentioned before. Therefore the share price is undervalued by market investors and the recommendation should be to buy the shares in DSV as a long-term investment.

8 Perspectives

This master thesis was written over an extended period of time and has therefore been a work-in-progress paper which is reflected in the final outcome of the estimated share price. The aim of the thesis was to estimate the share price of DSV from an investor view, DSV share prices as listed on the NASDAQOMX Copenhagen stock exchange has from the point of when I started to write the thesis increasing in value and the current stock price is now DKK 123.7 (May 11th 2012). This closing price is about 1.1% higher than the closing price of February 22nd 2012 but the increase of the share price from January 1st 2012 (thesis started) the increase has been about 19% when compared to the closing price of May 11th 2012.

There is still a wide gap between the closing price of February 22nd 2012 and the closing price of May 11th 2012 when compared to the estimated share price from the DCF model. This gap can have several reasons, as mentioned before there are many assumptions and uncertainty when using the DCF model also there is still a great volatility in the world's stock markets and they are still recovering from the financial crisis that started in 2007. Europe is of course still trying to handle their debt crisis and that does influence investors.

There are many issues which is important to analyse, calculate, assume and forecast when estimating a share price in a publicly traded company. All of the data are from secondary sources and from annual reports from DSV. I had some difficulties gathering some data because of lack of access to CBS data resources such as Datastream from the Learning Resource Center. Also does the NASDAQOMX Copenhagen homepage only provide share information from October 16th 2000 while DSV has been listed on the stock exchange from 1987.

I am confident that the chosen time horizon is appropriate for valuation of DSV and the estimated share price of DKK 172.78 indicates that the value of DSV is undervalued.

9 Reference list

Books:

Barney, J. (2002). Gaining and Sustaining Competitive Advantage. New Jersey: Prentice-Hall.

Elton, E. J., Gruber, M. J., Brown, S. J., & Goetzmann, W. N. (2002). Modern Portfolio Theory and Investment Analysis (Seventh Edition útg.). John Wiley & Sons.

Fernandes, P. (2002). Valuation Methods and Shareholder Value Creation. London: Academic Press.

Johnson, G., Scholes, K., & Whittington, R. (2008). Exploring Corporate Strategy. FT Prentice Hall.

Koller, T., Goedhart, M., & Wessels, D. (2005). Valuation - Measuring and Managing the Value of Companies (4th edition). New Jersey: John Wiley & Sons, Inc.

Penman, S. H. (2010). Financial Statement Analysis and Security Valuation (5th ed.). New York: McKinsey & Company.

Penrose, E. T. (1959). The Theory of the Growth of the Firm. New York: John Wiley & Sons Inc.

Porter, M. E. (1985). The Value Chain and Competitive Advantage. New York: Free Press.

Thomson, S. (2008). An Indroduction to Corporate Governance. Copenhagen: DJØF Publlishing.

Articles:

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99-120.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resources-based view. Strategic Management Journal, 14(3), 179-191.

Porter, M. E. (1979). How Competitive Forces Shape Strategy. Harvard Business Review, 57(2), 137-145.

Schultze, W., & Weiler, A. (2010). Goodwill accounting and performance measurement. Managerial, 36(9), 768-784.

Company reports and announcements:

DSV A/S Annual Report 2006

DSV A/S Annual Report 2007

DSV A/S Annual Report 2008

DSV A/S Annual Report 2009

DSV A/S Annual Report 2010

DSV A/S Annual Report 2011

DSV Notice of Annual General Meeting 2012 No 437, 23 February 2012

DSV Capital Markets Day 2011

DSV Moves No.2 2009

KUEHNE & NAGEL, Capital Market Day 2011

Websites:

http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/data/main_tables

http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tsieb020&language=en

http://europa.eu/legislation_summaries/internal_market/index_en.htm

http://www.dtl.eu/Nyheder/DTL%20mener/Klima.aspx

http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/weorept.aspx?sy=2009&ey=2016&scsm=1&ssd=1&sort=country&ds=%2C&br=1&pr1.x=73&pr1.y=6&c=001%2C110%2C163%2C119%2C203%2C123%2C998%2C200%2C904%2C901%2C505%2C511%2C205%2C406%2C603&s=NGDP_RPCH&grp=1&a=1

http://www.nasdaqomxnordic.com (Bonds-Denmark-3St.I.21 Ticker: DK0009922676)

www.dsv.com

www.bloomberg.com

10 List of figures

11 List of tables

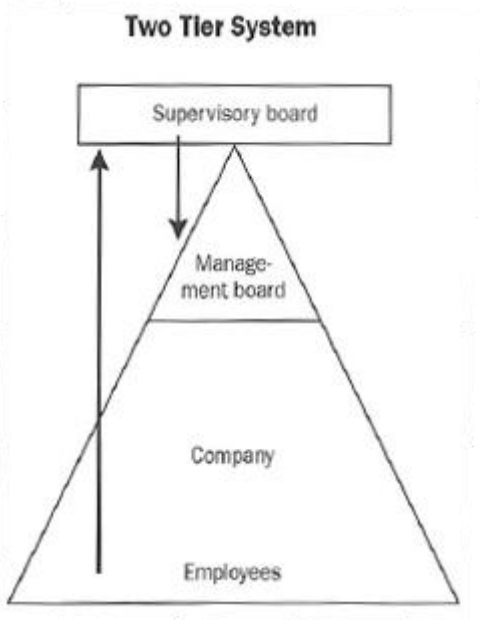
12 List of equations

13 List of appendixes

14 Appendixes

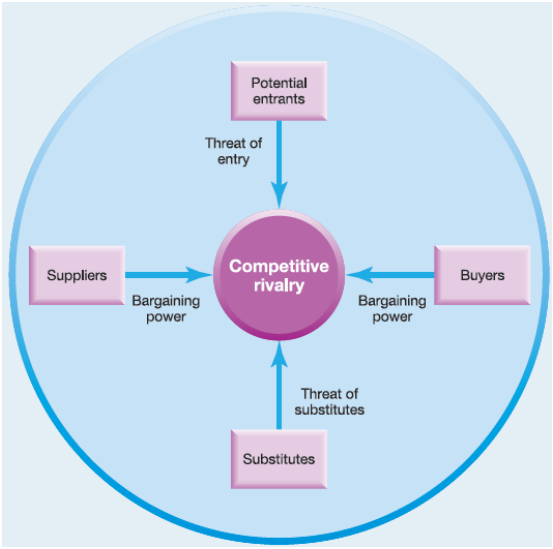
Appendix 1

Two Tier System



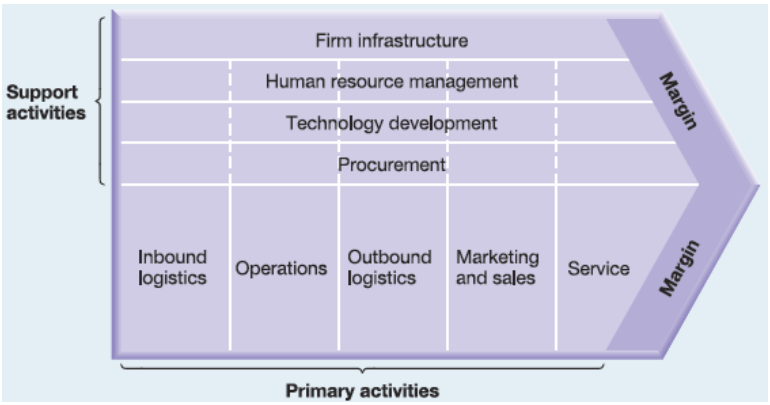
Appendix 2

Figure of Porter's Five Forces model



Appendix 3

Porters Value Chain



Appendix 4

The VRIO framework

Table 1

Is a resources or capability...

Valuable?	Rare?	Costly to imitate?	Exploited by organization?	Competitive implications	Economic performance	
No	-	-	No	Competitive disadvantage	Below normal	
Yes	No	-		Competitive parity	Normal	DSV position
Yes	Yes	No		Temporary competitive advantage	Above normal	
Yes	Yes	Yes	Yes	Sustained competitive advantage	Above normal	

Barney (2002)

The relationship between VRIO and organizational strength and weakness

Table 2

Is a resources or capability...

Valuable?	Rare?	Costly to imitate?	Exploited by organization?	Strength or weakness	
No	-	-	No	Weakness	
Yes	No	-		Strength	DSV position
Yes	Yes	No		Strength and distinctive competence	
Yes	Yes	Yes	Yes	Strength and sustainable distinctive competence	

Barney (2002)

Appendix 5

Equity statements

Statement of changes in equity 2011								
DKKm	Share	Hedging	FX	Retainted	Proposed	Total share	Non-	Total
Equity at 1 January 2011	209	-110	66	6.279	105	6.549	36	6.585
Total comprehensive income after tax		4	-8	1.144	105	1.245	9	1.254
Share-based payments				34		34		34
Dividends distributed					-105	-105	-5	-110
Purchase and sale of treasury shares, net				-2.418		-2.418		-2.418
Capital reduction/increase	-19			19				
Acquisition/sale of non-controlling interest				-16		-16	-10	-26
Dvidends on treasury shares				4		4		4
Tax on transactions with owners				-14		-14		-14
Total changes	-19	0	0	-2.391	-105	-2.515	-15	-2.530
Equity at 31 December 2011	190	-106	58	5.032	105	5.279	30	5.309

Statement of changes in equity 2010								
DKKm	Share capital	Hedging reserve	FX Translation reserve	Retained earnings	Proposed dividends	Total share capital	Non-controlling interests	Total equity
Equity at 1 January 2010	209	-194	-13	5.447	52	5.501	29	5.530
Total comprehensive income after tax		84	79	1.092	105	1.360	10	1.370
Share-based payments				40		40		40
Dividends distributed					-52	-52		-52
Purchase and sale of treasury shares, net				-297		-297		-297
Capital reduction/increase								
Acquisition/sale of non-controlling interest				-3		-3	-3	-6
Dvidends on treasury shares								
Tax on transactions with owners								
Total changes	0	0	0	-260	-52	-312	-3	-315
Equity at 31 December 2010	209	-110	66	6.279	105	6.549	36	6.585

Statement of changes in equity 2009								
DKKm	Share capital	Hedging reserve	FX Translation reserve	Retained earnings	Proposed dividends	Total share capital	Non-controlling interests	Total equity
Equity at 1 January 2009	190	-160	-117	3.895		3.808	49	3.857
Total comprehensive income after tax		-34	104	113	52	235	5	240
Share-based payments				30		30		30
Dividends distributed								
Purchase and sale of treasury shares, net				376		376		376
Capital reduction/increase	19			1.033		1.052		1.052
Acquisition/sale of non-controlling interest							-25	-25
Dvidends on treasury shares								
Tax on transactions with owners								
Total changes	19	-34	104	1.552	52	1.693	-20	1.673
Equity at 31 December 2009	209	-194	-13	5.447	52	5.501	29	5.530

Statement of changes in equity 2008								
DKKm	Share capital	Hedging reserve	FX Translation reserve	Retained earnings	Proposed dividends	Total share capital	Non-controlling interests	Total equity
Equity at 1 January 2008	202	29	-77	3.253	50	3.457	192	3.649
Total comprehensive income after tax		-189	-40	1.191		962	2	964
Share-based payments				16		16		16
Dividends distributed					-50	-50	-2	-52
Purchase and sale of treasury shares, net				-581		-581		-581
Capital reduction/increase	-12			12				
Acquisition/sale of non-controlling interest							-143	-143
Dvidends on treasury shares				4		4		4
Tax on transactions with owners								
Total changes	-12	-189	-40	642	-50	351	-143	208
Equity at 31 December 2008	190	-160	-117	3.895	0	3.808	49	3.857

Statement of changes in equity 2007								
DKKm	Share capital	Hedging reserve	FX Translation reserve	Retainted earnings	Proposed dividends	Total share capital	Non-controlling interests	Total equity
Equity at 1 January 2007	40	18	-7	3.598	50	3.699	145	3.844
Total comprehensive income after tax		11	-70	1.020	50	1.011	49	1.060
Share-based payments				18		18		18
Dividends distributed					-50	-50	-2	-52
Purchase and sale of treasury shares, net				-1.222		-1.222		-1.222
Capital reduction/increase	162			-162				
Acquisition/sale of non-controlling interest								
Dvidends on treasury shares				1		1		1
Tax on transactions with owners								
Total changes	162	11	-70	-345	0	-242	47	-195
Equity at 31 December 2007	202	29	-77	3.253	50	3.457	192	3.649

Reformulated Equity statement (DKKm)	2007	2008	2009	2010	2011
Equity BOY	3.844	3.649	3.857	5.530	6.585
Transactions with shareholders					
Capital increase			1.052		
Acquisition/disposal of treasury shares	-1.222	-581	376	-297	-2.418
Dividends paid to shareholders	-51	-48		-52	-106
Exercise of share options					
Repurchase of shares					
Total	-1.273	-629	1.428	-349	-2.524
Total income excluding minority interests					
Profit of the year	1.114	1.233	191	1.194	1.449
Dirty surplus (Other comprehensive income)	-36	-269	49	176	-195
Minority interests shares of Profit of the year	-47	-2	-6	-10	-9
Minority interests included in Equity					
Total	1.031	962	234	1.360	1.245
Other					
Acquisition of minority interests		-143	-25	-6	-26
Acquisition of entities					
Disposal of entities					
Minority interests shares of Profit of the year	47	2	6	10	9
Minority interests included in Equity					
Other		16	30	40	20
Total	47	-125	11	44	3
Changes in Equity	-195	208	1.673	1.055	-1.276
Equity EOY	3.649	3.857	5.530	6.585	5.309

Appendix 6

Reformulated balance sheet excluding goodwill

Reformulated balance sheet (excluding Goodwill) DKKm	2007	2008	2009	2010	2011
Operating assets					
Intangible assets	690	1.266	1.230	1.157	1.034
PPE	3.795	5.093	4.975	4.782	4.503
Investment in associates	7	7	9	19	26
Deferred tax assets	328	257	402	449	430
Fixed asset total	**4.820**	**6.623**	**6.616**	**6.407**	**5.993**
Trade receivables and other securities	6.438	9.185	7.399	8.405	8.565
Cash (1% of gross profit)	77	82	89	93	98
Operating current assets	**6.515**	**9.267**	**7.488**	**8.498**	**8.663**
Total operating assets	***11.335***	***15.890***	***14.104***	***14.905***	***14.656***
Operating liabilities					
Retirement benefit obligation or similar	405	810	884	871	975
Deferred tax liabilities	300	429	449	576	527
Provision non-current	178	379	562	309	391
Provision current	147	288	373	332	215
Trade payable	5.857	7.802	7.108	7.833	7.938
Corporate tax	183	68	0	228	427
Total operating liabilities	***7.070***	***9.776***	***9.376***	***10.149***	***10.473***
Invested capital	**4.265**	**6.114**	**4.728**	**4.756**	**4.183**
NWC	-555	-509	-1.888	-1.651	-1.810
Financial assets					
Securities non-current	118	149	96	121	144
Cash (for financial activities)	306	434	278	270	269
Financial assets held for sale	121	82	211	174	16
Accumulated Goodwill	4.424	7.170	7.491	7.615	7.649
Financial assets total	**4.969**	**7.835**	**8.076**	**8.180**	**8.078**
Financial liabilities					
Non-current and current financial liabilities	5.504	10.057	7.257	6.235	6.952
Liabilities associated with asset held for sale	81	35	17	116	0
Financial liabilities total	**5.585**	**10.092**	**7.274**	**6.351**	**6.952**
Net financial liabilities	***616***	***2.257***	***-802***	***-1.829***	***-1.126***
Equity	3.649	3.857	5.530	6.585	5.309
Invested Capital = Debt + Equity	**4.265**	**6.114**	**4.728**	**4.756**	**4.183**

Appendix 7

$$ROIC\ excl.Goodwill = \frac{NOPLAT}{Average\ Invested\ capital\ excl.Goodwill}$$

$$ROIC\ incl.Goodwill = \frac{NOPLAT}{Average\ Invested\ capital\ incl.Goodwill}$$

$$\text{Pre} - \text{tax ROIC (incl. Goodwill} = \frac{\text{EBITDA}}{Average\ Invested\ capital\ incl.Goodwill}$$

$$Operating\ margin = \frac{EBIT}{Revenue}$$

$$Asset\ turnover = \frac{Revenue}{Invested\ capital\ incl.Goodwil}$$

$$Gross\ margin = \frac{Gross\ profit}{Revenue}$$

$$Cost\ ratio = \frac{Staff\ cost + other\ cost}{Revenue}$$

$$Depreciation = \frac{Depreciation, amortization, impariment}{Revenue}$$

$$Working\ capital\ ration = \frac{Working\ capital}{Revenue}$$

$$PPE\ ration = \frac{Property, plant\ and\ equipment}{Revenue}$$

$$Goodwill\ ratio = \frac{Goodwill}{Revenue}$$

Appendix 8

1. Income statement forecast

Reformulated income statement (DKKm)	2007	2008	2009	2010	2011	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	9,15%	7,27%	-3,61%	17,95%	2,70%	2,09%	2,57%	3,08%	3,53%	3,24%	3,02%
Direct costs (% of revenue)	77,92%	78,16%	75,34%	78,10%	77,54%	77,00%	77,00%	77,00%	77,00%	77,00%	77,00%
Other external expenses (% of revenue)	5,34%	4,92%	5,51%	4,59%	4,79%	5,30%	5,30%	5,30%	5,30%	5,30%	5,30%
Staff cost (% of revenue)	10,65%	10,67%	12,94%	10,91%	10,87%	10,50%	10,50%	10,50%	10,50%	10,50%	10,50%
Special items (% of revenue)	0,08%	-0,21%	1,91%	0,01%	0,00%	0,05%	0,05%	0,05%	0,05%	0,05%	0,05%
Share of associate's profit, net of tax	0,02%	0,01%	0,02%	0,00%	-0,02%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%
Amortization, depreciation and impairment (% of PPE and intangeble assets)	2,74%	2,97%	3,91%	3,83%	4,16%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%
Taxes (of operating profit)	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%	25,00%
Net financial items (% of revenue)	-0,75%	-1,07%	-1,52%	-1,26%	-1,00%	-1,00%	-1,00%	-1,00%	-1,00%	-1,00%	-1,00%
Non-controlling interests (% of consolidated profit)	-4,22%	-0,49%	-3,14%	-0,84%	-0,62%	-1,00%	-1,00%	-1,00%	-1,00%	-1,00%	-1,00%

Reformulated income statement (DKKm)	2007	2008	2009	2010	2011	2012E	2013E	2014E	2015E	2016E	2017E
Revenue	34.899	37.435	36.085	42.562	43.710	44.625	45.770	47.181	48.846	50.431	51.953
Direct cost (Cost of goods sold)	27.195	29.260	27.187	33.242	33.891	34.361	35.243	36.329	37.612	38.832	40.004
Gross profit	***7.704***	***8.175***	***8.898***	***9.320***	***9.819***	***10.264***	***10.527***	***10.852***	***11.235***	***11.599***	***11.949***
Other external expenses	1.862	1.843	1.988	1.955	2.092	2.365	2.426	2.501	2.589	2.673	2.754
Special items	28	-78	688	5	0	22	23	24	24	25	26
Staff costs	3.716	3.994	4.671	4.644	4.752	4.686	4.806	4.954	5.129	5.295	5.455
Share of associate's profit, net of tax	7	3	8	-1	-7	4	5	5	5	5	5
Operating profit before special items (EBITDA)	***2.091***	***2.413***	***1.543***	***2.717***	***2.982***	***3.186***	***3.268***	***3.369***	***3.488***	***3.601***	***3.709***
Amortization, depreciation and impairment	244	402	536	519	549	538	544	551	560	568	576
Operating profit before interest and tax (EBIT)	**1.847**	**2.011**	**1.007**	**2.198**	**2.433**	**2.648**	**2.724**	**2.817**	**2.928**	**3.033**	**3.133**
Taxes (of operating profit)	537	477	406	601	656	774	795	822	854	884	913
Net operating profit less adjusted taxes (NOPLAT)	**1.310**	**1.534**	**601**	**1.598**	**1.778**	**1.875**	**1.929**	**1.995**	**2.074**	**2.148**	**2.220**
Financial income	109	121	202	116	119						
Financial expenses	-370	-522	-749	-654	-557						
Net financial items	**-261**	**-401**	**-547**	**-538**	**-438**	**-446**	**-458**	**-472**	**-488**	**-504**	**-520**
Net financial items after taxes	**-196**	**-301**	**-410**	**-404**	**-329**	**-335**	**-343**	**-354**	**-366**	**-378**	**-390**
Consolidated profit (Annual report)	***1.114***	***1.233***	***191***	***1.194***	***1.449***	***1.540***	***1.585***	***1.641***	***1.707***	***1.770***	***1.830***
Non-controlling interests	-47	-6	-6	-10	-9	-15	-16	-16	-17	-18	-18
Net profit	***1.067***	***1.227***	***185***	***1.184***	***1.440***	***1.524***	***1.569***	***1.625***	***1.690***	***1.752***	***1.812***

Calculation of taxes on operating and financial activities	2007	2008	2009	2010	2011	2012E	2013E	2014E	2015E	2016E	2017E
Tax rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Reported taxes	-472	-377	-269	-466	-546	-662	-681	-704	-732	-758	-783
Financial items net	-261	-401	-547	-538	-438	-446	-458	-472	-488	-504	-520
Tax of financial items (Tax shield)	-65	-100	-137	-135	-110	-112	-114	-118	-122	-126	-130
Operating taxes	-537	-477	-406	-601	-656	-774	-795	-822	-854	-884	-913
Net financial items after tax	-196	-301	-410	-404	-329	-335	-343	-354	-366	-378	-390

2. Balance sheet forecast

Reformulated balance sheet (including Goodwill) DKKm	2007	2008	2009	2010	2011	2012E	2013E	2014E	2015E	2016E	2017E
Operating assets											
Intangible assets less goodwill (% of revenue)	1,98%	3,38%	3,41%	2,72%	2,37%	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%
PPE (% of revenue)	10,87%	13,60%	13,79%	11,24%	10,30%	10,50%	10,50%	10,50%	10,50%	10,50%	10,50%
Investment in associates (% of revenue)	0,02%	0,02%	0,02%	0,04%	0,06%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%
Deferred tax assets (% of revenue)	0,94%	0,69%	1,11%	1,05%	0,98%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%
Trade receivables and other securities (% of revenue)	18,45%	24,54%	20,50%	19,75%	19,60%	19,00%	19,00%	19,00%	19,00%	19,00%	19,00%
Cash (1% of gross profit)	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%
Operating liabilities											
Retirement benefit obligation or similar (% of revenue)	1,16%	2,16%	2,45%	2,05%	2,23%	1,80%	1,80%	1,80%	1,80%	1,80%	1,80%
Deferred tax liabilities (% of revenue)	0,86%	1,15%	1,24%	1,35%	1,21%	1,10%	1,10%	1,10%	1,10%	1,10%	1,10%
Provision non-current (% of revenue)	0,51%	1,01%	1,56%	0,73%	0,89%	0,85%	0,85%	0,85%	0,85%	0,85%	0,85%
Provision current (% of revenue)	0,42%	0,77%	1,03%	0,78%	0,49%	0,65%	0,65%	0,65%	0,65%	0,65%	0,65%
Trade payable (% of revenue)	16,78%	20,84%	19,70%	18,40%	18,16%	18,00%	18,00%	18,00%	18,00%	18,00%	18,00%
Corporate tax (% of revenue)	0,52%	0,18%	0,00%	0,54%	0,98%	0,98%	0,98%	0,98%	0,98%	0,98%	0,98%
Financial assets											
Securities non-current (% of revenue)	0,34%	0,40%	0,27%	0,28%	0,33%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%
Cash (for financial activities) (% of revenue)	0,88%	1,16%	0,77%	0,63%	0,62%	0,50%	0,50%	0,50%	0,50%	0,50%	0,50%
Financial assets held for sale (% of revenue)	0,35%	0,22%	0,58%	0,41%	0,04%	0,15%	0,15%	0,15%	0,15%	0,15%	0,15%
Financial liabilities											
Non-current and current financial liabilities (% of revenue)	15,77%	26,87%	20,11%	14,65%	15,90%	15,00%	15,00%	15,00%	15,00%	15,00%	15,00%
Liabilities associated with asset held for sale (% of revenue	0,23%	0,09%	0,05%	0,27%	0,00%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%

Reformulated balance sheet (including Goodwill) DKKm	2007	2008	2009	2010	2011	2012E	2013E	2014E	2015E	2016E	2017E
Operating assets											
Intangible assets	5.114	8.436	8.721	8.772	8.683	8.765	8.793	8.829	8.870	8.910	8.948
PPE	3.795	5.093	4.975	4.782	4.503	4.686	4.806	4.954	5.129	5.295	5.455
Investment in associates	7	7	9	19	26	13	14	14	15	15	16
Deferred tax assets	328	257	402	449	430	446	458	472	488	504	520
Fixed asset total	**9.244**	**13.793**	**14.107**	**14.022**	**13.642**	**13.910**	**14.071**	**14.268**	**14.502**	**14.724**	**14.938**
Trade receivables and other securities	6.438	9.185	7.399	8.405	8.565	8.479	8.696	8.964	9.281	9.582	9.871
Cash (1% of gross profit)	77	82	89	93	98	103	105	109	112	116	119
Operating current assets	**6.515**	**9.267**	**7.488**	**8.498**	**8.663**	**8.581**	**8.802**	**9.073**	**9.393**	**9.698**	**9.991**
Total operating assets	***15.759***	***23.060***	***21.595***	***22.520***	***22.305***	***22.491***	***22.872***	***23.341***	***23.895***	***24.422***	***24.929***
Operating liabilities											
Retirement benefit obligation or similar	405	810	884	871	975	803	824	849	879	908	935
Deferred tax liabilities	300	429	449	576	527	491	503	519	537	555	571
Provision non-current	178	379	562	309	391	379	389	401	415	429	442
Provision current	147	288	373	332	215	290	298	307	318	328	338
Trade payable	5.857	7.802	7.108	7.833	7.938	8.032	8.239	8.492	8.792	9.078	9.352
Corporate tax	183	68	0	228	427	437	449	462	479	494	509
Total operating liabilities	***7.070***	***9.776***	***9.376***	***10.149***	***10.473***	***10.433***	***10.701***	***11.031***	***11.420***	***11.791***	***12.147***
Invested capital	**8.689**	**13.284**	**12.219**	**12.371**	**11.832**	**12.058**	**12.171**	**12.310**	**12.475**	**12.632**	**12.782**
NWC	-555	-509	-1.888	-1.651	-1.810	-1.852	-1.899	-1.958	-2.027	-2.093	-2.156
Financial assets											
Securities non-current	118	149	96	121	144	134	137	142	147	151	156
Cash (for financial activities)	306	434	278	270	269	223	229	236	244	252	260
Financial assets held for sale	121	82	211	174	16	67	69	71	73	76	78
Financial assets total	**545**	**665**	**585**	**565**	**429**	**424**	**435**	**448**	**464**	**479**	**494**
Financial liabilities											
Non-current and current financial liabilities	5.504	10.057	7.257	6.235	6.952	6.694	6.866	7.077	7.327	7.565	7.793
Liabilities associated with asset held for sale	81	35	17	116	0	13	14	14	15	15	16
Financial liabilities total	**5.585**	**10.092**	**7.274**	**6.351**	**6.952**	**6.707**	**6.879**	**7.091**	**7.342**	**7.580**	**7.809**
Net financial liabilities	***5.040***	***9.427***	***6.689***	***5.786***	***6.523***	***6.283***	***6.444***	***6.643***	***6.878***	***7.101***	***7.315***
Equity	3.649	3.857	5.530	6.585	5.309	5.775	5.727	5.667	5.597	5.531	5.467
Invested Capital = Debt + Equity	**8.689**	**13.284**	**12.219**	**12.371**	**11.832**	**12.058**	**12.171**	**12.310**	**12.475**	**12.632**	**12.782**

Appendix 9

Beta for DSV

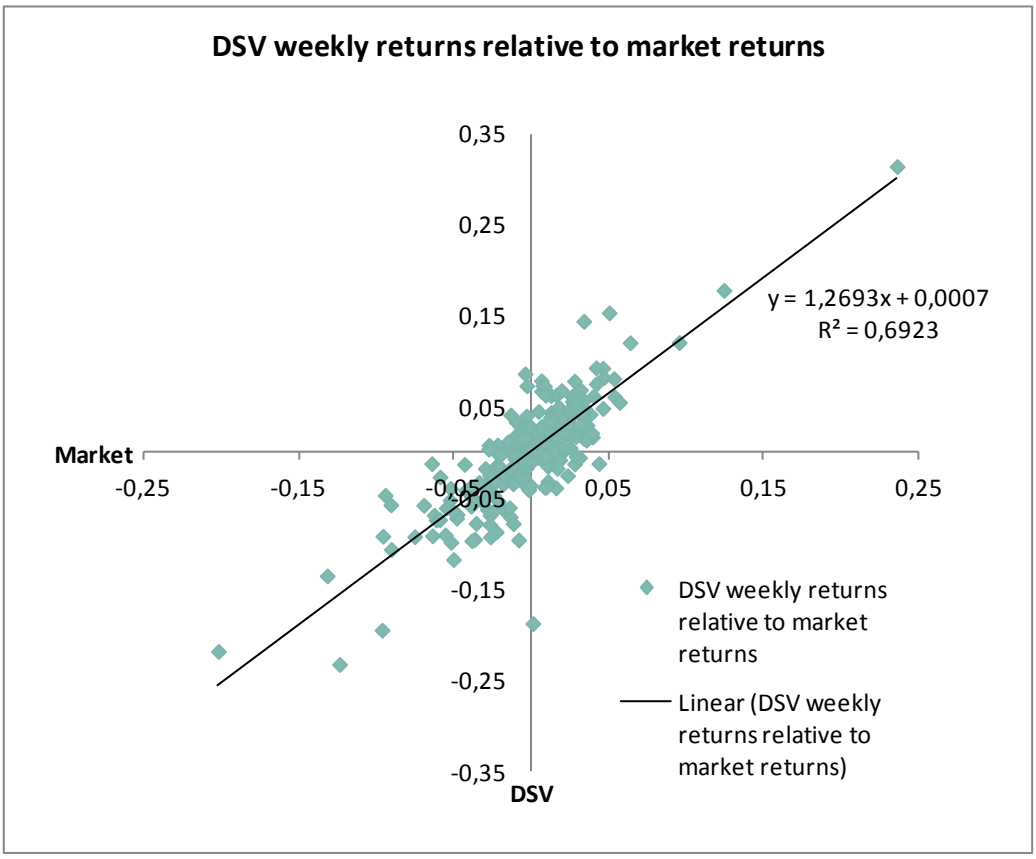
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0,832015861
R Square	0,692250393
Adjusted R Square	0,690968103
Standard Error	0,033199777
Observations	242

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,595041523	0,595041523	539,8547729	2,36678E-63
Residual	240	0,264534043	0,001102225		
Total	241	0,859575565			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,000717548	0,002134887	0,336105744	0,737084789	-0,003487962	0,004923058	-0,003487962	0,004923058
LN OMXC20	1,269261257	0,054627654	23,23477508	2,36678E-63	1,161650373	1,376872141	1,161650373	1,376872141



Appendix 10

Calculation of estimated share price using the P/E ratio.

Equation 11	
P/E	19,99
Earnings	1.449
Shares	185.644
Share price	156,03

Calculation of estimated share price using the P/B ratio.

Equation 13	
Equity (end of year)	5.309
Outstanding shares	185.644
Book value per share	28,60
Price per share	103
P/B	3,60
Average equity	5.627
Book value of equity	20.268
Share price	109,18

Calculation of estimated share price using the EV/EBITDA ratio

Equation 14	
EV	38.670
EBITDA	2.982
Ratio	12,97
Average EBITDA	3.437
Ratio*Average EBITDA	44.568
Debt	6.594
EV less debt	37.974
Outstanding shares	185.644
Share price	204,55

Calculation of estimated share price using the EV/EBIT ratio

Equation 15	
EV	38.670
EBIT	2.433
Ratio	15,89
Average EBIT	2.881
Ratio*Average EBIT	45.783
Debt	6.594
EV less debt	39.189
Outstanding shares	185.644
Share price	211,10