Master thesis in financial economics
Supervisors: Professor, Dr. Oecon., Gunnar S. Eskeland and Xiaozi Liu

# Valuation and Financial Statement Analysis of Seadrill Limited

## By
## Kim André Uggedal

# Executive Summary

This paper takes on the valuation of the drilling operator Seadrill Limited. The valuation takes basis in strategic analysis and financial statement analysis. The paper has the perspective of a global well-diversified investor.

The strategic analysis concludes that Seadrill has the highest industry exposure to the very favourable UDW segment, and is well positioned for further growth.

Discounted cash flow model (DCF) has been used as main valuation approach, with focus on the free cash flow to the firm (i.e. total capital). This valuation is supported by relative valuation and asset based valuation. The DCF model arrives at a value of NOK 93.7 per share. This is further backed by the relative valuation (P/E) of NOK 102.2 per share and the asset based valuation of NOK 84 per share.

As the main target price only offers a 3 % upside potential in the share price, it is concluded with a neutral recommendation.

# Preface

My motivation for writing a thesis on valuation is mainly due to my interest in the topic. During my master degree at NHH I have specialized in valuation related subjects, hence the topic itself is a natural choice. I am also very intrigued by the oilservice sector which leads me to the choice of company. Seadrill is one of the most exciting and challenging companies in the sector.

A valuation paper captures several subjects, such as statistics, accounting and strategic analysis, and connects them together. This has made me able to use several of the subjects learned at NHH in one paper.

This thesis has become quite detailed, and there is no doubt that this could have been done much easier (i.e. building a smaller and less detailed model). However, I feel that this is the strength of the paper and has given me additional insight in the drilling industry and the company. To quote Ole Slorer at Morgan Stanley: "If you are in the business of forecasting, you should make sure you make enough of them".

Bergen, June 2008

_____

Kim André Uggedal

# Contents

# 1. Introduction

This chapter will work as an introduction, and will discuss the motivation and background for the paper. In addition the limitations and the structure of the paper are addressed.

## 1.1 Motivation and background

The topic of this paper is financial statement analysis and valuation of the offshore drilling company Seadrill Limited. As I find these topics and the sector very interesting this works as motivation alone. I have specialized in financial statement analysis, valuation and corporate finance as a part of my masters' degree at NHH. This paper covers all of these topics and more. I have a great interest in the oilservice sector, and hence I find Seadrill as a leading oilservice company in rapid growth a natural choice of company.

Seadrill is especially appealing due to the complexity[1] both in consideration of the financial statements and valuation, and their somewhat special history with aggressive growth (through many acquisitions and a large newbuilding fleet). Seadrill has grown to be one of the largest companies in terms of market capitalization on the Oslo Stock Exchange (OSE) and one of the largest offshore drillers globally since their listing in November 2005. I see the valuation of Seadrill as extra challenging due to the size and complexity of the company, and this works as an extra motivation for me. As the world is in the middle of a global recession and the financial markets have collapsed, this process is even more challenging and exciting. This is bringing new problems in to consideration for the companies, and for the way companies are valued.

Numerous master theses have been written throughout the years on topics such as financial statement analysis and valuation, many of them quite similar. I would like to write my thesis in a different style than the "normal valuation paper", making it interesting and trying out other techniques. I have tried to write this thesis in a different style than the regular framework presented in the normal student papers, and structured the thesis differently than other papers on this topic. The value of Seadrill has never been discussed in a similar paper by students at NHH before. The valuation of Seadrill is found through three different approaches;

---

[1] The largest fleet compared to other drilling operators on OSE, sale/leaseback-transactions, associates and exposure towards different segments to mention a few factors

discounted cash flow model (DCF)[2], relative valuation and asset based valuation (with focus on the market values of the assets).

The main goal of this paper is to estimate the fair value of the equity of Seadrill. If the share is mispriced according to my fair value estimate; the reasons will be discussed. This will lead to a conclusion for fair value and a recommendation trading strategy. Hence, I have two main problems:

- **What is the fair value of the equity of Seadrill Limited?**
- **If the share is mispriced, what is the reason for this?**

The fair value is here defined as the present value of all the discounted cash flows belonging to the equity holders, given my assumptions.

To answer the problems I will use the framework from financial statement analysis, strategic analysis and theory of different valuation methods. The value of the equity will be viewed from a global and well-diversified investor's perspective.

## 1.2 Limitations
Due to the time limits and the size of the paper several limitations have been made during the process.

Seadrill is a relative young company and its short history gives some limitations in regards to the analysis of historical data. It may be argued that I could have included Seadrill's predecessor Smedvig. However, I feel that due to the rapid development of the drilling market and the company itself this would be irrelevant. It is first now, in 2009 and 2010, that the fleet has reached a stable and mature stage. I acknowledge the argument that four years of historical data may be regarded as a too short period of time, especially regarding the financial statement analysis. When estimating the market development, a longer time horizon has been used, this due to capturing cycles in the industry.

As the topic of this paper is financial statement analysis and valuation, I have focused on these subjects and tried to avoid in-depth discussion on energy markets and macro economic outlook. However, some discussions are necessary to justify my estimates and assumptions. Where assumptions have been made these are stated. Other topics that I find very interesting,

---

[2] The DCF-model emphasizes a Sum-of-the-Parts (SOTP) approach, which discounts all the units through their estimated life time ,different compared to other terminal value estimates

such as the equity risk premium, which justifies and deserves a whole thesis of its own, have been tried to be limited as much as possible.

Main focus will be on finding the value of equity, but the value of debt and financing will be addressed wherever necessary.

## 1.3 Structure

The paper is built on three different frameworks that will lead to a conclusion. The framework of the financial statement analysis, strategic analysis and valuation will be presented first in each part. These frameworks are in many ways related and build on each other. After presenting the theory, this is applied for Seadrill. This has been done for the objective of getting some connection or "red line" through the paper. The main purpose through the whole paper is to find the fair value for the equity of Seadrill, and each part will contribute to this.
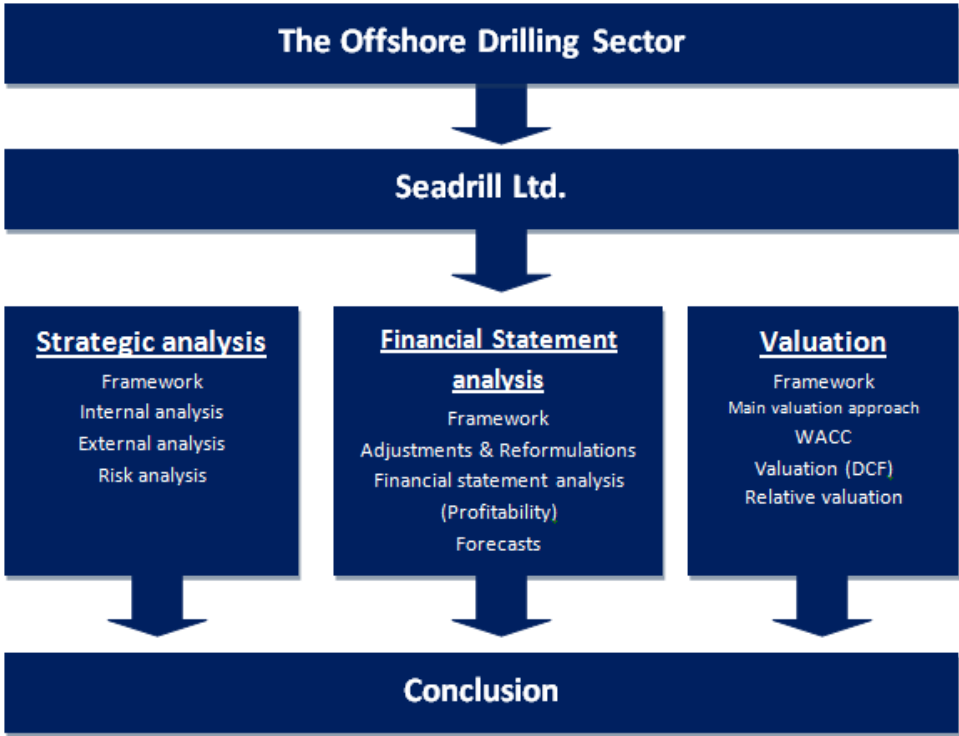


**Figure 1: Structure of the paper**

Figure 1 presents the structure of the paper. After the introduction chapter (which you now are reading), the paper will begin by presenting the industry and the company. The purpose is to get the reader familiar with the industry and the company, and present key value drivers. This leads to the strategic analysis, where one considers both internal and external aspects for the company and the industry. The strategic analysis concludes in a supply and demand side

conclusion, which will work as a basis for the estimated development of the market conditions.

The financial statement analysis chapter will reformulate and adjust historical financial statements, preparing these for forecasting. Profitability and risk analysis will along with strategic analysis form the basis for the forecasted financial statements.

The valuation chapter will build on the previous chapters, estimating the fair value of the equity for Seadrill. This is done through different valuation methods. The discounted cash flow model will work as the main approach. Relative and assets based valuation will be used to test the DCF estimate. A sensitivity analysis for the most critical assumptions has been included. This will lead to the conclusion and a recommendation.

## 2. The Offshore Drilling Industry

This chapter will introduce the offshore drilling sector where Seadrill is a major player. Main focus is on key value drivers for the industry. The supply and demand side would be discussed in a later chapter.

The drillings industry is, like the rest of the oilservice sector, dependent on the demand for their services by the oil companies. This demand is more or less directly driven by the oil price; hence the drilling companies are highly correlated to the oil price. Figure 2 presents the development in the oil price (brent bland) compared the OSX[3] index.
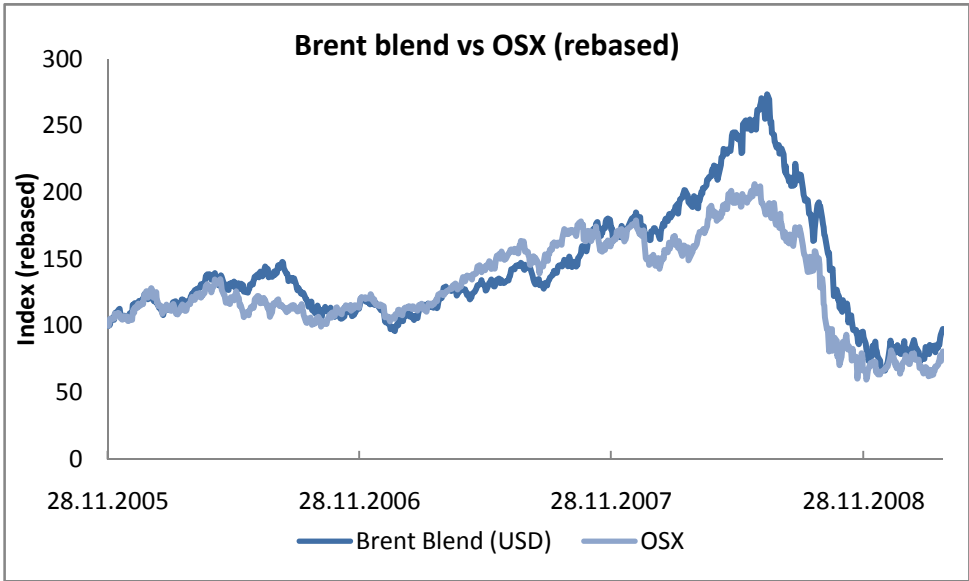


**Figure 2: Oil price (Brent blend) vs. OSX**

For this paper twelve different drilling operators, including Seadrill, have been selected as a proxy for the drilling sector[4]. This includes both international and Norwegian offshore drillers. Transocean, Inc. is by far the largest drilling operator measured both by market capitalization, drilling fleet and financial performance. Seadrill Ltd. is the 4th largest operator by market capitalization, and the 3rd largest by enterprise value[5]. These twelve companies represent 493 offshore drilling rigs alone, of which 45 is under construction.

According to R.S. Platou (2009 a) the total offshore fleet at the end of 2008 consisted of 622 units, of which 199 were floaters and 423 were jack-ups. Hence, this paper includes close to 80% of all offshore drilling units. Figure 3 presents the peers by market capitalization:

---

[3] OSX = The Philadelphia Oil Service Index
[4] See Appendix A – Peer Overview for complete presentation of peers
[5] Enterprise Value = Market Capitalization + Net interest-bearing liabilities. Net interest bearing liabilities is the difference between the interest-bearing liabilities and the interest-bearing assets (such as cash and marketable securities).
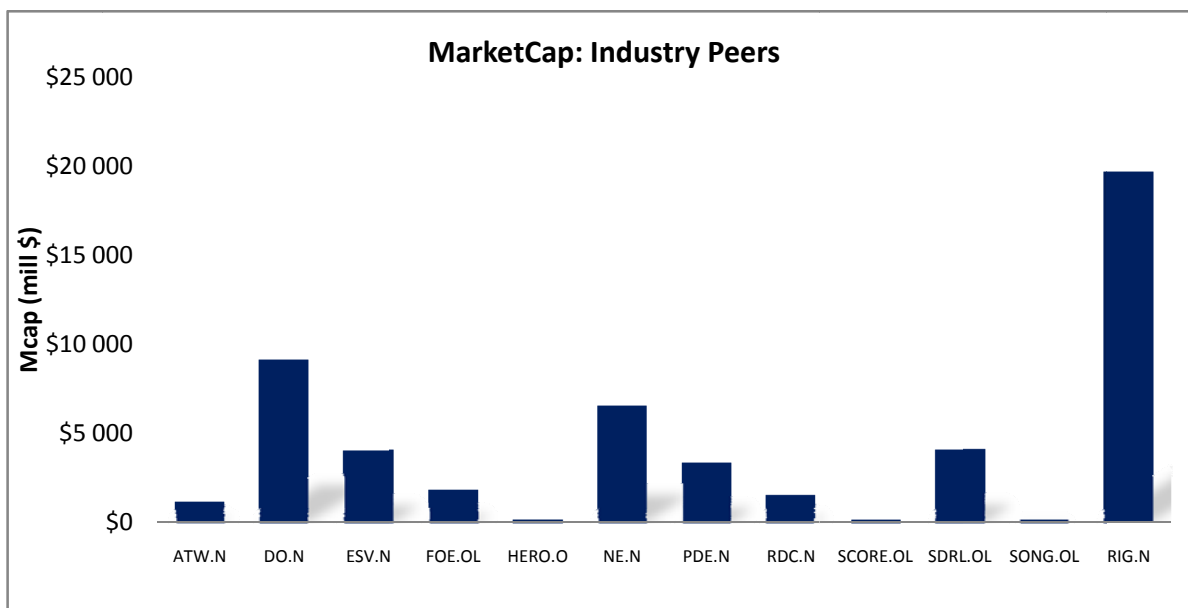
**Figure 3: Market Capitalization for peers**

This paper concentrates on four different rig types; jack-up rigs, semi-submersible rigs, drillships and tender rigs. These units are defined into different segments based on water depth:

**Shallow water:** Shallow waters are defined as water depth up to 400 feet. Jack-Up units operate within this segment. Tender rigs (mainly Tender Barges) can also operate in this segment.

**Mid-Water:** The mid-water segment is defined as water depths between 1,000 to 5,000 feet. Many semi-submersibles, drillships and tender rigs (semi-submersible) operates in this segment.

**Deepwater:** The deepwater segment is defined between 5,000 and 7,500 feet, and is operated by semi-submersibles and drillships.

**Ultra Deepwater:** Ultra deep-waters (UDW) are defined as water depths deeper than 7,500 feet. The high-end part of the semi-submersible and drillship units operates in these segments, representing the youngest part of the total rig fleet.
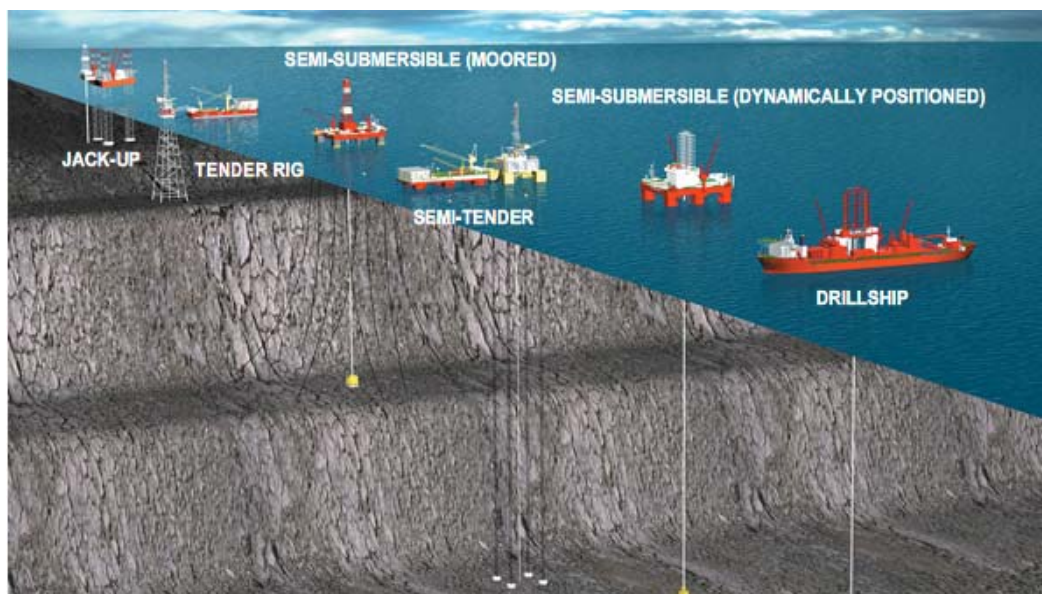
Figure 4 gives an overview of the different rig segments that is relevant for this paper. Jack-up rigs are related to shallow water drilling. Seadrill (2009 c) describes jack-up rigs as "mobile, self-elevating drilling platforms equipped with legs that are lowered to the ocean floor". The advantage of Jack-Up's in regards to other drilling types is that they are more stable, as they rest on their legs. However this restricts the units to more shallow water drilling. Typically the jack-up's has a water depth of 300 to 400 feet. The jack-up rigs are the most common rig type in the offshore drilling fleet, as the focus on exploration for oil so far has been in more shallow waters. By the end of 2008 the jack-up fleet represented approximately 68% of the total offshore drilling fleet (R.S. Platou, 2009 a). The largest Jack-Up operators are Transocean (68 units), ENSCO International (43 units) and Noble Corporation (43 units).

The deepwater floaters are represented by Semi-Submersibles and Drillships. As focus in oil exploration has moved from more easily accessible waters to deeper and more difficult waters, demand for deepwater drilling units has increased significantly the last few years (R.S. Platou, 2009 a). Semi-Submersible are rigs that "consist of an upper working and living quarters deck resting on vertical columns connected to lower hull pontoons" (Seadrill, 2009 c). Drillships are defined by Seadrill (2009 c) as "self-propelled ships equipped for drilling." The advantage of drillships is that they can operate in waters where units that rest on the ocean bottom are incapable of operating in (like Jack-Ups). Drillships also have an advantage in movement and accessibility, as they do not need to be towed by other vessels, such as

---

[6] Seadrill, 2009 c

offshore supply vessels. This results in lower mobilization costs. In the UDW segment, Transocean and Seadrill are the major operators with 28 and 12 rigs respectively.

Most of the modern fleet of Semi-Submersibles and Drillships are dynamically positioned meaning that they are remaining stable in their positions due to a computer controlled thruster system (Seadrill, 2009 c). This is making the units more stable when in operation.

The tender rigs are self-erecting and are "purpose-built units for production drilling from fixed platforms" (Seadrill, 2009 c). The tender rigs can be viewed as service rigs for fixed drilling installations, and are used in relations to development drilling. These units mainly operate in Asia (Indonesia, Malaysia and Thailand) and West-Africa (Congo). The tender markets are very limited and according to RigZone (2009) the market consists of 35 tenders. Seadrill is the major player in this market and holds 17 of all the units.

## 2.1 Key value drivers

The oilservice companies are depending on the demand for their services. In the perspective of the drilling companies, this means the demand for drilling services. This demand is closely linked to the exploration and production (E&P) spending of the oil companies, which again obviously depends on the oil and gas prices. Seadrill (2006 c: 71) explain the market for offshore drillers to be "primarily driven by the investments and level of activity in the exploration, development and production of crude oil and natural gas. The investment level depends on oil companies' cash flow and revenues, acreage available for exploration and development as well as existing and forecasted oil & gas prices."

As oil prices have soared the last couple of years, from around $25/bbl in 2000 to a peak of $147/bbl in June 2008, the demand for drilling services has increased, resulting in record high dayrates. The temporarily record was set by Transocean's Deepwater Pathfinder with ENI at $650,000/day in July 2008 (Reuters, 2008). This was just above Seadrill's West Taurus contract with Petrobras at $630,000/day. At this point of time, speculations evolved around which rig to be the first to beat the $700,000/day mark (Upstream, 2008). The last fixture was closed March 2009 at $537,000/day for the Ocean Rig/Dryships rig Leiv Eriksson (Upstream, 2009 c). $700 000/day now seems to be far away, even though the dayrates for UDW-rigs have been holding up much better than the dayrates in other segments.

The plunge in oil prices at the end of 2008 and into 2009 made many projects unprofitable, as oil prices fell below $50/bbl. The president of OPEC, Mr. Chakib Kheli said: "Canadian oil-

sands projects require prices of $90 a barrel and ultra-deepwater drilling needs oil at $70 a barrel to be viable" (Bloomberg, 2008). As Ultra-deepwater projects, such as Brazil and Angola, had been recognized as the growth potential for oil companies the fall below $70/bbl was considered serious for both oil companies and oil service players. StatoilHydro (2009) reported that they needed an oil price of around $40/bbl to break even on their projects. Figure 5 presents the correlation between the oil price and the E&P spending:
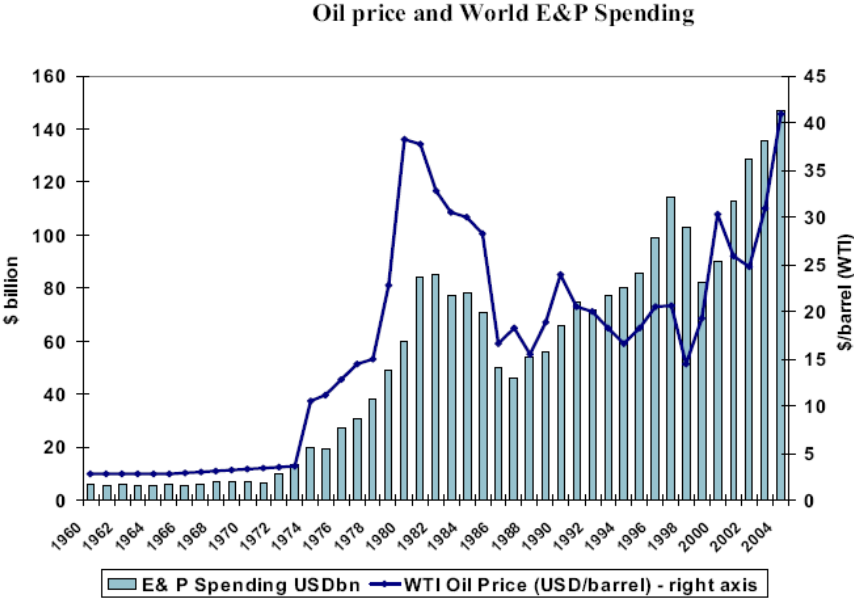
Oil price and World E&P Spending

There are several factors that drive market conditions for the offshore driller sector, with the oil and gas prices being the most important. Major oil companies have been struggling with depletion of reserves, and as many of them have a goal to keep their replacement rate above 1[8], this has also contributed to increase the E&P activity.

On the other side, it is clear that the availability of the drilling rigs also is an important factor for the dayrate development. As demand has increased many newbuilds have been ordered from the yards, which in the last years have been building rigs for full capacity. This has not been enough, as the supply of new rigs has been absorbed by the market immediately. Especially is this the situation for the UDW-fleet, where at the moment the first unit are

---

[7] Seadrill, 2006 c
[8] Meaning that they would like to replace at least as much as they produce each year

available from early 2010[9]. From today and one year ahead, until the summer 2010, only four units with a water depth deeper than 7,500 feet are available.

The main demand for drilling rigs lately has been observed in the deepwater and ultra deepwater markets. This is in accordance with the fact that the most easily accessible oil has been found, and exploration is moving to deeper waters. Key areas here have been pre-salt in Brazil and West-Africa. Especially the demand from the Brazilian national oil company Petrobras has been driving the demand for UDW rigs, leading to record dayrates. For the UDW segment the short-term fluctuations in oil prices are of less importance as these fields take longer time to develop and have a significant run time (may last over 30 years). Oil companies operating in this segment are mostly majors and NOCs[10], which have strong balance sheets and are not noticeably impacted by the credit crunch and other short-term effects of the global recession.

The main driver for the Jack-Up market is the Gulf of Mexico (GoM). As the jack-up fleet is starting to become very old, this segment may start seeing replacement of rigs. The jack-up segment is normally much more volatile than the deepwater market as the cost of newbuilds is lower, contracts shorter and the operators of shallow water oilfields are smaller and independent oil companies with need for financing (Dagens Næringsliv, 2009 a).

We can say that what really drives the market conditions for the offshore drilling market is the E&P spending/budgets the by oil companies. This is more or less directly influenced by the oil and gas prices, and hence this is the key value driver for the drilling companies.

---

[9] Transocean's Cajun Express is available from January 2010
[10] National Oil Companies, such as Petrobras, PEMEX, Petronas and Gazprom.

## 3. Seadrill Limited

Seadrill Limited is a Bermudian based drilling operator, which is listed on the Oslo Stock Exchange[11] with a market capitalization of approximately NOK 36.1 bn ($5.6 bn). The company has a total fleet of 43 units, of which ten are under construction (Seadrill, 2009 a). Seadrill was established in 2005, and has since grown aggressively through acquisitions and newbuilding programs to become the world's 4th largest drilling operator measured by market capitalization and 3rd largest measured by enterprise value.

Seadrill is controlled by John Fredriksen, which holds approximately 33 % of the shares[12] (Seadrill, 2009 h). Mr. Fredriksen also serves as president, director and chairman of the board. CEO and president of Seadrill is Alf C. Thorkildsen. In addition to Mr. Fredriksen, through Hemen Holding, the ownership mainly consists of large nominee accounts from international investment banks and large funds.

The company has developed into a leading offshore driller through its strategy: "to continuously strengthen its position as a preferred provider of offshore drilling and well services and to pursue growth in selected international market segments" (Seadrill, 2009 c).

### 3.1 Organization

The company is organized into three different main segments; Mobile Units, Tender Rigs and Well Services. The Mobile Units is by far the largest segment both measured by revenues and fleet size. Figure 6 provides the Seadrill organization overview:
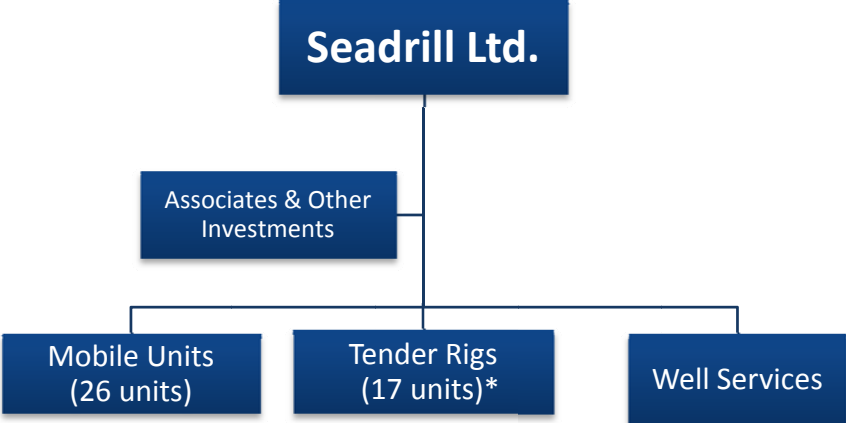


**Figure 6: Seadrill organization chart**

The *Mobile Units* segment consists of a total of 26 units, of which seven are under construction. Out of these units there are twelve Jack-up units, four deepwater drillships and

---

[11] Ticker: SDRL
[12] See Appendix B – Shareholder structure

ten deepwater semi-submersibles. The Mobile Units fleet is one of the most modern and high-end fleets in the world, with an average age of 6.5 years. In 2008 the Mobile Units segment generated $1224.2 million in revenues and an EBITDA[13] of $640.7 million (Seadrill, 2009 k). This amounted to 72.6% of consolidated EBITDA. The importance of this segment is expected to continue to increase for Seadrill as more vessels are coming on-steam. Especially the UDW floaters in the fleet are expected to generate significant amounts of revenues over the next years. At the end of 2008 the Mobile Units segment had an order backlog of $10.6 bn (Seadrill, 2009 f).

The *Tender Rigs* segment consists of a total of 17 units, with 3 under construction. 5 of the units are owned 49% through Seadrill's stake in Varia Perdana Bhd., and hence not consolidated into Seadrill's accounts. In 2008 the Tender Rigs segment represented $341.4 million in revenues and an EBITDA of $167.8 million (49% EBITDA margin). The segment had an order backlog of $2 bn by the end of 2008 (Seadrill, 2009 f).

The *Well Services* segment is represented through the OTC-listed company SeaWell Ltd., of which Seadrill owns is a 73.4 %. The company was established in 2007, and has since grown rapidly through many acquisitions. SeaWell is divided into two main segments; drilling services and well services. The segment had $620.3 million in revenues, and EBITDA of $73.4 million in 2008 (Seadrill, 2009 k). SeaWell is currently trading at NOK 10, which constitutes to NOK 1.1 bn ($164 mill).

In addition to its three main business segments, Seadrill also holds significant positions in associated companies and other financial investments. At the end of 2008 Seadrill held strategic positions in Pride International (9.5 %), Scorpion Offshore (39.6 %), SapuraCrest (24.6 %) and Varia Perdana[14] (49 %). The holdings in Scorpion Offshore, SapuraCrest and Varia Perdana are recorded as '*Investments in associates*' using the equity method (Seadrill, 2008 a). The position in Pride is recognised as '*Marketable securities*' (Seadrill 2008, b).

## 3.2 History
Seadrill is a relative young company, incorporated in May 2005 as a Bermuda based drilling operator. At that time the company had a fleet of 7 Jack-ups (4 newbuilds), 2 FPSOs and 2 semi-submersible newbuilds. The company was listed on the Oslo Stock Exchange in

---

[13] EBITDA = Earnings before interest, taxes, depreciation and amortization. The item represents the core operating earnings (gross earnings) in a company. The term EBIT is also used in this paper: Earnings before interest and taxes.
[14] Including Tioman Drilling

November 2005, with the purpose to get easier access to capital. This capital was to be used on the many acquisition targets for Seadrill over the next years.

In the fall of 2005 and early 2006 Seadrill acquired Odfjell Invest Ltd. and Mosvold Drilling. In the same period they also tried to acquire Ocean Rig ASA and PetroJack ASA, but ended up selling both with some financial gains. The aggressive strategy by growing through acquisitions continued during 2006, and in April they acquired the established drilling operator Smedvig ASA, a company with history back to 1972. Smedvig had at that time two semi-submersibles, one jack-up, eleven tender rigs (four through the 49% in Varia Perdana), and a well services business. In addition Smedvig held 39.75 % in Eastern Drilling and 30% in a joint-venture with KFELS (Seadrill, 2006).

During 2006 Seadrill also made an approach to buy Eastern Drilling ASA. They acquired 60% of the shares, and in September 2006 made a mandatory offer of all the shares at NOK 92 per share. Seadrill later withdrew their offer for Eastern Drilling, because the Oslo Stock Exchange (OSE) demanded that the offer should be higher due to some highly discussed Total Return Swaps[15] with Carnegie. Seadrill refused to pay what the board of OSE demanded and was eventually fined a daily penalty of NOK 2 million, increasing to NOK 4 million, until they would make the new offer. 16th April 2007, two months after OSE started fining Seadrill, the company made a bid for all outstanding shares in Eastern Drilling at NOK 135. This issue is still a conflict, and is now being prosecuted in the court room. Both parties have indicated that they will appeal to the Supreme Court (Dagens Næringsliv, 2009 b).

In 2007 Seadrill also made an offer for Aker Drilling ASA, which had two semi-submersibles under construction, but the offer was declined. Aker ASA eventually took the company off the stock exchange. Figure 7 gives an image of the development for Seadrill:

---

[15] A total return swap (TRS) is an agreement between two parties where the buyer is obliged to pay the seller of the swap a certain amount to purchase the swap at a fixed date. The seller of the swap must deliver the stock at fixed date, and hence bear the risk of price increase. Swaps in general are defined by Bodie, et al (2008: 834) as "multiperiod forward contracts that trades over the counter".
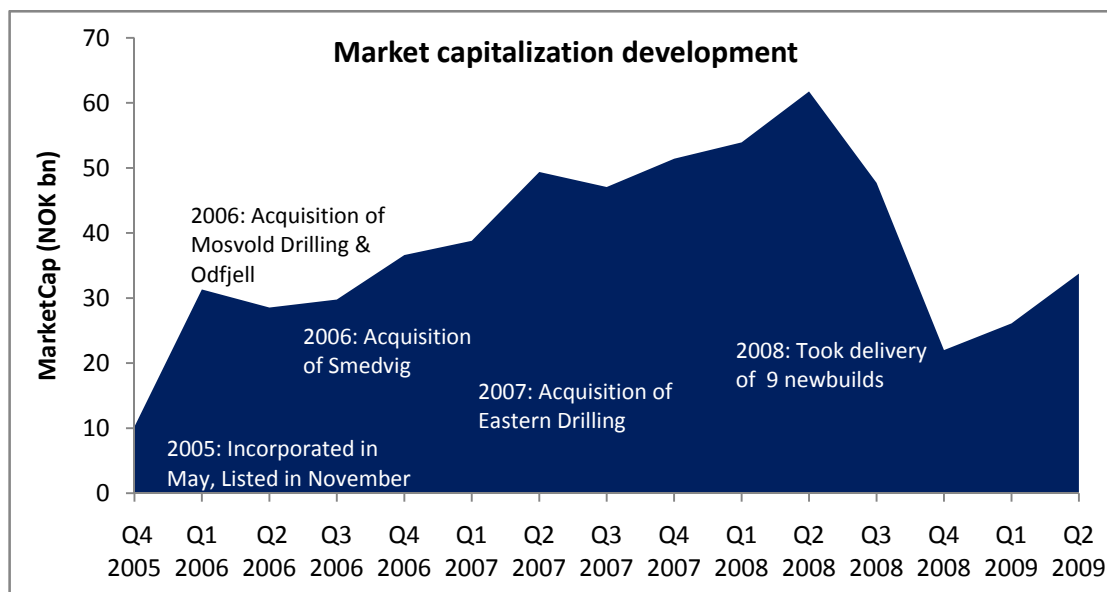
**Figure 7: Market capitalization development**

At the present time the company holds significant stakes is other drilling operators, which are referred to as strategic investments. These operators may very well become acquisition targets in the future.

The history of Seadrill tells us of a company which grew to become Europe's largest and the world's 4th largest drilling operator by a few years, through an aggressive strategy of acquisitions and newbuilds. Most of the acquisitions were mainly financed by raising capital through the markets, and which led to a dilution of the largest shareholder, Mr. Fredriksen from 45 % to the level of 33 % he holds today.

Seadrill has also been quite aggressive in the newbuilding program, and only in 2008 they took delivery of nine vessels (two jack-ups, two drillships, four ultra-deepwater semi-submersibles and one tender rig). They have further 10 units under construction, with the last one expected to be delivered in Q4 2011.

## 3.3 The Fleet

Seadrill has a total fleet of 43 units, of which 38 is fully owned. The fleet is one of the most modern of the global drilling fleet, with an average age of 10 years[16]. The floaters (i.e. the semi-submersibles and drillships) have an average age of 4.5 years, significantly younger than any of its peers. Figure 8 presents the average age for the floaters and the most relevant peers:

---

[16] The average age decreases to 6.5 years if we exclude the Tender Rigs

Average age floaters
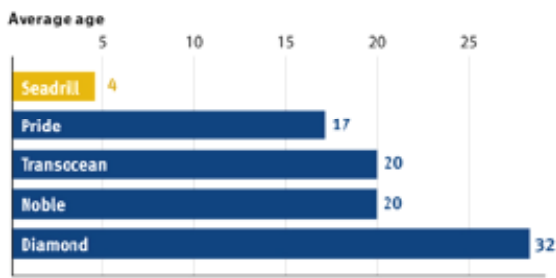


**Figure 8: Average age floaters**[17]

At the moment the fleet has secured a backlog of $12.6 bn.

Transocean has the largest UDW fleet (22 % market share), with Seadrill as the second largest UDW player (9% market share)[18]. However, when it comes to EBITDA contribution Seadrill has by far more exposure to the UDW-segment than its peers, with 63 % in 2010 (Seadrill, 2008 c). The UDW market share is presented in figure 9:



**Figure 9: Ultra-deepwater market share**

---

[17] Seadrill, 2009 f
[18] See Appendix C for full overview

| # | Jack-up: | Status | Year built | Water depth | Costumer | Dayrate | Start |
|---|---|---|---|---|---|---|---|
| 1 | West Ariel | Contract | 2008 | 400 | VSP | $194 000 | Q3 2010 |
| 2 | West Atlas | Contract | 2007 | 400 | Coogee Resources | $255 000 | Q4 2009 |
| 3 | West Ceres | Warm stacked | 2006 | 300 | | | |
| 4 | West Epsilon | Contract | 1993 | 400 | StatoilHydro | $306 000 | Q4 2010 |
| 5 | West Janus | Contract | 1985 | 330 | PCPP JOC | $149 500 | Q3 2011 |
| 6 | West Larissa | Contract | 1984 | 300 | VietsoPetro | $183 500 | Q3 2009 |
| 7 | West Prospero | Warm stacked | 2007 | 400 | | | |
| 8 | West Triton | Warm stacked | 2008 | 375 | | | Q1 2009 |
| 9 | West Callisto | Construction | Q2 2010 | 400 | N/A | N/A | |
| 10 | West Juno | Construction | Q4 2010 | 400 | N/A | N/A | |
| 11 | West Leda | Construction | Q1 2010 | 400 | N/A | N/A | |
| 12 | West Elara | Construction | Q4 2010 | 400 | N/A | N/A | |
| | **Drillship:** | | | | | | |
| 13 | West Capella | Mobilization | 2008 | 10 000 | Total | $544 000 | Q1 2014 |
| 14 | West Gemini | Construction | Q2 2010 | 10 000 | N/A | N/A | |
| 15 | West Navigator | Contract | 2000 | 7 500 | Shell | $560 000 | Q4 2012 |
| 16 | West Polaris | Contract | 2008 | 10 000 | Exxon Mobil | $559 000 | Q3 2012 |
| | **Semi-Submersible:** | | | | | | |
| 17 | West Alpha | Contract | 1986 | 2 000 | StatoilHydro | $473 000 | Q1 2012 (+ 2yr option) |
| 18 | West Aquarius | Contract | 2009 | 10 000 | Exxon Mobil | $592 500 | Q1 2013 |
| 19 | West Eminence | Mobilization | 2009 | 10 000 | Petrobras | $590 000 | Q2 2015 |
| 20 | West Hercules | Contract | 2008 | 10 000 | Husky | $538 000 | Q3 2011 |
| 21 | West Orion | Construction | Q2 2010 | 10 000 | Petrobras | $590 000 | Q3 2016 |
| 22 | West Phoenix | Contract | 2008 | 10 000 | Total | $495 000 | Q3 2011 (+ 2yr option) |
| 23 | West Sirius | Contract | 2008 | 10 000 | Devon | $475 000 | Q2 2014 |
| 24 | West Taurus | Contract | 2008 | 10 000 | Petrobras | $621 000 | Q1 2015 |
| 25 | West Venture | Contract | 2000 | 5 905 | StatoilHydro | $248 000 | Q3 2011 |
| 26 | West Capricorn | Construction | Q4 2011 | 10 000 | N/A | N/A | |
| | **Tender:** | | | | | | |
| 27 | T-3 (49 %) | Contract | 1980 | 400 | PTT | $83 000 | Q2 2012 |
| 28 | T-4 | Contract | 1981 | 400 | Chevron | $101 000 | Q2 2013 |
| 29 | T-6 (49 %) | Contract | 1982 | 400 | PTT | $101 000 | Q4 2010 |
| 30 | T-7 | Contract | 1983 | 400 | Chevron | $58 000 | Q3 2011 |
| 31 | T-8 | Contract | 1982 | 400 | Total | $125 000 | Q2 2009 |
| 32 | T-9 (49 %) | Contract | 2004 | 400 | Exxon Mobil | $115 000 | Q1 2009 (+ 1yr option) |
| 33 | T-10 (49 %) | Contract | 2007 | 400 | Carigali Hess | $86 000 | Q3 2010 (+1 yr option) |
| 34 | T-11 | Contract | 2008 | 400 | Chevron | $134 000 | Q2 2013 |
| 35 | T-12 | Construction | Q1 2010 | 400 | N/A | N/A | |
| 36 | Teknik Berkat (49 %) | Contract | 1990 | 400 | Petronas Carigali | $121 000 | Q2 2012 |
| 37 | West Allliance | Contract | 2001 | 2 625 | Shell | $95 000 | Q1 2010 |
| 38 | West Berani | Contract | 2006 | 2 625 | ConocoPhillips | $165 000 | Q1 2012 |
| 39 | West Vencedor | Construction | Q1 2010 | 5 000 | Chevron | $200 000 | Q2 2015 |
| 40 | West Menang | Contract | 1999 | 800 | Total | $127 000 | Q4 2010 |
| 41 | West Pelaut | Contract | 1994 | 600 | Shell | $140 000 | Q1 2012 |
| 42 | West Setia | Contract | 2005 | 3 000 | Murphy | $163 000 | Q1 2012 |
| 43 | West Berani III | Construction | Q1 2011 | 5 000 | N/A | N/A | |

Fixed Contract
Option
Project Phase (Construction)

Figure 10: Fleet overview

At the moment Seadrill has contracted almost all of its capacity on longer contracts. In the floater segment only two units are not contracted and these are under construction, with the first unit being delivered in Q2 2010 (West Gemini).

As a result of the difficult jack-up market Seadrill currently has warm-stacked[19] three of their units, West Ceres, West Prospero and West Triton. They also have four units under construction (with delivery in 2010) which are not contracted. Figure 10 provides the fleet overview.

## 3.4 Dividends

Seadrill (2009 d) has developed a very dividend friendly policy and "has an objective to generate competitive returns for shareholders. This objective will be supported by frequent

---

[19] Warm Stack meaning that keep their core crew on the rig, which makes them able to cut some of their operating expenses, but at the same time being able to quickly put the unit back in operation. In opposite, a cold stacked rig is not employed, which makes it a more time-consuming process to put back in operation.

distribution of cash dividend". The major shareholder, Mr. Fredriksen is known to be shareholder friendly and paying out large amounts of dividends in his companies. A good example of this is the Fredriksen controlled tanker company, Frontline Limited, which has been paying out significant amounts in dividends, mainly through sale/leaseback transactions.

Since Q4 2007 Seadrill has paid out $1.75 in dividends, and clearly intends to keep paying out dividends in the future. The dividend history is repeated in table 1:

| Cash dividend | Dividend per share (US $) | Dividend per share (NOK) | EX dividend date | Payable date |
|---|---|---|---|---|
| Extra ordinary | $0.30 | kr 1.68 | 22.09.2008 | 30.09.2008 |
| 2Q 2008 | $0.60 | kr 3.32 | 04.09.2008 | 16.09.2008 |
| 1Q 2008 | $0.60 | kr 3.10 | 05.06.2008 | 18.06.2009 |
| 4Q 2007 | $0.25 | kr 1.29 | 05.03.2008 | 14.03.2008 |

**Table 1: Dividend history**

One of these dividends is directly related to the sale and leaseback transaction with Ship Finance for the UDW-floaters West Hercules and West Taurus. This sale gave Seadrill a total of $1.7 bn, with the company simultaneously leasing the units back for a period of 15 years. Seadrill has an obligation to buy the units back after 15 years (Seadrill, 2009 j). This transaction is the 4th and 5th unit that Seadrill has sold to Ship Finance, subsequently leasing them back. The purpose of the Sale/leaseback agreement is to free cash flows on an early stage, and release these to shareholders. Seadrill (2009 j) could also apply this strategy for their other units: "If Seadrill were able to apply similar arrangements for all the remaining eight deepwater units, the Company could release cash in excess of US$5 billion. This is however dependent on availability of debt financing sources and relevant covenant structures".

Seadrill decided to postpone dividends as a consequence of the current turmoil in the financial markets in the 3rd quarter 2008, and indicated that "The temporary halt in dividend should not be seen as a change in strategy, but more a reflection of current market conditions" (Seadrill, 2008 d).

## 3.5 Share development

Since the listing in November 2005 the Seadrill stock almost continuously developed favourably for its shareholders until its peak at NOK 175.75 in May 2008. Seadrill is however not immune to the global recession and the collapse of the financial markets. The share price, along with the OSEBX and its comparable firms, declined sharply in the fall of 2008 and well

into 2009. In the last couple of months the Seadrill share has recovered somewhat with a +65% return in 2009. This is significantly better than its peers and the reference index. The share development for Seadrill can be observed in figure 11:
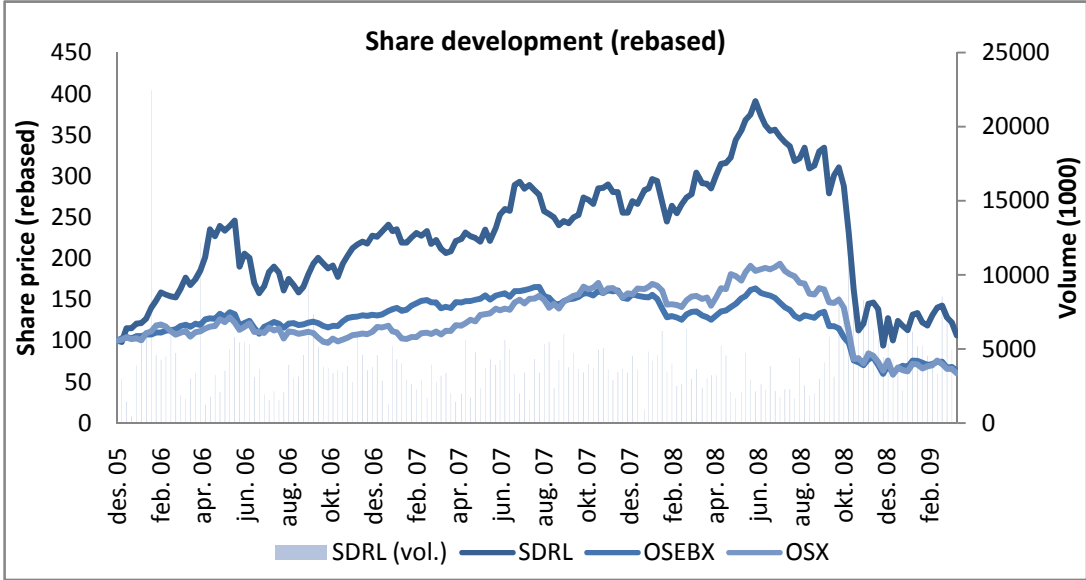


**Figure 11: Share price development (rebased)**

In addition to a weaker drilling market and declining prices, Seadrill also was impacted on weaker financial performance, steaming among other factors from TRS-transactions in own shares, forward contracts in Pride International and Scorpion Offshore. The late recovery in the oil price has clearly impacted the share price of Seadrill.

Since listing, Seadrill has outperformed both the Oslo Stock Exchange and the Philadelphia Oil Service Index (OSX).

The favourable development from November 2005 until the peak in May 2008 can mainly be explained by the increase in oil and gas prices[20], increase in E&P spending (See Figure 31) and the increase in dayrates. At the end of 2008, Seadrill traded at a Price/Book ratio at 0.86, compared to 3.49 one year earlier, clearly expressing the depressed markets.

---

[20] Seadrill (nominated in USD) has a correlation with the brent blend of 47% in the period (Nov. 2005 – Mar. 2009)

# 4. Strategic Analysis

This chapter will present the strategic analysis for Seadrill and the offshore drilling sector. First the framework for the strategic analysis is presented, than the theory is applied for the company and the sector. The focus here is on an internal analysis for Seadrill and an external analysis for the industry. The SWOT analysis will concretize in a supply and demand side, which will lead to the estimates for future market conditions.

The macroeconomic environment with the global recession and the turmoil in the financial markets has further actualized the market conditions for the offshore drillers, both on the supply and demand side. The purpose of the strategic analysis is to understand the industry and Seadrill's role in the industry, with the perspective of valuing the company. Penman (2007: 85) believes that "understanding the business is a prerequisite to valuing the business".

## 4.1 Framework for strategic analysis

Strategy is defined by Johnson and Scholes (1999: 10) as "the direction and scope of an organization over the long term: which achieves advantage for the organization through its configuration of resources within a changing environment, to meet the needs of markets and to fulfil stakeholder expectations". Hill and Jones (1998: 3) explain that the main goal for most organizations is to "achieve superior performance". The strategic analysis will through internal and external analysis examine if the company has a competitive advantage or not. If the company generates a higher return on invested capital then their cost of capital, the company is profitable. We can say that the company generates "super profit", which is a clear indication of a competitive advantage. Super profit is here defined as Return on Invested Capital (ROIC) – the Weighted Average Cost of Capital (WACC).

The strategic analysis will focus both on internal (the company) and external (industry) factors. The main goal here is to find out whether or not the industry in general and the specific company have a competitive advantage in the future. This analysis will also give a better understanding of the value drivers for the industry and the company. Knivsflå (2008 a) argues that a company holds a competitive advantage if the Price/Book ratio is greater than 1, and that this advantage is reflected in the share price.

The SWOT analysis has been used as the theoretical framework, where the focus is on the internal strengths and weaknesses and on external opportunities and threats (Barney, 1997). The framework for SWOT is illustrated in figure 12:
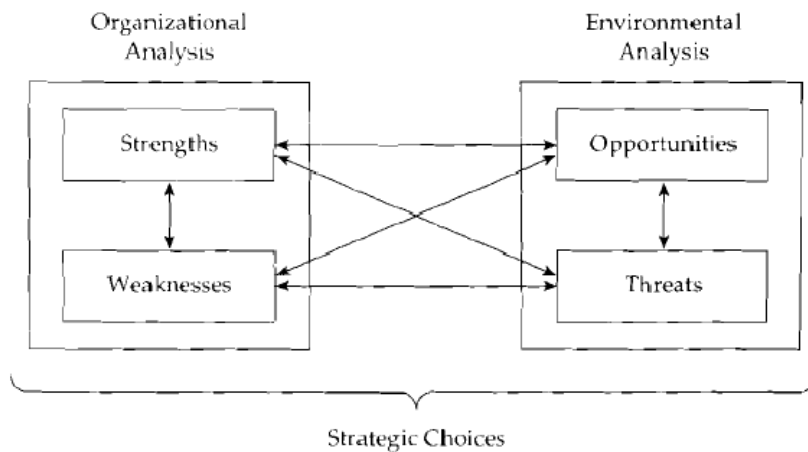
The internal strengths and weaknesses are measured through the VRIO framework. The external opportunities and threats are measured through Porter's Five Forces.
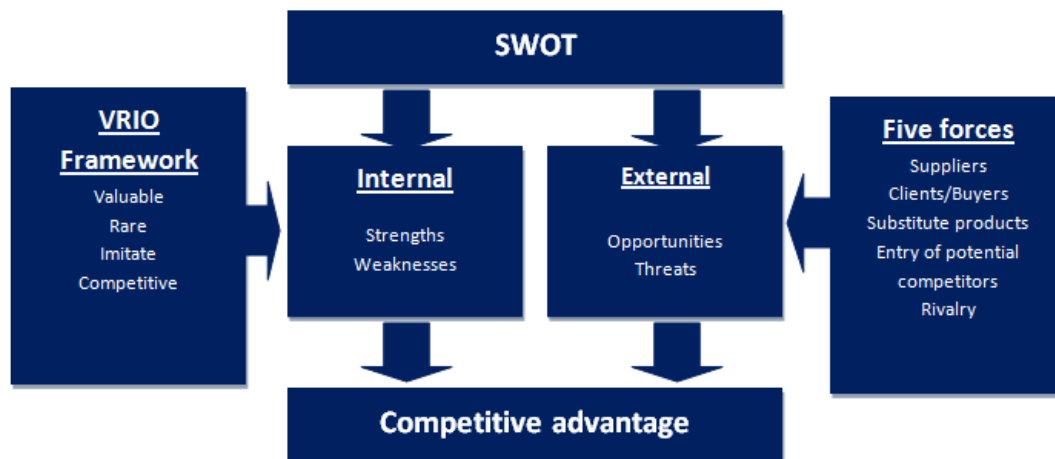


**Figure 13: Framework for Strategic Analysis**

### 4.1.1 Internal resource oriented analysis: VRIO

The goal of the internal analysis is to find out if the company has a resource advantage which could given them a competitive advantage, and hence result in super profit. For this the VRIO framework will be used, which is structured in four questions of Value, Rareness, Imitability and Organization:

"1) Do a firm's resources and capabilities enable the firm to respond to environmental threats or opportunities?

2) How many competing firms already possess particular valuable resources and capabilities?

---

[21] Barney (1997: 22)

3) Do firms without a resource or capability ace a cost disadvantage in obtaining it compared to firms that already possess it?

4) Is a firm organized to exploit the full competitive potential of its resources and capabilities?"(Barney, 1997: 145). The VRIO framework is illustrated in table 2:

**The VRIO Framework**

**Is a resource or capability . . .**

| Valuable? | Rare? | Costly to imitate? | Exploited by the organization? | Competitive implications | Economic performance |
|-----------|-------|--------------------|--------------------------------|--------------------------|----------------------|
| No | — | — | No | Competitive disadvantagel | Below normal |
| Yes | No | — | | Competitive parity | Normal |
| Yes | Yes | No | | Temporary competitive advantage | Above normal |
| Yes | Yes | Yes | Yes | Sustained competitive advantage | Above normal |

Table 2: The VRIO Framework[22]

## 4.1.2 External industry oriented analysis: Five-forces

The goal of the external analysis is to find out if the industry where the company operates has a strategic advantage that can lead to super profit. Porter's Five Forces have been used as a framework for the external industry oriented analysis. Five Forces is illustrated in figure 14:
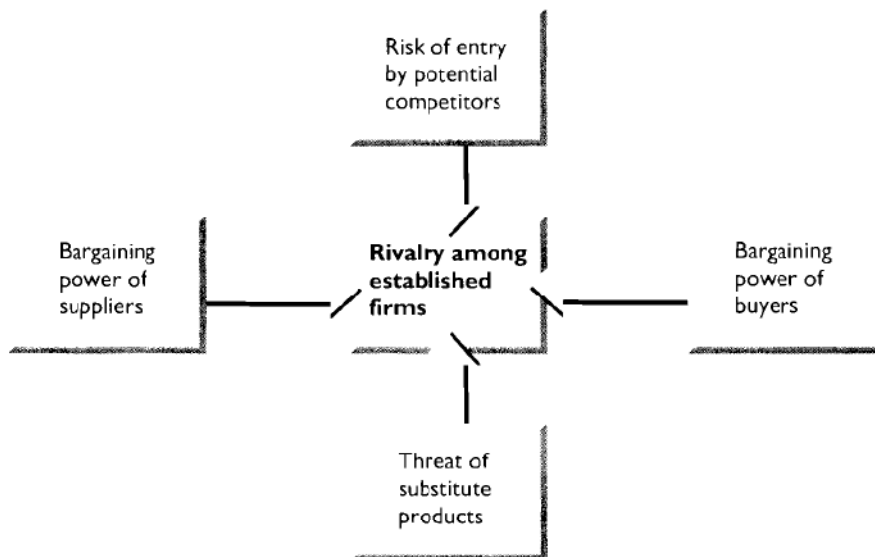


Figure 14: Porter's five forces[23]

---

[22] Barney (1997: 163)
[23] Hill & Jones (1998: 73)

The five forces model considers five different factors (i.e. the forces) that will impact the industry:

"1) the risk of new entry by potential competitors

2) the degree of rivalry among established companies within an industry

3) the bargaining power of buyers

4) the bargaining power of suppliers

5) the threat of substitute products" (Hill & Jones, 1998: 72).

## 4.2 Strategic analysis for Seadrill

Seadrill (2009 e: 8) defines its strategy as to "construct new deepwater and shallow water units at quality yards, build a strong and dynamic organization, enter into term contracts with quality customers, secure financing based on such contracts and put the new units into operation safely and efficiently".

Seadrill has since incorporation in 2005 underperformed the industry when looking at Return on Invested Capital, ROIC[24] (see figure 15). However, comparing Seadrill to mature drillers such as ENSCO, Noble and Transocean would be insufficient as these have a completely different focus. Seadrill has on average had a higher growth rate on operating revenues and on EBITDA than peers since incorporation, which is intuitive taking into consideration the strong fleet growth. Compared to its peers, Seadrill has had a slightly lower EBITDA margin, which may be explained by start-up expenses and the cost of growing.
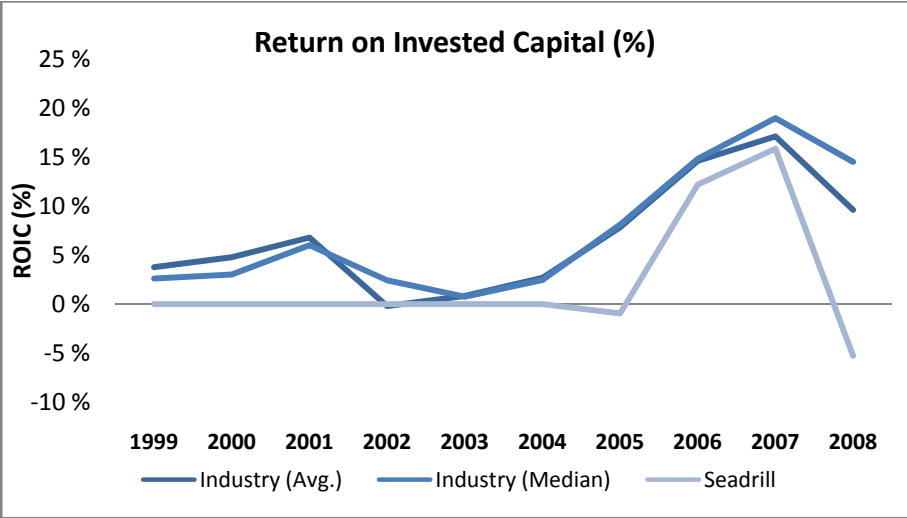


Figure 15: Return on Invested Capital[25]

---

[24] ROIC, is also referred to Return on Net Operating Assets (RNOA) and Return on Capital Employed (ROCE).
[25] Seadrill is included from 2005. ROIC is set to 0% from 1999 to 2004.

### 4.2.1 Internal analysis - VRIO

For the internal analysis for Seadrill the VRIO framework have been applied. Barney (1997) suggests that we categorise a firm's resources into four categories; financial capital, physical capital, human capital and organizational capital.

**Financial capital:**

The financial capital for Seadrill is the financial position in relation to their balance sheet. Seadrill has the highest leverage compared to its main peers, which intuitively implies that the company, because of their covenants, is more restricted to take on even more debt to finance their projects. The industry leverage for the most relevant peers is presented in figure 16:
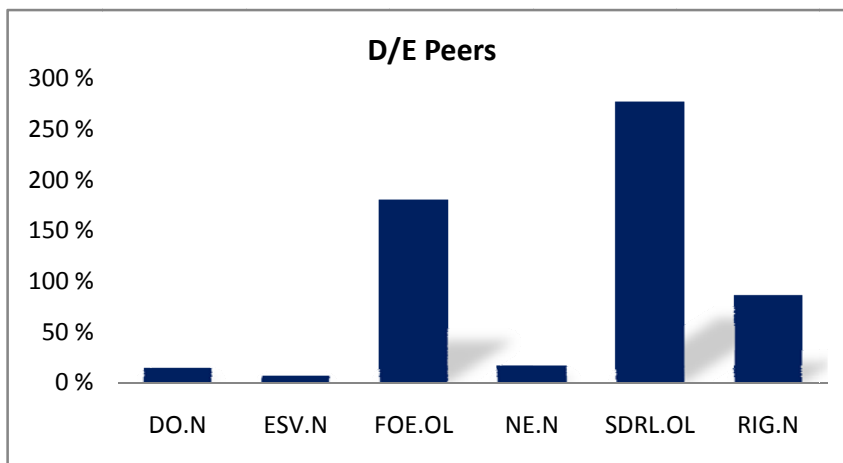


Figure 16: D/E Peers[26]

Seadrill has a strong balance sheet, and have several opportunities to take on new projects and other investments opportunities, if necessary. This can be financed through the strong operating cash flow or through sale/leasebacks. An issue of equity seems unlikely in the distant future. Seadrill has been through an aggressive newbuilding program which has transformed much of the financial resources into physical resources, i.e. the rigs. The company still faces significant amounts in committed CapEx[27] (Seadrill, 2009 f).

There are no signs that Seadrill has a stronger financial position than any of their main peers. Due to the high leverage of Seadrill it actually seems the other way around. Many of the peers can strengthen their financial positions by taking on a more aggressive leverage position. It can be concluded that Seadrill at best holds an equal financial strength as their peers, and that

---

[26] Measured on year-end 2008 (Only included "main" peers)
[27] The committed capital expenditures relates to yard instalments on the rigs currently under construction.

they have a higher financial risk.

**Conclusion: No financial capital advantage**

<u>**Physical capital:**</u>

The physical capital for Seadrill is their rigs. The fleet is the "value carrier" for Seadrill. The company holds one of the youngest and most high-end fleets in the industry. Compared to their competitors Seadrill has by far the youngest fleet (see figure 8). A younger fleet is clearly a competitive advantage and will lead to less maintenance CapEx, a higher utilization, i.e. economic utilization rate and a greater economic lifetime. It seems unlikely that the dayrates will be significantly different for the younger units. However, a younger fleet is more likely to be contracted faster than older rigs. Seadrill (2009 f) estimates that they over the next four years will spend approximately 4% of EBITDA in maintenance CapEx, while competitors like Diamond Offshore and Transocean will spend 18% and 12 %, respectively.

Seadrill's fleet has the highest UDW exposure in the industry, when considering percentage of total fleet and EBITDA contribution. Seadrill has 12 units with water depth equal to or above 7,500 feet (27 % of total fleet), while Transocean has 28 units (19 %), ENSCO 8 units (15 %) and Noble 7 units (11 %) (RigZone, 2009). The UDW segment is expected to stay stronger than the other segments, both in the short-term view and in a longer perspective. This is a clear advantage for companies exposed to the UDW segment.

Seadrill has also secured units on relative long contracts, preventing Seadrill to be reflected from weaker markets in the short-term. On the other hand, this will also prevent Seadrill to gaining from improving markets. Hence, Seadrill should be less exposed to short-term fluctuations in drilling market conditions than their peers. Overall this is an advantage to Seadrill, as it removes much uncertainty. Seadrill holds a stronger contract coverage than most of its peers, especially in regards to their floaters (see figure 17).

As the drilling markets have experienced a boom over the last years, many operators have used the situation to build new units on speculations. This is especially the situation for smaller operators. Seadrill currently has two UDW units, West Gemini and West Capricorn, under construction which have not been contracted. This obviously increases the uncertainty, especially when approaching delivery. The company also have 4 jack-ups[28] and two tender rigs under construction, which has not been secured on contracts.

---

[28] Seadrill has the option to not take delivery on two of the four jack-ups
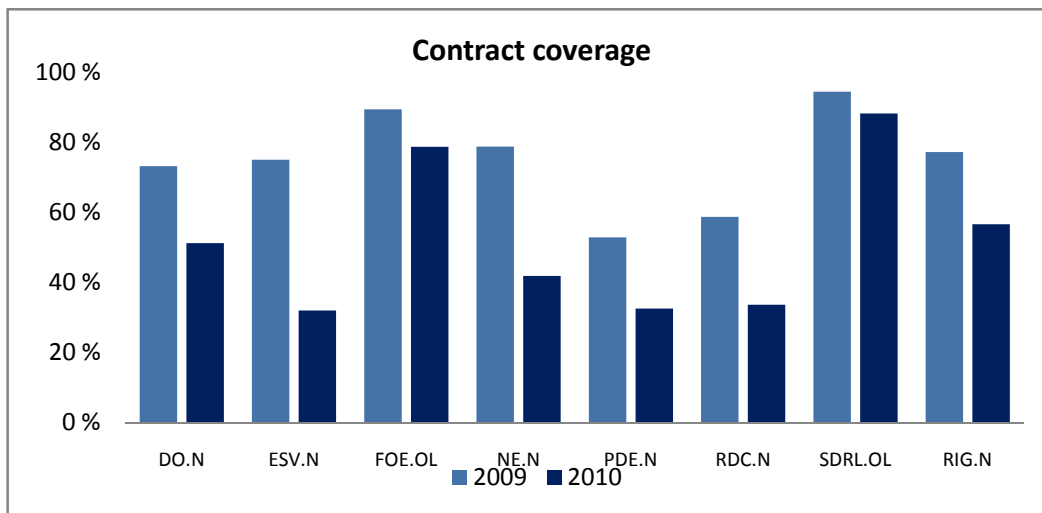
**Figure 17: Contract coverage**

It is clear that the fleet is valuable to Seadrill and in the industry quite rare because of the age and exposure. However, it is not impossible to imitate this strength. This will take time and be costly for the other established peers such as Diamond, Noble and Transocean. This enables Seadrill to maintain a competitive advantage when considering their fleet for some years. Over time there is no indication that Seadrill can keep a physical capital advantage.

Seadrill seems to have an advantage in their fleet compared to their peers as they have a much younger fleet, higher exposure to a favourable market (i.e. the ultra-deep water market) and solid contract coverage, especially for their UDW-floaters. The competitive advantage is not impossible to imitate, however it will be costly for the peers to upgrade their fleets. As the aggressive newbuilding program is coming to an end the operational risk for Seadrill is limited.

**Conclusion: Physical capital advantage (time limited)**

**Human capital:**

The human capital for Seadrill is their employees, both offshore on the rigs and the administration and management. Seadrill has proved to be among the best when it comes to recruiting new and skilled personnel for their rigs, which have been a significant problem in the industry over the last years (Seadrill, 2008 e). Some of this may be explained by the fact that Seadrill have some of the newest and most modern units in the industry. Health, safety and environment (HSE) training is, as with all offshore companies a high priority for Seadrill.

Seadrill is a quite young organization, but both the management and the board have extensive experience from the industry. The company have proved to have a successful organization since the incorporation with impressive financial performance as well as satisfactory shareholder return.

The human capital in Seadrill does however not offer any extraordinary advantage to any of their peers. The leading offshore drilling operators also have a strong focus on HSE and have experienced and well qualified management and crew. In a down cycle the peers should be able to remove the recruitment advantage that Seadrill has. This advantage should not be difficult to imitate in a longer perspective.

**Conclusion: No human capital advantage**

**<u>Organizational capital:</u>**

Seadrill is a professional organization with an experienced management. The organization has, as mentioned above, proved to be a success through a great track record the last years. One example of this is the execution of the world's most aggressive newbuilding program over the last years, which has been one of the most successful both in regards to budget and time. Seadrill has here clearly a better track record than most of their peers, mainly due to choosing quality yards. Only slight delays have been experience, which is impressive when realising the size of the construction program.

As the drilling services offered by the drilling operators to the oil companies are quite similar, it is important to build relations with the different companies. In relations to client base, Seadrill has some of the largest and most stable costumers. This is clearly reducing the counterparty risk in relations to bankruptcy and contract terminations. Among Seadrill's largest costumers are national oil companies (NOCs) and super majors such as Petrobras (32 % of backlog revenues), Total (14 %), Exxon (13 %) and Royal Dutch Shell (10 %) (Seadrill, 2009 f). Several of Seadrill's peers have smaller and independent oil companies as clients, and have experienced problems with counterparty risks. Transocean and Diamond Offshore experienced termination of contracts as the small E&P company Oilexco went bankrupt in January 2009 (Upstream, 2009 g). The client base of Seadrill can be said to represent an advantage at the present time, especially in a down cycle. However, as focus is moving into deeper waters the clients are getting larger and more stable. The competitive advantage is not especially rare and not very difficult to imitate, hence the advantage can at best be said to be small and time limited.

Seadrill is controlled by one major owner, Mr. Fredriksen. This may give the company an advantage in regards to a stable and long-term ownership. In addition Mr. Fredriksen has a reputation of having a very shareholder friendly policy, amongst other in relations to dividends. On the other hand, a large owner may create a "lack-of-control" discount, and could also lead to treat for the minority shareholders in the company.

There is no reason to believe that Seadrill is organized in any other way, or have an advantage of this, compared to its peers. The impressive track record in relations to the newbuilding program should be possible to imitate.

**Conclusion: No organizational capital advantage**

Seadrill have a limited advantage in regards to their physical capital, i.e. the fleet, which may create a super profit for some years ahead. There is no reason to believe that Seadrill has any advantage to their industry/peers in regards to financial, human or organizational capital. Hence, it seems reasonable that these resources at best should represents a fairly return, ROIC = WACC.

### 4.2.2 External analysis – five forces
The external analysis of the drilling industry is based on the framework of Porters Five Forces.

**Bargaining power of the suppliers:**
The suppliers for the offshore drilling industry are mainly the yards providing the rigs and drilling packages. The shipyard industry is a cyclical business, just as the drilling business and with the increase in the oil price the shipyards have experienced a boom the last few years. Drilling operators have been ordering new rigs at a constantly increasing rate, filling yard capacity and increasing the length of the yards order backlog. The demand for oil service related vessels have been tremendous, leading to an increased bargaining power for the yards. Many smaller drilling operators entered the market further increasing the power of the yards.

The shipyard industry is dominated by Asian yards. For the floater segment five yards are delivering almost 80% of the new rigs coming into operations over the nest years; Samsung Heavy (Korea), Keppel FELS (Singapore), Daewoo Heavy (Korea), Jurong (Singapore) and Yantai Raffles (China). Figure 18 and 19 shows the distribution between the yards on the rigs under construction delivered from 2009 to 2012. Figure 18 and 19 presents the split of the newbuilds on the yards:
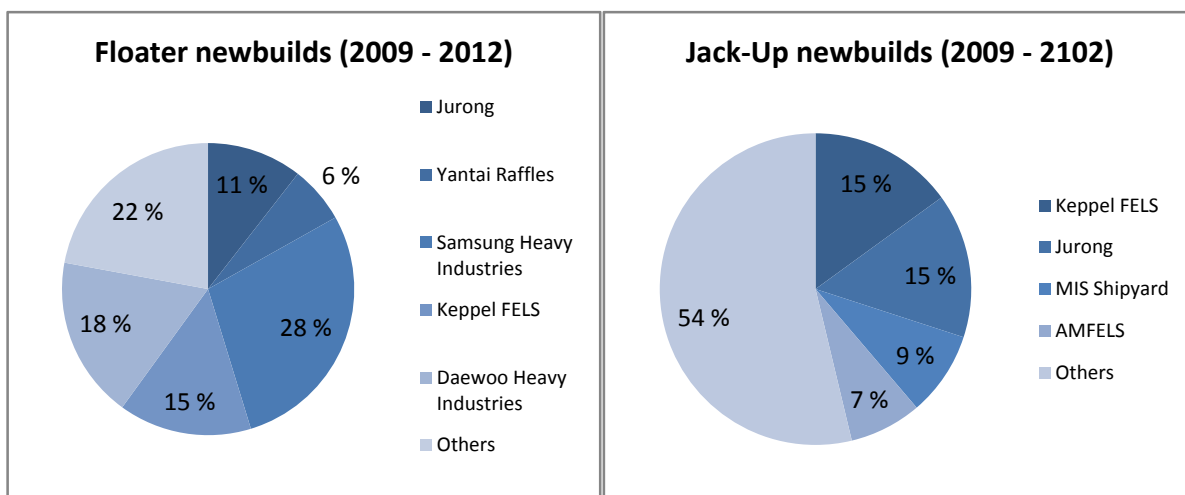
**Figure 18: Floater newbuilds (2009 – 2012)**    **Figure 19: Jack-Up newbuilds (2009 – 2012)**

In the market for Jack-up rigs there are more yards delivering the units, but also here the Asian yards are dominating.

As observed in Table 3 the newbuilding prices have been increasing sharply over the last decade. According to R.S. Platou (2009, b) only one unit have been ordered so far in 2009 (one Jack-Up unit). We have on the other side seen many cancelations as the market conditions for drillers have weakened. In comparison it was ordered a total of 61 new units in 2008, 26 Jack-Ups and 35 floaters.

| Newbuilding prices (1000 $) | 1990 | 1995 | 2000 | 2005 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Semi-Submersibles | $160,000 | $200,000 | $320,000 | $520,000 | $660,000 | $730,000 |
| Jack-Up | $63,000 | $72,000 | $95,000 | $175,000 | $190,000 | $195,000 |

**Table 3: Newbuilding prices**[29]

The bargaining power of the yards can to some extent be observed by the revenue growth and the margins achieved. In Figure 20 it can be observed that the yards on average have experienced a high and quite stable growth rate above 20 %, while they have more than doubled their EBIT margins. This is a clear sign that the yards have a significant bargaining power. The four yards examined are; Keppel FELS, Jurong, Samsung Heavy Industries and Daewoo Heavy Industries.

---

[29] For Semi-Submersibles: Deepwater units from 1999, for Jack-Up units: Premium 350 ft from 2000, (R.S. Platou, 2009)
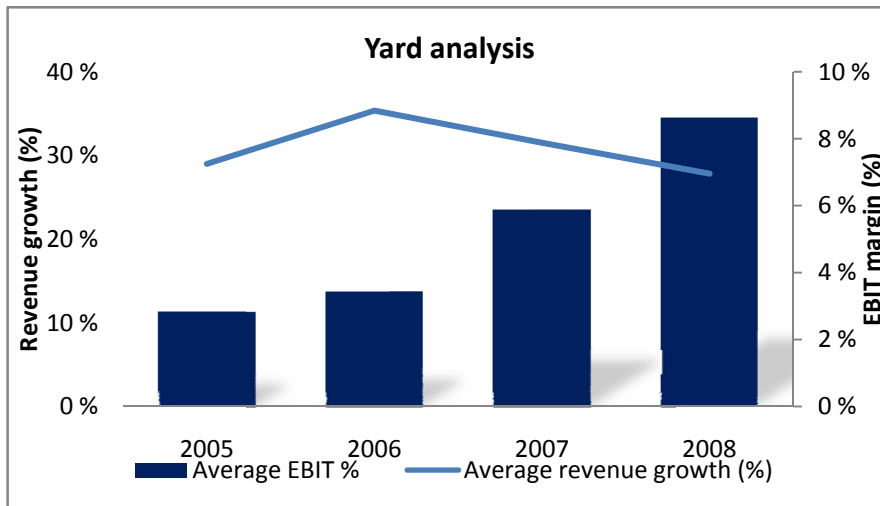
Figure 20: Yard analysis

The overall trend in the drilling market is that drilling operators now are moving from fairly simple and standardised jack-ups to more specific deepwater floaters. This is clearly an effect of the demand from oil companies and new field explorations. At the moment there are more deepwater floaters being built than jack-ups at the shipyards. This change in demand will require more complexity for the yards, and may lead to even more dominating yards as the rigs are becoming more difficult to build.

The last few months the markets have collapsed, and many small drillers are struggling with financing (Upstream, 2009 a). This has lead to cancellations of newbuilds, and that yards are not getting paid. This have forced the yards to start selling rigs at some discount, and more are expected ahead (Transocean, 2009).

A few dominating players are a sign of bargaining power (Johnson et al., 2006), and there is no doubt that in the "boom years" the yards have experienced significant bargaining power. With a strong increase in the oil price almost anybody could get financing for a drilling unit, hence many new and inexperienced drilling operators has entered the market over the last years. Now some of these are struggling with the financing, and some may be forced to sell their units at significant discounts (Upstream, 2009 d). Smaller drilling operators are now abandoning the market, mainly because of the credit crunch (lack of financing). This will leave the market for the dominating drilling operators, such as Diamond Offshore, Noble, Seadrill and Transocean.

Decrease of demand along with fewer and larger drilling operators are indications of decreasing bargaining power for the yards. This is also indicated by the Singapore yard Keppel FELS (Upstream, 2009 b), which expects falling rig prices.

Another supplier for the offshore drilling companies is the employees of the company, mainly the crew on the rigs. The drilling operators are dependent on the crew on the units, and here health, safety and environment (HSE) are playing a core issue. Offshore drillers have lately, as many more drillers have been put in operations and the demand for skilled crew has increased, been struggling with the recruitment process. This has led to increased offshore wages. We can conclude that the employees of the offshore drillers have significantly bargaining power.

**Strength: Medium (Trend is decreasing)**

**<u>Bargaining power of the clients:</u>**

The clients for the drilling operators are the oil companies. We can divide the oil companies into two main groups; National oil companies (NOCs) and International oil companies (IOCs) (Maugeri, 2006). The IOCs can further be divided into super majors, majors and independent oil companies. Examples of NOCs are Gazprom (Russia), ONGC (India), PEMEX (Mexico) and Petrobras (Brazil), which are gigantic oil producers mainly in their home region. The super majors are defined as BP, Exxon, Chevron, Total and Royal Dutch Shell, which are the top five international oil companies measured by production. Major IOCs are for example ConocoPhillips, ENI and StatoilHydro. Examples of independent oil companies are Anadarko, Devon and Hess Corporation[30].

These companies have obviously been enjoying the boom in the oil price, as they have been setting record earnings each quarter and share prices have skyrocketed. At times it seemed that costs were not relevant, and the demand for drilling units, especially in the deeper waters was infinite. The focus for the oil companies was more on growth, increasing production and replacing reserves than on the costs. This have now shifted dramatically (StatoilHydro, 2009). Figure 21 shows that in the last ten years the margins for the drillers have gone from the level of 35% to well above 50 %, with a significant increase just the last couple of years.

---

[30] See Appendix E for a overview of oil companies included in this paper

**EBITDA Margins Offshore Drillers (Median)**
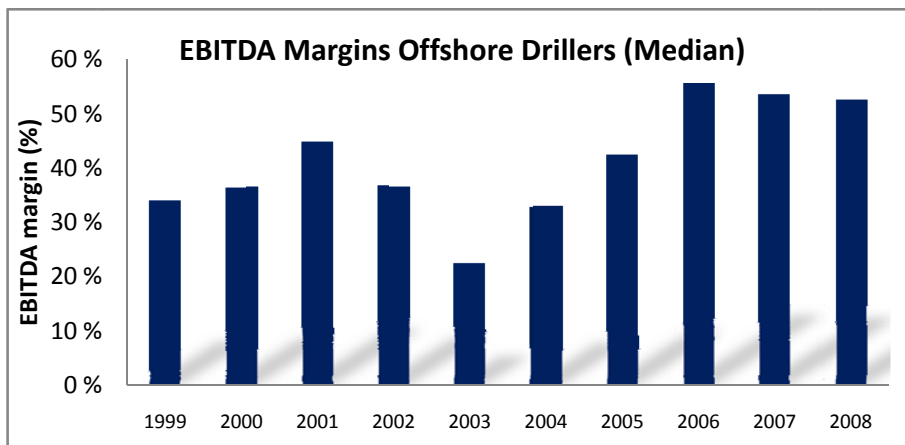
*Figure 21: EBITDA margin Offshore Drillers (Median)[31]*

As prices have skyrocketed so have the costs of drilling for oil and this is now setting the oil companies in a squeeze as the oil price collapsed in the second half of 2008. Oil companies have been left with covering mobilization costs, other start-up expenses and cost escalations for the drillers. Some of the largest oil companies, such as ConocoPhillips, BP and StatoilHydro are now demanding cost reductions (Upstream, 2009 e). This is a completely different outlook than just a year ago.

Even as new drilling companies have been popping up, the utilization of the global fleet have been record high with almost no available capacity the last years (R.S. Platou, 2009 a). This has left the oil companies, even the majors, with a reduced bargaining power.

Now we can clearly observe a shift in this, as major oil companies are reducing their spending and the demand for drillers are coming down, at least in the jack-up market. In the UDW floaters market, however, the demand is still at extreme high levels with utilization close to 100% (R.S. Platou, 2009). At the moment there are not a single unit available with a water depth equal to or more than 7,500 feet in 2009. At the end of 2010 only five units will be available in the UDW segment, if no contracts are assigned. In this segment the drilling operators still have "the upper hand".

The overall E&P spending for the oil companies are estimated to decline by 12 % in 2009 (Barclays Capital, 2009). However some companies, especially NOCs and super majors, are still increasing their E&P budgets. Examples of this are Petrobras, Exxon and Royal Dutch Shell. This will keep demand in the floater segment relatively high, even if smaller companies are axing CapEx costs due to the financial turmoil and decreased oil prices. This can to some

---

[31] Not adjusted for one-time effects

extent be explained by the development of UDW-fields that may reach production first in 5 to 10 years. These fields will produce oil for at least 20 to 30 years, and hence are the short-term development in the oil price more or less irrelevant. This has made the UDW-segment less exposed to the fluctuations in the oil price. The operators on UDW-fields can mainly be described as the majors and NOCs, which have strong balance sheets and are less influenced by the credit crunch.

Oil companies are struggling with depletion of their reserves along with falling production, forcing them to increase E&P spending. As oil reserves are getting harder to find and on deeper waters (IEA, 2009), this is forcing the oil companies out on even deeper and more expensive waters. Keeping oil production levels and replacement rates at high levels have long been main focus for the oil companies, especially the super majors (StatoilHydro, 2008).

We have seen oil consumption and forecasts for oil demand being reduced significantly with the global recession (IEA, 2009). OPEC has implemented production cuts as an attempt to meet the lower demand, and keeping oil prices at fairly high and stable levels (Bloomberg, 2009). The International Monetary Fund (IMF) (2009) expects a negative GDP growth for the advanced economies, of -2.0 % in 2009. For the global GDP they forecast growth of 0.5% in 2009 and 3.0% for 2010. The reduced growth rate in the global economy will clearly influence the demand for oil further. IEA (2009) now expects the global demand for oil to be 84.4 million barrels/day, which is down 1.2 million barrels per day from one year ago.



Figure 1. GDP Growth
(Percent change)
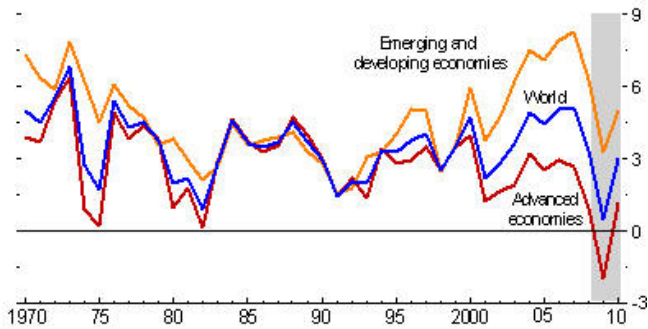
Figure 22: GDP growth[32]

We observe a dramatic shift in the demand and bargaining power. Deepwater drillers are however secured with good contract coverage and a strong backlog. Transocean (2009)

---

[32] IMF, 2009

actually see a stronger deepwater segment for the next years than he did just a year ago. This is due to the reduction in newbuilding activity, cancellation of newbuilds and delayed deliveries. This will at least postpone the expected equilibrium between supply and demand for the UDW segment.

We can conclude that costs now are significantly more on the agenda for the oil companies than one year ago, and that we can expect reduced EBITDA margins for the drilling companies. Especially the jack-up segment is expected to experience a squeeze as the segment has a lack of contract coverage and many warm-stacked units. The UDW market is expected to stay strong. Overall the bargaining power of the oil companies is expected to increase.

**Strength: Medium (Trend is increasing)**

**<u>Threat from entries:</u>**

The last years it has been significantly easier for new and smaller driller operators to enter the market, as demand for drilling rigs have been exceptional strong and financing has been easily accessible. Drilling operators have been able to repay their investments at very rapid rate, and some companies have even demanded payback ratios of 5 to 10 years.

The barriers for entry are somewhat high as the building cost for one unit ranges from $200m (one jack-up unit) to around $700m (one UDW-floater). Hence, this reflects that the market for entries is very dependent on the financing market and the market conditions for the drillers. Problems for new operators have in the boom market been yard capacity, and lack of drilling packages, along with recruiting key crew.

As the credit crunch has made financing more difficult for smaller operators and the demand for rigs have decreased significantly along with the oil price, the threat from new entries has also decreased significantly. Especially for the UDW-market it can be regarded as fairly difficult to get into the market.

The largest threat from entries at the moment comes from the oil companies. NOCs and major IOCs are threatening to build and operate the units themselves. This has already been indicated by BG Group and Petrobras (Upstream, 2009 f). Especially Petrobras has been important the last years, as they more or less has been vacuumed the market for UDW units, making the UDW-drillers somewhat "immune" to the global recession and falling oil prices. Falling newbuilding prices and record high dayrates with payback times of 5 years are

furthering triggering the oil companies to build the units themselves. However, in the short-term view the drillers are safe as there are limited yard capacity and drilling packages to build units that will come in operations before 2012/2013.

The threat of vertical integration by the oil companies can be viewed mostly as a negotiation topic. This may create a roof for the dayrates going forward, but it also represents a real threat that super majors will follow Petrobras' example and start ordering rigs themselves. Both Petrobras and ONGC own many drilling units themselves. Hence, the vertical integration is not unlikely to continue. In February Mitsubishi and Petrobras signed a joint-venture to build and operate a drillship for the use in ultra deepwater outside Brazil (Upstream, 2009 h). Vertical integration represents a clear threat to the drilling operators, and is signalling the effect that the bargaining power for the oil companies is increasing. The bargaining power between the oil companies and the drilling operators are mainly shifted by supply of drilling rigs and demand for oil and the oil companies E&P budgets.

**Strength: Medium (Trend is increasing)**

**Threat of substitutes:**

Even though alternative energy sources, like oil sands and solar cells, have become more efficient and popular there are still no real alternative to oil and gas as the worlds energy source. Hence, there are no substitutes to drilling for oil and gas. Unconventional oil, such as extra heavy oil, tar sands and oil obtained from coal, is at the moment representing a much higher extraction cost than conventional oil (Blanchard, 2005). As oil exploration has moved from more easily accessible waters to deeper waters, this has even more favoured the drillers, as dayrates and returns (IRR) have increased. However, technology and development for the drillers represents a substitute to the drilling rigs we know today. The industry has grown rapidly the last years, and been through many technology improvements. Many of the deepwater units as we know them today may become obsolete in the years to come as a result of innovation.

All over the drilling companies are expected to take part in these changes and could make the technology to an advantage. The threat from substitutes is considered to be weak.

**Strength: Weak**

**Competitive rivalry:**

It has been a relatively high competition among the drilling operators the last years. We have seen many new operators coming into the market, and many of the smaller players have been

acquired even before having any units ready for drilling. There has been a clear consolidation trend over the last years, and this can be illustrated by acquisitions such as of Awilco Offshore (by COSL), GlobalSantaFe (by Transocean) and Smedvig (by Seadrill). This consolidation trend is a clear indication of high internal competition in the industry (Barney, 1997).

The drilling operators offers quite similar services to the oil companies, which have been leading to a fierce competition in price. Especially this can be observed in down cycles, for example have the dayrates for Jack-Up rigs now dropped from around $200 000/day to around $80 000/day in less than a year, as many rigs have become idle. The drilling operators try to differentiate themselves from one another, by operating in different geographical areas (such as pre-salt Brazil, U.S. GoM and Arctic environments), operate in harsh environment or in different segments. Many firms also build strong relationships with major costumers.

The favourable market conditions in combination with tight yard capacity for newbuilds, have been leading to the consolidation trend and the high competition. This could be expected to continue, especially in the UDW-market where dayrates have been staying at record levels and the yard capacity is extremely tight.

At the moment the drilling market is dominated by six drilling operators; Diamond Offshore, ENSCO, Noble, Pride International, Seadrill and Transocean. These companies are alone controlling close to 50% of the worlds UDW fleet[33].

As the financial turmoil have decreased market values for many of the smaller drilling operators, the dominating players in the industry have indicated that they could use the opportunity to buy assets from distressed drilling operators at a discount. The consolidation trend is expected to continue, and the competition among the drilling companies will remain strong for a distant future.

**Strength: Strong**

The external analysis concludes that the industry is highly cyclical, and is very dependent on the oil price[34] and the oil companies E&P budgets. The industry may have some advantage to other industries in the short-term picture because of the supply side, but in a longer picture this is not significant. However, the UDW segment seems to stay strong in the long term picture assumed that we will continue to see a relative high oil price.

---

[33] See Appendix C – Offshore Drilling Fleet
[34] A oil price of $70/bbl is representing the break-even in many projects

| Five Forces summary: | Weak | Medium | Strong | Trend |
|---|---|---|---|---|
| Suppliers | | X | | → |
| Clients | | X | | ↗ |
| Entries | | X | | ↗ |
| Substitutes | X | | | → |
| Competitive rivalry | | | X | → |

Table 4: Five Forces Summary

The market outlook is concluded by a discussion of the supply and demand side, which will be used as a basis for the market condition outlook, i.e. dayrates:

### 4.2.3 Macro economic trends - Supply

The last years many new builds have come on-stream and even more are still under construction, increasing the offshore drilling fleet significantly. According to R.S. Platou (2009 a) the offshore drilling fleet grew by 10% from 2005 to 2008. As demand has been strong, the drilling companies have extended the life time of their older vessels, preventing the natural decrease of the fleet. As a result we have seen a steady increase in the global supply of drilling rigs, as indicated by Figure 23 below:
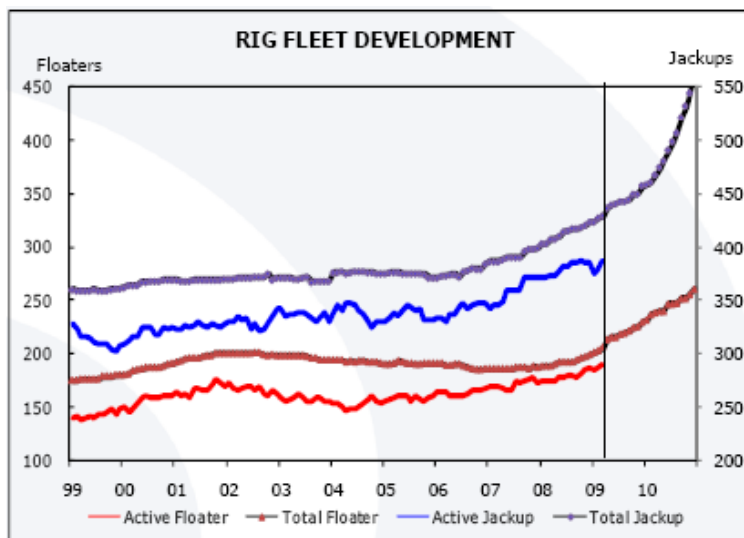


Figure 23: Rig Fleet Development[35]

When oil prices experienced some dips in 1998-1999 and 2001-2002, oil companies decreased their exploration and production (E&P) spending significantly (see figure 5). The under-investments made by the major oil companies in 2001-2002 can be seen as partly the reason why oil prices sky-rocketed from 2004 until it hit its peak in the summer of 2008, at $147/bbl. Under-investments in E&P created weak drilling markets, and hence the drilling

---

[35] R.S. Platou, 2009 b

companies stopped building new drilling units. Dayrates fell as much as 30-60% for offshore drillers in 2002. When the oil price again started to climb in 2003, there were not enough rigs in the market to absorb the demand. Hence the dayrates soared dramatically.
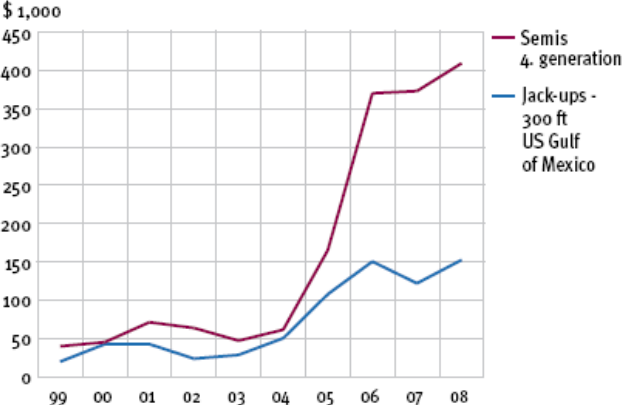
In the fall of 2008 and into 2009 oil prices collapsed from $147/bbl to around $40/bbl as a result of the global recession. This resulted in oil companies slashing their E&P budgets, drilling operators cancelling rigs under construction and cancellation of drilling contracts. During the last 6 months we have seen a completely shift in the supply curve, as the drilling companies are starting to adjust to the new demand side. So far in 2009 it has been order only one newbuilding, which implies that the tight supply market will continue longer than expected before the credit crunch.

The focus in the drilling sector and the whole oilservice industry in general, is on the deepwater findings in Brazil (see figure 25). The three fields outside Brazil; Espirito Santo, Campos Basin and Santos Basin (including the Tupi field) may include reserves of more than 12 bn barrels (EIA, 2009). These reserves are located in the pre-salt area, on extreme water depths (7,500 feet and deeper) and under thick layers of salt (The Economist, 2009).

---

[36] R.S. Platou, 2009 a

Figure 25: Brazil oil fields

The UDW findings have created extremely strong market conditions for UDW drilling operators. The dayrates have not nearly been hit as hard as the other segments as the oil price has collapsed and financial turmoil has increased. In many ways the UDW-market has seemed to be "immune" to the global recession. The main demand for UDW-units has been driven by the findings in Brazil, and especially Petrobras. The company may need as much as 60 drilling rigs over the next 5 to 10 years. Recently the company has indicated that they will build and operate many of these themselves, which seems like a significant threat to the demand for UDW-units.

The credit crunch has reduced newbuilding activity, and in addition we have seen cancelations for some projects, especially in the jack-up segment. This improves the outlook for the drilling market as fewer rigs will come in operations. This may maintain the extreme tight supply situation we are seeing in the UDW market for even more years. This is forcing the oil companies to keep paying "boom-rates" if they would like to continue their E&P activity on deep waters.

As we can observe from Figure 26 there are no available drilling rigs in 2009 with a water depth > 7,500 feet. The first available unit is Transocean's Cajun Express coming of contract in January. By the end of 2010 the total available number of UDW floaters will be five. As the demand is expected to be higher than this all units are expected to be contracted before becoming available. The dayrates, given the tight supply situation, should be around the level achieved by Dryships and Vantage earlier this year (~ $550 000/day).

Figure 26: Supply Floaters: Water depth > 7,500 ft

| Supply Floaters: WD > 7 500 ft. | | | | | 2009 | | | | 2010 | | | | 2011 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vessel | Company | WD (ft) | Type | Status | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Cajun Express | Transocean | 8 500 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Sedco Express | Transocean | 7 500 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Deepsea Stavanger | Oddfjell Drilling | 10 000 | Semi-Submersible | Construction | | | | | | | | | | | | |
| West Gemini | Seadrill | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Deepwater Horizon | Transocean | 10 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Pacific Bora | Tanker Pacific | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| ENSCO 7500 | ENSCO | 8 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Maersk DS-23 | Maersk Drilling | 10 000 | Semi-Submersible | Construction | | | | | | | | | | | | |
| Ocean Clipper | Diamond Offshore | 7 500 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Cardiff Drillship I | Cardiff Marine | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Discover Deepseas | Transocean | 10 000 | Drillship | Contract | | | | | | | | | | | | |
| Pride North America | Pride International | 7 500 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Stena Tax | Stena Drilling | 8 100 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Discover Enterprise | Transocean | 10 000 | Drillship | Contract | | | | | | | | | | | | |
| Ocean Rover | Diamond Offshore | 8 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Cardiff Drillship II | Cardiff Marine | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Deepsea Metro I | Oddfjell Drilling | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Pacific Mistral | Tanker Pacific | 12 000 | Drillship | Construction | | | | | | | | | | | | |
| Pacific Scirocco | Tanker Pacific | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Larsen Rig 1 | Petrolia Drilling | 10 000 | Semi-Submersible | Construction | | | | | | | | | | | | |
| Ocean Endeavor | Diamond Offshore | 10 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Pacific Santa Ana | Tanker Pacific | 12 000 | Drillship | Construction | | | | | | | | | | | | |
| Dryships Drillship I | Dryships | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Deepwater Frontier | Transocean | 10 000 | Drillship | Contract | | | | | | | | | | | | |
| Noble Amos Runner | Noble | 8 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| ENSCO 8504 | ENSCO | 8 500 | Semi-Submersible | Construction | | | | | | | | | | | | |
| La Muralla IV | IPC | 8 200 | Semi-Submersible | Construction | | | | | | | | | | | | |
| Deepsea Metro II | Oddfjell Drilling | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Cobalt Explorer | Taiwan Marine Transport | 10 000 | N/A | Construction | | | | | | | | | | | | |
| Dryships Drillship II | Dryships | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| Pride Drillship IV | Pride International | 12 000 | Drillship | Construction | | | | | | | | | | | | |
| Stena DrillMAX Ice | Stena Drilling | 10 000 | Drillship | Construction | | | | | | | | | | | | |
| West Hercules | Seadrill | 10 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Noble Clyde Boudreax | Noble | 10 000 | Semi-Submersible | Contract | | | | | | | | | | | | |
| Pride Africa | Pride International | 10 000 | Drillship | Contract | | | | | | | | | | | | |
| West Capricorn | Seadrill | 10 000 | Semi-Submersible | Construction | | | | | | | | | | | | |

Source: ODS-Petrodata, RigZone

The supply situation in the jack-up market and for mid-water floaters is not even close to the UDW-situation. At the moment there are 60 warm-stacked and 30 cold-stacked jack-up units among the global fleet. Many floaters with water depth from 1,500 to 5,000 feet are also stacked idle[37]. However, many of these units are old units that are expected to be removed from the market the next years, as the market conditions have weakened significantly.

#### 4.2.4 Macro economic trends - Demand

In the last years the global economy has been in a boom state with a rapid growth in global GDP. At the same time the demand for oil has increased significantly as emerging economies such as China, India and other economies has started to consume more oil. Figure 27 shows that supply just barely satisfies the demand for oil, and as demand is expected to regain in late 2009/early 2010 this may create a new boom in the oil price (IMF, 2009). Oil demand is expected to decrease by -2.4 million barrels per day in 2009 (G8, 2009), and the world GDP by -3 % (The World Bank, 2009).

---

[37] See Appendix C – The Offshore Drilling Fleet
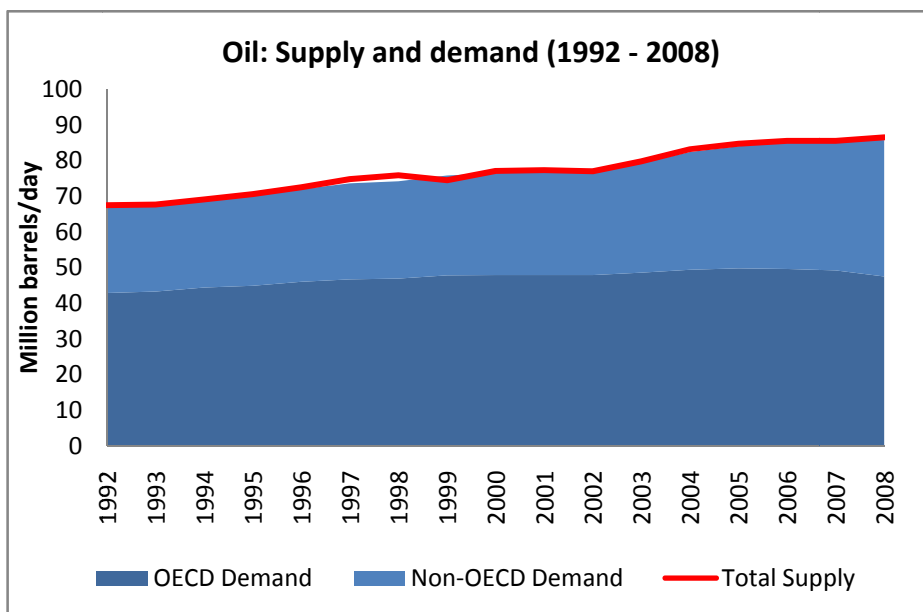
Figure 27: Oil – Supply and Demand (1992 – 2008)[38]

Demand for drilling services is earlier described driven by the development in the oil price, which more or less directly is a consequence for E&P spending.
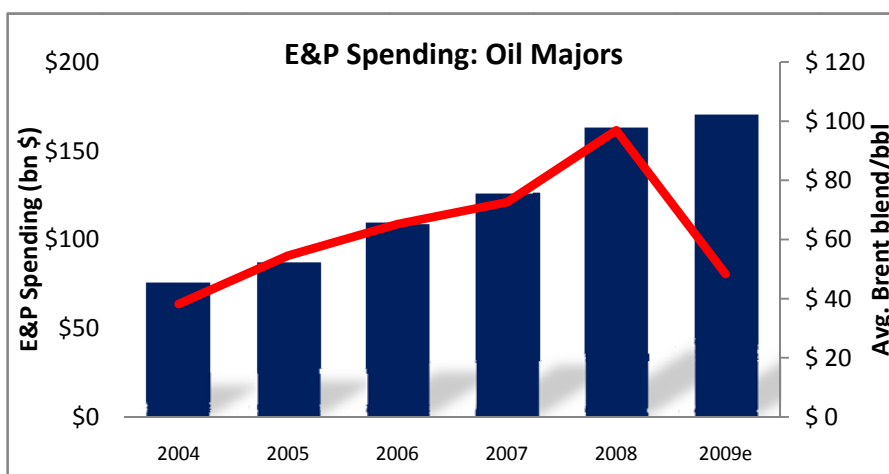


Figure 28: E&P Spending: Oil Majors[39]

We see from Figure 28 above that the CapEx spending for the major oil companies[40] is highly correlated with the oil price. This has resulted in strong increase in E&P activity, and hence a boom market for the drilling operators. However, the recent dip in the oil price have mainly resulted in minor oil companies slashing the E&P spending, while the majors keep their CapEx in E&P stable. Some companies, like Exxon and Petrobras have actually increased their E&P budgets. For the selection of this paper, which constitutes of 10 NOCs, Super

---

[38] IEA, 2009
[39] Sources: Company Filings, Strategy Updates and DataStream
[40] See Appendix E – Oil companies overview for more details

majors and Major oil companies, the E&P spending from 2008 to 2009 is actually increasing close to 5 %. Barclays Capital (2009) has indicated a total E&P decline of 12 %, down to a total of $400 bn from $458 bn. This includes all minor and independent oil companies which obviously are more impacted by the credit crunch. In earlier down cycles the oil companies have dropped the E&P spending sharply, but these spending have also bounced back relative quickly. Goldman Sachs (2008) have estimated a -23 % drop in E&P spending in 1999 and a -6% drop in 2000, when the oil price fell below $10/bbl.

For UDW drillers, such as Noble, Seadrill and Transocean the spending for the largest oil companies, which are the ones actually operating on ultra deepwater, matters more than for the total market.
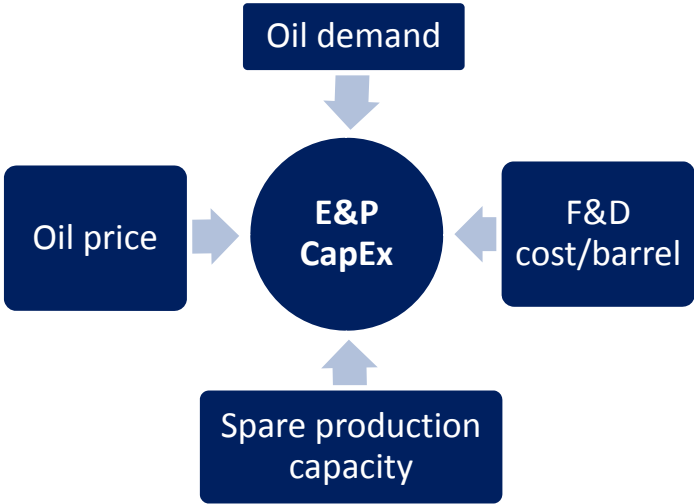


**Figure 29: Factors for E&P CapEx for oil companies**

Figure 29 explains the factors for the E&P spending for the oil companies. Along with the obvious factors, oil price and oil demand, also the finding and development (F&D) cost per barrel and the spare production capacity impacts the E&P spending by the oil companies. Spare production capacity may increase as demand for oil is decreasing; hence there would be less need for extra investments. The F&D costs are likely to increase as the companies are moving focus from shallow waters to deeper waters. Petrobras is said to have a break even on their pre-salt at $70/bbl, depending on drilling rates and other E&P costs.

The availability of oil and gas and the production and discovery of new findings are a key topic when it comes to estimating the oil price. When discussion the discovery and production there are two main theories; the peak-oil theory by Hubbert and the cornucopian view that oil

resources are infinite and the efficiency of extracting oil will weigh out the declining reserves (Blanchard, 2005).

Hubbert's peak-oil theory originally states that in a known oil province the production starts with a rapid growth before it peaks, and then will fall at the same speed as it grew (Maugeri, 2006). This theory has been extended to also include discoveries, which have a similar curve but comes some years before the production curve (Blanchard, 2005).
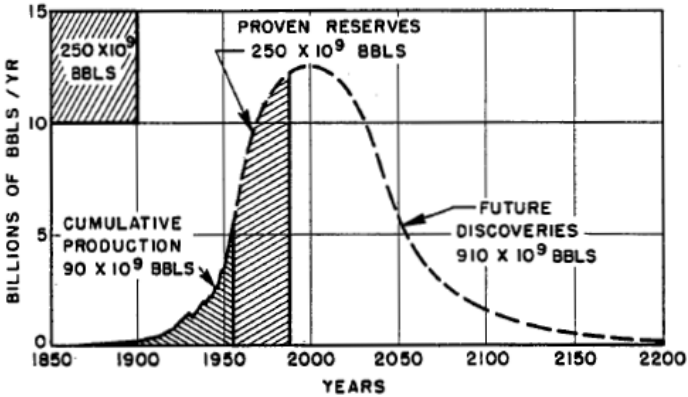
**Figure 30: Hubbert's Peak-Oil theory[41]**

However the peak-oil theory assumes that most of the oil reserves have been discovered, and that there is no significant oil deposits left (Blanchard, 2005).
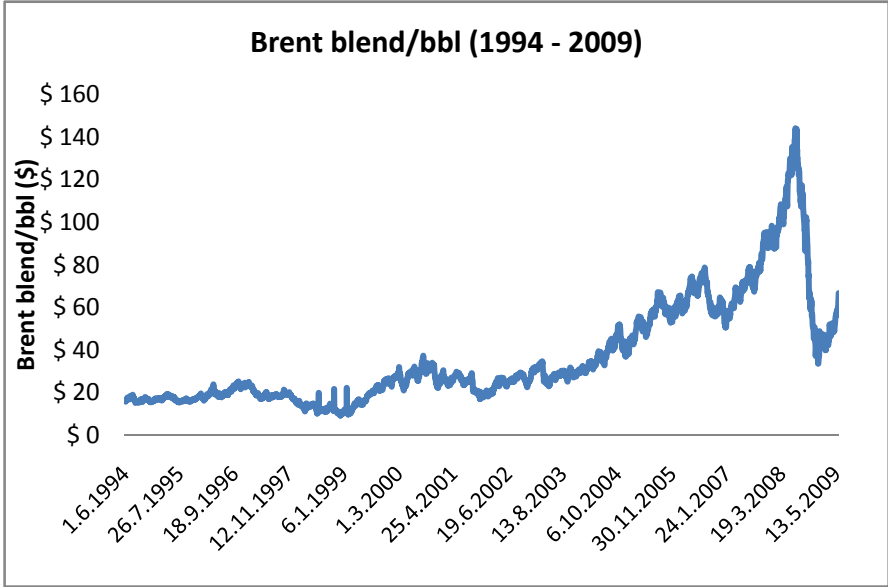
**Figure 31: Brent blend/bbl (1994 – 2009)[42]**

---

[41] Hubbert, 1956: 32
[42] Source: DataStream

Figure 31 shows the development for the Brent blend oil from 1994 to 2009. The bottom since 1994 was reached early 1999 when oil fell through 10, while the peak was reached in the summer of 2008 with $147/bbl.

### 4.2.5 Market Outlook

This supply and demand discussion gives the basis for the estimated dayrates for the different segments. It is clear that the uncertainty of the estimates increases over time, but this is somewhat offset by the time value of money concept. The Jack-Up (shallow water) and mid-water segment is expected to be a bit more volatile than the other segments. Even though there are large uncertainties around these dayrate estimates, what we know is certain are that the drilling industry is a cyclical business.

The observed dayrates in 2009 have decreased significantly, even with limited fixtures. The markets are expected to continue to be rough well into 2010, before it will recover. From 2010/2011 the markets are estimated to regain significantly as supply of drilling rigs are very limited (especially for the UDW segment) and the demand for oil again is expected to increase. The shortage of drilling rigs and the demand for rigs on ultra-deepwater are expected to favour this segment. In the more shallow water segments there more idle units and shorter contract terms, which will increase volatility. In the short-term the shallow water and mid-water segment are expected to experience a somewhat rougher development. The tender segment are expected to follow the trends in the drilling market, but as this segment is much closer related to development drilling and very location specific (Asia) the changes will not be as dramatic. The total fleet is also very limited in this segment, with a total of 35 rigs. Figure 32 shows the estimated changes in the dayrates for the different segments by percentage. Until 2015 the visibility concerning supply and demand is relatively strong. After 2015 however the outlook becomes more uncertain. The drilling industry is a cyclical business, and hence is cycles implemented for all segments after 2015. The trade off between estimating market conditions for the whole lifetime for the rigs and discounting these versus calculating the terminal value will be discussed later in the paper.
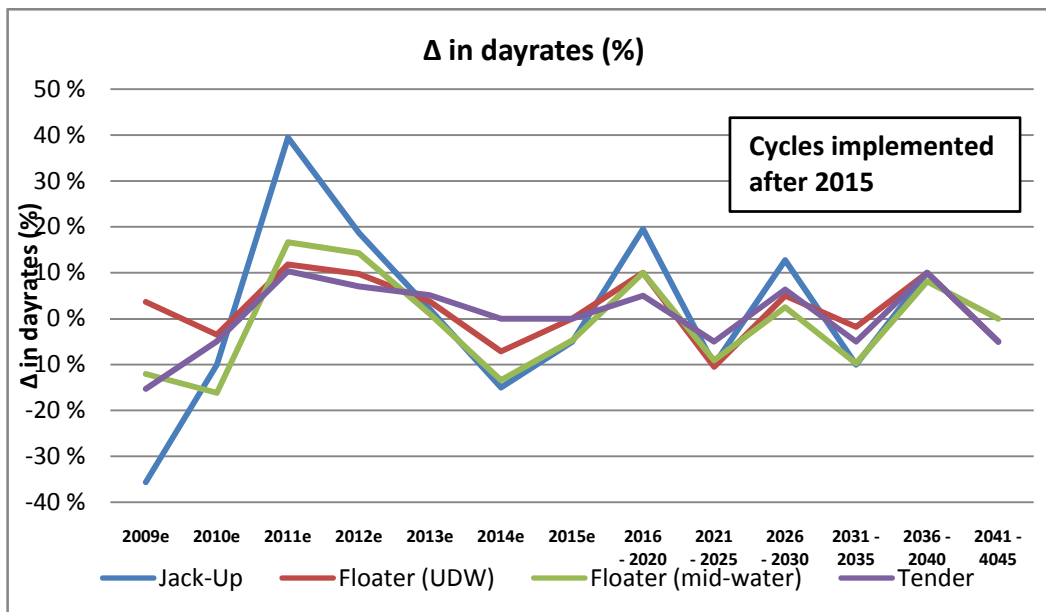
**Figure 32: Δ in dayrates (%)**

The operating expenses (OpEx) are expected to increase beyond the estimated inflation rate of 2.5 %. This especially will have its impact on the personnel costs related to operations (i.e. offshore wage expenses). This is in line with the trend we have been observing so far, due to the many newbuilds coming into operations and the lack of skilled workers. Even though the markets are weakening relatively and some rigs are coming off operations making some employees available, there is still a shortage of skilled crew in the business. This is expected to continue, and hence further pressure the wages for the offshore drillers, and ultimately the margins. The operating expenses related to mobilization, fuel, material and other is expected to be in line with normal inflation, mainly due to lower newbuilding activity and general reduced pressure in the business. The personnel related OpEx varies in the industry from 40 % to 60 %.

The market condition estimated here will be used further on in the paper, and can be regarded as a base case. As there is a clear uncertainty about these estimates, especially in the end of the period, the estimates will be tested in a sensitivity analysis (See chapter 7.5.2).

The main focus in the industry at the moment is on the UDW in Brazil and South Africa. Petrobras is in shortage of rigs, returning a pressure on the dayrates in this segment.

# 5. Financial Statement Analysis

This chapter will first present the framework for financial statement analysis. This framework will then be applied for Seadrill. The historical financial statements of Seadrill will be reformulated and adjusted. The risk and profitability of Seadrill will be examined. The main purpose of the financial statement analysis is to get the knowledge of the fundamental economic situation in Seadrill. The financial statement analysis will together with the strategic analysis (supply and demand) lead to forecasting of the financial statements.

## 5.1 Framework for Financial Statement Analysis

Financial statements are prepared in terms with general accepted accounting principles (GAAP) or International Financial Reporting Standards (IFRS). The reported financial statements have a credit oriented focus. The balance sheet focuses on liquidity of assets and maturity of debt, while the profit & loss statement focuses on the earnings in relations to coverage of liabilities. The cash flow statement has focus on changes in cash and cash equivalents (Knivsflå, 2008 b). This paper will focus on the three main financial statements; the profit & loss statement[43], the balance sheet and the cash flow statement. In addition changes directly to the equity will be discussed.

The financial statements will here be used in the purpose of a valuation of the shareholders equity, and hence we would like to have the shareholders perspective, i.e. an investor's perspective. We seek to gain knowledge of the profitability and its sources. Penman (2007: 88) explains that a "fundamental analysis is a matter of developing pro forma (future) financial statements and converting these pro formas into a valuation". Hence, we would like to reformulate and adjust the financial statements to get insight in the fundamental situation and use this as a basis for forecasting the statements for the purpose of valuation. The approach is presented in Figure 33:



**Figure 33: Approach for financial statement analysis**

For the purpose of the financial statement analysis there are four subjects that must be addressed:

---

[43] Also referred to as "income statement" or "statement of operations"

**1) Focus:**

Who is the user of the financial statements? The financial statements are prepared in order to have a creditor oriented focus, where one focuses on the liabilities and the liquidity. An equity investor will have a different focus, where the investor is more concerned on earnings, solidity and profitability on the shareholders equity. This paper will have an investor oriented focus, and hence the financial statements need to be reformulated.

**2) Level:**

On what level should the company be analyzed? The company, and the financial statements, could be regarded on consolidated level or on each business segment. The main issue here is the difference in the segments and if the effort of analyzing the different segments will impact the final result. If the firm has quite homogenous segments there would be little gain in analysing each segment, so the focus would be on the consolidated segments. Often the reported information on each segment is too severe to get full knowledge of the business.

**3) Period:**

How long time period should be used when analysing historical data? The period of historic data used is dependent on the business the firm operates in and the development of the firm itself. If the company operates in a cyclical business one should capture a whole cycle to get the best fundament for analysing the data. The growth and stability of the firm also has an impact here.

**4) Selection:**

Which companies should be used as comparable companies? The peers of the company will work as a proxy for the industry, and hence would need to be operating in the same business, and be exposed to similar economic conditions and risk factors (Knivsflå, 2008 c).

### 5.1.1 Reformulation of financial statements
The financial statements are reformulated from the presented statements when taking an investor perspective for two purposes; to separate the operating from the financial assets and to normalize the earnings (Knivsflå, 2008 b).

Our main purpose is to gain knowledge of the sources of profitability and measure the real return to shareholders. Penman (2007: 301) states that "to discover a firm's ability to generate profits, we need to reformulate the balance sheet into operating and financing assets and liabilities". The separation between the operating and financial assets would increase the

transparency in the financial statements and give us a better knowledge of the profitability of the firm. An illustration of the reformulated balance sheet is presented in Figure 34:

**The Reformulated Balance Sheet**

| Assets | Liabilities and Stockholders' Equity |
|---|---|
| Financial assets: | Financial liabilities: |
|   Cash equivalents |   Short-term borrowings |
|   Short-term investments |   Current maturities of long-term debt |
|   Short-term notes receivable (?) |   Short-term notes payable (?) |
|   Long-term debt investments |   Long-term borrowing (bank loans, bonds payable, notes payable) |
| |   Lease obligations |
| |   Preferred stock |
| Operating assets: | Operating liabilities: |
|   All else |   All else |
| | Minority interest |
| | Common equity |

The reformulate balance sheet can in principal have three different focuses; total capital, capital employed and net operating assets (Knivsflå, 2008 e).

Certain issues arise when the financial statements are reformulated and needs to be adjusted for:

**Dividends payable:**

Dividends payable are under some accounting regulations recognized as a liability. This makes no sense as the dividends belongs to the shareholders. Penman (2007: 265) explains that "shareholders cannot owe dividends to themselves". Dividends payable are therefore reclassified from short-term liabilities to shareholder's equity. Under IFRS and US GAAP dividends payable is not recognized, and dividends are first taken into account when actually paid out (Knivsflå, 2008 b).

**Dirty surplus:**

Dirty-surplus accounting is defined by Penman (2007: 269) as "reporting income items as part of equity rather than in an income statement". The most common items for dirty-surplus accounting is unrealized gains (losses) on securities held for sale[45], gains (losses) on foreign

---

[44] Penman, 2007: 303
[45] This includes securities which are not accounted for in the income statement (according to GAAP), like certain types of derivatives or assets held for sale. These are marked to market, and any gains (losses) are reported over the equity statement.

currency transactions and gains (losses) on derivate instruments. We would like to include these items in the profit & loss statements to reflect the real earnings to equity holders, i.e. the comprehensive income (Penman, 2007).

**Extraordinary earnings:**

As the main purpose is to gain insight in the fundamental situation of the company and find the sources to profitability and to forecast future statements, the extraordinary earnings must be separated from the normal earnings. Extraordinary earnings are income or expenses to the company that is not related to their normal operations, and are not expected to occur again (or at least very often). These earnings could be gain from sale of assets, impairments, restructuring charges and other non-recurring items. The tax expense must be allocated to the operating and financial earnings, in order to understand the sources for the profitability fully. We estimate the effective tax rate on operations as:

$$\frac{Tax\ on\ operating\ income}{Profit\ before\ tax, extraordinary\ and\ equity\ income\ and\ dirty-surplus\ items}$$ (Penman, 2007). Normalized earnings will give

a better understanding of the company's profitability and enables the financial statements be used as a basis for forecasting.

**Separate operations from financing:**

Separating the operations from the financial items gives further insight in the economic situation for the company. On the balance sheet the focus is on total capital, capital employed and/or net operating assets. The purpose is to find the return from the operating assets and the cost from the financing. Splitting the tax expense between the operational and financial items, also give a better basis for forecasting.

Figure 35 shows an example of the reformulated comprehensive income statement:

```
                    Reformulated Comprehensive Income Statement

Net sales
 – Expenses to generate sales
Operating income from sales (before tax)
 – Tax on operating income from sales
    + Tax as reported
    + Tax benefit from net financial expenses
    – Tax allocated to other operating income
Operating income from sales (after tax)
± Other operating income (expense) requiring tax allocation
    Restructuring charges and asset impairments
    Merger expenses
    Gains and losses on asset sales
    Gains and losses on security transactions
 – Tax on other operating income
± After-tax operating items
    Equity share in subsidiary income
    Operating items in extraordinary income
    Dirty-surplus operating items in Table 8.1
    Hidden dirty-surplus operating items
Operating income (after tax)
 – Net financial expenses after tax
    + Interest expense
    – Interest revenue
    ± Realized gains and losses on financial assets
    = Net interest expense before tax
    – Tax benefit from net interest expenses
    = Net interest expenses after tax
    ± Gains and losses on debt retirement
    ± Dirty-surplus financial items in Table 8.1 (including preferred dividends)
    ± Hidden dirty-surplus financing items
 – Minority interest
 = Comprehensive income to common
```

**Figure 35: Reformulated comprehensive Income Statement**[46]

## 5.1.2 Adjustment for measurement errors

Differences between reported accounted numbers and fair value will create measurement errors and must be adjusted for (Gjesdal & Johnsen, 1999). Other items that do not give the complete fundamental situation of the economics in the company may also need to be adjusted. Penman (2005) believes however that adjustments of reported earnings will bias the measurements and will have no real impact on the valuation.

Adjustments made in this paper will be discussed in detail where necessary.

## 5.1.3 Risk assessment

In a situation of financial distress, and in worst case default, the equity holders will be hard hit. In the case of a default the debt holders are preferred, while the equity holders will lose their holdings. Damodaran (2002: 61) defines risk as the "difference between actual and expected returns". The purpose of the risk assessment is to measure the liquidity and solidity of company. In addition a synthetic rating will be implemented, which will be used to measure a credit premium. This will be used in the cost of capital estimate.

---

[46] Penman, 2007: 314

The company will be measured to an industry average (median) on several different parameters. We separate between liquidity risk and solvency risk.

### 5.1.3.1 Liquidity risk

Liquidity risk can be described as the risk of running out of cash to pay for your current obligations. The risk of running out of liquid resources can in the worst case lead to a default. There are several measures to analyze the liquidity risk for a company; the most common are the current ratio and the quick ratio:

**Current ratio:**

The current ratio is defined by Damodaran (2007: 47) as "the ratio of current assets (cash, inventory, accounts receivable) to its current liabilities (obligations coming due within the next period)". Current ratio $= \frac{Current\ assents}{Current\ liabilities}$. If the current ratio falls below 1 there is a clear liquidity risk as the company has more current obligations maturing than they have current assets to pay it off. This ratio is suggested to be sound around 2 (Damodaran, 2002), but this varies across different industries.

**Quick ratio:**

The quick ratio, sometimes referred to as the acid ratio, is similar to the current ratio, but includes only the fastest convertible assets into cash. Quick ratio $= \frac{(Cash+Marketable\ securities)}{Current\ liabilities}$ (Damodaran, 2002). Other measures of short-term liquidity risk can be cash ratios and cash flows to capital expenditures (Penman, 2007).

### 5.1.3.2 Solvency risk

While the liquidity risk focuses on the short-term risk for the company, the solvency risk takes a long-term perspective on the risk. Focus here is on the solidity of the company. The main purpose is to "examine a firm's capacity to meet interest and principal payments in the long term" (Damodaran, 2002: 49).

**Interest coverage ratio:**

The interest coverage ratio "measures the capacity of the firm to meet interest payments from predebt, pretax earnings" (Damodaran, 2002: 49). Interest coverage ratio $= \frac{EBIT}{Interest\ expenses}$ (Damodaran, 2002). Intuitively, the higher interest coverage ratio the easier the company can pay off their interest expenses.

Since the risk should be reflected in these ratios the statements before normalizing should be used, as this reflects the variation.

**Equity ratio:**

The equity ratio is measured as the total shareholder's equity over total capital. The equity can be considered as a buffer against losses, as the years result will be accounted for towards the equity. If the equity ratio is relatively large compared to the total assets the firm will be able to handle large losses over some time. Equity ratio $= \frac{Total\ shareholder's\ equity}{Total\ capital}$. The equity ratios accounts for the total capital, hence it considers both financial and operational assets. This can be split into capitalization ratio[47] and financial leverage (FLEV)[48] (Penman, 2007). A similar measure is to turn this around, and looking on the total debt compared to equity, i.e. the leverage ratio (Leverage ratio = 1- equity ratio), or $\frac{Total\ debt}{Total\ capital}$. A high equity ratio/low leverage ratio, assumes that the company has the possibility to take on more debt (Penman, 2007).

These ratios do not include down payments on the debt. Hence, the maturity of debt, the cash flows and the covenants should also be regarded when performing a solvency risk analysis.

**Capital structure:**

The capital structure should consider the way the company is financed, and which assets cover which liabilities (ranked by liquidity and riskiness of the capital). In consideration of risk analysis there are especially two relations which is important: changes in liquidity and the requirement of new financial liabilities (Knivsflå, 2008 d). The covenants, which are restrictions from the debt holders of the firm's capital and investment policies, may also impact the default risk for the company, and may force companies into actions such as issuing equity. The covenants are ultimately constructed to protect the bondholders (Damodaran, 2002).

**Return on net operating assets:**

The return on net operating assets (RNOA)[49] is a measure on the profitability, but also shows the long-term risk since it indicates the capacity of the firm to generate capital through

---

[47] Capitalization ratio $= \frac{Net\ operating\ assets}{Common\ shareholders\ equity}$

[48] Financial leverage $= \frac{Net\ financial\ obligations}{Common\ shareholders\ equity}$

[49] Often referred to as return on invested capital (ROIC) or return on capital employed (ROCE)

operations. RNOA can again be decomposed into net operating margin (i.e. EBIT margin), and turnover on net operating assets (Knivsflå, 2008 d).

Return on net operating assets "compares operating income to the investments in net operating assets" (Penman, 2007: 306). RNOA $= \frac{EBIT}{Average\ net\ operating\ assets}$. One can also regard other return ratios such as net return on the total capital (Knivsflå, 2008 d).

### 5.1.4 Synthetic rating

The synthetic rating will be used to quantify the risk of the capital and also to determine a credit risk premium in relations with the cost of capital. Such risk ratings are often done by credit rating agencies such as Standards & Poor's, Fitch and Moody's. The synthetic rating determines the default risk of the firm (often done in connection with bonds). Ratings from AAA to BBB are often referred to as investment grade, while firms with rating from BB and downwards are referred to as junk (Brealey et al., 2006). Damodaran (2002: 81) describes a firm's default risk as dependent on two factors: "The first is the firm's capacity to generate cash flow from operations, and the second is its financial obligations- including interest and principal payments".

| Rating | Current ratio | Interest coverage ratio | Equity ratio (%) | Return on Net Operating Assets (%) | Probability of default | Risk premium |
|--------|---------------|-------------------------|------------------|-------------------------------------|------------------------|--------------|
| AAA | 8.9 | 11.60 | 89.5 % | 30.8 % | 0.0001 | 0,1 |
| AA | 4.6 | 4.83 | 75.5 % | 21.6 % | 0.0012 | 0.15 |
| A | 2.35 | 2.76 | 55.0 % | 13.1 % | 0.0024 | 0.25 |
| BBB | 1.45 | 1.69 | 38.0 % | 8.2 % | 0.0037 | 0.4 |
| BB | 1.05 | 1.06 | 27.0 % | 5.4 % | 0.0136 | 0.6 |
| B | 0.75 | 0.49 | 17.5 % | 2.6 % | 0.0608 | 1 |
| CCC | 0.55 | -0.35 | 10.5 % | -0.2 % | 0.3085 | 3 |
| CC | 0.45 | -1.17 | 3.0 % | -3.0 % | 0.5418 | 9 |
| C | 0.35 | -2.00 | -10.0 % | -5.8 % | 0.7752 | 27 |
| D | | | | | | |

Table 5: Synthetic rating[50]

Table 5 shows the distribution for the different ratios used for the synthetic rating for each rating class. The synthetic rating would give some room for discretion, in relations to for example the covenants. For a synthetic rating one can also use other ratios such as; $\frac{Total\ debt}{EBITDA}$ or $\frac{Free\ operating\ cash\ flow}{Total\ debt}$ (Standards & Poor's, 2006).

---

### 5.1.5 Analysis of profitability

The reformulations and adjustments enable us to measure the company's performance in ratios and compare this to peers. The ratios will in an investor oriented analysis focus on the profitability of the company. More specific, we would concentrate on the return on capital for the company. The profitability analysis is measured as income to capital over average capital:

Return to capital $= \frac{Income\ to\ capital}{0.5*(Captal_{t-1}+Captal_t)}$. If the numbers used to calculate the return are on normalized levels this is stated. This paper will focus on two main capital return ratios; the return on equity and return on assets. The analysis will also include analysis of operating margins and growth.

**Return on Equity (ROE):**

The return on the (common) equity, ROE, will for the shareholder be the most relevant as this measures the return the company has generated on the assets held by the equity holders. Return on equity can be measured in many ways, but for this paper the ratio will be calculated as: $\frac{Comprehensive\ income}{Avg.total\ shareholders\ equity}$ (Penman, 2007). The ratio includes all income to the equity, not only net income. As this measure is calculated on net income this is impacted by three factors; the return from operating assets, financial leverage and the operating spread between the return on the operating assets and the borrowing costs. The Return on common equity is driven by three factors: Return of common equity = Return on net operating assets + (Financial leverage * Operating spread)[51]. These three drivers can be calculated as:

$RNOA = \frac{Operating\ Income}{Net\ Operating\ Assets}$, Financial leverage $= \frac{Net\ financial\ obligations}{Total\ shareholders\ equity}$ and

Operating spread = Return on net operating assets – Net borrowing cost (Penman, 2007).

The company will enjoy the benefit from financial gearing if the if the "return from operations are greater than the borrowing cost" (Penman, 2007: 373).

**Return on Assets (ROA):**

Another important measure is the return on the assets of the firm. The return on assets measures the firms "operating efficiency in generating profits from its assets, prior to the effects of financing" (Damodaran, 2002: 43). We can calculate two different returns on operating assets, the simple return on operating assets (ROA) or the return on net operating assets (RNOA). The return on assets (ROA) can be calculated as: ROA =

$\frac{Net\ Income+Interest\ expenes*(1-Tax\ rate)}{Average\ Total\ Assets}$ (Damodaran, 2002). The return on net operating assets

---

[51] ROE = RNOA + [FLEV * (RNOA − NBC)]

(RNOA) clearly separates between financial and operating assets, and is calculated as: RNOA $= \frac{Operating\ Income}{Net\ Operating\ Assets}$ (Penman, 2007). This ratio is "independent of leverage and focus solely on the operating performance of the business" (Koller et al., 2005: 162). RNOA is often referred to as Return on Invested Capital (ROIC) or Return on Capital Employed (ROCE).

### 5.1.6 Historical cost of capital

Earlier in this paper super profit has been defined as present if return on invested capital is greater than the (weighted average) cost of capital. To determine if the company has been profitable the return must be compared to a historic cost of capital.

The historical cost of capital is estimated with basis in the capital asset pricing model (CAPM). This is described closer in chapter 6.1.1. We separate between the cost of equity and the cost of the total capital (debt + equity). See chapter 6.1 for a thorough discussion of the cost of capital. The historical cost of capital is estimated with basis of observed variables.

## 5.2 Financial Statement Analysis for Seadrill

Seadrill present their financial statements in accordance with general accepted accounting policies in the US (US GAAP). These statements are creditor oriented and thus must be reformulated for an investor's perspective.

The company is organized into three operating segments; Mobile Units, Tender Rigs and Well Services. These are all more or less exposed to the same economic conditions and risk factors. Hence, it makes sense to look at the financial statements on consolidated level. However, where necessary the statements have been analyzed on segment levels. For the forecasting and valuation purposes the cash flows has been forecasted for each segment (rig), given certain assumptions for the segments. The rigs have been adjusted for age, contract lengths and geographic operations. Well Services is consolidated 100% in the financial statements, but the segment only represents the stake in SeaWell (73.4 %). For Seadrill the Mobile Units segment account for almost 90% of the total assets by year end 2009, so the additional insight by looking into the other segments are minimal.

Seadrill was incorporated in May 2005 so the company has existed over a relatively short time period. This limits the historical data and to some extent the importance of it. On the other hand, both Seadrill and the drilling industry has gone through a rapid growth and change over the last years, so analyzing historical data longer back than 2005 would not be relevant. Seadrill's fleet have been at constant and aggressive growth over the last years, and only in

2008 the fleet grew by nine units. First now, in 2009/2010 the fleet will reach a more stable stage. The first year of operations, 2005, does not give a very good image of the situation in Seadrill, and hence would be less emphasized. Since this is a cyclical business, it would be preferable to include earlier cycles in the data material. This does not exist for Seadrill[52], but for certain purposes the industry for the last ten years has been used. This should give a fair view of the industry cycles where needed. Based on this; the relatively short period on analyzed data for Seadrill can be defended.

The historical data and the relative performance for Seadrill are compared to the industry average (median) and the historic cost of capital for the company. The industry average consists of eleven peers, which all are in the same industry as Seadrill, i.e. offshore drilling. These companies are all exposed to the same economic factors and risks as Seadrill. For comparing Seadrill to the industry, the average of the peers has been used. The median has been used in cases where extremes have biased the average in a too large direction. There are quite large differences between the peers when it comes to size, leverage and operating performance. By using such a large sample the average of industry is still captured. The sample represents approximately 55 % of all offshore rigs in operations, and hence should give a fair presentation of the industry. See Appendix A for more details on the peers.

### 5.2.1 Historical Financial Statements

The historical financial statements for 2005 - 2008 are presented below[53]. The focus will be on the profit & loss statement, balance sheet and the cash flow statements. Table 6 presents the Profit & Loss statement from 2005 to 2008:

---

[52] However, it may be argued for that Seadrill's predecessor Smedvig could be included
[53] Only simplified versions are presented. See Appendix D for the detailed versions

| Seadrill Ltd.: Profit & Loss Statement (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Total operating revenues | $28 300 | $1 154 600 | $1 676 300 | $2 185 900 |
| - Operating Expenses | $30 800 | $760 900 | $1 004 600 | $1 304 000 |
| = **EBITDA** | **-$2 500** | **$393 700** | **$671 700** | **$881 900** |
| - Depreciation and amortization | $12 900 | $167 600 | $182 900 | $233 200 |
| = **EBIT** | **-$15 400** | **$226 100** | **$488 800** | **$648 700** |
| - Total financial items | $9 500 | $40 800 | -$102 100 | -$748 300 |
| = **Profit before taxes and minority interest** | **-$5 900** | **$266 900** | **$386 700** | **-$99 600** |
| - Income taxes | $1 600 | $22 400 | -$78 300 | $48 300 |
| - Minority Interest | $100 | $30 400 | $13 000 | $41 700 |
| + Gain on issuance of shares in associate | $0 | $0 | $50 000 | $25 200 |
| = **Net Income** | **-$7 600** | **$214 100** | **$502 000** | **-$164 400** |
| | | | | |
| / Earnings per share (Basic) | -$0.04 | $0.61 | $1.28 | -$0.41 |

**Table 6: P&L Statement 2005 – 2008 (Simplified)**

Seadrill has since its incorporation in 2005 experienced a tremendous growth in both revenues and operational earnings (EBIT) as a result of aggressive growth through acquisitions and getting many new vessels into operations. Seadrill has been able to benefit from the improved market conditions for drillers over the period. The operating expenses have also increased with the boom in the market, where wages (and other personnel costs) constitutes of approximately 60 % of the operating expenses. This has been yielding Seadrill with a quite stable EBITDA margins around 40% the last two years.

Table 7 presents the balance sheet for the period 2005 to 2008. In this period Seadrill increased their assets from $1.15 bn to $12.3 bn. The equity increased in the same period from $800 million to $2.63 bn. The leverage[54] has increased from 30% to 74%.

---

[54] $\frac{Debt}{Debt+Equity}$, including minority interests as equity

| Seadrill Ltd.: Balance Sheet (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| **Assets:** | | | | |
| **Marketable securities** | $302 300 | $105 900 | $240 400 | $134 700 |
| **Accounts receivable, net** | $11 500 | $194 100 | $220 500 | $341 100 |
| **Cash and cash equivalents** | $51 800 | $210 400 | $997 000 | $376 400 |
| **Other current assets** | $10 300 | $246 200 | $223 100 | $530 900 |
| **Restricted cash** | $0 | $0 | $15 900 | $280 700 |
| **Total current assets** | $375 900 | $756 600 | $1 696 900 | $1 663 800 |
| | | | | |
| **Investments in associated companies** | $152 800 | $238 100 | $176 100 | $240 100 |
| **Newbuildings** | $439 300 | $2 025 400 | $3 339 800 | $3 660 500 |
| **Drilling units** | $177 700 | $2 293 300 | $2 451 900 | $4 645 500 |
| **Other intangible assets** | $0 | $0 | $0 | $20 100 |
| **Goodwill** | $0 | $1 256 500 | $1 509 500 | $1 547 300 |
| **Deferred tax assets** | $0 | $109 700 | $3 700 | $9 700 |
| **Restricted cash** | $0 | $0 | $0 | $345 900 |
| **Equipment** | $0 | $0 | $61 400 | $83 100 |
| **Other non-current assets** | $3 300 | $63 100 | $53 800 | $88 500 |
| **Total non current assets** | $773 100 | $5 986 100 | $7 596 200 | $10 640 700 |
| **Total assets** | **$1 149 000** | **$6 742 700** | **$9 293 100** | **$12 304 500** |
| | | | | |
| **Equity and liabilities:** | | | | |
| **Paid-in-capital** | $725 400 | $2 449 800 | $2 778 500 | $2 791 900 |
| **Retained earnings** | $74 800 | $255 600 | $844 700 | -$162 700 |
| **Other** | $0 | $9 600 | $0 | $0 |
| **Total shareholders' equity** | **$800 200** | **$2 715 000** | **$3 623 200** | **$2 629 200** |
| | | | | |
| **Minority Interest** | $1 400 | $212 000 | $104 600 | $592 800 |
| | | | | |
| **Short-term interest bearing debt** | $137 400 | $255 400 | $484 100 | $746 100 |
| **Accounts payable** | $13 400 | $105 700 | $167 300 | $119 300 |
| **Other current liabilities** | $19 800 | $371 500 | $503 300 | $1 192 400 |
| **Total current liabilities** | $170 600 | $732 600 | $1 154 700 | $2 057 800 |
| | | | | |
| **Long-term interest bearing debt** | $176 800 | $2 559 300 | $4 116 400 | $6 690 700 |
| **Deferred taxes** | $0 | $324 800 | $96 100 | $125 000 |
| **Other long-term liabilities** | $0 | $199 000 | $198 100 | $209 000 |
| **Total non-current liabilities** | $176 800 | $3 083 100 | $4 410 600 | $7 024 700 |
| **Total liabilities** | **$347 400** | **$3 815 700** | **$5 565 300** | **$9 082 500** |
| **Total equity and liabilities** | **$1 149 000** | **$6 742 700** | **$9 293 100** | **$12 304 500** |

Table 7: Balance Sheet 2005 – 2008

The cash flow statement for the analysing period is presented in table 8:

| Seadrill Ltd.: Cash flow Statement (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Net cash provided by operating activities | $11 200 | $174 200 | $624 900 | $468 600 |
| Net cash used in investing activities | -$253 800 | -$3 180 300 | -$1 898 100 | -$3 847 400 |
| Net cash provided by financing activities | $294 400 | $3 161 600 | $2 058 600 | $2 758 800 |
| | | | | |
| Cash and cash equivalents at beginning of period | $0 | $51 800 | $210 400 | $997 000 |
| Net Increase in cash and cash equivalents | $51 800 | $158 600 | $786 600 | -$620 600 |
| Cash and cash equivalents at end of period | $51 800 | $210 400 | $997 000 | $376 400 |

Table 8: Cash flow statement 2005 – 2008 (simplified)

Seadrill has over the period been building their cash base until 2008. 2008 were the first year where they paid out dividends, a total of $688.1 million. The cash flow contribution from operations has been positive in the whole period; however it might be worth noting that this decreased significantly from 2007 to 2008.

Seadrill has also over the period accounted some items off-balance sheet straight over the equity, also known as "dirty surplus" (Penman, 2007). The "dirty-surplus" items will be addressed later on. Table 9 shows the changes in the equity for the period 2005 – 2008:

| Seadrill Ltd.: Changes in equity (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Equity 01.01 | $0 | $800 200 | $2 715 000 | $3 623 100 |
| Issuance of equity | $725 400 | $1 724 400 | $303 900 | $0 |
| Net income to majority | -$7 600 | $214 100 | $502 000 | -$164 400 |
| Dirty surplus | $82 400 | -$23 700 | $102 200 | -$141 600 |
| Net dividends | $0 | $0 | $0 | $688 100 |
| Equity to shareholders 31.12 | $800 200 | $2 715 000 | $3 623 100 | $2 629 000 |

Table 9: Changes in equity 2005 - 2008

### 5.2.2 Reformulation of historical statements

The financial statements are prepared in relations to US GAAP and in accordance with exchange regulations. These do however not necessarily give the best image of the underlying economic perspectives. Hence, we want to reformulate the statements to improve the understanding of the business activities.

For Seadrill the reformulated balance sheet will focus on the net operating assets. Several adjustments and reclassifications have been made to Seadrill's balance sheet in order to give the best basis for the profitability analysis and the forecasting.

**Dividends payable:**

Seadrill reports their accounts under US GAAP regulations, and hence they do not account for

dividends payable. The dividends are recognized when declared and paid. There are no adjustments needed for this purpose.

**Dirty surplus:**

Seadrill has several items recognized straight over equity, known as dirty surplus. This needs to be adjusted for to get the fundamentals of the profitability in the company. The dirty surplus items in all principal steam from foreign exchange fluctuations and gains (losses) from marketable securities and interest swaps (Seadrill, 2009 k). This explains the complete result to equity, less dividends and share issues. Table 10 explains the difference between reported net income and comprehensive income for Seadrill:

| Seadrill Ltd.: Comprehensive Income (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Reported Net Income | -$7 600 | $214 100 | $502 000 | -$164 400 |
| "Dirty surplus" | -$91 300 | -$23 700 | $102 300 | -$141 500 |
| Comprehensive income | -$98 900 | $190 400 | $604 300 | -$305 900 |

Table 10: Comprehensive income 2005 – 2008

We can observe that the equity decreased in from 2007 to 2008 as a result of negative retained earnings (in addition to negative net income dividends were distributed to the shareholders) and negative dirty surplus items. The negative dirty surplus mainly steamed from reversal of unrealized gains on marketable securities and losses on interest swap agreements (Seadrill, 2009 k).

**Extraordinary earnings:**

For the purpose of reformulating the profit & loss statement and forecasting we need to separate extraordinary earnings from normal, and to allocate the tax expense. Seadrill have some extraordinary items over the period, mainly related to financials.

The company recognize reimbursable revenues and expenses, which are deferred income from (to) clients in relations with contracts. The reimbursable items are varying in relations to the operating levels. These items must be seen as a normal part of operations; hence these are not adjusted for.

Other income is related to favourable or unfavourable contracts for the units, which comes from the acquisition of Smedvig and Eastern Drilling. These revenues have been guided from Seadrill, and will be recognized for the last time in 2011. As the precise amounts are known these revenues are not normalized, and will after 2011 assumed to be 0.

Gain from sale of assets and equipment is recognized as extraordinary operating income. This must be adjusted for. These amounts come from the sale of the FPSOs[55] Crystal Sea and Crystal Ocean in 2007 and the jack-up rig West Titania in 2008. Seadrill informs that no taxes on the gain of these sales were recognized.

Seadrill has not recognized any bad debt in relations to accounts receivables for the period, which is another clear sign of the quality of their clients (see chapter 4). No adjustments have been done here.

There are no extraordinary operating expenses recognized in the financial statements. One can argue that mobilization and fuel expenses are abnormal, but this is regarded as a part of the business operations and not adjusted for. These expenses are sometimes covered by the clients, i.e. the oil companies, and should be expected to be quite unstable.

For the financial items Seadrill has many extraordinary items related to impairment of marketable securities, foreign exchange gains (losses) and changes in fair value of financial instruments. This especially impacted the 2008 results with $615 million loss on investments in associates and marketable securities and a $353 million loss on changes in fair value in derivative financial instruments. In addition Seadrill recognizes a gain on sale of associated company of $150 million (Seadrill, 2009 k). However, as markets fluctuate these assets will always change their values, even though 2008 can be said to be an extreme year. For the financial items of Seadrill *interest income* and *interest expenses* are defined as normal financial items. *Share in results from associated companies* is defined as a part of the operating result. The rest of the financial items are defined as extraordinary financial items, but are not normalized in any way. Going forward, in regards to the forecasting, the results from these posts are for simplicity assumed to be 0. It is assumed a 0% tax rate for financial items, since the company has its incorporation in Bermuda. Table 11 explains the extraordinary earnings for Seadrill:

---

[55] Floating, Production, Storage and Offloading units, sold to Sea Production Ltd in 2007

| Seadrill Ltd.: Extraordinary items ($ 1000) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Gains from sale of assets | $0 | $0 | $124 200 | $80 100 |
| - Tax on extraordinary operating assets | $0 | $0 | $0 | $0 |
| = **Net operating extraordinary items** | **$0** | **$0** | **$124 200** | **$80 100** |
| | | | | |
| Impairment loss on marketable securities and investments in associated companies | $0 | $0 | $0 | -$615 000 |
| + Change in fair value of derivative financial instruments | $0 | $0 | $6 900 | -$353 300 |
| + Sale of associated companies | $0 | $0 | $0 | $150 500 |
| + Foreign exchange gain (loss) | $0 | -$3 600 | -$52 900 | $130 800 |
| + Other financial items | $6 000 | $83 600 | $9 800 | $22 200 |
| - Tax on extraordinary financial items | $0 | $0 | $0 | $0 |
| = **Net financial extraordinary items** | **$6 000** | **$80 000** | **-$36 200** | **-$815 300** |
| | | | | |
| + Dirty surplus items (net of tax) | -$91 300 | -$23 700 | $102 300 | -$141 500 |
| = **Extraordinary items** | **-$85 300** | **$56 300** | **$190 300** | **-$876 700** |

Table 11: Extraordinary items

The tax expenses needs to be allocated for the normal and extraordinary earnings in order to find a normalized operating tax rate and financial tax rate, for the purpose of forecasting.

Seadrill is incorporated in Bermuda and are "exempt from taxation until 2016" (Seadrill, 2009 k: 15). However, Seadrill has subsidiaries that operate under different jurisdictions. Most of these subsidiaries are incorporated in Norway (Svalbard), Malaysia and the U.K. Effective tax rate is guided by the company to be in the range of 10-15% going forward. Normalized operating tax rate is estimated to be 9.24 %, based on the average of 2006, 2007 and 2008. 2005 is excluded from this calculation as this cannot be seen as a normal operating year. Table 12 gives a summary of the calculations:

| Seadrill Ltd.: Normalized operating tax rate (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Reported tax expense | $1 600 | $22 400 | -$78 300 | $48 300 |
| - Extra ordinary tax income | $0 | $0 | -$96 300 | -$43 400 |
| = Adjusted tax expense | $1 600 | $22 400 | $18 000 | $91 700 |
| - Tax on financial revenues | $0 | $0 | $0 | $0 |
| + Tax on financial expenses | $0 | $0 | $0 | $0 |
| - Tax on extraordinary financial result | $0 | $0 | $0 | $0 |
| = Tax related to operations | $1 600 | $22 400 | $18 000 | $91 700 |
| / EBIT | -$15 400 | $226 100 | $488 800 | $648 700 |
| = Operations tax rate | -10,39 % | 9,91 % | 3,68 % | 14,14 % |
| / **Normalized operating tax rate (%)** | | | **9,24 %** | |

Table 12: Normalized operating tax rate

The reported tax expense has been highly unstable, due to several extraordinary tax items. In 2007 Seadrill (2009, k: 26) "recognized a tax benefit of approximately US$75 million". This was due to the moving of several rigs from Norway to different tax jurisdictions. Looking at the adjusted tax expense this yields a more stable picture of the fundamental tax situation for Seadrill. Seadrill has informed that they would have a 0 % tax rate on their financial items, as they are incorporated in Bermuda. However, this may differ slightly as they have subsidiaries under different tax jurisdictions going forward.

From Table 12 we can observe that the normalized tax on operating earnings differs clearly from the reported income tax expense. The guided effective tax rate of 10% will be used for forecasting, which also is in line with the normalized tax calculations.

**Classification of operational and financial items:**

Reformulating the assets and liabilities into operational and financial items will increase the knowledge of the fundamental economics of Seadrill and make it easier to understand the sources of profitability.

Operational assets for Seadrill has been classified as: *Accounts receivables*, *other current assets*, *investments in associated companies*, *newbuildings*, *drilling units*, *other intangible assets*, *goodwill*, *deferred tax assets*, *equipment* and *other non-current assets*. These assets are all dependent on the operational levels and are hence classified as operational assets. The financial assets are: *marketable securities*, *cash and cash equivalents* and *restricted cash*. It can here be discussed whether or not the cash, or parts of the cash, are needed for operational purposes. In this paper the cash is fully defined as a financial asset, based on information from Seadrill and the nature of the drilling business. This is also reflected in the working capital estimate, which is calculated on a non-cash basis.

In addition to the balance sheet items the committed CapEx for Seadrill has been added to the balance sheet as operational assets (under newbuildings) and operational liabilities. The *committed CapEx* steams from the newbuilding program, and are related to in all 11 vessels by year end 2008[56]. This is in fact a future liability to the yards building the rigs, and will reduce Seadrill cash base when paid. Seadrill capitalizes the payments under newbuildings once paid. When the vessel commences operation this asset will be moved from *newbuildings* to *drilling units*. By including the committed CapEx in the balance sheet this will increase the

---

[56] Under the assumption that all 4 jack-up units will be built (Seadrill, 2009 l). By the end of Q1 Seadrill had a total of 10 units under construction, with a committed CapEx of $2.1 bn in yard instalments.

visibility for Seadrill during the construction program. This will increase the assets side, but the adjustments have no real effect on the net operating assets. For valuation purposes the committed CapEx is allocated to each asset (i.e. rig) and include in the FCFF calculation. The total amount for Seadrill (2009, k) was by end 2008 $2.89 bn, with $0.95 bn in 2009, $1.62 bn in 2010 and $315 million after that.

Operational liabilities are classified as *accounts payable*, *other current liabilities*, *deferred taxes* and *other non-current liabilities*. None of items these are interest-bearing. Financial liabilities are *short-term interest-bearing debt* and *long-term interest-bearing debt*. However, for Seadrill's case they capitalize interest expenses related to newbuildings instead of recognizing these over the profit & loss statement (Seadrill, 2009 k). As these interest expenses are related to building of operational assets the liabilities are reclassified to operating liabilities. This will lead to the correct calculation of the financial interest expense.

The company guides that they capitalize approximately 15% above the indicated CapEx for each vessel (i.e. the construction CapEx). In addition to capitalized interest this 15% estimate includes spare parts, equipment, mobilization in relations to first time start-up etc. (Seadrill, 2009 k). It is here used a conservative estimate that interest capitalized is 15% of the reported construction CapEx. This is included under *Newbuilds* when under construction and later under *Drilling Units*, deprecated over the economic lifetime.

Due to this the interest-bearing liabilities related to the units under construction are reclassified as operational liabilities as long as the unit is under construction. It is here assumed that 70 % of the vessels are financed with debt, in line with total capital structure[57]. This may however differ somewhat from each period and for the different vessels. When the vessel commences operations the liability is again classified as financial liability, since Seadrill again will recognize the interest expenses over the profit & loss statement.

 The reclassification has two implications; it will increase the cost of financial liabilities (i.e. the interest expense) and increase the return on net operating liabilities (intuitively, since the net operating assets will decrease). This will lead to a correct measurement of the financial interest expense and the interest expense %, and is improving the estimates for forecasting.

---

[57] This may be a somewhat conservative estimate. The equity ratio on the total balance of Seadrill has been around 30% over the period. The latest sale/leaseback transactions had a equity ratio of close to 20%.

From 01.01.09 Minority interests should under US GAAP be accounted for as equity. It has here been classified as a separate post, since this is a liability to the minority owners of the assets of Seadrill. The minority interests consist of the remaining part of SeaWell and the equity stakes of Ship Finance in the sale/leaseback assets.

Seadrill has since 2006 sold five of their units to Ship Finance[58] for the total amount of $2.97 bn. These sale and leaseback transactions are all organized in variable interest entities (VIE) as financial leases. The units are sold to subsidiaries of Ship Finance, which has the only purpose of owning the rigs, and subsequently leased back on bareboat rates for a maximum of 15 years (Seadrill, 2009 k). Seadrill has several repurchase options on the rigs over 15 years, and for three of the vessels, West Polaris, West Taurus and West Hercules the obligation to buy back the rigs after 15 years. The rigs are sold at book value, hence no gain are recognized.

As the assets are continued to being held on the balance sheet, the equity and the liabilities of the Ship Finance entities are also consolidated on the Seadrill balance sheet. The equity for the VIEs is recognized as minority interests. Table 13 shows the reformulated balance sheet:

| Seadrill Ltd.: Reformulated Balance Sheet (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Operating assets | $794 900 | $6 426 400 | $8 101 200 | $11 166 800 |
| Committed CapEx | $3 324 650 | $3 292 450 | $3 525 900 | $3 112 377 |
| Adjusted operating assets | $4 119 550 | $9 718 850 | $11 627 100 | $14 279 177 |
| | | | | |
| Operating liabilities | $33 200 | $1 001 000 | $964 800 | $1 645 700 |
| Committed CapEx | $3 324 650 | $3 292 450 | $3 525 900 | $3 112 377 |
| Reclassification of operational construction debt | $307 510 | $1 417 780 | $2 337 860 | $2 562 350 |
| Adjusted operating liabilities | $3 665 360 | $5 711 230 | $6 828 560 | $7 320 427 |
| | | | | |
| Net operating assets | $454 190 | $4 007 620 | $4 798 540 | $6 958 750 |
| | | | | |
| Financial liabilities | $6 690 | $1 396 920 | $2 262 640 | $4 874 450 |
| Financial assets | $354 100 | $316 300 | $1 253 300 | $1 137 700 |
| Net financial liabilities | -$347 410 | $1 080 620 | $1 009 340 | $3 736 750 |
| | | | | |
| Minority interest | $1 400 | $212 000 | $104 600 | $592 800 |
| Shareholder's equity | $800 200 | $2 715 000 | $3 623 200 | $2 629 200 |
| Capital employed | $454 190 | $4 007 620 | $4 737 140 | $6 958 750 |

Table 13: Reformulated Balance Sheet

[58] Ship Finance is a ship and rig holding company, controlled by Mr. Fredriksen. Ship Finance is listed at NYSE.

| Seadrill Ltd.: Reformulated Profit & Loss Statement (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Contract revenues | $26 600 | $942 300 | $1 318 500 | $1 867 800 |
| + Reimbursable revenues | $1 700 | $109 000 | $146 600 | $163 500 |
| + Other revenues | $0 | $103 300 | $87 000 | $74 500 |
| = **Total operating revenues** | **$28 300** | **$1 154 600** | **$1 552 100** | **$2 105 800** |
| | | | | |
| Vessel and rig operating expenses | $23 300 | $587 800 | $755 400 | $1 021 600 |
| + Reimbursable expenses | $1 700 | $103 400 | $139 400 | $156 600 |
| + General and administrative expenses | $5 800 | $69 700 | $109 800 | $125 800 |
| + Depreciation and amortization | $12 900 | $167 600 | $182 900 | $233 200 |
| = **Total operating expenses** | **$43 700** | **$928 500** | **$1 187 500** | **$1 537 200** |
| | | | | |
| - Operating tax expense | $1 600 | $22 400 | $18 000 | $91 700 |
| = **Net operating result from operations** | **-$17 000** | **$203 700** | **$346 600** | **$476 900** |
| + Net result from associated companies | $2 700 | $26 600 | $23 200 | $15 600 |
| = **Net operating result** | **-$14 300** | **$230 300** | **$369 800** | **$492 500** |
| + Net financial income | $1 700 | $14 000 | $23 600 | $30 900 |
| = **Net result to capital employed** | **-$12 600** | **$244 300** | **$393 400** | **$523 400** |
| - Net financial expenses | $900 | $79 800 | $112 700 | $130 000 |
| - Net minority interests | $100 | $30 400 | $13 000 | $41 700 |
| = **Net result to equity** | **-$13 600** | **$134 100** | **$267 700** | **$351 700** |
| + Result from extraordinary operating items | $0 | $0 | $124 200 | $80 100 |
| + Result from extraordinary financial items | -$85 300 | $56 300 | $116 100 | -$781 100 |
| - Extraordinary tax expense | $0 | $0 | -$96 300 | -$43 400 |
| = **Total net result to equity** | **-$98 900** | **$190 400** | **$604 300** | **-$305 900** |
| - Net dividends paid | -$899 100 | -$1 724 400 | -$303 900 | $688 100 |
| = **Δ in Equity** | **$800 200** | **$1 914 800** | **$908 200** | **-$994 000** |

Table 14: Reformulated profit & loss statement

The reformulated profit and loss statement in Table 14 shows the complete income to equity, also referred to as comprehensive income. The dirty surplus items are included in *Result from extraordinary financial items*. We can observe that the net result to equity (before extraordinary items) have been positive since 2006 and was actually growing from 2007 to 2008. Share issuances have been included under *Net dividends paid*.

### 5.2.3 Adjustments and normalization
After reformulation of the historical statements one might consider adjusting and normalize some of the items. This is done to further improve the understanding of the fundamental conditions of the company and to improve the forecasting.

This paper will base much of the forecasting numbers on guidance from the company, because looking at historical performance might not be as relevant for an industry and company in such a rapid development and growth. However, some relationships have been examined for adjustments.

For Seadrill large variations in reported earnings can be observed, mainly due to fluctuations in financial items, and to some degree because of the large growth in fleet and operations. For forecasting and analysis of profitability the earnings must be normalized and adjusted for. However, most adjustments are small (insignificant) and has no real impact for the valuation.

**Fair value:**

It can be argued that the assets of Seadrill should be recognized at fair value. The assets (mainly the drilling assets and newbuilds) are recognized at book value, while the marketable securities are recognized at market value under US GAAP. No adjustments are made here.

**Deferred taxes:**

Seadrill has deferred tax assets and liabilities in the balance sheet, but since it here is assumed that no further rigs will be sold and the operations for the company will continue, these posts are not adjusted for (Kinserdal, 2008). However, the company also holds a tax loss carried forward. In 2008 this amounted to $15.7 million. This is a quite small amount, and it seems reasonable that Seadrill is able to offset this result against positive result already in 2009. The present value of this is estimated with a discount factor of 7.7 %[59], and is calculated to be worth: PV (tax loss carried forward) $= \frac{\$15.7}{(1+0.1)} = \$14.6$ million. This is an insignificant amount (approximately 0.24 NOK per Seadrill share), and is disregarded. One could also assume that the guided effective tax rate of 10 % - 15 % includes tax losses carried forward.

**Operating leases:**

The operating leases are in simplicity a company leasing an asset instead of purchasing, even though the lease period is for most or the whole of the economic lifetime for the asset. The operating leases are not capitalized, but rather expensed over the profit and loss statements. The lease expenses are recognized over the profit & loss statement, and hence create a lower operating profit and higher capital productivity (Koller et al., 2005). For Seadrill (2009 k) these expenses are mostly related to office buildings in Stavanger, Singapore, Houston and Aberdeen. These leases are created to last for many years ahead, and could with good reason

---

[59] 7.7 % is the historical cost of capital. See chapter 5.2.4.1

be capitalized. On the other hand, the amounts that these leases are reflecting are relatively minimal in relations to other balance sheet posts. In Seadrill's case the amounts are insignificant, and hence not adjusted for.

**G&A expenses:**

For the general and administration expenses (G&A), Seadrill have several items which would be favourable to normalize in relations with forecasting. Two main relationships have been examined; share options and pensions.

Seadrill grant their employees and management options under an option scheme, referred to as the *Seadrill Scheme* (Seadrill, 2009 k). These options are expensed over the profit & loss statement as personnel cost under *general and administrative expenses*. For 2008 the company recognized $15.1 million. This option program is expected to continue and can on that basis be defined as normal. The options expenses should be will fluctuate together with Seadrill's operating performance. The option program have been estimated towards percentage of sales (contract revenues). As this relationship has been close to 1% each year[60] this has been used as the normalizing factor. The differences, which are quite small, are shown in table 16.

Pensions are adjusted for "smoothing", which means that the pension asset is capitalized on the basis of estimated expected return instead of real returns on the pension asset/obligation. The smoothing may be regarded as a normalization of the pension asset, but will differ from the real pension asset. The smoothing is here reversed and could be recognized over the profit and loss statement as an extraordinary operating item. The pension assets and obligations are here classified as operating assets, since there are clear arguments for pensions being more related to the operation than the financials. Table 15 shows the pension adjustments:

| Seadrill Ltd.: Pensions (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Interest cost on benefit obligation | $0 | $4 700 | $6 300 | $7 700 |
| + Expected return on plan asset | $0 | -$3 600 | -$4 900 | -$6 000 |
| = **Adjusted pension cost** | **$0** | **$1 100** | **$1 400** | **$1 700** |
| | | | | |
| Market value benefit obligation | $0 | $121 200 | $158 300 | $141 800 |
| - Fair value of plan asset | $0 | $72 200 | $108 100 | $92 900 |
| = **Net pension obligation at fair value** | **$0** | **$49 000** | **$50 200** | **$48 900** |
| - Change in unrecognized in actuarial gain | $0 | $0 | -$13 500 | $1 400 |

---

[60] 1.0 % in 2006, 1.2 % in 2007 and 0.8 % in 2008

| | | $0 | $49 000 | $63 700 | $47 500 |
|---|---|---|---|---|---|
| = | **Capitalized net pension obligation** | $0 | $49 000 | $63 700 | $47 500 |
| | | | | | |
| **Effect on balance sheet:** | | | | | |
| | Non-current operating liabilities | $0 | $0 | -$13 500 | $1 400 |
| - | Deferred tax | $0 | $0 | -$1 350 | $140 |
| = | **Net operating assets** | $0 | $0 | -$12 150 | $1 260 |
| = | **Equity** | $0 | $0 | -$12 150 | $1 260 |
| | | | | | |
| **Effect on profit & loss statement:** | | | | | |
| | Extra ordinary operating result | | $0 | $13 500 | -$14 900 |
| - | Changes deferred tax | | $0 | $1 350 | -$1 490 |
| = | **Extra ordinary net operating result** | | $0 | $12 150 | -$13 410 |

**Table 15: Pension adjustments**

The pension adjustments lead to a decreased net extraordinary operating result in 2008 of close to $13.5 million.

| | **Seadrill Ltd.: Adjusted EBITDA** | **2005** | **2006** | **2007** | **2008** |
|---|---|---|---|---|---|
| | EBITDA | -$2 500 | $393 700 | $671 700 | $881 900 |
| - | Gain on sale of assets[61] | $0 | $0 | $124 200 | $80 100 |
| + | Loss trade receivable | $0 | $0 | $0 | $0 |
| + | Pension | $0 | $0 | $13 500 | -$14 900 |
| + | Option expenses | $0 | $22 | -$2 836 | $3 973 |
| = | **Adjusted EBITDA** | **-$2 500** | **$393 722** | **$558 164** | **$790 873** |
| | | | | | |
| / | EBITDA (%) | -9 % | 34 % | 43 % | 42 % |
| / | Adjusted EBITDA (%) | -9 % | 34 % | 36 % | 38 % |

**Table 16: Adjusted EBITDA**

We see from table 16 that the adjusted EBITDA is mainly affected by the sale of assets.

### 5.2.3 Risk assessment for Seadrill

The risk assessment for Seadrill will lead to the synthetic rating, and will mainly concentrate on four ratios. In addition the capital structure and the covenants for the company will be examined. This will lead to a rating of the company, which gives us a quantifying of the risk and a basis which will be used in the calculation of the cost of debt. The risk assessment has as a purpose to find the representative default risk for Seadrill, and this means capturing the variance in Seadrill's results. Hence, the historical (non-adjusted) results are used for this purpose. Seadrill's results have over the period been very fluctuating, mainly due to several financial items.

---

[61] No taxes are recognized on the gain from sale of assets

### 5.2.3.1 Credit risk for Seadrill:

The risk assessment is performed using historical numbers:

**Current ratio:**

The current ratio is traditionally said to be sound when greater than two. For drilling companies with little or no inventory the current ratio is somewhat special, and the number 2 is not essentially as important as in other businesses. The main current assets and liabilities for Seadrill are the accounts payable and receivables, in addition to the interest-bearing items.
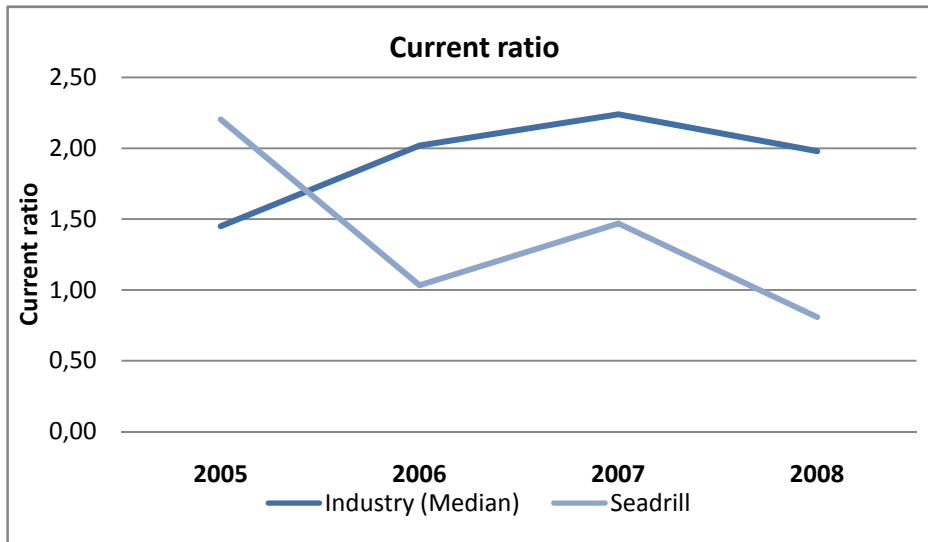
**Figure 36: Current ratio**

From Figure 36 we can see that Seadrill have a lower current ratio than the industry during most of the period, except in 2005. It is especially critically for Seadrill in 2008 when the current ratio fell below 1. This means that Seadrill at the end of 2008 did not have enough current assets to pay their current liabilities. Seadrill also have a covenant on the current ratio which states that the company should at all time maintain a current ratio of at least 1. However, this covenant includes only parts of listed shares and excludes interest-bearing debt (Seadrill, 2009 k). This covenant will be discussed more in detail later. Diamond Offshore had the highest current ratio over the period, with an average of close to 4. For the two OSE listed drillers; Scorpion Offshore and Songa Offshore, both were well under 1 by the end of 2008 (0.45 and 0.42 respectively), indicating liquidity problems for the company.

The quick ratio have also been examined, yielding the same results (not surprisingly, given the lack of inventories). By year end 2008 Seadrill had a quick ratio of 0.25 compared to the industry (median) of 1.54. Only Songa Offshore had a lower quick ratio than Seadrill.

**Interest coverage ratio:**

The interest coverage ratio measures the company's ability to pay off the interest expenses as they are due with the cash provided from operations. In Seadrill's case this ratio is a bit special as the company have capitalized significant amounts of interest expenses as they have been building the units. Now Seadrill are close to finishing their newbuilding program, and by Q1 2009 almost all their rigs are in operations. This means that Seadrill will not be allowed to capitalize as much as earlier years, and one can expect the interest expenses recognized in the profit & loss statement to be increasing quite significant. Seadrill will take delivery of their last rig in 2011, and after that there will be no capitalizing of interest. As this risk assessment tries to capture the risk for Seadrill going forward, the capitalized interest expenses are adjusted for.

| Seadrill Ltd.: Interest expenses (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Interest expenses recognized in P&L | $900 | $79 800 | $112 700 | $130 000 |
| Interest expenses capitalized | $0 | $63 400 | $134 000 | $176 400 |
| Total interest expenses | $900 | $143 200 | $246 700 | $306 400 |

Figure 37: Total interest expenses for Seadrill 2005 - 2008

Figure 37 shows that in some years more than half of the total interest expenses have been capitalized, and this is not representative going forward. It must here be noted that the other drilling companies also have capitalized interest expenses over the period[62], but as Seadrill have been through a much more aggressive newbuilding program, the difference has a larger impact for Seadrill. The intuition here is that when the rig comes into operation and they are no longer able to capitalize the interest the operating income will increase as the rig starts to earn dayrates. Hence, this is not as dramatic for the interest coverage ratio.

---

[62] The capitalized interest expenses have been adjusted for also for the peers
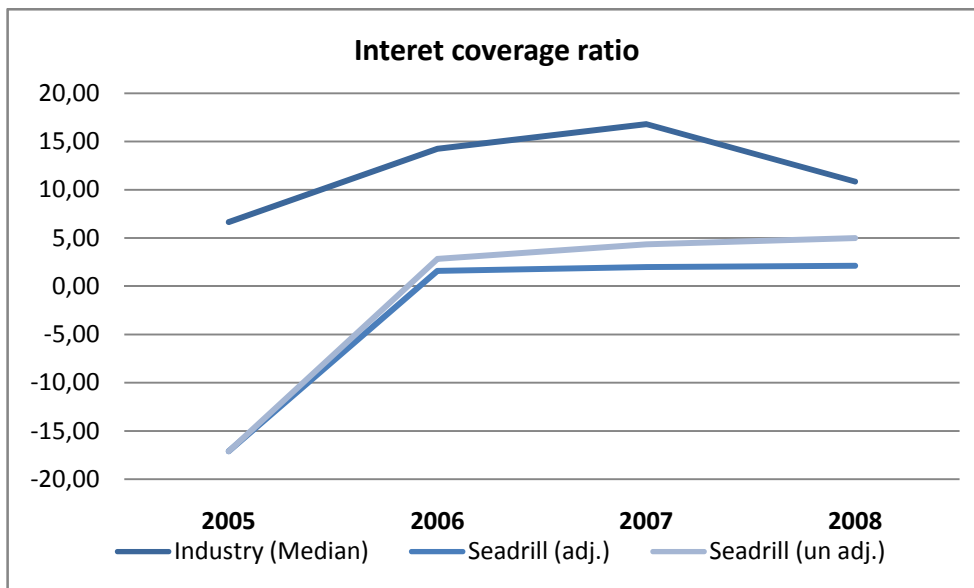
**Figure 38: Interest coverage ratio**

 The industry here has a very large variation in interest coverage; in 2008 Diamond Offshore had a interest coverage of 184 while Hercules Offshore had -18, hence the median has been used.

We observe from Figure 38 that Seadrill have a significantly lower interest coverage ratio than the industry average. The adjusted interest coverage ratio in 2008 is 2.12, while the unadjusted is close to 5. Even though this is clearly below the industry average, the numbers for Seadrill is not as dramatic. If they are able to cover 5 times their interest expenses with operating earnings the company must be said to be in a sound condition in regards to interest coverage. Seadrill has as mentioned earlier on in the paper, a significantly higher leverage then their peers. The trend is also strengthening for Seadrill over the period. The negative interest coverage ratio in 2005 should not be emphasized. It can here be marked that the industry in rougher periods have historically had a much lower interest coverage ratio, and in 2003 the median was fairly below 1. The interest coverage ratio is actually quite correlated with the profitability and is at their lowest in 1999-2000 and from 2002 to 2004. These have also been the weakest period for the industry when looking at profitability.

Also on this ratio Seadrill has a covenant. This states that the company should have a EBITDA to interest expense of minimum 2, and increasing from Q2 2009 to 2.5 (Seadrill, 2009 k). This covenant will be discussed later.

**Cash flow:**

The cash flow created by the company should enable the company to pay off their liabilities

and create return for their equity holders. As shown in Table 8 Seadrill has had positive cash flows from operations for the whole period. As investments are expected to decrease significantly and newbuildings are starting operations this will increase the cash flows from operations. The cashflows are expected to continue to stay positive. This is expected to create positive free cash flows going forward, which can be used to pay down debt, or to pay out these amounts to shareholders as dividends. The last option is the most probable in the case of Seadrill.

The strong contract coverage for their UDW-units should be increasing cash flows from operations even when seeing a rough time ahead in the drilling markets for the next years, especially for the jack-up segment. In relations to cash flows 2008 can be said to have been the critical year for Seadrill as investments peaked this year. Even so, the company paid out $688 million in dividends, mainly because of sale/leaseback transactions.

**Equity ratio:**

The results, i.e. the net income, is recognised on the balance sheet towards the equity. In years with negative earnings the equity will decrease. As we want to measure the default risk for the company it makes sense to have equity of some extent to be able to carry the losses. The equity ratio, which is measured on total capital, gives us a clear image of that.
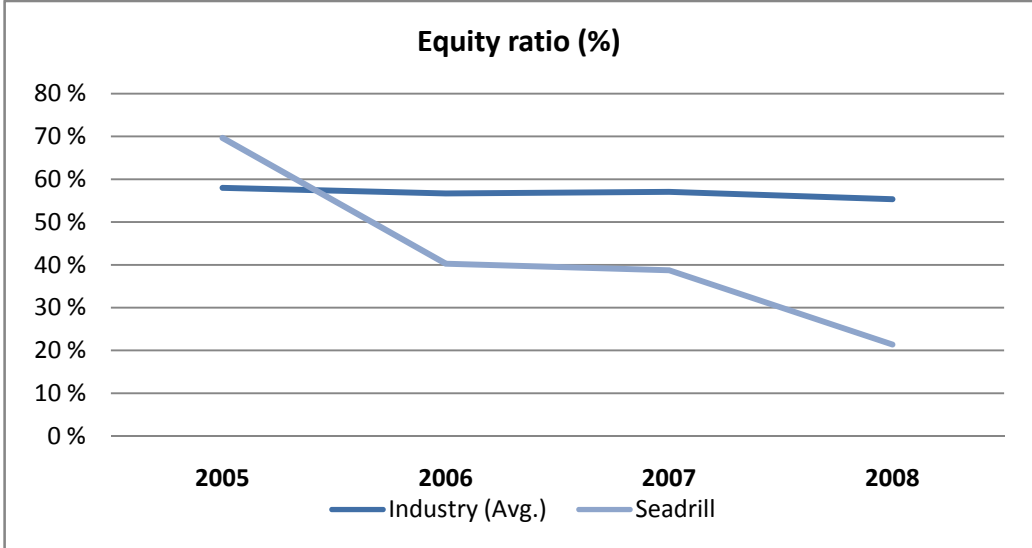


**Figure 39: Equity ratio**

When looking at the equity ratio for Seadrill in Figure 39 we can observe two clear trends; Seadrill is decreasing their equity ratio significantly and the Company is well below the industry average. By year end 2008 Seadrill had an equity ratio of 21 %. Only Songa Offshore

had a lower equity ratio in the industry. The most conservative leverage is provided from ENSCO, which has an equity ratio of 80 %. The OSE listed peers stands out from the international, with a higher leverage all over. The industry giant Transocean is observed to have 47 % equity ratio. This ratio is calculated on a core basis, meaning looking only at the equity belonging to the common shareholders. As Seadrill has quite large minority interests, due to the sale/leaseback transactions, this ratio would be increased somewhat including the MI as equity.

An equity ratio of around 20 % is very low, and may indicate the need of new equity. If losses are to continue and markets will weaken further this could be relevant. However, this is a deliberate choice for Seadrill, as they intend to keep leverage high. Seadrill has a covenant in relations to the equity ratio, which states that the company must have an equity ratio of 30 %. However, this should be adjusted according to market values of the rigs (Seadrill, 2009 k).

**Capital Structure and Covenants:**

Seadrill has a very high leverage, especially when compared to international peers. This may be explained by the fact that Seadrill is a quite young company. They have been through an extensive newbuilding program, indicating a large need for financing. However, there are no indications that Seadrill intend to reduce their leverage going forward. When yielding positive free cash flow Seadrill has intended to pay this out as dividends instead of paying down debt (Seadrill, 2009 d). This is symptomatic for companies controlled by Mr. Fredriksen, and there is no reason to believe that Seadrill will be different than companies such as Frontline and Golden Ocean Group when it comes to dividend policy.

In 2009 Seadrill has $745 million of interest-bearing debt maturing. The company should have no problems with paying this. The peak of liabilities payable comes in 2012, when $2.2 bn is maturing. In 2010 Seadrill have $1.17 bn maturing. The company reports that they now are in the process of refinancing a bridge loan of $1 bn, reducing this to $667 million (Seadrill, 2009 k). See Appendix F for full debt overview per year end 2008. Figure 40 provides an overview for the debt maturity profile:
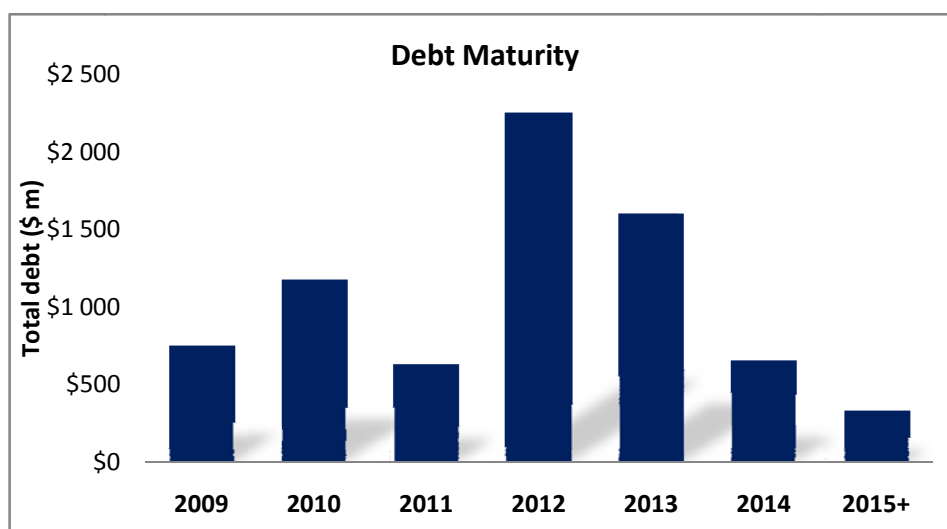
**Figure 40: Debt maturity**

Seadrill has little exposure to the bond market, as they have been able to secure their debt on very favourable terms with the banks and through the sale/leaseback agreements with Ship Finance. By the end of 2008 Seadrill had close to 17% of the total interest-bearing debt in the bond market.

The covenants for Seadrill have been gaining a lot of attention lately, as several of them have been balancing on the acceptable. The covenants are related to the bonds and the convertible bond. The company have following covenants:


**- Minimum liquidity:** The company are required to keep at all time a minimum of $100 million of cash and cash equivalent on the balance sheet. As the company also have restricted cash in relations to forwards and other financial instruments this should be no problem.

**- Interest coverage ratio:** Seadrill are required to maintain a ratio of EBITDA to interest expense of minimum 2, increasing to 2.5 after Q2 2009. This ratio is no problems for Seadrill to meet.

**- Current ratio:** The current ratio is required to stay above 1. This is adjusted by including up to 20 % of shares in listed companies, which can be defined as associated companies. This ratio also excludes the short-term portion of the interest-bearing debt. As the pure current ratio is well below 1 in 2008 (0.25), this adjustment keeps the current ratio at 1.15. It could here be important to note that this ratio were presented as a pure current ratio without any adjustments as late as in the financial statements in 2007 (Seadrill, 2008 b).

**- Equity ratio:** The equity ratio is required to stay at minimum 30 %, but adjusted for the market values for the rigs. This ratio was in 2007 also defined as being 30 % on book values

_____

(Seadrill, 2008 b).

**- Leverage ratio:** Seadrill are required to maintain a ratio of Net debt to EBITDA of minimum 5.5 until the end of Q2 2009. In Q3 2009 this relationship decreases to 5, and from Q4 2009 this further decreases to 4.5. This ratio has been no problem for Seadrill to meet (Seadrill, 2009 k).

The company has earlier indicated that they see no problems with holding these covenants (Seadrill, 2009 m). However, the covenants may create some problems for Seadrill if markets continue to weaken. At the same time 2008 is expected to be the most critical year for Seadrill in regards to the covenants. All covenant relationships are expected to increase in 2009. The critical covenant is the market adjusted equity ratio.

## Net operating return:

The net operating return is measured by the Return on Net Operating Assets Return (RNOA), also referred to as the Return on Invested Capital (ROIC). In addition to measuring profitability this also relates to how the operations break into the equity. Negative returns on operating assets would reduce equity, and over time (in worst case) lead to a default. For the profitability analysis this measure will be presented on normalized levels. For the purpose of risk assessment and synthetic analysis this will be presented on real basis to capture the variance.
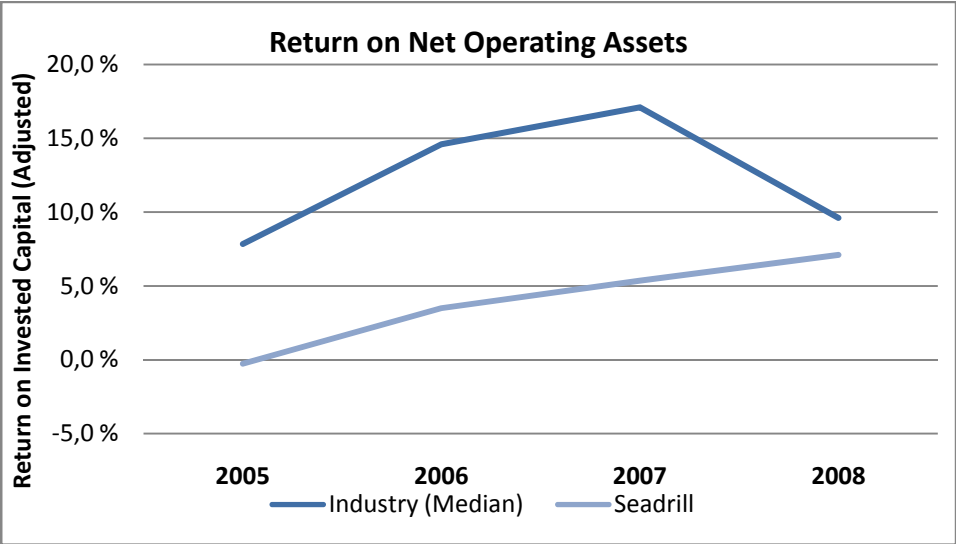


Figure 41: Return on Net Operating Assets (Unadjusted)

Looking at Figure 41, RNOA have been increasing for Seadrill over the whole period, even though they are still below the industry average. The period has been extraordinary strong for offshore drillers when looking at market conditions, with soaring oil prices and dayrates. As

the markets collapsed in the second half of 2008 the results for the offshore drillers also fell, as we can see from the graph. This hit hardest for the small drillers, such as Hercules Offshore, Scorpion Offshore and Songa Offshore. Seadrill has had an improving development in regards to RNOA, which can be related to the strong contract coverage (as discussed in the strategic analysis).

To sum up the risk assessment; it is observed that Seadrill "underperform" the industry in all of the four ratios, representing Seadrill to be a riskier company than the average offshore driller. This is mainly due to the high leverage the company has taken on.

### 5.2.3.2 Synthetic rating for Seadrill

The synthetic rating for Seadrill is based on four ratios; the current ratio, the interest coverage ratio, the equity ratio and the return on invested capital. In addition the capital structure, cash flows (especially from operations) and the covenants have been taken in consideration.

Please refer to Table 5 for the rating intervals. 2005 have been excluded from the risk measurement as this is not a representative year. Table 17 provides the summary for the synthetic rating for Seadrill:

| Seadrill Ltd.: Synthetic Rating | 2006 | 2007 | 2008 | Average | Rating |
|---|---|---|---|---|---|
| Current ratio (LG 1) | 1.03 | 1.47 | 0.81 | 1.10 | B |
| Interest cover ratio | 1.58 | 1.98 | 2.12 | 1.89 | BBB |
| Equity ratio | 40 % | 39 % | 21 % | 33.5 % | BB |
| Net operating return | 3 % | 5 % | 7 % | 5.3 % | BB |
| Total Rating | | | | | BB |

Table 17: Synthetic rating for Seadrill

Seadrill is rated to a BB rating when considering the four relationships. This classifies the company as a fairly speculative investment for bond holders. For comparison the industry average are rated to AA.

A BB rating is according to Bodie et al. (2007: 480) "speculative with respect to pay interest and repay principal in accordance with the terms of the obligation". They do however state that BB represents a low grade of speculation. Standards & Poor's (2008) states BB as an aggressive financial risk with satisfactory business risk. This seems to be correct as Seadrill have among the highest leverage in the industry.

### 5.2.4 Profitability analysis

For measuring the historical profitability for Seadrill several ratios has been compared to the industry average and the historical discount rate for Seadrill. Two measures have here been

main focus, Return on Invested Capital and Return on Equity. Growth and operating margins have also been examined.

### 5.2.4.1 Historical discount rate

In addition to comparing the profitability of Seadrill with the industry average, the profitability is also compared to the historical cost of capital. This is done to measure if the company has earned super profit.

The historical cost of capital has been estimated on the basis of the world market, assuming a global and well diversified investor. The historical cost of equity is based on the capital asset pricing model (CAPM) which assumes that the investor is well diversified; $R_i = r_f * \beta_i * (r_m - r_f)$.

The beta is measured by regression on the returns for Seadrill compared to the returns for the MSCI world index. This is the international beta which is relevant for the global investor. The return for Seadrill must be nominated in USD to be consistent (Johnsen, 2006). The historical beta has been estimated to 1.15 for the whole period from incorporation until today. The beta compared to OSEBX has been estimated to be 1.49 for the total period. The higher beta towards OSEBX can be explained by the energy/oil intensity on OSE. Figure 42 shows the returns for SDRL compared to the MSCI World Index:
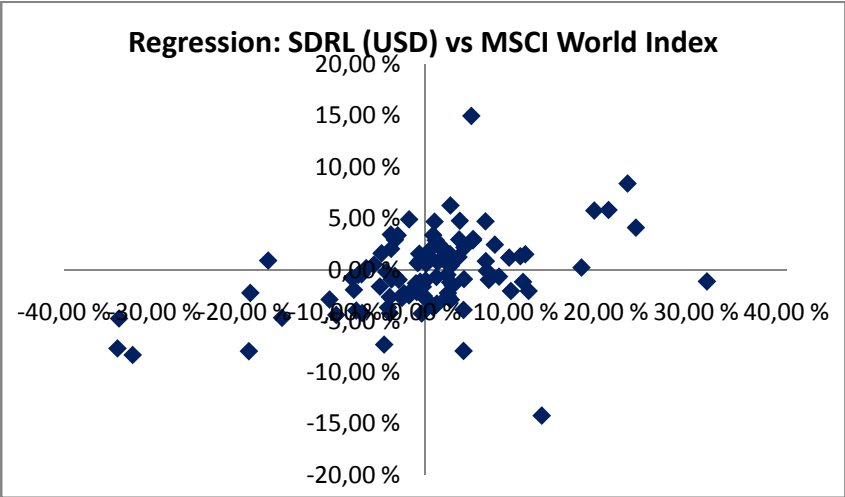


**Figure 42: Regression SDRL vs MSCI World Index**

The equity beta for each year has been estimated similarly on returns for Seadrill and MSCI on weekly data. Since this regression has relatively few observations this may include some bias. Therefore the annual equity beta has been "Bloomberg" adjusted for each year towards

1. The Bloomberg adjustment is adjusted on the basis that the beta in the long run will tend towards the beta of the market: $\beta_{adj.} = 0.33 + 0.67 * \beta_{raw}$ (Harris, 2008 a).

As Seadrill has its cash flow nominated in US dollars the US 30 year T-Bond yield would be the most relevant estimate for risk-free rate (Damodaran, 2002). The risk-premium for the world has been measured to be 5.15 % for the period 1900 - 2005 (Dimson, March and Staunton, 2006). This estimate has been held constant over the whole period. Table 18 shows the cost of equity estimate for Seadrill over the period:

| Seadrill Ltd.: Historical cost of equity | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| 30yr T-Bond | 4.55 % | 4.82 % | 4.46 % | 2.69 % |
| (Rm - Rf) | 5.15 % | 5.15 % | 5.15 % | 5.15 % |
| Adjusted βe | 1.77 | 1.66 | 0.54 | 0.95 |
| **Cost of equity** | **13.2 %** | **13.1 %** | **7.6 %** | **7.7 %** |

Table 18: Historical cost of equity

We can clearly see that the cost of equity have been reduced for Seadrill. This has a clear connection with the equity beta and the operational risk has been reduced over the period.

For the cost of debt the historic interest expense have been used. For this measure the interest expense recognized in the profit & loss statement have been measured towards the reclassified financial liabilities[63]. The assumed liabilities in relations to the newbuilding program have been reclassified as operational debt, hence reducing the financial liabilities. As soon as the rigs under construction commence operations these are again reclassified as financial liabilities, as it is no longer possible for Seadrill to capitalize interests. The guided effective tax rate, of 10 % has been used to measure net interest expense. Table 19 gives the overview of the historical interest expense. The cost of debt in 2005 is not very relevant as this is affected by several issues as the company was incorporated during the year.

---

[63] See Table 13 for a closer description of the reclassification of operational and financial liabilities

| Seadrill Ltd.: Historic cost of debt (1000 $) | | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Financial liabilities | FL | $314 200 | $2 814 700 | $4 600 500 | $7 436 800 |
| Operating liabilities | OL | $33 200 | $1 001 000 | $964 800 | $1 645 700 |
| Interest expense recognized in P&L | | $900 | $79 800 | $112 700 | $130 000 |
| Interest expenses capitalized | | 0 | 63400 | 134000 | 176400 |
| 70 % newbuilds reclassified to OL | | 307510 | 1417780 | 2337860 | 2562350 |
| | | | | | |
| Operating liabilities after reclassifying | OL* | 340710 | 2418780 | 3302660 | 4208050 |
| Financial liabilities after reclassifying | FL* | 6690 | 1396920 | 2262640 | 4874450 |
| Adjusted interest expense | | 13.5 % | 5.7 % | 5.0 % | 2.7 % |
| Tax rate | | 10.0 % | 10.0 % | 10.0 % | 10.0 % |
| **Net adjusted interest expense** | | **12.1 %** | **5.1 %** | **4.5 %** | **2.4 %** |

Table 19: Historical cost of debt[64]

To arrive at the historical cost of capital, the historical cost of equity and debt must be weighted by their market values. The market value for the equity have been estimated as the shares outstanding at the end of the year multiplied by the share price at the last trading day of the year. It could here be discussed if one should use an average approach. The financial liabilities after reclassifying (year-end) has been used as a proxy for the market weight as Seadrill have very little of their debt traded (close to 80 % are credit facilities/bank debt). Table 20 shows the historical cost of capital:

| Seadrill Ltd.: Historical cost of capital (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Cost of equity | 13.2 % | 13.1 % | 7.6 % | 7.7 % |
| Cost of debt, net | 12.1 % | 5.1 % | 4.5 % | 2.4 % |
| | | | | |
| Debt % | 0.44 % | 19.23 % | 19.41 % | 59.51 % |
| Equity % | 99.56 % | 80.77 % | 80.59 % | 40.49 % |
| **Historical cost of capital** | **13.2 %** | **11.6 %** | **7.0 %** | **4.5 %** |

Table 20: Historical cost of capital

It can be observed large differences in the historical cost of capital as capital structure, operational and financial risk has been changing over the period. This is clearly a contrast to the theory of Miller and Modigliani (see chapter 6.1).

### 5.2.4.2 Return on Equity

The return on equity (ROE) provides the information of the return for the company's shareholders over the period. Figure 43 compares the return on equity for Seadrill to the industry average and the historical cost of equity for Seadrill:

---

[64] OL = operating liabilities, FL = financial liabilities, while * means that these measure have been adjusted
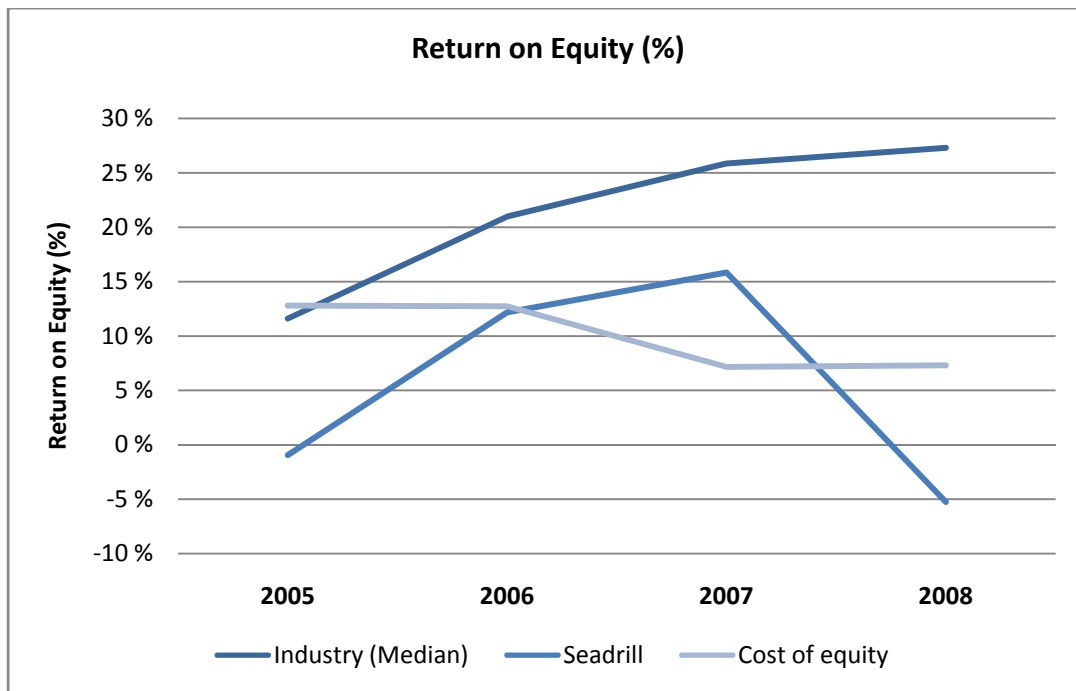
**Figure 43: Return on Equity**

Seadrill have over the period had a return on equity significantly lower than the industry, and in 2008 the company yielded a negative return. In general the negative return in 2008 can be related to loss on financials as the underlying operations increased from 2007 to 2008. The industry has been through an exceptional period of growth in earnings and high returns on equity and assets. A ROE of close to 30% must be said to be quite impressive. Diamond Offshore and Fred. Olsen Energy has been the two top performers in the industry with respects to ROE over the last two years, returning over 40% on equity in 2008. Seadrill was together with Hercules Offshore the only companies yielding a negative return in 2008. The industry median has here been applied as Hercules Offshore would bias the industry average, with a ROE of -73 %.

Seadrill has on average over the period had a lower return on equity than their cost of equity. However, both 2005 and 2008 can be regarded as extraordinary years in terms of return on equity. In 2007 Seadrill yielded super profit, i.e. ROE > Cost of equity. As Seadrill experienced significant losses on financial items in 2008 the ROE was negative. The only real trend for Seadrills ROE is that there is no trend, the results are very unstable. This may be impacted by the fluctuating markets and the growth of Seadrills fleet. As the fleet and position of Seadrill is maturing and becoming more stable the ROE can be expected to stabilize and be approaching the industry ROE. The return on equity is further separated into return on operations and financials.

### 5.2.4.3 Return on Net Operating Assets

The normalized return on net operating assets (RNOA) provides an image of the fundamental profitability on the operating assets in Seadrill. Figure 44 provides the normalized RNOA for Seadrill compared to the industry RNOA and the historical weighted average cost of capital (WACC) for the company:
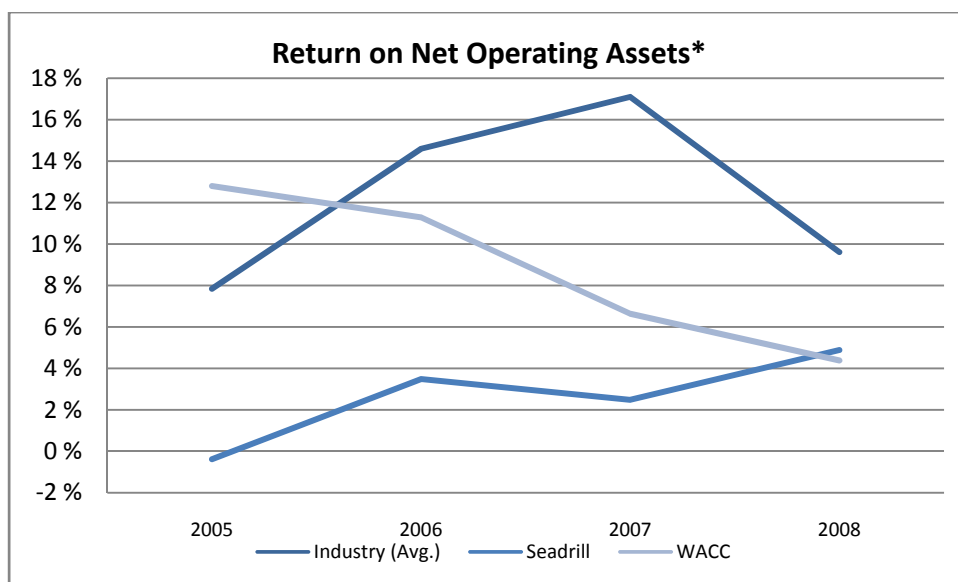


**Figure 44: Return on Net Operating Assets (Adjusted)**

 The normalized RNOA for Seadrill has been almost continuously improving and were in 2008 larger than the cost of capital. The industry experienced a sharp decline in return on net operating assets from 2007 to 2008, while Seadrill further improved. This may be explained by Seadrill getting new rigs into operations and holding a physical capital advantage (see strategic analysis). The industry still has a higher RNOA than Seadrill, but this is expected to level out as Seadrill is finishing their newbuilding program.

It can be observed that the RNOA is significantly lower than the ROE, which indicates that the company is increasing its return due to financial leverage. This implies that the return on net operating assets is higher than the net cost of debt, i.e. the net interest expense. If this is the case the company will increase return by increasing leverage.

### 5.2.4.4 Growth and margins

The growth in revenues and operating earnings could along with an analysis of the margins also provide significant insight in the fundamental economics in Seadrill.

Increased dayrates are reflected in increased margins both for the industry and for Seadrill over the period.

Seadrill has as new vessels have commenced operations increased revenues significantly. The revenues for Seadrill grew by 47.5 % in 2008 compared to the industry revenue growth of 31.6 %. At the same time the EBITDA for Seadrill grew by 31.3 % in 2008, while the industry EBITDA (median) grew by 21.5 %.

Figure 45 presents the EBITDA margins (median) for the industry compared to Seadrill. The margins decreased for the industry in 2002 and 2003 at the same time as the oil priced collapsed. From 2004 the industry margins have increased continuously. The last years more of the EBITDA margins are reflected from improved UDW markets as more drillers are moving into this segment. Seadrill is included from 2005, and has improved their margins significantly. In 2008 the EBITDA margin was stable for Seadrill, still below the industry median.
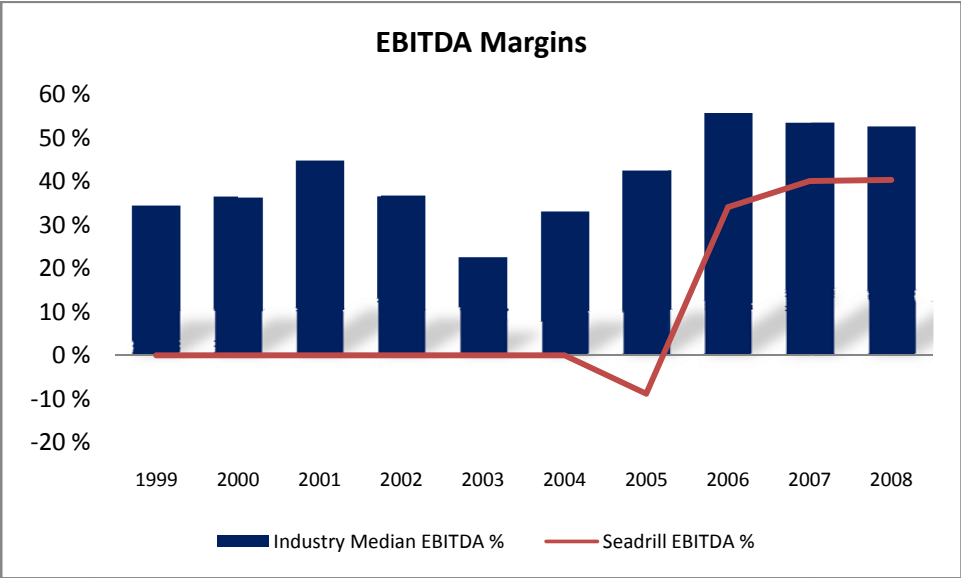


**Figure 45: EBITDA margins**

Noble Corporation and ENSCO international had the best EBITDA margins in 2008 of around 66 %, while Transocean had 54 %. There is no reason that Seadrill going forward should have a lower EBITDA margin than the industry, especially since Seadrill has among the highest exposure to the UDW segment, which is a high margin segment. However, as focus from oil companies lately have moved from growth to cutting cost the industry margins may be set under pressure.

Comparing Seadrill with the industry on straight net income margins the company has experienced lower margins over the period. In 2008 Seadrill had -8 %, mainly due to losses on financial items, while the industry had an average net income margin of 19 %. In 2007,

which can be said to be a more normal year for Seadrill in regards to net income, the company had 30 % margin, compared to the industry 31 %.

### 5.2.5 Forecasted financial statements

For forecasting the financial statements several assumptions have been made. On several of the items historical relationships have been used.

The operating revenues have been calculated for each rig using the secured contracts. The dayrates have been multiplied with the utilization rate guided by the company. In general one can expect economic utilization of 97% for jack-ups and tender rigs. For the floaters one can expect utilization rates around 95 %. The utilization has been adjusted for several conditions, such as harsh environment operations and start-ups. After finishing the contracts the operating revenues are calculated on the dayrate estimates presented in Figure 34. The secured contracts are adjusted for cost escalation clauses[65]. However, it is assumed that this relationship is tested only once a year. It is assumed no cost escalation clauses after signed contracts expire. This can be explained as a consequence of the changing focus from oil companies from growth to cutting costs.

Reimbursable revenues and reimbursable expenses are expected to fluctuate with the operating activity. Hence, these items are estimated on basis of *contract revenues* and *vessel and rig operating expense*. This has been allocated to the operating segments based on activity levels.

The operating expenses are guided by the company for each segment and geographical location. Conservative estimates for the OpEx have been used. Table 21 shows the OpEx estimates per day for the different segments:

| Seadrill Ltd.: OpEx estimates/day | North-Sea | Brazil | West-Africa | SE Asia | Australia |
|---|---|---|---|---|---|
| Jack-Up | $130 000 | | 55000 | | $70 000 |
| Floaters | $160 000 | 145000 | $150 000 | | |
| Tender Rigs | | | $50 000 | $40 000 | $40 000 |

Table 21: Operating expense estimates

In addition several assumptions and adjustments for each rig have been used. Each rig is depreciated on their historical book value over the economic lifetime which is 30 years (Seadrill, 2009 k). The total depreciation for all rigs represents the consolidated depreciation presented in the P&L.

---

[65] The Company have expressed that all contracts longer than 1 year are secured against cost inflations, which will increase the dayrates with the same amount as the Δ in OpEx, hence holding the EBITDA margin fixed.

The general and administration expenses are allocated to the different operating segments based on percentage of sales.

Table 22 presents the reformulated profit & loss statement for the period 2008 – 2013[66]:

| Seadrill Ltd.: Reformulated Profit & Loss Statement (1000 $) | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| Contract revenues | $1 867 800 | $2 925 032 | $3 531 742 | $4 398 963 | $4 846 372 | $4 956 100 |
| + Reimbursable revenues | $163 500 | $240 286 | $279 491 | $331 718 | $356 766 | $363 053 |
| + Other revenues | $74 500 | $29 000 | $28 000 | $14 000 | $0 | $0 |
| = Total operating revnues | $2 105 800 | $3 194 318 | $3 839 234 | $4 744 681 | $5 203 138 | $5 319 153 |
| | | | | | | |
| Vessel and rig operating expenses | $1 021 600 | $1 368 861 | $1 560 704 | $1 870 494 | $1 996 849 | $1 985 839 |
| + Reimbursable expenses | $156 600 | $195 428 | $219 401 | $252 804 | $266 048 | $266 464 |
| + General and administrative expenses | $125 800 | $240 250 | $293 367 | $373 308 | $417 401 | $430 815 |
| + Depreciation and amortization | $233 200 | $280 345 | $353 144 | $384 918 | $407 595 | $415 610 |
| = Total operating expenses | $1 537 200 | $2 084 884 | $2 426 616 | $2 881 523 | $3 087 893 | $3 098 728 |
| | | | | | | |
| - Operating tax expense | $91 700 | $110 943 | $141 262 | $186 316 | $211 525 | $222 042 |
| = Net operating result from operations | $476 900 | $998 490 | $1 271 356 | $1 676 842 | $1 903 721 | $1 998 382 |
| + Net result from associated companies | $15 600 | $85 355 | $85 637 | $85 350 | $86 476 | $84 999 |
| = Net operating result | $492 500 | $1 083 845 | $1 356 994 | $1 762 192 | $1 990 197 | $2 083 381 |
| + Net financial income (interest) | $30 900 | $3 352 | $4 953 | $7 682 | $17 399 | $32 476 |
| = Net result to capital employed | $523 400 | $1 087 197 | $1 361 947 | $1 769 874 | $2 007 596 | $2 115 857 |
| - Net financial expenses (interest) | $130 000 | $201 336 | $204 747 | $204 207 | $202 451 | $223 390 |
| - Net minority interests | $41 700 | $114 149 | $133 605 | $158 268 | $207 068 | $154 556 |
| = Net result to equity | $351 700 | $771 713 | $1 023 596 | $1 407 399 | $1 598 077 | $1 737 911 |
| + Result from extraordinary operating items | $80 100 | $0 | $0 | $0 | $0 | $0 |
| + Result from extraordinary financial items | -$781 100 | $0 | $0 | $0 | $0 | $0 |
| - Extraordinary tax expense | -$43 400 | $0 | $0 | $0 | $0 | $0 |
| = Total net result to equity | -$305 900 | $771 713 | $1 023 596 | $1 407 399 | $1 598 077 | $1 737 911 |

Table 22: Reformulated Profit & Loss statement

For the balance sheet several of the items have been estimated based on common size. Items such as accounts receivable and payable are based on target credit length guided by the company. The interest-bearing debt is estimated based on a target capital structure. The reformulated balance sheet is presented in table 23[67]:

---

[66] Note that the 2008 numbers are reported numbers, 2009 – 2013 is estimated. Segment P&L statements are presented in Appendix G
[67] Appendix H presents the balance sheet in the same way as the company

| Seadrill Ltd.: Reformulated Balance Sheet (1000 $) | 2008 | 2009e | 2010e | 2011e | 2012e | 2013e |
|---|---|---|---|---|---|---|
| Operating assets | $11 166 800 | $11 896 817 | $12 987 391 | $12 735 271 | $11 879 180 | $11 515 602 |
| Operating liabilities | $1 645 700 | $1 696 851 | $1 680 332 | $1 710 887 | $1 723 349 | $1 722 264 |
| **Net operatig assets** | **$9 521 100** | **$10 199 966** | **$11 307 059** | **$11 024 384** | **$10 155 831** | **$9 793 338** |
| | | | | | | |
| Financial obligations | $7 436 800 | $6 907 880 | $7 680 222 | $6 893 788 | $7 554 911 | $8 388 123 |
| Financial assets | $1 137 700 | $991 682 | $1 308 042 | $1 671 809 | $3 730 139 | $5 430 101 |
| **Net financial obligations** | **$6 299 100** | **$5 916 197** | **$6 372 180** | **$5 221 979** | **$3 824 771** | **$2 958 022** |
| | | | | | | |
| Minority interest | $592 800 | $856 949 | $990 553 | $1 148 821 | $1 355 889 | $1 510 445 |
| Shareholders' equity | $2 629 200 | $3 426 820 | $3 944 326 | $4 653 584 | $4 975 171 | $5 324 871 |
| **Capital employed** | **$9 521 100** | **$10 199 966** | **$11 307 059** | **$11 024 384** | **$10 155 831** | **$9 793 338** |

**Table 23: Reformulated Balance Sheet**

Table 24 presents growth ratios, margins and profitability ratios related to the forecasted financial statements:

| Seadrill Ltd.: Margins & Growth (%) | 2008 | 2009e | 2010e | 2011e | 2012e | 2013e |
|---|---|---|---|---|---|---|
| Revenue growth | 47,5 % | 51,7 % | 20,2 % | 23,6 % | 9,7 % | 2,2 % |
| EBITDA growth | 31,3 % | 57,6 % | 27,1 % | 27,3 % | 12,2 % | 4,5 % |
| EBIT growth | 32,7 % | 71,0 % | 27,3 % | 31,9 % | 13,5 % | 5,0 % |
| EPS growth | -134,8 % | -583,8 % | 29,8 % | 37,1 % | 13,4 % | 8,7 % |
| | | | | | | |
| EBITDA margin | 40 % | 44 % | 46 % | 47 % | 48 % | 50 % |
| EBIT margin | 30 % | 35 % | 37 % | 39 % | 41 % | 42 % |
| Profit before tax margin | -5 % | 31 % | 34 % | 37 % | 39 % | 40 % |
| Net income margin | -8 % | 25 % | 27 % | 30 % | 31 % | 33 % |
| | | | | | | |
| Return on equity | 7,8 % | 11,3 % | 13,1 % | 16,7 % | 20,0 % | 22,3 % |
| Return on net operating assets | -5,3 % | 26,3 % | 28,1 % | 33,0 % | 33,4 % | 34,0 % |

**Table 24: Margins and growth**

We can see from table 24 that Seadrill is expected to continue its strong growth until 2012-2013 when they will reach a more stable page. This is directly related to the new rigs coming in operations (the last unit delivered Q4 2011) and expected improved market conditions.

The margins are expected to increase somewhat from 2008, but will remain stable going forward. The increase in margins is related to the increased UDW exposure for Seadrill. Figure 46 shows the allocation of EBITDA by segment:
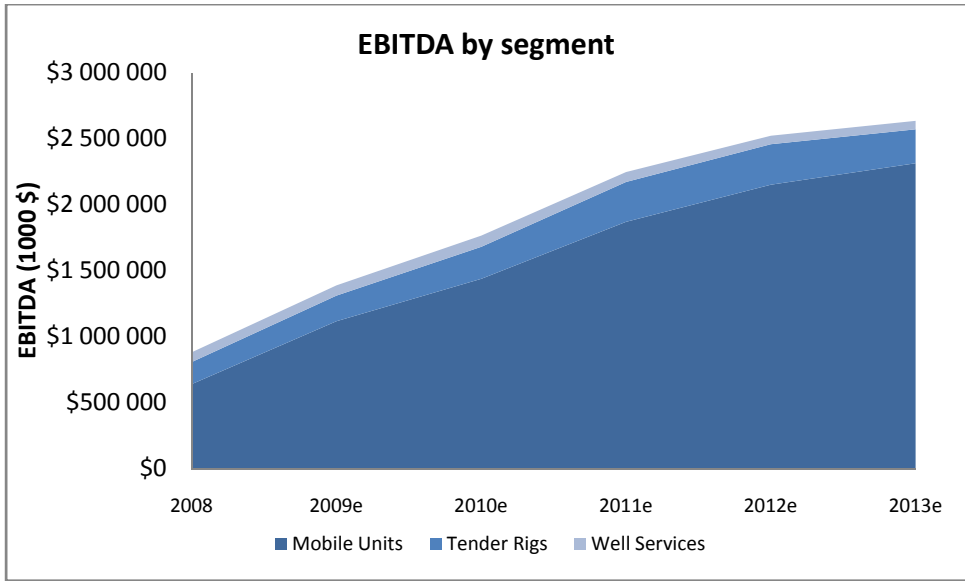
**EBITDA by segment**

Legend: Mobile Units, Tender Rigs, Well Services

The company is expected to continue to improve their profitability, both on the return on net operating assets (RNOA) and the return on equity (ROE).

# 6. Valuation Framework

This chapter will present the theoretical framework for valuation. When valuing a firm several different approaches could be used; such as the discounted cash flow model (DCF), relative valuation (multiples) and contingent claim. This paper will focus on three different methods; DCF, relative valuation and the market value of the assets (NAV). The theory behind the discount rate will also be discussed. Figure 47 explains the valuation process:



**Figure 47: Valuation process**

The valuation of the company is based on the strategic analysis and the financial analysis of the company. This is implemented to reach a fair value of the company's equity.

## 6.1 Weighted Average Cost of Capital

The weighted average cost of capital (WACC) is defined by Damodaran (2002:13) as the "cost of the different components of financing used by the firm, weighted by their market value proportions". This will work as the discount rate to calculate the present value of all future cash flows from the investment. The after-tax cost of capital can be written as: **WACC = $r_d$ (1 – $t_c$) D/V + $r_e$ E/V**. Where $r_d$ is the cost of debt, multiplied by $1 - t_c$[68] to allow for the tax advantage to debt. The cost of equity, $r_e$, is calculated using the capital asset pricing model (CAPM). CAPM is defined as $r_i = r_f + \beta_i (r_m - r_f)$, where $r_f$ is the return of a risk-free asset, $\beta_i$ is the systematic risk of a security[69]. $R_m$ is the estimated return of the market portfolio (Bodie et al., 2008).  D/V and E/V works as the market weights of the debt and the equity, respectively (Brealey et al., 2006). The debt and equity weights should be calculated on target levels (Koller et al., 2005).

The WACC is based on the theory of Miller and Modigliani. The Miller-Modigliani proposition 1 states: "keeping investment policy fixed, if capital markets are perfect and investors can borrow at the same terms as firms, total firm value (enterprise value) is unaffected by leverage" (Östberg, 2007). In other words, a company which is fully equity financed will be worth the same as a company financed with debt. However, this proposition

---

[68] $T_c$ = The corporate tax rate

[69] Measured as: $\beta_i = \frac{Cov(r_i, rm)}{Var(r_m)}$

makes several assumptions, such as that capital markets must be perfect, that there are no default costs and no taxes (Brealey et al., 2006). This does not hold in reality as we have several imperfections and (in most markets) have a tax advantage to debt. The MM1 proposition is explained in figure 48:
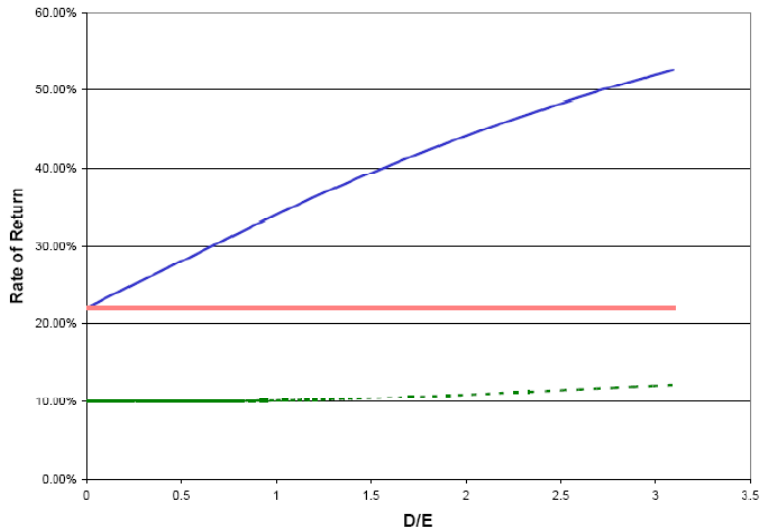


**Figure 48: Miller-Modigliani proposition 1**[70]

However, the intuition of MM1 is clear; as the weighted proportion of debt increases the riskiness of the equity also increases. This offsets the lower cost of debt. The equity risk increases with the increased proportion of debt, as the default risk is elevating. Hence, if we ignore default cost and corporate taxes, the cost of capital will stay the same no matter of leverage.

### 6.1.1 Cost of Equity

The cost of equity is calculated using CAPM: $\mathbf{R_i = r_f + \beta_i * (r_m - r_f)}$. The different parameters are estimated:

**The risk-free rate**, $R_f$, should correspond to the rate of return of a risk-free asset, and should have the same maturity as the investor's desired holding period (Bodie et al., 2006). The risk-free asset needs to fulfil two characteristics; it must have no default risk and no re-investment risk (Damodaran, 2002). The risk-free rate is normally regarded as bonds issued by the governments since these in most cases have no default risk. This does obviously not hold for every country, such as Iceland and Latvia at the moment. Bodie et al. (2006: 177) suggests that common practice is to regard treasury bills as risk-free assets, as their short term nature makes then "insensitive to interest rate fluctuations" and to some extent inflation. On the other

---

[70] Östberg, 2007

hand, if you have a long period investment, i.e. longer than 10 years, treasury bills[71] would obviously be exposed to the reinvestment risk, as you would have to reinvest the t-bill until maturity of the investment.

The nomination of the cash flow from the investment (or the firm) must be equivalent to the risk-free rate used in the CAPM. Damodaran (2002: 156) explains that: "if cash flows are estimated in nominal U.S. dollar terms, the risk-free rate will be the U.S. Treasury bond rate".

For the U.S. market the longest government bond available has a maturity of 30 years, while the Norwegian market offers a government bond with 10 years to maturity. The yield curve for government bonds in the Norwegian, European and U.S. market are illustrated in figure 49:
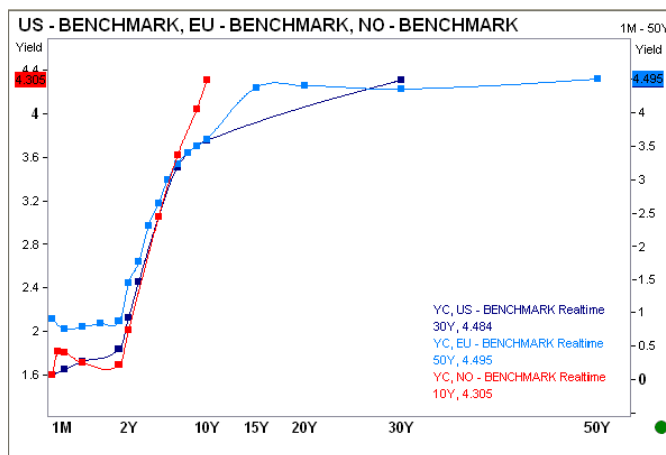


**Figure 49: Yield Curve**[72]

**The equity beta**, $\beta_e$, reflects the "risk that the investment adds to the portfolio" (Damodaran, 2002: 182). We can say that the beta reflects the company specific risk of the investment, i.e. the systematic risk. For listed securities one can use historic β, measured by $\beta_i = \frac{Cov(r_i, r_m)}{Var\ (r_m)}$. By running a regression[73] over a given period on the return of the security versus the return of the market portfolio (i.e. the stock exchange index) we can measure the historic equity beta. However, this raises the question of time period and the use of data. Both the length of the period and the frequency of the data will lead to different results. Other approaches of estimating the beta would be to "estimate the betas from the fundamental characteristics of the investment" and to use accounting data (Damodaran, 2002: 182)

---

[71] Treasury bills are shorter government bonds, with maturity between 3months to 1 year
[72] Reuters, 2009
[73] $R_j = a + b\ R_m$, where a is the intercept and b is the slope

On historic betas there are many common adjustments, as for example the Bloomberg adjustment where the beta is adjusted towards 1 (Harris, 2008 a). This is justified by the theory that over time the beta tend to move towards the market portfolio, i.e. one (Damodaran, 2002). Especially with data containing a lot of bias (i.e. daily data) this may be useful. Damodaran (2002: 192) states: "The cost of equity is far too important an input into a discounted cash flow valuation to be left to statistical chance".

For non-listed securities, and also in many cases for listed securities, it would be useful to estimate the $\beta$ on basis of the fundamentals of the company and the industry. Damodaran (2002) suggests three variables to determine the fundamental beta: the type of business, the degree of operating leverage for the firm and the financial leverage. The type of business will affect the beta in terms of how cyclical the business is, and hence the variation in operating profits. The average beta of the firms in the industry would be used to estimate the industry beta. The operating leverage of a firm is decided by the cost structure of the company. Financial leverage will increase the equity beta of the firm as the riskiness of the equity will increase (MM1), and are calculated as: $\beta_L = \beta_U [1 + (1 - t_c)(D/E)]$ (Damodaran, 2002), where D/E reflects the financial leverage.

Investors are demanding extra return for taking risk, and hence require a risk premium when investing in riskier assets than the risk-free. Armitage (2005: 87) defines the equity risk premium as: "the difference between the expected rate of return on the stock market and the risk-free rate" This is calculated as: $\mathbf{E\ (R_p) = R_m - R_f}$.

The risk-premium are often estimated on the basis of historical risk-premiums, however consensus of what is the actual risk-premium varies significantly. This can be explained by three factors; time period, choice of risk-free asset and the use of arithmetic or geometric average (Damodaran, 2002). The risk-premium chosen has to be consistent with the risk-free rate used in the CAPM when estimating the equity risk-premium. Damodaran (2002: 155) concludes: "where the excess return earned by stocks over and above a government security rate over a past period is used as the risk premium, the government security chosen has to be the same one as that used for the risk-free rate". This means, if using a U.S. 30 year T-Bond as risk-free rate, this should also be used when calculating excess returns for estimating the risk premium. Figure 50 presents the equity risk premium for different periods, looking at short (t-bills) and long (t-bonds) government rates.

| | ERP: Stocks minus T.Bills | | ERP: Stocks minus T.Bonds | |
|---|---|---|---|---|
| | *Arithmetic* | *Geometric* | *Arithmetic* | *Geometric* |
| 1928-2007 | 7.78% | 5.94% | 6.42% | 4.79% |
| 1967-2007 | 5.94% | 4.75% | 4.33% | 3.50% |
| 1997-2007 | 5.26% | 3.86% | 2.68% | 1.51% |

**Figure 50: Historical Equity Risk Premiums (ERP) for the U.S. Market[74]**

An important aspect here is the nomination of the cash flow and the perspective of the investor. If the cash flow is nominated in USD the historical βe should be estimated on a stock exchange with respects to the U.S. Intuitively the risk premium must also be estimated on the reference market to the risk-free rate. The share price, which will impact the returns, must be restated in the same currency as the exchange it's compared to. Johnsen (2006) states that one should use local currency on local exchanges and USD on the MSCI World Index.

### 6.1.2 Cost of debt

The cost of debt is defined by Damodaran (2002: 208) as a measure of "the current cost to the firm of borrowing funds to finance projects". Armitage (2005: 136) states that "the cost of a loan is the expected rate of return that can be obtained from investing in another asset with the same risk as the loan in question". The cost of debt is determined by three factors; the risk-free rate, the default risk and the tax advantage to debt.

The actual cost of debt (pre-tax) can be obtained using different approaches; looking at the recent borrowing history of the firm, looking at which levels their bonds are traded (yields) and estimate a synthetic rating.

By looking at the company's debt at the present moment and their recent borrowing history, one can determine a cost of capital based on the spreads. This would imply that one assumes the company to keep a fixed capital structure (i.e. hold a fixed leverage), and have the same margin/spreads going forward.

Looking at the traded bonds of a company the value of the debt and the implied spread can be found (Harris, 2008 b). This reflects the market value of the debt and the way the market prices the riskiness of the firm. On the basis of this one can estimate an appropriate cost of debt going forward. This approach assumes that the credit markets are in a good shape and

---

[74] Damodaran, 2008

that the market prices the debt correctly. In the fall 2008 and spring 2009 the credit markets have been extremely distressed trading at record spreads[75].

A third cost of debt estimate can be obtained from a synthetic rating based on financial ratios. This measure captures the company risk and gives the basis for a reasonable credit risk premium. Refer to table 5 for credit premiums.

## 6.2 Discounted cash flow model (DCF)

The discounted cash flow model (DCF) is the most common valuation technique. The theoretical value of a asset is "the present of expected cash flows on it" (Damodaran, 2002: 11). Koller et al. (2005:56) explains the DCF as a model that "accounts for the difference in value by factoring in the capital spending and other cash flows required to generate earnings". The value of the asset can be calculated using the formula; Value $= \sum_{t=1}^{t=n} = \frac{CF_t}{(1+r)^t}$, where n = the life of the asset, $CF_t$ = the cash flow in period t and r = the discount rate than reflects the riskiness of the cash flow (Damodaran, 2002).

The main idea behind the DCF model is that "the value of any asset is the present value of expected future cash flows, discounted at a rate appropriate to the riskiness of the cash flow being discounted" (Damodaran, 2002: 322).

The discounted cash flow model derives from the dividend discount model, which assumes that all earnings are paid out as dividends. The value for the firm's shareholders must thus be the present value of the future dividends received. Valuing a company on a per share basis the correct value could be calculated as: $\sum_{t=1}^{t=\infty} \frac{E\,(DPS)_t}{(1+k_e)^t}$ where, $DPS_t$ = the expected dividend per share and $K_e$ = the cost of equity (Damodaran, 2002: 322).

When firms reach a stable state of growth one can estimate the value through the Gordon growth model (GGM). This GGM "relates the value of a stock to its expected dividends in the next period, the cost of equity, and the expected growth rate in dividends" (Damodaran, 2002: 323). This value is often referred to as terminal value, or continuing value, and can be calculated through the formula; Terminal value $= \frac{DPS_1}{k_e - g}$ where $DPS_1$ = expected dividends next year, $k_e$ = the cost of equity and g = the growth rate in dividends forever.

---

[75] The credit spreads reached records height when Lehman Brothers defaulted in September 2008

The Gordon growth model can give a very unreliable (and often a very large portion of the final value) estimate of the value. An important assumption of this model is that the growth rate is stable. The growth rate is a highly discussed topic as this can be very crucial to the final value. According to Damodaran (2002: 324) the "growth rate of a company cannot be greater than the stable growth rate but can be less. Firms can become smaller over time relative to the economy".

When calculating the free cash flow we separate between the free cash flow to firm (FCFF) and the free cash flow to equity (FCFE). When valuing the total firm, i.e. finding the enterprise value, the cost of capital for both the equity and debt holders are taken into account. This is the weighted average cost of capital (WACC). When discounting the FCFE to find the equity value, the cost of capital for only the equity holders is sufficient. This paper will focus on the equity value through a valuation of the whole firm and extracting the debt. Both methods should lead to the same result.

### 6.2.1 Free cash flow to the Firm (FCFF)

The free cash flow to the firm can be viewed as the corporate or enterprise value of the firm. This includes the free cash flow to all of the firm's claimholders. Removing net interest bearing debt (NIBD)[76] and minority interest will lead to the value of the equity. The value of the firm can be found with the formula:

$$\text{Enterprise Value} = \sum_{n=1}^{n=\infty} \frac{FCFF_1}{(1+WACC)^1} + \ldots + \frac{FCFF_n}{(1+WACC)^n}.$$

| Free Cash Flow to Firm (FCFF) | |
|:---:|:---|
| EBIT * (1 - $t_c$) | |
| + | Depreciation and Amortization |
| - | Capital Expenditures |
| - | Δ in Working Capital |
| = | **Free Cash Flow to Firm** |

Table 25: Free Cash Flow to Firm

Table 25 presents the method for calculating FCFF. When discounting the free cash flow one should remove all assets that do not belong to the equity holders, and if not already included add assets such as tax assets/remove liabilities which have not been a part of the FCFF calculation. Net interest-bearing liabilities should be removed, as these assets belong to the debt holders. The same treatment should be used on assets belonging to minority interests.

---

[76] NIBD = Gross interest-bearing debt – cash and cash equivalents – marketable securities

As the focus in the FCFF model is on cash flow to all of the firm's stakeholders one should concentrate on only cash items. As the interest and other financial items ultimately falls to debt holders, the focus is on the operating income, i.e. EBIT adjusted for taxes. As depreciation and amortization only is accounting posts and have nothing to do with cash, these are added back on. This could also be done through EBITDA, but then the tax shield received from depreciation also must be considered. Capital expenditures are not recognized over the profit & loss statement, but are clearly a cash item, and must be removed from the free cash flow. Changes in working capital must be adjusted for in relations to the free cash flow. As long as working capital increase less capital are available to the stakeholders, and hence must be subtracted. If working capital is decreasing more cash is free and hence this item becomes positive.

### 6.2.2 Free cash flow to equity (FCFE)

The free cash flow to the equity model only concentrates on the cash flow available to the equity holders of the company. The intuition of only including cash posts are however the same as when estimating free cash flow to the firm. The calculation process for FCFE is presented in table 26. The value of a firm using the FCFE method can be found as: Equity

Value $= \sum_{n=1}^{n=\infty} \frac{FCFE_1}{(1+k_e)^1} + \ldots + \frac{FCFE_n}{(1+k_e)^n}$ .

| Free Cash Flow to Equity (FCFE) | |
|---|---|
| | Net income |
| + | Depreciation & Amortization |
| - | Capital Expenditures |
| - | Δ in Non-cash Working capital |
| + | New debt issued |
| - | Debt repayments |
| = | **Free Cash Flow to Equity** |

Table 26: Free Cash Flow to Equity

As the focus is on cash flows, the changes in working capital should here be on non-cash level. Hence, all interest bearing assets should be excluded from the calculation. As new debt is issued these create positive cash flows, while repayments of debt drain the cash. These items should be adjusted for to get to the free cash flow to equity (FCFE).

## 6.3 Relative valuation

The relative valuation is based upon the theory that similar assets should be traded at similar levels (Damodaran, 2002). This can be measured on many ratios such as Price/Sales, Price/Book, Price/Earnings and EV/EBITDA. Relative valuation is a very popular and

widespread tool. A relative valuation is simpler and more time effective compared to DCF, and could also be said to capture the market better as the pricing is relative. Also this approach takes on a lot fewer assumption and demands less business insight to perform (Damodaran, 2002).

A relative valuation requires similar relative measurements and comparable firms. The comparable firms do intuitively need to be in the same business and be exposed to more or less the same risks and fundamental economic factors. Company specific factors such as leverage should also be adjusted for (Koller et al., 2005).

### 6.3.1 Price/Earnings

The Price/Earnings multiple (P/E) values the company on the basis of the relationship between market value and net income of the comparable firms. This factor is multiplied with the net income for the firm, to get a fair market value for the firm:

$$\textbf{Value} = \frac{P}{E} \textbf{\textit{Industry}}_n \times \textbf{\textit{Net Income}}_n.$$

A problem with the P/E multiples is that firms operating within the same business could have very different capital structures, depreciation methods, tax rates etc. As P/E focuses on the market value of the firm, large differences in leverage could yield the wrong multiple and hence, the wrong value. Another problem is the unpredictability of earnings, as these often have large fluctuations. The bottom line of a company is exposed to all risks, such as financial items, foreign exchange gains (losses) and impairments. This makes the P/E estimate quite uncertain.

### 6.3.2 Enterprise Value/EBITDA

The Enterprise Value to EBITDA (EV/EBITDA) compares the total firm value to the estimated EBITDA on forecasted basis for an industry average to the EBITDA result for the company. The fair value of the firm can be found:

$$\textbf{Value} = \frac{EV}{EBITDA} \textbf{\textit{Industry}}_n \times \textbf{\textit{EBITDA}}_n - \textbf{\textit{NIBD.}}$$

EV/EBITDA has two clear advantages compared to P/E: As we look at total firm value the problem regarding different capital structures can be disregarded, yielding more accurate multiples. Looking at EBITDA we look consequently at more normalized operating earnings and ignore financial and other on-off items such as impairments. This is likely to give us a much more precise estimate (Koller et al., 2005).

## 6.4 Net Asset Valuation (NAV)

A valuation based on market values of the assets assumes that there is a efficient market where similar assets are being traded at relatively high circulation. Sectors most relevant for this kind of valuation approach are real estate, shipping and some oilservice segments. All of these assets have more or less efficient second hand market, and it is also quite possible to observe prices of new assets coming in to the market. This method will from now on be referred to as the Net Asset Valuation method, or the NAV.

In addition to looking at the Net Asset Value based on values in the second hand market it could also be useful, if assets are easily identifiable, to look at how the market prices the assets at the moment, i.e. the implied value of the assets.

## 6.5 Main valuation approach

All three presented methods; the DCF-model, relative valuation and net asset valuation will be used to value Seadrill. However, as most analyst and investors agree upon, the most precise and correct approach to value the equity of a company is through the DCF-model. This reflects that the correct theoretical price for an asset is the present value of future cash flows (Damodaran, 2002). Hence, the DCF-model will be the main approach for this paper. The two other methods will be used to test the DCF value, and to set a range where the price of Seadrill can be regarded as fair.

The main valuation method has been chosen with respect to the life cycle of the company, the business it operates in and if the company is to continue operations in foreseeable future. As the company operates within the offshore segment where one have a quite efficient second hand market for the assets, it could be argued for that the net asset valuation approach should be applied for Seadrill. However, as liquidation of all Seadrills operations at the moment don't seem reasonable and relatively few fixtures have been seen in this market lately this will not work as the main valuation method.

# 7. Valuation for Seadrill Limited

The valuation for Seadrill will be based on the theory presented in the previous chapter. The main valuation approach is the discounted cash flow model (DCF), but relative valuation and the NAV method are also used.

## 7.1 Weighted Average Cost of Capital

The weighted average cost of capital (WACC) for Seadrill is estimated to be 10.7 %. This is based on a cost of equity of 13 % and a cost of debt (after tax) of 6.4 %. Table 27 provides the details:

| Seadrill Ltd.: Cost of capital (WACC) | |
|---|---|
| βe | 1.79 |
| Risk-free rate | 4.45 % |
| Equity risk-premium | 4.75 % |
| **Cost of equity** | **12.95 %** |
| | |
| Cost of debt | 7.12 % |
| Tax rate | 10.00 % |
| **Cost of debt, net** | **6.41 %** |
| | |
| E/EV | 65 % |
| D/EV | 35 % |
| **WACC** | **10.7 %** |

Table 27: Weighted Average Cost of Capital for Seadrill

For the equity weight the market value for Seadrill at the time of writing has been used[77]. For the debt weight the target book value (i.e. the debt in the last estimated balance sheet year) as a proxy for the market value. As Seadrill has very little traded debt this can be justified. Here it can be assumed that Seadrill's debt trades at par.

### 7.1.1 Cost of equity

$R_f$, **Risk-free rate:** As Seadrill has cash flows nominated in US dollars and has an investment horizon of 30 years[78], the risk-free rate used is the U.S. 30-year Treasury bond. Hence, we have no default risk (it is regarded as highly unlikely that the US will default) and no reinvestment risk. The U.S. 30-year T-Bond is at the time of writing yielding 4.45 % (Reuters, 2009).

---

[77] 2009-06-17: Share price = 90.6 NOK (MarketCap = $5.7bn)
[78] Cash flows for each rig is estimated until all units are "dead" which is based on the economic life time of the units of 30 years (Seadrill, 2009 k)

**β$_e$, Equity beta:** The equity beta of Seadrill has been measured based on an average of historical data and fundamental basis. The historical beta was estimated by a regression on the returns of Seadrill (nominated in USD) compared to the return for the Morgan Stanley Capital International World Index (MSCI). The returns of Seadrill are re-stated in USD since they are compared to a world index. This has been done on weekly data over a two years period. The R$^2$ for this regression is 17.5 %, with a standard deviation of 6.43 %. Comparing SDRL (nominated in NOK) to the Oslo Stock Exchange Benchmark Index (OSEBX) yields a beta for Seadrill of 1.49 (based on weekly returns over 2 years). This beta has a R$^2$ of 71.7 % and a standard deviation of 7.95 %. To use the OSEBX for the beta is however, incorrect since Seadrill have their cash flows nominated in USD. This beta would also be biased for a numerous reasons, mainly the energy intensity of OSE[79]. According to Benninga (2008) a low R$^2$ on beta only explains that a company have a low systematic risk. This makes sense given the market one compares the company against. I would expect Seadrill to have a relatively low R$^2$ towards for example the Kenyan market.

This yields an equity beta of 1.12 (based on the last 24 months)[80]. Since the standard deviation is so relatively high, an average of fundamental basis along with the historical data has been used to measure the equity beta. The fundamental beta is based on the industry beta, adjusting for leverage in the comparable firms. Table 28 presents the industry beta for the "Oilfield service and equipment" sector (Damodaran, 2009):

| Industry beta | |
| --- | --- |
| Firms | 112 |
| Average β | 1.56 |
| Market D/E | 42 % |
| Industry T$_c$ | 22 % |
| **Unlevered β** | **1.17** |

Table 28: Industry beta

Using the leverage for Seadrill based on market values[81] we get a levered beta for Seadrill, β$_L$ =1.17 * [1 + (1-0.10)*1.21] = 2.46. As the oilservice industry has very little fixed costs in relations to variable costs, it is assumed that the industry has around the same level of operating leverage as Seadrill. Hence, it is not adjusted for operating leverage.

---

[79] With so many large energy related companies listed on OSE the stock exchange is very sensitive to fluctuations in the oil price. This is also the case for Seadrill, which will increase the effect when compared to OSEBX instead of MSCI.
[80] β (12m) = 1.33, β (total period) = 1.15
[81] D/E = 112 %

The average equity beta used for Seadrill is then: $\beta_e$ = **[1.12 + 2.46)/2] = 1.79.** This is a fairly high beta, but reflects Seadrills relatively high leverage. Especially compared to U.S. listed drillers and oilservice companies (which compromises the industry beta) Seadrill has a high financial leverage.

**($R_m$ − $R_f$), the equity risk-premium:** used is based on the estimates by Dimson et al. (2006) and Damodaran (2008). Dimson et al. (2006) have found the equity risk premium for the world over the period 1900 – 2005 to be 5.15 %. As several authors including Damodaran (2008) explains that equity risk premium have been declining over the last years, due to several factors, this period seems to large and not quite relevant for Seadrill and the global investor of today. Damodaran (2008) on the other hand estimates an equity risk premium on long-term government bonds for U.S. over the period 1967 – 2007 to be 4.33 % (see figure 50). An average of these two estimates has been used for the equity risk premium in this paper. This is yielding an equity risk premium of 4.75 %.

The cost of equity for Seadrill is then estimated to: $K_e = r_f + \beta_e (r_m - r_f) = 0.0445 + 1.79 *$ 0.0475 = 0.1295 or 12.95 %.

### 7.1.2 Cost of debt
The after-tax cost of debt is estimated to be 6.4 %, using a tax rate of 10 %. The cost of debt is estimated on the basis of the synthetic rating made in chapter 5.2.3. Seadrill is rated to a BB rating, which implies some financial risk (Standard & Poor's, 2008). According to table 5 this justifies a credit risk premium of 60 %. With a risk-free rate of 4.45 % the risk-premium is 2.67 %. Total net cost of debt is then: **[(0.6 * 4.45) + 4.45] * (1-0.1) = 6.4**.

Seadrill expect to have an effective tax-rate of 10% going forward. As Seadrill is registered in Bermuda they have been exempted from taxation until at least 2016 (Seadrill, 2009 k). However, as they operate in different countries and under different tax jurisdictions the effective tax rate can be estimated to be somewhat higher. The normalized operating tax rate has been found to be 9.91 %, which is in line with management guidance. The low tax rate is not a special case for Seadrill, and is in the drilling industry more the norm than not.

Since Seadrill is expected to continue to have high leverage, with an estimated capital structure of 60 % debt to equity on book values, the discussion of β on debt is reasonable. However, as Seadrill have such a small portion of traded debt and given the current status of the debt markets, this would at best be a guess. Hence, the β of the debt is here assumed to be 0.

As there are several uncertainties in the WACC calculation, all dependent on the assumptions taken, a sensitivity analysis on the WACC has been included later in this chapter.

## 7.2 DCF-model

The discounted cash flow model (DCF) takes basis in the forecasted financial statements presented in chapter 5. This model concentrates on the free cash flow to the firm, and hence measures the enterprise value discounted by the weighted average cost of capital.

Seadrill is a offshore company which holds assets with a clear limited economic lifetime. Hence, it makes sense to value the units based on the expected cash flows for their lifetime. Seadrill holds in total 43 rigs, an OTC-listed well service company and several positions in other listed drilling operators. As almost all the other assets than the rigs are listed, it here makes sense to separate each part into a segment and value these segments separately. The complete value of Seadrill is here presented as the sum of the parts (SOTP).

The cash flows from each of Seadrills 43 rigs have been estimated and discounted to gain the deepest knowledge of the business. The units all have assumed economic lifetime of 30 years, and a scrap value of $0. This has a clear advantage to the terminal value approach where one assumes infinite lifetime. To assume infinite lifetime for units with 30 years economic life is wrong, and would almost certainly give an incorrect value. However, it might be justified that the Company itself does not have limited lifetime, and that they by investing in new rigs can extend the lifetime. This is also quite possible, but at the present time the company holds 43 units and as the investments (i.e. the capital expenditures) are estimated very carefully the limited lifetime approach here holds better. The problem with using the full lifetime horizon is of course that the longer into the horizon the more difficult and unreliable the forecasts become. The time value of money concept of course reduces the importance of the cash flows and removes some of the uncertainty. For such a asset based company as Seadrill there is a clear trade-off in using the economic lifetime as a horizon compared to the infinite lifetime. See Appendix I for an example of how the free cash flow for each unit has been estimated. The UDW Semi-submersible West Aquarius is presented (only showed the four first and the two last years).

The FCFF for the rigs have been allocated to the two operating segments *Mobile Units* and *Tender Rigs* and consolidated. In addition other items that are not allocated for the rigs, such as the G&A expenses, reimbursable revenues and expenses and working capital, have been separated on the segments.

**Working capital:**

The working capital has been calculated on a non-cash basis, meaning that interest-bearing items such as marketable securities and cash and cash equivalent have been excluded. The working capital is estimated on the assumptions on turnover ratios for accounts receivables and accounts payable. As the personnel related expenses have been guided to contribute close to 50 % of the OpEx, it is here assumed that the other 50 % can be related to material costs which the company will receive invoice with a credit time on (i.e. accounts payable). Here these 50 % have been referred to as Cost of Goods Sold (CoGS). As 2005 does not reflect a normal operating year, the average used is for the period 2006 – 2008. Table 29 presents the working capital calculations:

| Seadrill Ltd.: Working capital (1000 $) | 2005 | 2006 | 2007 | 2008 | Average | Fixed |
|---|---|---|---|---|---|---|
| **Accounts recievable** | $11 500 | $194 100 | $220 500 | $341 100 | | |
| Days outstanding recievables | 158 | 40 | 57 | 55 | 51 | 50 |
| | | | | | | |
| Accounts payable | $13 400 | $105 700 | $167 300 | $119 300 | | |
| CoGS (50%) | $11 650 | $293 900 | $453 240 | $510 800 | | |
| Days outstanding payable | 420 | 74 | 110 | 102 | 95 | 90 |

Table 29: Working capital

The trend in the accounts receivable have the last two years been stable at close to 55 days, with an average of 51 days for the period 2006 – 2008. This relationship has been estimated to be fixed at 50 days, which is close to two months. This seems reasonable given the business they operate in, however slightly above management guidance of 30 days.

For accounts payable the trend has been more unstable over the period. As the average for 2006 – 2008 have slightly above three months the fixed relationships is estimated to 90 days. Management also here guides 30 days.

The difference between accounts payable and accounts receivable works as the non-cash working capital as there are no other current assets or liabilities that can be directly related to operations: Working capital = Accounts receivable – Accounts payable. The working capital has been allocated to the different segments: 85 % to Mobile Units, 10 % to Tender Rigs and 5% to Working Capital. This is based on the proportion of operating revenues. The changes in working capital in each segment will impact the free cash flow from the segment, and hence the value.

**Capital Expenditures:**

The capital expenditures (CapEx) is guided for each rig and is related to the yard instalments for the rigs under construction. At the year end 2008 Seadrill had construction CapEx of $2.89 bn. In addition the company guides 15% in capitalized interests, spare parts etc (Seadrill, 2009 k). The CapEx is here allocated to each rig.

The rigs also need CapEx in relations to maintenance, increasing over the rigs lifetime. Each 5th year the rigs under go a long term maintenance which are depreciated over 5 years. In addition the drilling package will be replaced once during the rigs lifetime. The cost of the drilling package is significant, and can be up to 30 % of the initial construction CapEx. As Seadrill has a much younger fleet than its peers the maintenance CapEx the next years is expected to be much lower for Seadrill than the peers. The total remaining (including maintenance) CapEx for Seadrill is in 2009 expected to be $1.06 bn, increasing to $1.78 bn I 2010.

**Mid-Year adjustments:**

All the cash flows have here been adjusted by a mid-year factor, to include that the cash flows are actually on average received in the middle of the year and not 31th December. The mid-year adjustment is calculated as: $EV * (1 + WACC)^{0.5}$.

The valuation of Seadrill consists of four different segments; Mobile Units, Tender Rigs, Well Services and Associates & Investments. The enterprise value for all these segments has been calculated. To get to the equity value of Seadrill the total net interest bearing debt has been excluded.

### 7.2.1 Mobile Units

The Mobile units segment consists of 26 drilling rigs with an average of 6.3 years. This segment is clearly the most important segment, and by 2013 this segment is expected to contribute to 88 % of the total EBITDA.

The calculations provided in table 30 represents the enterprise value per share. The net interest-bearing debt is excluded on consolidated level. The "EV Mobile Units" reflects the present value of all the FCFF from 2009 for the 26 rigs. The minority interest is here representing the sale/leaseback units. The last MI payment for this segment is expected to be in 2024.

| Seadrill Ltd.: FCFF – Mobile Units (1000 $) | 2009 | 2010 | 2011 | 2012 | 2040 | 2041 |
|---|---|---|---|---|---|---|
| EBIT * (1- $T_c$) | $796 261 | $1 032 217 | $1 398 532 | $1 631 106 | $71 177 | $41 218 |
| Depreciation & Amortization | $232 492 | $292 170 | $316 308 | $339 342 | $54 277 | $37 333 |
| Δ in Working Capital | $7 172 | $84 685 | $75 006 | $41 503 | $0 | $0 |
| Capital Expenditures | $957 905 | $1 494 122 | $306 100 | $18 000 | $0 | $0 |
| Minority interest | -$438 641 | -$428 659 | -$424 169 | -$407 343 | $0 | $0 |
| **FCFF** | **-$374 966** | **-$683 079** | **$909 565** | **$1 503 602** | **$125 453** | **$78 552** |

| | |
|---|---|
| EV Mobile Units | $10 194 827 |
| Mid-year adjusted | $10 724 544 |
| **Per share** | **$26.87** |
| NOK/USD | 6.38 |
| **Per share (NOK)** | **kr 171.43** |

Table 30: FCFF for Mobile Units and EV per share

The enterprise value per share for the Mobile Units segment is estimated to NOK 171.43[82].

### 7.2.2 Tender Rigs

The Tender Rigs segment consist of 12 tender rigs, where 3 are under construction. The tender rigs controlled through the stake in Varia Perdana is not consolidated, and hence not included in this valuation of the segment. Table 31 provides the calculations:

| Seadrill Ltd.: FCFF - Tender Rigs (1000 $) | 2009 | 2010 | 2011 | 2012 | 2039 | 2040 |
|---|---|---|---|---|---|---|
| EBIT * (1- $T_c$) | $153 758 | $184 274 | $230 692 | $234 279 | $8 263 | $6 481 |
| Depreciation & Amortization | $23 333 | $37 680 | $46 480 | $47 230 | $19 397 | $8 050 |
| Δ in Working Capital | $844 | $9 963 | $8 824 | $4 883 | $0 | $0 |
| Capital Expenditures | $98 685 | $279 815 | $46 250 | $7 500 | $0 | $0 |
| Minority interest | $0 | $0 | $0 | $0 | $0 | $0 |
| **FCFF** | **$77 563** | **-$67 824** | **$222 097** | **$269 126** | **$27 660** | **$14 531** |

| | |
|---|---|
| EV Tender Rigs | $1 333 604 |
| Mid-year adjusted | $1 402 897 |
| **Per share** | **$3.51** |
| NOK/USD | 6.38 |
| **Per share (NOK)** | **kr 22.42** |

Table 31: FCFF for Tender Rigs and EV per share

The EV per share from Tender Rigs is NOK 22.42.

---

[82] Calculating the EV for the Mobile Units segment based on terminal value (growth = 2.5 %) yields a value of NOK 232.15. The EV using terminal value for Tender Rigs are estimated to be NOK 34.14.

### 7.2.3 Well Services

The Well Services division can be valued using two different approaches. As the division is listed through SeaWell Limited on the OTC, the market value can be obtained. The valuation of this division can also be based on the forecasted cash flows. As the economic lifetime for the assets in this division is uncertain, the terminal value approach has been used after 2013. Table 32 shows the EV calculation for the *Well Services* segment:

| Seadrill Ltd.: FCFF - Well Services (1000 $) | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| EBIT * (1- Tc) | $48 471 | $54 865 | $47 619 | $38 337 | $40 714 |
| Depreciation & Amortization | $24 520 | $23 294 | $22 129 | $21 023 | $19 972 |
| Δ in Working Capital | $0 | $0 | $0 | $0 | $0 |
| Capital Expenditures | $24 520 | $23 294 | $22 129 | $21 023 | $19 972 |
| Minority interest | $0 | $0 | $0 | $0 | $0 |
| **FCFF** | **$48 471** | **$54 865** | **$47 619** | **$38 337** | **$40 714** |

| | |
|---|---|
| EV Well Services | $173 839 |
| Terminal value | $278 415 |
| Mid-year adjusted | $475 753 |
| NOK/USD | 6.38 |
| **Total SeaWell value** | **kr 3 035 304 071** |
| Seadrills share | 73.79 % |
| Seadrill's stake per share (NOK) | kr 2 239 750 874 |
| **Per share Seadrill (NOK)** | **kr 5.61** |

Table 32: FCFF for Well Services and EV per share

We find the Enterprise Value per share to be NOK 5.61. The terminal value here contributes to over 62 % of the total value. This value is based under the assumption that the division have the same WACC as the rest of Seadrill, and hence the same operating risk. This assumption may be incorrect as SeaWell is a very small portion of the total firm, and the β estimated for Seadrill on historical levels may not really be relevant for SeaWell.

The market value of SeaWell is NOK 1.1 bn (NOK 10 per share), which represents a value to Seadrill of NOK 2.02 per share. Table 33 shows the market value calculation:

| SeaWell Ltd.: Market price | |
|---|---|
| Share price | kr 10.00 |
| Number of shares | 110 000 050 |
| **MarketCap** | **kr 1 100 000 500** |
| Seadrill's stake | 73.40 % |
| **Per Seadrill share** | **kr 2.02** |

Table 33: Market value for SeaWell

As SeaWell is listed on the OTC-exchange, where the trading is limited the question of liquidity and a possible liquidity discount needs to be addressed. Both the fact that the volume in the stock is limited and that Seadrill owns a controlling post suggests that the valuation of SeaWell should include a liquidity discount. This may also be reflected in the difference in the value between the DCF and the market value. The question of liquidity discount is however disregarded as the purpose here is to find the value for Seadrill, not a minority shareholder.

For the total value of Seadrill the market value for SeaWell will be used. However, there should be no problem with using the value calculated from the DCF. This should hence increase the value for SeaWell with NOK 3.59.

### 7.2.4 Associates and Investments

Seadrill holds several investments in other drilling operators as strategic investments. Some of these are accounted for as *Investments in Associated Companies*, while other are recorded as *Marketable Securities*. The holdings in SapuraCrest Bhd., Scorpion Offshore Ltd., and Varia Perdana Bhd., are significant holding where Seadrill controls above 20 %. Hence these are recognised as associated companies. Seadrill also have holdings in the US drilling operator Pride International of close to 10% through shares and forward contracts. This investment is recognised as marketable securities. Seadrill has also acquired Total Return Swaps (TRS) in their own company, which reflects 4.5 million shares, which have some value to the company. Some of these holdings are owned through forwards and other marketable securities the value to Seadrill is calculated as the difference between the purchase price and the present market value.

All these holding expect Varia Perdana are listed companies, and hence market values will be used for valuation. Varia Perdana holds five tender rigs of which Seadrill owns 49%. The value of Varia Perdana has been calculated as the present value of the free cash flows from the rigs multiplied by 49 %. Table 34 provides the valuation for the associates and investments:

| Seadrill Ltd.: Associates & Investments | Share price (local) | Share price (USD) | MarketCap | Value of Seadrill holdings |
|---|---|---|---|---|
| Pride International, Inc. | $24.34 | $24.34 | $4 224 923 | $86 687 |
| SapuraCrest Bhd. | RM1.50 | $0.43 | $496 766 | $122 601 |
| Scorpion Offshore, Ltd. | kr 23.50 | $3.68 | $323 755 | $24 733 |
| **Total listed values** | | | | **$234 020** |
| Varia Perdana Bhd. | | | | $236 132 |
| Seadrill Ltd TRS | | | | $30 859 |
| **Total associates and investments** | | | | **$501 011** |
| Value per share | | | | $1.26 |
| **Value per share (NOK)** | | | | **kr 8.01** |

**Table 34: Associates & investments**

Total value for holdings in other companies and investments are NOK 8.01. See the full explanation of the values and accounting treatment for the associates and other investments in Appendix J.

### 7.2.5 Seadrill NPV

The enterprise value for all the segments less the net interest-bearing liabilities constitutes for the value of Seadrill. The enterprise value for the segments calculated above sums up to NOK 203.9 ($32) per share. The EV for Mobile Units is calculated to NOK 171.4 per share and compromises 84 % of the total EV. The total consolidated net interest-bearing debt was by year-end 2008[83] close to $6.9 bn, or NOK 110 per share.

The fair value of Seadrill is estimated to be worth NOK 93.7 per share ($14.7), which represents a potential of 3% to the value it's currently trading at.
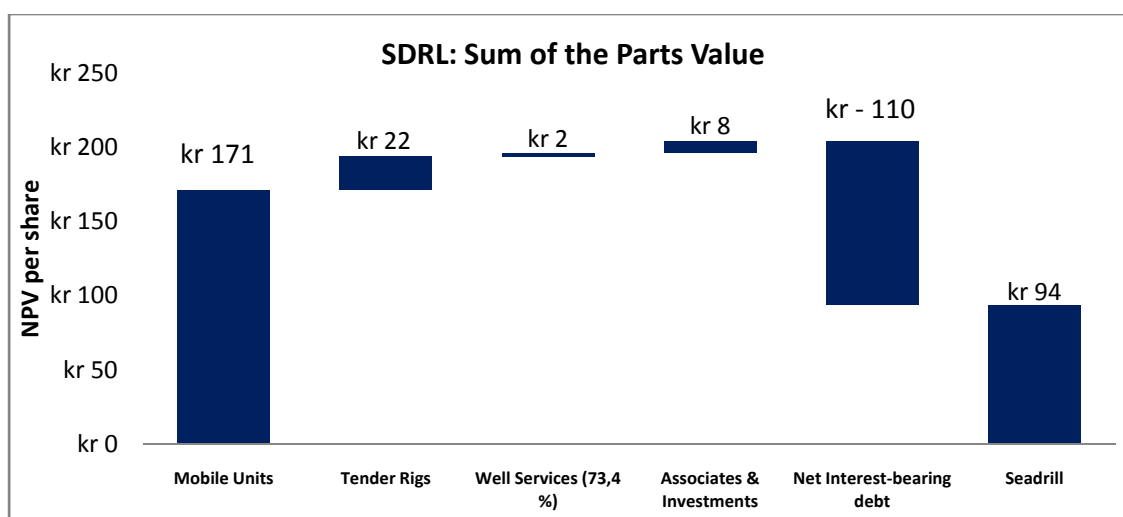


**Figure 51: SOTP valuation**

---

[83] Year-end 2008 was used as this was the last available reported NIBD at the time of writing. This Should be updated with last reported NIBD.

## 7.3 Relative valuation

A second approach to value the equity for Seadrill is a relative valuation compared to its peers. Both the Price/Earning (P/E) and Enterprise Value/EBITDA (EV/EBITDA) multiple will be estimated. As there are several problems with relative valuation, this will work only as a test for the DCF value and not as a separate valuation on its own.

Seadrill has been concluded to have some competitive advantage in regards to their young fleet, strong order backlog, good contract coverage, good clients and the highest deepwater exposure (see strategic analysis). Based on this Seadrill should trade at a premium compared to its peers. The theory behind relative valuation is that similar assets should trade at the same levels. However, in Seadrill's case the assets can hardly be regarded as similar to their peers. Seadrill has an average floater fleet age of 4 years, while for example Diamond Offshore has an average age of 32 years. These assets should not be traded at the same levels. Hence, the relative valuation should be regarded as conservative.

Comparables have here also been tested for leverage, operating risks, growth factors and several other factors.

In 2010 Seadrill's fleet is more stable and the estimated growth will be on a more normalized level. Hence is 2010 used as the basis for relative valuation. 2009 is expected be a very difficult year for the drilling sector, with weakening jack-up market, lower activity, impairments and large financial fluctuations. It can however be argued that the estimates (consensus) are more uncertain in 2010 than in 2009, giving greater risk on the estimates for 2010. Table 35 provides the multiples for the industry:

| Seadrill Ltd.: Relative valuation | | | | 2009 | | | 2010 | | |
|---|---|---|---|---|---|---|---|---|---|
| Peers | Share price (USD) | MarketCap (1000 $) | Enterprise Value (1000 $) | P/S | P/E | EV/ EBITDA | P/S | P/E | EV/ EBITDA |
| Atwood Oceanies, Inc. | $22.67 | $1 455 187 | $1 504 095 | 2.48 | 6.3 | 4.32 | 2.24 | 5.4 | 3.8 |
| Diamond Offshore Drilling, Inc. | $72.56 | $10 085 913 | $9 852 549 | 2.71 | 7.0 | 4.16 | 2.73 | 7.4 | 4.1 |
| ENSCO International, Inc. | $30.96 | $4 383 936 | $3 885 836 | 2.07 | 5.0 | 2.92 | 2.17 | 6.6 | 3.1 |
| Fred. Olsen Energy ASA | $38.40 | $2 544 478 | $3 535 184 | 2.26 | 5.5 | 5.07 | 2.13 | 4.9 | 4.6 |
| Hercules Offshore, Inc. | $3.96 | $348 361 | $1 296 127 | 0.41 | N/A | 5.10 | 0.38 | 16.5 | 3.6 |
| Noble Corporation | $28.58 | $7 500 878 | $7 911 054 | 2.02 | 4.5 | 3.26 | 2.09 | 5.2 | 3.5 |
| Pride International, Inc. | $20.35 | $3 617 721 | $3 617 721 | 1.84 | 7.8 | 3.92 | 1.83 | 8.7 | 3.9 |
| Rowan Companies, Inc. | $17.37 | $1 962 810 | $2 160 864 | 1.08 | 5.3 | 3.14 | 1.19 | 8.4 | 3.5 |
| Scorpion Offshore, Inc | $2.32 | $138 108 | $597 571 | 0.52 | 2.0 | 3.15 | 0.39 | 2.2 | 2.6 |
| Songa Offshore SE | $2.10 | $220 628 | $7 925 999 | 0.29 | 0.9 | 16.82 | 0.30 | 1.1 | 17.0 |
| Transocean, Inc. | $68.54 | $21 932 800 | $34 822 800 | 1.81 | 5.2 | 5.17 | 1.78 | 5.5 | 5.0 |
| Average | | | | 1.59 | 4.97 | 5.19 | 1.57 | 6.53 | 4.96 |
| Median | | | | 1.84 | 5.25 | 4.16 | 1.83 | 5.46 | 3.75 |
| Seadrill Ltd. | $12.59 | $5 023 588 | $11 322 688 | 1.49 | 5.47 | 8.15 | 1.30 | 4.43 | 6.40 |

Table 35: Relative valuation overview[84]

### 7.3.1 Price/Earnings

Seadrill trades at a premium to its peers on 2009 multiples, and at a significant discount to peers on 2010 numbers. As explained earlier there are several reasons for Seadrill to be trading at a premium compared to peers.

Looking at P/E multiples Diamond Offshore, Pride International and Hercules Offshore are trading at the highest multiples. For Hercules this reflects a large growth potential. For the two other operators it may be harder to explain the high multiples. For Diamond Offshore this can be related to the dividend policy, where the company stands out, along with Seadrill, as the most shareholder friendly company. The lowest multiples can be found for Scorpion Offshore and Songa Offshore; two OSE traded small cap drillers. Both these have been seeing significant problems with financing during the credit crunch, which obviously have depressed the share price. The industry giant, Transocean is trading close to industry average. Table 36 shows the P/E valuation for Seadrill:

| Seadrill Ltd.: P/E valuation | 2009 | 2010 |
|---|---|---|
| P/E Seadrill | 7.11 | 5.48 |
| P/E Industry (Median) | 5.98 | 6.18 |
| P/E value (NOK) | kr 76.19 | kr 102.17 |

Table 36: Price/earnings valuation

---

[84] Sources: FactSet/Reuters

Pricing Seadrill at P/E multiples for 2010 gives a value of NOK 102.17. The P/E value supports the fundamental valuation as this is in the same range, 9% above.

### 7.3.2 EV/EBITDA

Seadrill trades at EV/EBITDA multiples of 8.61 and 6.78 for 2009 and 2010 respectively, which represents a clear premium to the industry average. The EV/EBITDA multiple is somewhat special in the Seadrill case as they have a much higher leverage than the industry average. Hence, the EV/EBITDA multiple have not been used for valuation.

Adjusting the selection (i.e. the peers) for leverage makes no sense as the most relevant peers, such as Diamond, Ensco, Noble and Transocean, would have to be removed. The leverage profile in the industry is very variable with Noble and ENSCO in the lower range with negative net debt and Seadrill, Scorpion and Songa in the higher range with above 100 % leverage on market values.

Comparing the EV/EBITDA multiple across the industry Seadrill trades at the highest multiple in both 2009 and 2010. However, this could be justified by both the operational and financial aspects. Seadrill have among the highest leverage and growth prospects in the industry, in addition to a operational advantage in regards to the assets (age, contract coverage, etc.), it seems reasonable that Seadrill should trade at a premium. However, the difference in 2009 seems a bit large, coming down to a 40% premium for 2010 multiples.

### 7.3.3 Price/Book

Looking at Price/Book (P/B) multiples at year end 2008, Seadrill trades at a significant premium to its peers. Seadrill trades at a P/B multiple of 2.16 compared to the industry average of 1.29. Diamond Offshore (which holds the oldest fleet among the UDW operators) trades at the highest P/B in the industry of 3.65. The most relevant peers for Seadrill; Transocean (1.5), Noble (1.65) and ENSCO (1.13) all trades at some discount to Seadrill.

However, the industry P/B level of 1.29 and the 2.16 for Seadrill still is at low levels compared to its history, and should not be regarded as expensive.

## 7.4 Net Asset Valuation (market values)

A clear advantage with the offshore sector is that it exists a quite efficient market for the assets. By looking at the latest transactions in the market one will get a good idea of what the market values for similar assets will look like. This assumes that there are enough assets to

create a representative image of the assets value. As Seadrills assets on average are quite new, the main focus here will be on liquidated value instead of replacement value.

The market values of Seadrill have been in focus lately as the company has a covenant that limits them to have at least 30% equity compared to the market value of the assets. The covenant are described by Seadrill (2009, k: 42): "In this respect both Equity and Total Assets are adjusted for the difference between the book value and the market value of the drilling units". As prices both on newbuildings and in the second hand market were declining sharply the market clearly expressed concern for this covenant (Seadrill Q4 Conference Call).

### 7.4.1 Liquidity

The liquidity value represents the value of Seadrills assets if sold in the second hand market at the current state, and all business was discontinued.

At the moment there have been very few fixtures, especially for deepwater and ultra deepwater units. Some of the fixtures, such as the PetroMena "fire sale" (NewsWeb, 2009) could not be regarded as representative for the market value of the drilling rig given the company's situation, where PetroMena is struggling to avoid default[85]. Estimates of the market values have here been collected from different sources, amongst them a ship broker, to get the most realistic value. Because of confidential information the specific estimates will not be disclosed. Estimates are provided by a ship/rig brokers (shown in table 37) and adjusted for each unit in regards to age, contracts and other special factors:

| Seadrill Ltd.: Market value estimates (1000 $) | | | |
|---|---|---|---|
| Type | WD (feet) | Gen. | Estimate |
| Jack-Up | 300 | 1980s | $100 000 |
| Jack-Up | 375 | 2000s | $190 000 |
| Semi-Submersible | < 5,000 | 4th | $420 000 |
| Semi-Submersible 5th gen. | > 5,000 | 5th | $630 000 |
| Semi-Submersible 6th gen. | > 7,500 | 6th | $730 000 |
| Drillships | | | $730 000 |
| Tender rigs (Semi) | | Semi | $150 000 |
| Tender Rigs (Barge) | | Barge | $100 000 |

Table 37: Market value estimates for drilling rigs

---

[85] At the time of writing the situation around PetroMena and PetroRig 1 is still unclear, as Jurong and PetroMena have not agreed on who has the right to sell this unit. PetroMena have on their side signed a MoU with a drilling operator which will give the company $450 million for the unit. At the same time Seadrill have acquired close to 80% of the obligation which is secured in PetroRig 1 and 2.

Given the estimates above and some adjustments for the rigs, the market value for Seadrill should be considered fair at NOK 83.95. This represents a downside of -7% to the currently trading level. This is also in the range of the also fundamental value of NOK 93.7. We can say that the NAV value supports the DCF value. Table 38 provides the NAV calculation:

| Seadrill Ltd.: Estimated market values for fleet (1000 $) | Total value | Per share (USD) | Per share (NOK) |
|---|---|---|---|
| Jack-Up fleet | $1 990 000 | $5.0 | kr 31.8 |
| + Drillship fleet | $2 920 000 | $7.3 | kr 46.7 |
| + Semi-Submersible fleet | $6 675 000 | $16.7 | kr 106.7 |
| = **Mobile Units Segment** | **$11 585 000** | **$29.03** | **kr 185.2** |
| | | | |
| + Tender Rigs fleet | $1 007 600 | $2.52 | kr 16.1 |
| + Market value of SeaWell | $126 552 | $0.32 | kr 2.0 |
| + Market value of Associates | $513 280 | $1.29 | kr 8.2 |
| = **Enterprise Value** | **$13 232 432** | **$33.2** | **kr 211.5** |
| | | | |
| - Net interest-bearing debt | $6 891 900 | $17.27 | kr 110.16 |
| - Committed CapEx | $1 031 090 | $2.58 | kr 17.40 |
| = **Market value for Seadrill** | **$5 309 442** | **$13.3** | **kr 83.95** |

Table 38: NAV estimate

It should be indicated that such few market fixtures, and some of a certain time, represents a clear risk on these estimates.

## 7.5 Sensitivity analysis

The main valuation, the DCF, is sensitive to a numerous of factors. The most important are tested for sensitivity to give a view of the impacts of changes in market conditions and to get a more expanded view on what could be the fair value of Seadrills equity.

### 7.5.1 WACC and long-term growth

As already explained the valuation is extremely sensitive to the WACC. The sensitivity to WACC has been applied with 0.5% intervals. The WACC have been used to estimate the present value for the Mobile Units and the Tender Rigs segment. These segments count for 95 % of the enterprise value, the rest is based on market values. It could be argued for using two different hurdle rates for the two segments, as these may not be similar in relations to economic factors and operational risk. However, as the Tender Rigs segment in the world is quite small (counting 35 rigs), this can be difficult to measure. The Tender Rigs segment is therefore assumed to be in line with the Mobile Units segment in relations to operational risk. The WACC is estimated for the whole company, and hence including Tender Rigs.

|  | WACC | | | | |
|---|---|---|---|---|---|
| kr 93.7 | 9.7 % | 10.2 % | 10.7 % | 11.2 % | 11.7 % |
| 1.5 % | kr 122.5 | kr 111.4 | kr 101.1 | kr 91.5 | kr 82.5 |
| 2.0 % | kr 117.8 | kr 107.1 | kr 97.2 | kr 87.9 | kr 79.2 |
| 2.5 % | kr 112.8 | kr 102.6 | kr 93.0 | kr 84.1 | kr 75.7 |
| 3.0 % | kr 107.5 | kr 97.7 | kr 88.6 | kr 80.0 | kr 72.0 |
| 3.5 % | kr 101.8 | kr 92.6 | kr 83.9 | kr 75.7 | kr 68.0 |

*(Left axis label: Long-term growth)*

**Table 39: Sensitivity analysis: WACC & long-term growth**

Looking at table 39 we can clearly observe the value being very sensitive to changes in the WACC. As the long-term growth has not been used in the traditional way here, i.e. for the terminal value, this parameter is far less sensitive for changes.

Looking at consensus the WACC used varies from 8% to 12 %. The differences between the WACC estimates can steam from different assumptions on $\beta_e$, equity risk premium, cost of debt, tax rates and target capital structures.

### 7.5.2 Scenario analysis

The market condition presented in chapter 4.2.5 has been used through the paper as the base case scenario. There are clearly large uncertainties as to the estimates of the dayrates, especially as time increases. The base case thus represents the expected development, but the real development may very well (and almost certain) fluctuate from the estimates. To test for this a sensitivity analysis on dayrate estimates have been performed. Two scenarios; one negative (bear) and one positive (bull) have been implemented. Other factors such as EBITDA margins could also have been tested for in these scenarios, but are here being held fixed.

**Bear case scenario:**

This scenario assumes the current decrease seen in dayrates will continue for several years ahead, and also continue to stay relatively weak. In respects to dayrates this could be considered a worst case scenario. However, some common sense have been applied to the rates here as well (looking slightly as supply and demand situation). The bear case scenario implements 30% lower dayrate estimates from 2010 and also a slight reduction in dayrates from 2012. This scenario will not affect secured contracts. The implication on EBITDA is also limited in the near term as most of the EBITDA steam from secured UDW floaters.

The NPV for Seadrill is in the bear case scenario reduced to NOK 32.58 per share, - 64 % from the current level.

**Bull case scenario:**

The bull case scenario assumes a very favourable development in the offshore drilling market, with significant better markets from 2010. This scenario implements 30 % higher dayrates than the base case going forward, with a slight increase in operating expenses All other factors are held fixed.

The NPV for Seadrill given the bull scenario is NOK 194 per share, + 114 % from the current level. This can be regarded as a best case scenario, and is not very realistic.

# 8. Conclusion and Recommendation

This paper asks two questions; what is the fair value of Seadrill's equity? and what could be the reason for mispricing?

Three different approaches have been used to value Seadrill, with the DCF as the fundamental value. Table 40 gives an overview of the different fair value estimates:

| Seadrill Ltd.: Valuation | DCF | P/E 2010 | NAV |
|---|---|---|---|
| Total value of equity (1000 $) | $5 863 104 | $6 391 856 | $5 309 442 |
| **NPV per share** | **kr 93.7** | **kr 102.2** | **kr 84.0** |
| Difference | 3 % | 13 % | -7 % |
| Recommendation | NEUTRAL | BUY | SELL |

Table 40: Fair value estimates

The DCF value is estimated to be NOK 93.7 ($14.7) per share. This estimate is backed up by the relative valuation and the NAV estimate, which both are in a close range to the DCF. We can say that Seadrill is fair priced in a range of NOK 85 to 105 per share. At the moment Seadrill is traded at NOK 90.6 per share.

The discounted cash flow model assumes that the correct value of Seadrill is the present value of the expected cash flows. The discount rate used in this model is 10.7 %. As the DCF models only offers a 3% upside to the current share price the recommendation is given to be neutral. Hence, the share is fair priced given my assumptions.

The DCF value is backed by the relative valuation, which is based on P/E $_{2010}$ multiples. The value here is estimated to be NOK 102.2 per share. Seadrill could justify to be traded at some premium to its peers because of the fleet age and high UDW exposure. Seadrill is the driller operator which has preformed best the last 6 months removing much of the upside, especially compared to several of their main peers. The net asset value (NAV) based on market values have also been estimated. The NAV is estimated to NOK 84 per share, which further backs up the DCF value.

The target price is NOK 93.7 ($17.7) per share. The share currently trades at 3% below the target price and is therefore regarded as fair priced. Hence, it is given a neutral recommendation on the Seadrill share.

# Reference List:

## Books:

Armitage, S. (2005): "The cost of Capital: Intermediate Theory", Cambridge University Press, Edinburgh

Barney, J. (1997): "Gaining and Sustaining competitive advantage", Addison-Wesley Publishing Company, Inc., Ohio

Benninga, S. (2008): "Financial Modeling: Uses Excel", 3rd edition, The MIT press, Cambridge, Massachusetts

Blanchard, R.D., (2005): "The Future of Global Oil Production", MacFarland & Company, Inc., North Carolina

Bodie, Z., Kane, A. and Marcus, A.J. (2008): "Investments", 7th edition, McGraw-Hill Companies Inc., New York

Brealey, R.A., Myers, S.C. and Allen, F. (2006): "Corporate Finance", 8th edition, McGraw-Hill Companies Inc., New York

Damodaran, A. (2002): "Investment Valuation: Tools and Techniques for Determining the Value of Any Asset", 2nd edition, John Wiley & Sons Inc., New York

Gjesdal, F. And Johnsen, T. (1999): "Kravsetting, lønnsomhetsmåling og verdivurdering", Cappelen Akademiske Forlag, Oslo

Hill, C.W.L. and Jones, G.R. (1998): "Strategic Management: An integrated approach", 4th edition, Boston

Johnsen, T. (1996): "Kapitalkostnad for norske mobilselskaper"

Johnson, G. and Scholes, K. (1999): "Exploring Corporate Strategy", 5th edition, Prentice Hall

Johnson, G., Scholes, K. and Whittington, G. (2006)" "Exploring Corporate Strategy", 7th edition, Financial Times Prentice Hall, Essex

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

Maugeri, L. (2006): "The Age of Oil: The Mythology, History, and Future of the World's Most Controversial Resource", Greenwood Publishing Group, Inc., London

Penman, S.H. (2007): "Financial Statement Analysis and Security Valuation", 3rd edition,

McGraw-Hill Companies Inc., New York

**Reports and Presentations:**
Barclays Capital (2009): "2009 Original E&P Spending Survey"

Goldman Sachs (2008): "Resetting expectations for a down-cycle as demand is unlikely to keep up with supply", 2008-10-12, Americas: Energy: Oil Services - Drilling

Hubbert (1956): "Nuclear Energy and the Fossil Fuels", http://www.hubbertpeak.com/hubbert/1956/1956.pdf, Accessed on: 2009-06-01

IEA (2009): "Oil Market report – March 2009", http://omrpublic.iea.org/currentissues/full.pdf, Accessed on: 2009-04-21

IMF (2009): World Economic Outlook 2009, 2009-04-16

Keppel (2008): "Delivering More – Annual Report 2007", http://www.keppelom.com/annualreport2007/index.html, Accessed on: 2009-03-29

Morgan Stanley (2009): "Oil Services, Drilling & Equipment: SLB Throws in the Towel", 2009-01-12, Morgan Stanley Research – North America

R.S. Platou (2009) a: "The Platou Report 2009", http://www.platou.net/loadfileservlet/loadfiledb?id=1235645222062PUBLISHER&key=1236854479218 Accessed on: 2009-03-27

R.S. Platou (2009) b:"Platou Rig Monthly: April 2009"

Seadrill (2006): "Prospectus in connection with the listening of 134,000,000 shares in Seadrill Limited", 2006-07-07, http://www.seadrill.com/stream_file.asp?iEntityId=74

Seadrill (2008) a: "Seadrill Limited (SDRL) – Third Quarter Results 2008", 2008-11-24, http://www.seadrill.com/stream_file.asp?iEntityId=831

Seadrill (2008) b: "Seadrill Limited - Consolidated Financial Statements", Annual report 2007, 2008-07-07, http://www.seadrill.com/stream_file.asp?iEntityId=788

Seadrill (2008) c: "Pareto Oil & Gas Conference: A different offshore driller", 2008-09-10, http://www.seadrill.com/stream_file.asp?iEntityId=803, Accessed on: 2009-03-29

Seadrill (2008) d: "Seadrill Limited (SDRL) – Third Quarter 2008",2009-11-24,
http://www.seadrill.com/stream_file.asp?iEntityId=831
Accessed on: 2009-03-29

Seadrill (2008) e: Pres Q4

Seadrill (2009) a: "Fleet Status Report", 2008-02-26,
http://www.seadrill.com/stream_file.asp?iEntityId=932
Accessed on: 2009-27-05

Seadrill (2009) e: "Seadrill Limited (SDRL) – Fourth Quarter and preliminary 2008 results",
Report, 2009-02-26, http://www.seadrill.com/stream_file.asp?iEntityId=858

Seadrill (2009) f: "4Q 2008 Results conference call", Presentation, 2006-02-26,
http://www.seadrill.com/stream_file.asp?iEntityId=857

Seadrill (2009) k: "Seadrill Limited – Consolidated Financial Statements, For the Years ended
December 31, 2008, 2007 and 2006"

Standard & Poor's (2008): "Corporate Rating Criteria 2008",
http://www.nafoa.org/pdf/CorprateCriteriaBook-2008.pdf, Accessed on: 2009-05-23

Standard & Poor's (2006): "Corporate Rating Criteria 2006",
http://www2.standardandpoors.com/spf/pdf/products/corporateratings_2006_corp.pdf,
Accessed on: 2009-05-23

StatoilHydro (2008): "Exploration Strategy Presentation", 2008-06-16,
http://www.statoilhydro.com/en/NewsAndMedia/Calendar/KeyEvents/Downloads/Exploratio
n%20strategy%20presentation%202008.pdf
Accessed on: 2009-04-07

StatoilHydro (2009): "Managing the cycle: StatoilHydro Strategy Update", 2009-01-14,
http://www.newsweb.no/newsweb/attachment.do?name=CFO%20Eldar%20Saetre%20Strate
gy%20Update.pdf&attId=61846,
Accessed on: 2009-03-29

**Newspaper and Internet:**
Bloomberg (2008): "Brazilian Offshore Oil Projects May Be Delayed, Khelil Says", 2008-10-
23, http://www.bloomberg.com/apps/news?pid=20601086&sid=aGsOrFbuSCks&refer=news,
Accessed on: 2009-03-29

Bloomberg (2009): "OPEC cuts 2009 oil demand forecasts as world economy contracts",
2009-04-15, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aXkPifXZ01UM
Accessed on: 2009-04-21

Dagens Næringsliv (2009 a): "Oljegigantene øker investeringene",
http://www.dn.no/energi/article1639356.ece,
Accessed on: 2009-05-27

Dagens Næringsliv (2009b): "Milliardsaken i gang",
http://www.dn.no/energi/article1593522.ece
Accessed on: 2009-02-24

Damodaran, A. (2008) "Equity Risk Premiums (ERP): Determinants, Estimation and
Implications",
http://www.stern.nyu.edu/~adamodar/pdfiles/papers/ERPfull.pdf
Accessed on: 2009-03-25

Damodaran, A. (2009):  "Betas by Sector",
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html
Accessed on: 2009-03-24

Dimson, E., March, P. And Staunton, M. (2006): "The worldwide equity premium: A smaller
puzzle", http://ssrn.com/abstract=891620, Accessed on: 2009-05-23

EIA (2009): "Brazil Energy Data, Statistics and Analysis",
http://www.eia.doe.gov/emeu/cabs/Brazil/Oil.html, Accessed on: 2009-06-02

G8: "Oil demand falls to 1980 levels as G7 outlook worsens",
http://g8live.org/2009/04/10/oil-demand-falls-to-1980s-level-as-g7-outlook-worsens/,
Accessed: 2009-06-14

NewsWeb (2009): "Conditional Offer (MOU) for PetroRig I from an International Drilling
Contractor", http://www.newsweb.no/newsweb/search.do?messageId=231882, Accessed on:
2009-06-02

Reuters (2008): "Transocean rig gets record $650,000 dayrate", 2008-07-08,
http://www.reuters.com/article/rbssOilGasExplorationProduction/idUSN0817755920080708,
Accessed on: 2009-03-28

Reuters (2009): Reuters Trader

RigZone (2009): "Offshore Rig Search", http://www.rigzone.com/data/results.asp, Accessed
on: 2009-05-11

Seadrill (2009) b: "Company strategy"
http://www.seadrill.com/modules/module_123/proxy.asp?D=2&C=35&I=113&mid=18&sid=
67

Accessed on: 2009-02-23

Seadrill (2009) c: "Fleet Concept"
http://www.seadrill.com/fleetconsept.asp?mid=18&sid=60
Accessed on: 2009-02-23

Seadrill (2009) d: "Dividend policy and history"
http://www.seadrill.com/modules/module_123/proxy.asp?D=2&C=70&I=1961&mid=25&sid=140,
Accessed on: 2009-03-29

Seadrill (2009) g: "Extended TRS agreement"

Seadrill (2009) h: "Shareholders"

Seadrill (2009) i: "History"
http://www.seadrill.com/modules/module_123/proxy.asp?D=2&C=36&I=115&mid=18&sid=61,
Accessed on: 2009-03-29

Seadrill (2009) j: "New sale and leaseback transaction with Ship Finance totalling US$1.7 billion and extraordinary dividend of US$0.30 per share", 2008-09-16,
http://www.seadrill.com/modules/module_123/proxy.asp?C=42&I=1999&D=2&mid=19&Sid=34,
Accessed on: 2009-03-29

Seadrill (2009) l: "Construction agreements for jack-up newbuilds amended",
http://www.seadrill.com/modules/module_123/proxy.asp?C=42&I=2034&D=2&mid=27&Sid=71, Accessed on: 2009-06-02

Seadrill (2009) m: Conference call

The Economist (2009): "The next oil giant?",
http://www.economist.com/daily/news/displaystory.cfm?story_id=13348824, Accessed on: 2009-06-01

The World Bank (2009): "As Global Slump is Set to Continue, poor Countries Need More Help", http://go.worldbank.org/SCK72HFI00, Accessed on: 2009-06-11

Transocean (2009): Conference Call Q4

Upstream (2008) a: "Ocean Rig rate tipped to soar", 2008.08.27,
http://www.upstreamonline.com/live/article161883.ece,
Accessed on: 2009-03-28

Upstream (2009) a: "Duo scraps newbuild orders", 09.01.09,
http://www.upstreamonline.com/live/article169387.ece
Accessed on: 2009-02-25

Upstream (2009) b: "Keppel warns of tough times ahead"
http://www.upstreamonline.com/live/article170165.ece
Accessed on: 2009-02-25

Upstream (2009) c: "Petrobras signs up Leiv Eriksson", 2009-03-19,
http://www.upstreamonline.com/live/article174327.ece,
Accessed on: 2009-03-29

Upstream (2009) d:"PetroMena in $450m PetroRig I MOU", 2009-03.27,
http://www.upstreamonline.com/live/article174914.ece,
Accessed on: 2009-03-31

Upstream (2009) e: "Conoco Phillips to cut costs"

Upstream (2009) f: "Petrobras gears up for shopping spree", 2009-04-20,
http://www.upstreamonline.com/live/article176239.ece
Accessed on: 2009-04-21

Upstream (2009) g: "Transocean cancels rig deal",
http://www.upstreamonline.com/live/article169526.ece, Accessed on: 2009-06-02

Upstream (2009) h: "Petrobras and Mitsubishi join forces",
http://www.upstreamonline.com/live/article171149.ece, Accessed on: 2009-06-02

**Lecture Notes:**
Kinserdal, F. (2008): "Kapitalkostnad"

Knivsflå, K.H. (2008) a: "03: Steg 1 – Strategisk analyse",
http://portal.undervisning.nhh.no/master/bus424/opplegget2008/plansjar/BUS424%20-
%2003%20-%20H2008.pdf

Knivsflå, K.H. (2008) b: "05: Steg 2.1 – Omgruppering",
http://portal.undervisning.nhh.no/master/bus424/opplegget2008/plansjar/BUS424%20-
%2005%20-%20H2008.pdf

Knivsflå, K.H. (2008) c: "04: Steg 2: Rekneskapsanalyse",
http://portal.undervisning.nhh.no/master/bus424/opplegget2008/plansjar/BUS424%20-
%2004%20-%20H2008.pdf

Knivsflå, K.H. (2008) d: "15: Steg 2.3: Forholdstallsanalyse",
http://portal.undervisning.nhh.no/master/bus424/opplegget2008/plansjar/BUS424%20-
%2015%20-%20H2008.pdf

Knivsflå, K.H. (2008) e: "06: Omgruppering – Balanse + Kontantstraum"

Harris, R.D.F. (2008) a: "Active portfolio management"

Harris, R. D. F. (2008) b: "Default adjusting bonds yields"

Östberg, P. (2007): "Capital Structure Irrelevance, Valuation under Uncertainty"

## Figure and Table List:

## Appendix A: Peer Overview

| Peers | Ticker | Share price (local) | Share price (USD) | Shares Outstanding | MarketCap (1000 $) | Net Debt (1000 $) | Enterprise Value (1000 $) |
|---|---|---|---|---|---|---|---|
| Atwood Oceanics, Inc. | ATW.N | $25.22 | $25.22 | 64 190 000 | $1 618 872 | $48 908 | $1 667 780 |
| Diamond Offshore Drilling, Inc. | DO.N | $87.98 | $87.98 | 139 001 000 | $12 229 308 | -$233 364 | $11 995 944 |
| ENSCO International, Inc. | ESV.N | $37.34 | $37.34 | 141 600 000 | $5 287 344 | -$498 100 | $4 789 244 |
| Fred. Olsen Energy ASA | FOE.OL | kr 211.50 | $33.15 | 66 268 129 | $2 196 820 | $985 768 | $3 182 588 |
| Hercules Offshore, Inc. | HERO.O | $4.38 | $4.38 | 87 970 000 | $385 309 | $947 766 | $1 333 075 |
| Noble Corporation | NE.N | $33.21 | $33.21 | 262 452 000 | $8 716 031 | $410 176 | $9 126 207 |
| Pride International, Inc. | PDE.N | $24.34 | $24.34 | 177 775 000 | $4 327 044 | $10 700 | $4 337 744 |
| Rowan Companies, Inc. | RDC.N | $20.57 | $20.57 | 113 000 000 | $2 324 410 | $198 072 | $2 522 482 |
| Scorpion Offshore, Inc | SCORE.OL | kr 23.50 | $3.68 | 59 642 000 | $219 684 | $459 463 | $679 147 |
| Songa Offshore SE | SONG.OL | kr 22.90 | $3.59 | 105 307 544 | $377 985 | $1 112 154 | $1 490 139 |
| Transocean, Inc. | RIG.N | $77.58 | $77.58 | 320 000 000 | $24 825 600 | $12 890 000 | $37 715 600 |

| Fleet exposure (only offshore) | UDW floaters | Jack-Ups | Others | Total |
|---|---|---|---|---|
| Atwood Oceanics, Inc. | 2 | 3 | 6 | 11 |
| Diamond Offshore Drilling, Inc. | 4 | 14 | 27 | 45 |
| Ensco International, Inc. | 8 | 43 | 0 | 51 |
| Fred. Olsen Energy ASA | 1 | 0 | 7 | 8 |
| Hercules Offshore, Inc. | 0 | 33 | 3 | 36 |
| Noble Corporation | 7 | 43 | 14 | 64 |
| Pride International, Inc. | 7 | 27 | 11 | 45 |
| Rowan Companies, Inc. | 0 | 28 | 0 | 28 |
| Scorpion Offshore Ltd. | 1 | 7 | 0 | 8 |
| Seadrill Ltd. | 12 | 12 | 19 | 43 |
| Songa Offshore SE | 0 | 0 | 6 | 6 |
| Transocean, Inc. | 28 | 65 | 50 | 143 |

| | | | | |
|---|---|---|---|---|
| **Total peers** | **70** | **275** | **143** | **488** |
| Other | 65 | 232 | 86 | 373 |
| **Total fleet** | **135** | **497** | **229** | **861** |
| *Seadrill market share* | *9 %* | *2 %* | *8 %* | *5 %* |

# Appendix B: Shareholder Structure

| Shareholders (05. May 2009) | No. Shares | Ownership (%) |
|---|---|---|
| Hemen Holding Limited * | 100 287 583 | 25,13 % |
| Nordea Bank Sweden | 28 001 750 | 7,02 % |
| Folketrygdfondet | 26 675 230 | 6,68 % |
| Bank of New York BR S/A MSF-Mutual Disco | 10 795 821 | 2,70 % |
| JP Morgan Chase Bank Fidelity Lending Acc | 8 785 900 | 2,20 % |
| JP Morgan Chase Bank Treaty Account | 7 842 826 | 1,96 % |
| Brown Brothers S/A Union Bancaire | 7 800 000 | 1,95 % |
| Clearstream Banking Cid Dept Frankfurt | 6 778 030 | 1,70 % |
| State Street Bank & Client Omnibus F | 6 484 834 | 1,62 % |
| Bank of New York Mel S/A Mellon Nominee | 5 229 312 | 1,31 % |
| ADP Services, Custody C/O JPMorgan Chase B | 4 832 884 | 1,21 % |
| DnB NOR Bank ASA Egenhandelskonto | 4 827 690 | 1,21 % |
| Skagen Kon-Tiki | 4 500 000 | 1,13 % |
| Bank of New York, MSF-Mutual | 4 055 672 | 1,02 % |
| Credit Suisse Security Special Custody | 3 927 786 | 0,98 % |
| Morgan Stanley & Co. Client Equity Account | 3 888 333 | 0,97 % |
| State Street Bank & A/C Client Omnibus N | 3 807 000 | 0,95 % |
| State Street Bank & A/C Client Omnibus D | 3 573 230 | 0,90 % |
| JP Morgan Chase Bank Omnibus | 3 087 829 | 0,77 % |
| State Street Bank AN A/C West Non-Treaty | 2 861 940 | 0,72 % |
| **Total Shareholdings** | **399 133 216** | |
| | | |
| Percent of total no. of shares | | 62,13 % |

\* John Fredriksen's directly and indirectly holdings in Seadrill is 132,747,583 shares, representing 33.26 percent of the issued share capital.

## Appendix C: Offshore Drilling Fleet

| Fleet exposure(only offshore) | UDW floaters | Jack-Up | Other | Total |
|---|---|---|---|---|
| Atwood Oceanies, Inc. | 2 | 3 | 6 | 11 |
| Diamond Offshore Drilling, Inc. | 4 | 13 | 28 | 45 |
| Ensco International, Inc. | 8 | 43 | 1 | 52 |
| Fred. Olsen Energy ASA | 1 | 0 | 7 | 8 |
| Hercules Offshore, Inc. | 0 | 32 | 5 | 37 |
| Noble Corporation | 7 | 43 | 14 | 64 |
| Pride International, Inc. | 7 | 27 | 12 | 46 |
| Rowan Companies, Inc. | 0 | 28 | 0 | 28 |
| Scorpion Offshore Ltd. | 1 | 7 | 0 | 8 |
| Seadrill Ltd. | 12 | 12 | 20 | 44 |
| Songa Offshore SE | 0 | 0 | 6 | 6 |
| Transocean, Inc. | 28 | 65 | 54 | 147 |
| **Total peers** | **70** | **273** | **153** | **496** |
| Other | 65 | 224 | 96 | 385 |
| **Total fleet** | **135** | **497** | **249** | **881** |
| *Seadrill market share* | *9 %* | *2 %* | *8 %* | *5 %* |

*Source: RigZone (2009) and companies Fleet Status Reports*

## Appendix D: Historical Financial Statements

| Seadrill Ltd.: Profit & Loss Statement (1000 $) | | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| | Contract revenues | $26 600 | $942 300 | $1 318 500 | $1 867 800 |
| + | Reimbursables | $1 700 | $109 000 | $146 600 | $163 500 |
| + | Other operating revenues | $0 | $103 300 | $87 000 | $74 500 |
| + | Gain on sale of assets | $0 | $0 | $124 200 | $80 100 |
| = | Total revenues | $28 300 | $1 154 600 | $1 676 300 | $2 185 900 |
| | | | | | |
| - | Vessel and rig operating expenses | $23 300 | $587 800 | $755 400 | $1 021 600 |
| - | Reimbursable expenses | $1 700 | $103 400 | $139 400 | $156 600 |
| - | General and administrative expenses | $5 800 | $69 700 | $109 800 | $125 800 |
| = | **EBITDA** | **-$2 500** | **$393 700** | **$671 700** | **$881 900** |
| | | | | | |
| - | Depreciation and amortization | $12 900 | $167 600 | $182 900 | $233 200 |
| = | **EBIT** | **-$15 400** | **$226 100** | **$488 800** | **$648 700** |
| | | | | | |
| | Interest income | $1 700 | $14 000 | $23 600 | $30 900 |
| - | Interest expense | $900 | $79 800 | $112 700 | $130 000 |
| + | Share in result from associated companies | $2 700 | $26 600 | $23 200 | $15 600 |
| + | Gain on sale from associated companies | $0 | $0 | $0 | $150 500 |
| + | Foreign exchnage gain (loss) | $0 | -$3 600 | -$52 900 | $130 800 |
| + | Other financial items | $6 000 | $83 600 | $16 700 | -$946 100 |
| = | Total financial items | $9 500 | $40 800 | -$102 100 | -$748 300 |
| | | | | | |
| = | **Profit before tax and minority interest** | **-$5 900** | **$266 900** | **$386 700** | **-$99 600** |
| - | Income taxes | $1 600 | $22 400 | -$78 300 | $48 300 |
| - | Minority interests | $100 | $30 400 | $13 000 | $41 700 |
| + | Gain on issuance of share in associate | $0 | $0 | $50 000 | $25 200 |
| = | **Net income** | **-$7 600** | **$214 100** | **$502 000** | **-$164 400** |

| Seadrill Ltd.: Cashflow Statement (1000 $) | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| **Cashflow from operations:** | | | | |
| Net income | -$7 600 | $214 100 | $502 000 | -$164 400 |
| Depreciation and Amortization | $12 900 | $167 600 | $182 900 | $233 200 |
| Amortization of deferred loan charges | $100 | $6 300 | $14 000 | $12 700 |
| Amortization of unfavorable caontracts | $0 | -$113 600 | -$87 000 | -$65 300 |
| Impairment loss on marketable securities and investments in associated companies | -$5 300 | $0 | $0 | $615 000 |
| Share of result from associated companies | -$2 700 | -$26 600 | -$23 200 | -$15 600 |
| Share-based compensation expense | $0 | $9 600 | $15 100 | $14 900 |
| Income attributable to minority interest | $100 | $30 400 | $13 000 | $41 700 |
| Gain on disposal of fixed assets | $0 | $0 | -$124 200 | -$80 100 |
| Gain on issuance of shares in subsidiary | $0 | $0 | -$50 000 | -$25 200 |
| Gain on disposal of associated companies | $0 | $0 | $0 | -$150 500 |
| Unrealized loss (gain) related financial derivatives | $0 | -$9 100 | -$19 800 | $168 800 |
| Realized gain on disposal of other investments | -$800 | -$83 600 | -$9 800 | -$22 200 |
| Dividends received from associated company | $0 | $0 | $5 400 | $0 |
| Deferred income taxes | $0 | $22 400 | -$134 600 | $22 600 |
| Trade accounts receivable | -$9 100 | -$186 600 | -$26 400 | -$83 000 |
| Trade accounts payable | $8 900 | $92 300 | $31 600 | -$62 800 |
| Prepaid expenses/accrued revenue | $13 900 | -$68 900 | $8 300 | -$95 600 |
| Other, net | $800 | $119 900 | $327 600 | $124 400 |
| **Net cash provided by operating activities** | **$11 200** | **$174 200** | **$624 900** | **$468 600** |
| | | | | |
| **Cashflow from investing:** | | | | |
| Additions to newbuildings | -$247 500 | -$1 159 700 | -$1 568 000 | -$2 591 200 |
| Additions to rigs and equipment | -$21 300 | -$36 100 | -$169 600 | -$176 300 |
| Sale of rigs and equipment | $0 | $7 600 | $170 000 | $103 800 |
| Investment in subsidiaries, net of cash acquired | -$19 100 | -$2 595 800 | -$355 800 | -$173 200 |
| Change in margin calls and other restricted cash | $18 800 | $0 | -$15 900 | -$610 700 |
| Investment in associated companies | -$31 300 | -$4 900 | $0 | -$369 200 |
| Short-term loan to related parties | $0 | $0 | $0 | -$115 000 |
| Gain on issuance of shares in associate | -$2 100 | $0 | $50 000 | $25 200 |
| Purchase of marketable securities | $0 | -$126 800 | -$141 400 | -$309 900 |
| Disposal of associated company | $0 | $0 | $83 300 | $221 000 |
| Sale of marketable securities | $48 700 | $322 600 | $49 300 | $148 100 |
| **Net cash used in investing activities** | **-$253 800** | **-$3 180 300** | **-$1 898 100** | **-$3 847 400** |
| | | | | |
| **Cashflow from financing activities:** | | | | |
| Proceeds from long-term debt | $210 000 | $1 979 800 | $3 854 600 | $5 150 000 |
| Proceeds from short-term debt | $46 700 | $98 200 | $92 800 | $0 |
| Repayments of short-term capital lease obligations | -$4 800 | -$11 300 | -$100 | $0 |
| Repayments of short-term debt | $0 | -$48 700 | -$196 100 | -$593 200 |

| | | | | |
|---|---|---|---|---|
| Repayments of long-term debt | -$164 300 | -$593 900 | -$2 015 600 | -$1 514 500 |
| Debt fees paid | -$1 100 | -$31 900 | -$21 100 | -$30 100 |
| Contribution by minority interests | $0 | $45 000 | $40 000 | $440 000 |
| Purchase of treasury shares | $0 | $0 | -$21 200 | -$13 700 |
| Sale of treasury shares | $0 | $0 | $21 400 | $8 400 |
| Paid dividends | $0 | $0 | $0 | -$688 100 |
| Proceeds from issuance of equity | $207 900 | $1 724 400 | $303 900 | $0 |
| **Net cash provided by financing activities** | **$294 400** | **$3 161 600** | **$2 058 600** | **$2 758 800** |
| | | | | |
| Effect of forex fluctations | $0 | $3 100 | $1 200 | -$600 |
| | | | | |
| Cash and cash equivalents at beginning of period | $0 | $51 800 | $210 400 | $997 000 |
| Net Increase in cash and cash equivalents | $51 800 | $158 600 | $786 600 | -$620 600 |
| **Cash and cash equivalents at end of period** | **$51 800** | **$210 400** | **$997 000** | **$376 400** |

## Appendix E: Oil companies overview

| CapEx: E&P (in USD m) | 2004 | 2005 | 2006 | 2007 | 2008 | 2009e | Rigs in use |
|---|---|---|---|---|---|---|---|
| British Petroleum | $11 412 | $10 398 | $13 252 | $13 700 | $15 600 | $15 500 | 15 |
| Chevron Corporation | $6 321 | $8 389 | $12 819 | $15 538 | $17 460 | $17 500 | 21 |
| ConocoPhillips | $5 249 | $6 684 | $9 513 | $10 988 | $17 209 | $10 300 | 7 |
| ENI | $6 431 | $6 171 | $6 526 | $9 065 | $13 967 | $12 191 | 14 |
| Exxon Mobil Corporation | $10 511 | $12 434 | $14 385 | $13 526 | $17 568 | $22 500 | 14 |
| PEMEX | $9 800 | $9 800 | $12 000 | $13 800 | $15 900 | $17 750 | 38 |
| Petrobras | $4 309 | $5 758 | $7 041 | $9 455 | $13 442 | $22 500 | 43 |
| Royal Dutch Shell | $8 559 | $10 584 | $15 773 | $13 723 | $21 932 | $25 200 | 28 |
| StatoilHydro ASA | $5 306 | $6 452 | $6 390 | $13 800 | $16 000 | $13 500 | 18 |
| Total | $7 715 | $10 091 | $11 302 | $12 172 | $13 500 | $13 500 | 22 |
| **Total E&P** | **$75 613** | **$86 761** | **$109 001** | **$125 767** | **$162 578** | **$170 441** | **220** |
| **Δ in E&P spendings** | | **15 %** | **26 %** | **15 %** | **29 %** | **4,8 %** | **25,6 %** |

*Source: Company Strategy Updates, Annual Reports, RigZone*

# Appendix F: Net interest-bearing debt

| Liabilities (1000 $) | Amount | Long-term position | Short-term position |
|---|---|---|---|
| Credit facility 1 ($ 1500) | $1 339 300 | $1 210 700 | $128 600 |
| Credit facility 2 ($ 185) | $71 600 | $45 000 | $26 600 |
| Credit facility 3 ($ 100) | $91 600 | $83 300 | $8 300 |
| Credit facility 4 ($ 585) | $485 900 | $436 300 | $49 600 |
| Credit facility 5 ($ 800): | | | |
| West Phoenix: Tranche A ($ 175) | $175 000 | $175 000 | $0 |
| West Phoenix: Tranche B ($ 125) | $125 000 | $125 000 | $0 |
| West Phoenix: Tranche C ($ 200) | $200 000 | $119 000 | $81 000 |
| West Eminence: Tranche A ($ 150) | $150 000 | $150 000 | $0 |
| West Eminence: Tranche B ($ 150) | $18 300 | $18 000 | $300 |
| Credit facility 6 ($ 100) | $96 900 | $84 400 | $12 500 |
| Credit facility 7 ($ 1000) | $792 100 | $792 100 | $0 |
| Credit Facility 8 - Seawell (NOK 1425) | $206 700 | $185 300 | $21 400 |
| **Total bank loans + other** | **$3 752 400** | **$3 424 100** | **$328 300** |
| | | | |
| Sale/Leaseback West Ceres ($ 165) | $106 700 | $91 300 | $15 400 |
| Sale/Leaseback West Prospero ($ 170) | $120 800 | $110 800 | $10 000 |
| Sale/Leaseback West Polaris ($ 700) | $688 500 | $618 700 | $69 800 |
| Sale/Leaseback West Hercules ($ 700) | $571 400 | $502 850 | $68 550 |
| Sale/Leaseback West Taurus ($ 700) | $571 400 | $502 850 | $68 550 |
| **Total Sale/Leaseback facilities** | **$2 058 800** | **$1 826 500** | **$232 300** |
| | | | |
| Bond 1 (NOK 500) | $68 500 | $0 | $68 500 |
| Bond 2 (NOK 500) - SME05/12 | $71 000 | $0 | $71 000 |
| Bond 3 ($ 30) | $30 000 | $30 000 | $0 |
| Bond 4 (NOK 550) - SDRL03 PRO | $75 900 | $71 400 | $4 500 |
| Convertible bond ($ 1000) | $1 000 000 | $1 000 000 | $0 |
| **Total bonds** | **$1 245 400** | **$1 101 400** | **$144 000** |
| | | | |
| Other interest-bearing facilities | $380 200 | $338 700 | $41 500 |
| | | | |
| **Total interest-bearing liabilities** | **$7 436 800** | **$6 690 700** | **$746 100** |

## Appendix G: Segment Profit & Loss statements

| Seadrill Ltd.: P&L Mobile Units (1000 $) | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| **Operating revenues** | $500 000 | $729 900 | $1 043 000 | $1 993 149 | $2 457 259 | $3 197 987 | $3 636 368 | $3 798 288 |
| **Reimbursable revenues** | $49 300 | $32 800 | $32 000 | $99 657 | $122 863 | $159 899 | $181 818 | $189 914 |
| **Other revenues** | $88 800 | $198 900 | $149 200 | $28 500 | $28 000 | $14 000 | $0 | $0 |
| Total revenues | **$638 100** | **$961 600** | **$1 224 200** | **$2 121 307** | **$2 608 121** | **$3 371 886** | **$3 818 186** | **$3 988 203** |
| | | | | | | | | |
| **Operating expenses** | $281 700 | $376 400 | $462 800 | $748 620 | $858 900 | $1 099 400 | $1 211 971 | $1 203 541 |
| **Reimbursable expenses** | $45 300 | $28 200 | $28 600 | $56 146 | $64 417 | $82 455 | $90 898 | $90 266 |
| **G&A expenses** | $45 300 | $73 300 | $92 100 | $199 315 | $245 726 | $319 799 | $363 637 | $379 829 |
| Total operating expenses | **$372 300** | **$477 900** | **$583 500** | **$1 004 081** | **$1 169 043** | **$1 501 654** | **$1 666 505** | **$1 673 635** |
| | | | | | | | | |
| EBITDA | **$265 800** | **$483 700** | **$640 700** | **$1 117 226** | **$1 439 078** | **$1 870 232** | **$2 151 681** | **$2 314 567** |
| **Depreciation & Amortization** | $127 200 | $135 100 | $173 000 | $232 492 | $292 170 | $316 308 | $339 342 | $348 842 |
| EBIT | **$138 600** | **$348 600** | **$467 700** | **$884 734** | **$1 146 908** | **$1 553 924** | **$1 812 340** | **$1 965 726** |

| Seadrill Ltd.: P&L Tender Rigs (1000 $) | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| **Operating revenues** | $154 900 | $236 300 | $311 500 | $365 988 | $466 147 | $547 014 | $536 423 | $467 391 |
| **Reimbursable revenues** | $9 600 | $17 200 | $24 500 | $27 449 | $34 961 | $41 026 | $40 232 | $35 054 |
| **Other revenues** | $14 500 | $12 200 | $5 400 | $500 | $0 | $0 | $0 | $0 |
| Total revenues | **$179 000** | **$265 700** | **$341 400** | **$393 937** | **$501 108** | **$588 040** | **$576 655** | **$502 445** |
| **Operating expenses** | $69 400 | $100 800 | $133 600 | $157 793 | $204 671 | $224 248 | $210 690 | $193 755 |
| **Reimbursable expenses** | $9 200 | $16 300 | $23 500 | $23 669 | $30 701 | $33 637 | $31 604 | $29 063 |
| **G&A expenses** | $10 000 | $13 000 | $16 500 | $18 299 | $23 307 | $27 351 | $26 821 | $23 370 |
| Total operating expenses | **$88 600** | **$130 100** | **$173 600** | **$199 761** | **$258 679** | **$285 236** | **$269 115** | **$246 188** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EBITDA** | $90 400 | $135 600 | $167 800 | $194 176 | $242 429 | $302 804 | $307 540 | $256 258 |
| **Depreciation & Amortization** | $33 700 | $38 600 | $41 700 | $23 333 | $37 680 | $46 480 | $47 230 | $46 797 |
| EBIT | $56 700 | $97 000 | $126 100 | $170 843 | $204 749 | $256 324 | $260 310 | $209 461 |

| Seadrill Ltd.: P&L Well Services (1000 $) | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| **Operating revenues** | $300 550 | $374 740 | $514 450 | $565 895 | $608 337 | $653 962 | $673 581 | $690 421 |
| **Reimbursable revenues** | $36 950 | $74 360 | $105 850 | $113 179 | $121 667 | $130 792 | $134 716 | $138 084 |
| Total revenues | $337 500 | $449 100 | $620 300 | $679 074 | $730 005 | $784 755 | $808 298 | $828 505 |
| | | | | | | | | |
| **Operating expenses** | $238 270 | $317 750 | $430 185 | $462 449 | $497 133 | $546 846 | $574 188 | $588 543 |
| **Reimbursable expenses** | $54 330 | $70 270 | $99 015 | $115 612 | $124 283 | $136 711 | $143 547 | $147 136 |
| **G&A expenses** | $7 500 | $8 580 | $17 700 | $22 636 | $24 333 | $26 158 | $26 943 | $27 617 |
| Total operating expenses | $300 100 | $396 600 | $546 900 | $600 697 | $645 749 | $709 716 | $744 678 | $763 295 |
| | | | | | | | | |
| EBITDA | $37 400 | $52 500 | $73 400 | $78 377 | $84 255 | $75 039 | $63 619 | $65 210 |
| | | | | | | | | |
| **Depreciation & Amortization** | $6 600 | $9 200 | $18 500 | $24 520 | $23 294 | $22 129 | $21 023 | $19 972 |
| EBIT | $30 800 | $43 300 | $54 900 | $53 857 | $60 961 | $52 910 | $42 596 | $45 238 |

## Appendix H: Balance Sheet

| Seadrill Ltd.: Balance Sheet (1000 $) | 2008 | 2009e | 2010e | 2011e | 2012e | 2013e |
|---|---|---|---|---|---|---|
| **Assets:** | | | | | | |
| Marketable securities | $134 700 | $186 589 | $186 589 | $186 589 | $186 589 | $186 589 |
| Accounts recievable, net | $341 100 | $400 689 | $483 800 | $602 598 | $663 887 | $678 918 |
| Cash and cash equivalents | $376 400 | $459 193 | $775 553 | $1 139 319 | $3 197 650 | $4 897 612 |
| Other current assets | $530 900 | $530 900 | $530 900 | $530 900 | $530 900 | $530 900 |
| Restricted cash | $280 700 | $0 | $0 | $0 | $0 | $0 |
| **Total current assets** | **$1 663 800** | **$1 577 372** | **$1 976 842** | **$2 459 406** | **$4 579 026** | **$6 294 019** |
| | | | | | | |
| Investments in associated companies | $240 100 | $242 668 | $242 668 | $242 668 | $242 668 | $242 668 |
| Newbuildings | $3 660 500 | $3 364 605 | $1 263 785 | $527 785 | $0 | $0 |
| Drilling units | $4 645 500 | $5 618 955 | $8 727 238 | $9 092 321 | $8 702 726 | $8 324 116 |
| Other intangible assets | $20 100 | $20 100 | $20 100 | $20 100 | $20 100 | $20 100 |
| Goodwill | $1 547 300 | $1 547 300 | $1 547 300 | $1 547 300 | $1 547 300 | $1 547 300 |
| Deferred tax assets | $9 700 | $0 | $0 | $0 | $0 | $0 |
| Restricted cash | $345 900 | $345 900 | $345 900 | $345 900 | $345 900 | $345 900 |
| Equipment | $83 100 | $83 100 | $83 100 | $83 100 | $83 100 | $83 100 |
| Other non-current assets | $88 500 | $88 500 | $88 500 | $88 500 | $88 500 | $88 500 |
| **Total non current assets** | **$10 640 700** | **$11 311 128** | **$12 318 591** | **$11 947 673** | **$11 030 294** | **$10 651 684** |
| | | | | | | |
| **Total assets** | **$12 304 500** | **$12 888 500** | **$14 295 433** | **$14 407 080** | **$15 609 320** | **$16 945 703** |
| | | | | | | |
| **Equity and liabilities:** | | | | | | |
| Paid-in-capital | $2 791 900 | $2 792 400 | $2 792 400 | $2 792 400 | $2 792 400 | $2 792 400 |
| Retained earnings | -$162 700 | $634 420 | $1 151 926 | $1 861 184 | $2 182 771 | $2 532 471 |
| Other | $0 | $0 | $0 | $0 | $0 | $0 |
| **Total shareholders' equity** | **$2 629 200** | **$3 426 820** | **$3 944 326** | **$4 653 584** | **$4 975 171** | **$5 324 871** |
| Minority Interest | $592 800 | $856 949 | $990 553 | $1 148 821 | $1 355 889 | $1 510 445 |
| | | | | | | |
| Short-term interest bearing debt | $746 100 | $745 800 | $1 175 800 | $626 708 | $686 810 | $762 557 |
| Accounts payable | $119 300 | $170 451 | $153 932 | $184 487 | $196 949 | $195 864 |
| Other current liabilities | $1 192 400 | $1 192 400 | $1 192 400 | $1 192 400 | $1 192 400 | $1 192 400 |
| **Total current liabilities** | **$2 057 800** | **$2 108 651** | **$2 522 132** | **$2 003 595** | **$2 076 160** | **$2 150 820** |
| | | | | | | |
| Long-term interest bearing debt | $6 690 700 | $6 186 480 | $6 504 422 | $6 267 080 | $6 868 101 | $7 625 566 |
| Deferred taxes | $125 000 | $125 000 | $125 000 | $125 000 | $125 000 | $125 000 |
| Other long-term liabilities | $209 000 | $209 000 | $209 000 | $209 000 | $209 000 | $209 000 |
| **Total non-current liabilities** | **$7 024 700** | **$6 520 480** | **$6 838 422** | **$6 601 080** | **$7 202 101** | **$7 959 566** |
| **Total liabilities** | **$9 082 500** | **$8 629 131** | **$9 360 555** | **$8 604 675** | **$9 278 260** | **$10 110 386** |
| **Total equity and liabilities** | **$12 304 500** | **$12 912 900** | **$14 295 433** | **$14 407 080** | **$15 609 320** | **$16 945 703** |

# Appendix I: Example of FCFF calculations for each rig

| SOTP: West Aquarius (1000 $) | | 2009 | 2010 | 2011 | 2012 | 2037 | 2038 |
|---|---|---|---|---|---|---|---|
| Total CapEx | $609 500 | | | | | | |
| Assumed lifetime (yrs) | 30 | | | | | | |
| | | | | | | | |
| Operating revenues | | $125 865 | $183 084 | $183 084 | $183 084 | $251 741 | $251 741 |
| Operating expense | | $48 448 | $54 381 | $56 557 | $58 819 | $96 850 | $99 271 |
| EBITDA | | $77 417 | $128 703 | $126 527 | $124 265 | $154 891 | $152 469 |
| EBITDA % | | 62 % | 70 % | 69 % | 68 % | 62 % | 61 % |
| Depreciation | | $20 317 | $20 317 | $20 317 | $20 317 | $30 917 | $30 917 |
| EBIT | | $57 100 | $108 386 | $106 211 | $103 948 | $123 974 | $121 553 |
| Tax | | $5 710 | $10 839 | $10 621 | $10 395 | $12 397 | $12 155 |
| Net income | | $51 390 | $97 547 | $95 590 | $93 553 | $111 576 | $109 397 |
| | | | | | | | |
| CapEx | | $420 900 | $0 | $0 | $0 | $0 | $0 |
| Book value | $188 600 | $589 183 | $568 867 | $548 550 | $528 233 | $30 917 | $0 |
| FCFF | | -$349 193 | $117 864 | $115 906 | $113 870 | $142 493 | $140 314 |

# Appendix J: Associates and Other Investments

| Seadrill Ltd.: Holdings (1000 $) | PDE | SAPCRES | SCORE | SDRL | VARIA |
|---|---|---|---|---|---|
| Total holdings by SDRL | 16 500 000 | 288 364 800 | 34 638 903 | 5 217 800 | 95 600 000 |
| | | | | | |
| **Controlled:** | | | | | |
| Ordinary shares | 8 270 800 | 288 364 800 | 12 446 403 | 717 800 | 95 600 000 |
| Forward contracts | 8 229 200 | | 22 192 500 | | |
| Total return swaps | | | | 4 500 000 | |
| | | | | | |
| **Accounted for:** | | | | | |
| Marketable securities | 8 270 800 | | | | |
| Associated companies | | 288 364 800 | 34 638 903 | | $95 600 000 |
| Off balance sheet | 8 229 200 | | | 4 500 000 | |
| Sahreholder's equity | | | | 717 800 | |
| | | | | | |
| **Valuation:** | | | | | |
| Purchase price[1] | | N/A | kr 17,08 | kr 61,30 | |
| Purchase price[2] | $34,70 | | | | |
| Current price | $22,56 | RM1,50 | kr 15,50 | kr 90,60 | |
| | | | | | |
| Value of shares[3] | $186 589 248 | $122 600 607 | $30 238 126 | $10 193 210 | $236 131 837 |
| Value of forwards | -$99 902 488 | | -$5 505 618 | | |
| Value of TRS | | | | $20 666 144 | |
| **Total value (1000 $)** | **$86 687** | **$122 601** | **$24 733** | **$30 859** | **$236 132** |
| Total value (1000 NOK) | kr 553 062 | kr 782 192 | kr 157 793 | kr 196 883 | kr 1 506 521 |
| Per SDRL share | kr 1,39 | kr 1,96 | kr 0,40 | kr 0,49 | kr 3,77 |

| | |
|---|---|
| **Total NPV** | **kr 8,01** |

[1] Forward on SCORE (Exercise on 17.06.09, total amount $49.74 million)

[2] Forward with DnB Nor Markets on PDE (Exercise on 18.07.09, total amount $285.6 million)

[3] The value of shares on Varia Perdana is presented as the NPV calculation, earlier as book value