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Mergers and Acquisitions

An Oil & Gas Equipment Sector Case Study

Siemens' acquisition of Dresser-Rand

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Abstract

In September 2014, the German engineering and manufacturing company Siemens announced the plan to acquire the American manufacturer of oil and gas equipment and service provider, Dresser-Rand for \$83 a share.

In a standalone valuation, Siemens can be valued between € 87 and €104 and tends to be undervalued. Contrarily, Dresser-Rand appears to be overvalued, since the current market price of \$68 is at the upper valuation range of \$36 to \$88.¹

Additional revenues and reduced costs, ex transaction and implementation costs are worth \$141 to \$458 million and may add synergies of \$1.8 to \$6 a share to the standalone value of Dresser-Rand.

Despite the fact that Dresser-Rand fits into Siemens' Power and Gas division from a strategic point of view and that the M&A sentiment is currently beneficial to tap into the M&A market, an acquisition price of \$83 seems to be fairly high. Siemens should not realize the deal and offer a premium of 21% to the current market price. The thesis recommends an acquisition price range of \$47 to \$73.²

This case study shows that the world of M&A is fascinating, but also complex. Bid-prices and valuations often substantially diverge – depending on the strategic fit and potential synergies. The thesis mentions shareholder pressure, unsuccessful recent acquisition activities, legal & technological burden, high cash balances and personal interests as reasons for Siemens' high premium.

¹ Current market prices as of September 1, 2014

² Adjusted standalone valuation Dresser-Rand (\$45 - \$67) + Synergy value (\$1.8 - \$6)

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1. Introduction

On September 22, 2014 Siemens AG announced the acquisition of the American supplier of equipment solutions to the oil & gas industry, Dresser-Rand. After several bids, from \$66 to \$73, Siemens finally offered \$83 a share, which amounts to a total transaction value of approximately \$7.6 billion.³

*“As the premium brand in the global energy infrastructure markets, Dresser-Rand is a perfect fit for the Siemens portfolio. The combined activities will create a world-class provider for the growing oil & gas markets. With this, Dresser-Rand will become ‘The oil and gas’ company within Siemens and fit right into our Siemens Vision 2020” – Joe Kaeser, President and CEO of Siemens AG.*⁴

When I started the case study, a friendly \$83 takeover bid was already in the market and the transaction was expected to be closed in summer 2015. Besides a high acquisition premium of 21%⁵, slumping oil prices and depreciating Euro to US-Dollar had aroused sharp criticism for the transaction price both, from Siemens’ shareholders and financial press. The controversial debate and the medial presence have motivated me to work on this particular case. The thesis intends to answer the following core questions:

1. From a strategic point of view, does Dresser-Rand add value to the conglomerate business of Siemens? How does the transaction fit into the changing energy business culture from conventional to alternative energy solutions?
2. Is an acquisition price of \$7.6 billion reasonable? Can strategic motives and potential synergies justify a premium of 21%?
3. What are potential drivers in the bidding process of this acquisition? Which role embodies the CEO and how can power be effectively managed and controlled in Mergers & Acquisitions (in the following M&A)?

³ Including an additional ticking fee of \$0.55 per month from March 2015 onwards

⁴ Siemens’ official deal announcement, September 22, 2014

⁵ Offer price compared to the pre-acquisition price of Dresser-Rand as of September 2, 2014 – \$68,36

The thesis is structured into four main parts:

In the beginning, a Literature Review provides the reader with the necessary knowledge of valuation techniques and methodologies, as well as selected M&A characteristics.

Thereafter, the relevant industries and companies are described, so that the reader is able to understand the strategic rationale behind the transaction and has comprehensive background information to understand the case.

The third part focuses on valuation. First, on the basis of different valuation techniques, target and acquirer are valued independently in a standalone scenario. Second, potential synergies are first identified and quantified and then added to the standalone valuation. Afterwards, a thorough comparison of the standalone valuation with the ex-acquisition valuation, including synergies is drawn.

Finally, the results are summarized and a potential acquisition of Dresser-Rand is evaluated from a strategic and more importantly financial point of view. The conclusion intends to answer the core questions and finishes with a transaction recommendation.

The underlying data of this case study is predominantly as of the beginning of September 2014, when Siemens had not yet announced the deal.

2. Literature Review

2.1 Introduction

The Literature Review intends to provide readers with different backgrounds with the basic knowledge, which is crucial to understand the case. The section should not be considered as extensive and profound. For extending knowledge on valuation, further readings through contemporary valuation literature are advisable.

The Literature Review consists of two main parts:

- **Valuation Techniques:** The first part focuses on basic theory methods of evaluating companies.
- **Merger & Acquisitions:** The second part covers special characteristics of evaluating M&A and different views and opinions from literature. The cardinal question, whether or not M&A adds value is also discussed. Besides that, this

part includes a current M&A activity section, which helps the reader to classify a potential Dresser-Rand acquisition into the current M&A market environment.

2.2 Valuation Techniques

One of the key performance drivers of companies is the evaluation of corporate actions. Whether a company allocates resources for merging with- or acquiring other firms, investing in projects, entering strategic partnerships or simply launching products, a thorough valuation is absolutely crucial. A mispricing based on an incorrect valuation may lead to dramatic negative consequences for the company and its competitiveness. Therefore, a proper valuation coins the success of a company.

Theory distinguishes between the following four fundamental valuation approaches:

1. Intrinsic Value approach – A company is worth what it will generate.
2. External benchmark approach – A company is worth what others buy/sell it for.
3. Analogical approach – A company is worth what other companies are worth.
4. Patrimonial approach – A company is worth what it owns.

In practice, a thorough valuation comprises of a mix of several methods. Eccles, Lanes & Wilson (1999) lay stress on the fact, that there is no single correct price. In general, valuation can be seen as a function of cash, timing and risk (Luehrmann 1997). The majority of literature considers the intrinsic method superior to other approaches because it values the company on the basis of future cash flows and looks at the economic value creation. In contrast to that, the other three approaches consider the present or past (Appendix 1).

2.2.1 Intrinsic Value approach

Evaluating a company by estimating the net present value of future generated cash flows has become the most popular approach for corporate assets during the 1970s (Luehrman 1997). Estimated future cash flows, which can be either Free Cash Flow to the Firm, Free Cash Flow to the Equity or Dividends, are discounted to the present at a risk-adjusted rate.

Table 1: Overview of cash flow types and corresponding discount rates

	Free Cash Flow to the Firm (FCFF)	Free Cash Flow to the Equity (FCFE)	Dividends
Remunerate	Shareholders & Debtholders	Shareholders	
Risk adjusted Discount rate	Weighted Average Cost of Capital (WACC)	Cost of Equity	
Value	Enterprise Value	Equity Value	
Flow	Economic Flow	Shareholders Flow	

The FCFF includes funds which can be distributed to shareholders and debtholders. A simplified concept is:

Table 2: The concept of Free Cash Flow to the Firm (FCFF)

Operating Results after Tax	Non-cash items	Growth financing
EBIT – Taxes on EBIT	+ Depreciation + Provisions considered as reserve	- Investments - Δ Working Capital

Deducting interest and principal payments from the FCFF isolates the cash flows solely to shareholders:

$FCFE = FCFF - \text{interest (after taxes)} - \text{principal payments}$

Applying the Gordon Growth Model, namely calculating the net present value of future dividend payments to evaluate a company's price is less popular than the Discounted Free Cash Flow method. This concept should be used exclusively for companies with constant and reliable dividend payout policies.

The estimated future cash flows are discounted at a rate which incorporates the opportunity cost of capital for a similar investment in terms of risk and return. The most

widely used discount rates are the Cost of Equity and the Weighted Average Cost of Capital (WACC).

The Capital Asset Pricing Model (CAPM) is the most common methodology for estimating the cost of equity and is defined as:

Table 3: Capital Asset Pricing Model (CAPM)

Cost of Equity	Risk Free Rate	Levered Beta	Equity Market Risk Premium
$k_e =$	r_f	$+$ β	$\times (r_f - r_m)$

The WACC is a discount rate which incorporates the costs of different sources of financing, weighted by the company’s capital structure.

$$WACC = D/V * k_d * (1-T) + E/V * k_e + P/V * k_p$$

- D/V = proportion of total value (V) claimed by debt (D)
- E/V = proportion of total value (V) claimed by equity (E)
- P/V = proportion of total value (V) claimed by preferred stock (P)
- k_d = required rate of return on debt capital
- k_e = required rate of return on equity capital
- k_p = required rate of return on preferred stocks
- T = marginal corporate tax rate

According to Koller, Goedhardt & Wessels (2010), the after-tax cost of debt can be estimated by the yield to maturity on long-term debt.

The WACC delivers reliable results when capital structures remain constant over time. However, in M&A, additional capital is often raised to finance a transaction and therefore capital structures may change frequently. In order to overcome this deficit, theory suggests to either calculate a WACC for each year of the explicit period or to use the Adjusted Present Value approach (APV).

The APV method is a popular alternative to the WACC: Among others, Koller, Goedhardt & Wessels (2010) recommend the APV approach for changing capital structure valuations. According to Luehrman (1997), the APV adds information in comparison to the WACC.

The APV method separately values operating and financing effects. At a first step, the company is valued as if it was financed entirely with equity. After that, the financing effects such as interest tax shields, costs of financial distress, subsidies, hedges or issue costs are added. Thereby, the different sources of value creation can be evaluated separately.

2.2.2 External benchmark approach

Following the external benchmark valuation approach, the company is worth what other market participants are willing to pay for it. The approach requires a high level of transparency and market efficiency. In times of bubbles or crises, the external benchmark approach is strongly limited and delivers less accurate and fair valuations. However, the approach can be a useful tool to get a first insight, how markets assess a company.

2.2.3 Analogical approach

The analogical method or relative valuation method evaluates a company on the basis of other companies or transactions, similar in terms of their business and risk and return profile. The method implies that a company is worth what other companies or transactions are worth. The approach is a popular proxy method because the use is straight-forward and quickly applicable. With the use of multiples, either market multiples or transaction multiples, the value of a company can be derived from its peer group. There are numerous multiples such as revenue, earnings or cash flow multiples. Goedhardt, Koller & Wessels (2010) argue that in contrast to net income multiples, cash-flow multiples are not affected by the capital structure, non-cash charges or taxes. As a consequence cash flow multiples deliver more accurate results. Moreover, Sarin, Koeplin & Shapiro (2000) see multiples derived from EBIT as a good proxy for free cash flows and consequently the most reliable multiple. Kaplan & Ruback (1996) found that comparable-based estimates add explanatory power to the Discounted-Cash-Flow method.

The biggest deficit of the analogical method is that peer groups are often not suitable and representative. Furthermore, in the case of transaction multiples, it is often difficult

to find similar transactions, especially if the transaction is unique. Market multiples need to be coherent in terms of the underlying accounting standards and the definition of the multiple itself.

2.2.4 Patrimonial approach

The Patrimonial method takes into consideration what a company owns. The value is determined by the company's assets and liabilities. The underlying financial statement is solely the balance sheet and herein positions are valued by restated net worth valuations. This method is a backward looking approach. Nevertheless, it delivers useful information in times of bubbles, in which market values may enormously exceed book values.

2.3 Mergers & Acquisitions

2.3.1 Introduction

According to Reed, Laloux & Nesvold (2007), the difference between a merger and an acquisition is that a merger occurs when "a corporation is combined with and disappears into another corporation". An acquisition describes the transfer of ownership.

The reasons for acquiring or merging with other companies to form a new entity are numerous. The most important rationale is the creation of additional growth, both by additional revenues and by higher profitability (Gaughan 2005). M&As are accomplished to create and to implement economies of skill, scale and scope. Apart from that, M&A transactions can also be undertaken to improve the financial structure, mainly by tax benefits or by taking advantage of additional debt capacity. According to Roberts, Wallace & Moles (2010), M&A transactions are driven by inter alia globalization, stock markets, political reasons or industry and sector pressure (Appendix 2).

A profound section how to manage mergers can be found in Appendix 4.

2.3.2 M&A characteristics

2.3.2.1 Transaction types

Damodaran (2002) divides M&A operations into four transaction types:

1. Merger: A target firm is integrated into the acquiring firm.
2. Consolidation: A new entity is created by combining the acquiring firm with the target firm.
3. Tender offer: The takeover offer is directly addressed to the shareholders of the target firm, bypassing the board of directors.
4. Acquisition of assets: Selected assets of the target firm are transferred into the acquiring firm.

2.3.2.2 Mode of payment

The mode of payment affects the transaction value. According to Sirower & Sahni (2006), stock payments may have negative signaling effects, as the acquirer aims to share the risk of materializing synergies with the target. In case the acquirer owns high amounts of cash and believes the own company is underpriced, the transaction is predominantly financed with cash. Rappaport & Sirower (1999) found out, that on average, cash transactions result in higher post transaction shareholder returns.

2.3.2.3 Target size

Not only the mode of payment, but also the target size influences the success of a transaction. In general, the integration and implementation of synergies is easier for smaller firms. Damodaran (2005) mentions the fact, that a merger of equals could be more difficult to be successful due to cultural clashes.

2.3.3 Valuating M&A

Gaughan (2005) classifies mergers into three categories:

1. Horizontal - Mergers between two competitors.
2. Vertical - Mergers between companies which have a buyer – seller relationship.

3. Conglomerate – Mergers which are neither horizontal nor vertical.

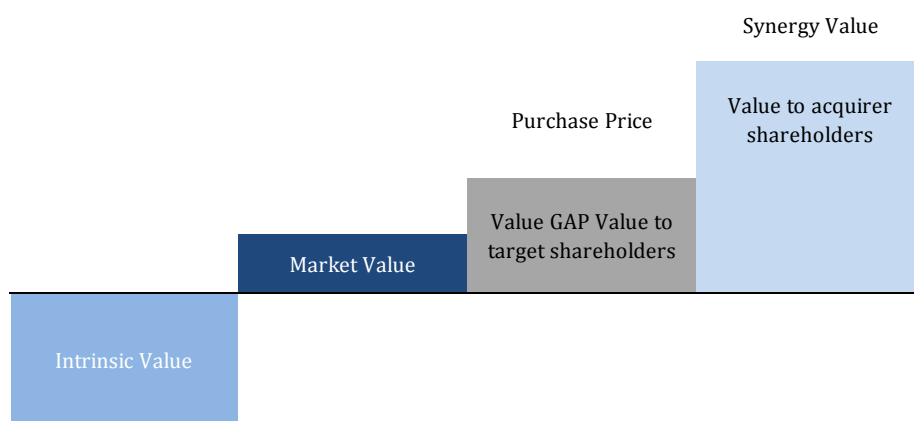
In order to evaluate a deal as successful and therefore as value adding, the value of the merged companies has to exceed or at least equal the sum of the standalone valuations of target and acquirer.

Control and synergies are two possible value sources in M&A. Martin & McConnel (1991) described operational synergies and the disciplining of managers of the target firm as the key wealth drivers in M&A. In addition to that, Shivdasani & Zak (2007) claim, that the ability to make business decisions is also a value generator.

Additional value requires the creation and implementation of synergies. Eccles, Lanes & Wilson (1999) divide the true value of an acquisition into intrinsic value, market value, purchase price and synergy value.

The concept of true value clearly reveals why it is insufficient to pay the market value for an acquisition. To compensate target shareholders, a premium to the market value is indispensable. Furthermore, the acquirer shareholders would not accept an acquisition if they did not benefit from value transfer to their own. Consequently, the internal valuation, including synergies has to exceed the purchase price.

Chart 1 – The true value of an acquisition (Eccles, Lanes & Wilson 1999)



Nevertheless, the question why bidders pay abnormal synergy premiums emerges?⁶ Damodaran (2005) suggests three reasons:

First, the biased evaluation process creates conflict of interests and leading advisors fail in thoroughly evaluating the synergies. Second, the M&A business is a people business, so that managerial hubris, such as managerial pride or personal bidding competition, is a reason for miscalculating synergies. Third, companies do not have adequate plans for delivering the synergy and they overestimate the transaction potential before the transaction.

Eccles, Lanes & Wilson (1999) classify synergies into five types: cost savings, revenue enhancements, process improvements, financial engineering and tax benefits.

Cost savings is the most common type of synergy and tend to be high in horizontal mergers. There are two common problems which come along with synergies through cost savings: First, the definition and consequently the categorization of costs differ across companies. Second, acquirers tend to be too optimistic in terms of eliminating corporate or divisional administrative costs.

Revenue enhancements are generated from the combination of different strengths of acquirer and target and they appear when it is possible to achieve a higher level of sales growth. Like cost savings, synergies from revenue enhancements are difficult to be estimated because they are strongly affected by external factors, such as the combined customer base or competitors reaction to the acquisition.

Process Enhancements result both, in cost savings and revenue enhancements by transferring best practices and core competencies from one company to another.

Financial benefits through reducing the cost of capital, optimizing the funding access or improving capital and cash management can be another advantage of a merger and may result in remarkable synergies.

Synergies resulting from tax benefits are one of the most difficult synergies to assess and often a barrier to justify a deal. The overall goal is to keep the overall tax rate of the

⁶ Average acquisition premium for all deals since 2005: 28% - data source: Bloomberg

combined company equal or below the blended tax rates of the target and acquirer before the deal.

The value of each synergy depends on the particular implementation skills of the acquirer. The ability to integrate the target's assets remarkably coins the success of a deal. In conclusion, the valuation of synergies is often controversially discussed and for external parties, it is may be difficult to understand why high premiums are paid. Besides that, it may take years to observe the real outcome of an M&A transaction which makes an assessment at the completion date inappropriate. Damodaran (2005) comes to the conclusion that mergers are "often promised and seldom delivered".

2.3.4 Cross-Border M&A

The popularity of cross-border M&A has been significantly increasing since the 1990s and the globalization waves. From around \$100 billion in the late 1980s to \$720 billion in 1999, the value of cross border M&A reached almost \$800 billion in 2013. Over the last 10 years, cross-border deals accounted for as much as 30 to 50% of all M&A deals. Interestingly, since 2005, cross-border deals have been requiring on average 5% more premium than all M&A deals did (Appendix 3).⁷ Higher premiums might reveal that cross-border targets are attractive - acquirers are willing to pay more. Cross-border targets could also be underpriced and relatively cheap. However, higher premiums also signal higher risks – mainly economical (currency instability, volatility instability), political and infrastructural (Marsh, Mercer, & Kroll, 2008). Another reason for higher premiums may be target shareholders requiring a premium to accept the deal to be compensated for potential skepticism.

Increasing globalization has created a substantial appetite for international growth over the last 20 years. Acquiring firms with the primary goal of developing new markets, applying new technologies or attracting new customers beyond own business areas have become an indispensable part of M&A.

Cross-border valuation requires special treatment of tax rates (domestic versus foreign), currencies and differences in accounting standards or risks such as foreign exchange or political risk in general.

⁷ Data source: Bloomberg

Interestingly, cross-border transactions are predominantly cash financed because of tax, legal and flow back limitations, associated with stock payments.

Furthermore, cross-border M&A requires special management of currency risk, which can be classified into three stages:

1. Pre-Close risk: Fluctuations between the signing of the deal and the final closing.
2. At-Close risk: Refers to the repatriation of the cash flows of the target company (e.g. dividends or inter-company loan interest).
3. Post-Close risk: Risk which arises after the transaction, such as cost vs. revenue mismatches, transnational risk (accounting differences) or risk, related to ongoing cross-border cash flow.

Zenner, Matthews, Marks and Mago (2008) characterized the following driving and hindering forces for cross-border M&A transactions:

Table 4: Driving and hindering forces for cross-border M&A transactions

Forces Driving cross-border M&A	Forces Hindering cross-border M&A
Long-Term drivers	Protectionist Sentiments
Globalization	Tax Complexities
Diversification	Cultural Factors
Deregulation	Equity Flowback
Short-term catalysts	
High Relative Valuations	
Cheap USD	
Reduced Domestic Competition	

The valuation of cross-border transactions is more complex than in domestic scenarios. Multiple and comparable valuation methods may have limited application because comparable companies or transactions do not easily incorporate specificities such as synergies, risk or taxes in the context of cross-border valuations. Zenner, Matthews, Marks & Mago (2008) suggest two approaches for valuing cross-border mergers most effectively.

Table 5: Valuing cross-border mergers (Zenner, Matthews, Marks & Mago 2008)

Approach A	Approach B
1. Estimation of future cash flows in foreign currency	Estimation of future cash flows in foreign currency
2. Discount cash flows with target/local WACC	Conversion of cash flows to home currency
3. Convert Net Present Value at the spot foreign exchange rate	Discount cash flows with acquirer/home WACC

The authors also found out that, at least in the short run, cross-border acquirers tend to outperform domestic acquirers. One of the reasons is the way of financing the deal. Cross-border deals are predominantly cash deals which have more positive signals than stock deals.

In normal market environments, premiums paid for cross-border deals are only moderately higher than the average premium for all deals. However, in stressed markets, the premium is significantly higher (Appendix 3). This phenomenon reveals that cross-border deals incorporate more risk and therefore require an additional premium. Over the last 10 years, the premium was around 33% for cross-border transactions, compared to 28% for all deals.⁸

2.3.5 Does M&A add or destroy value?

As firms often pay high premiums and have post-transaction difficulties in implementing synergies, the fashionable view on mergers is that “M&A is a loser’s game” and consequently M&A destroys value (Grubb and Lamb 2000).

Why do firms still like tapping into the M&A market and accept abnormal prices for potential targets if the game is a “loser’s game”? The fashionable view appears to be wrong and M&A pays on average, according to Bruner (2004). Recent research about the success of M&A deals often do not use a representative sample of M&A deals leading to the bias that a few extremely unprofitable deals distort the findings. In addition to that,

⁸ Data source: Bloomberg

the net economic gain, either the weighted average returns or the absolute dollar value returns of acquirer and target as a sum, is predominantly positive. Moreover, the asset productivity of the acquiring firms, measured as higher operating cash flows relative to peers, improved significantly after the deals. Solely looking at the post-merger share price to measure the profitability of mergers appears to be incompletely wrong. Bruner (2004) suggests the investor's required rate of return as a benchmark and defines a value created merger as a transaction, in which the investor's investment return exceeds the required rate of return.

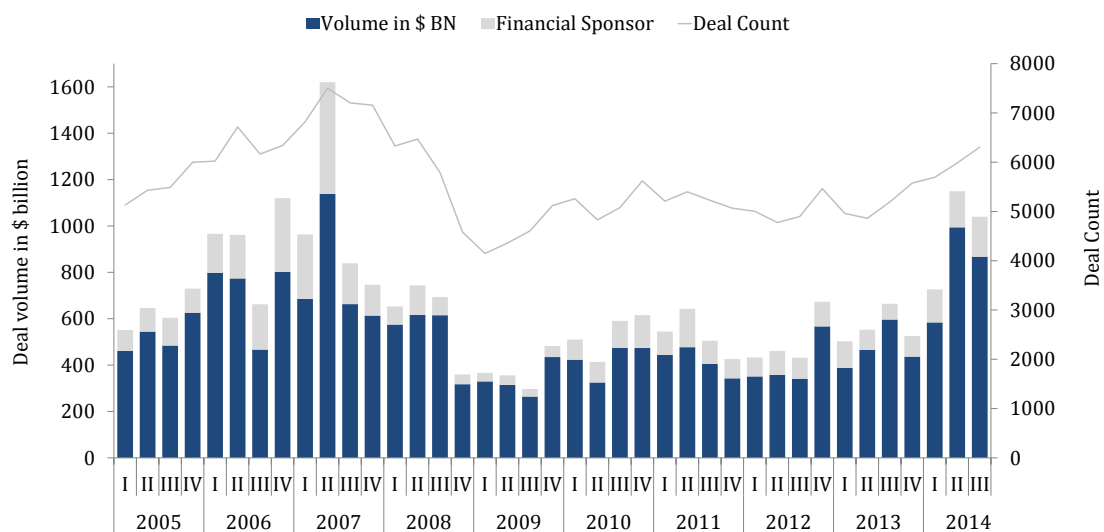
2.3.6 M&A Market Trends

In 2013, global M&A deal volume increased by 12% and the number of deals by 2% compared to 2012. In 2014, the M&A market is on a significant upward trend. For the first time since the second quarter of 2007, the quarterly volume in Q2 2014 was above a trillion US-Dollars. Compared to the first three months of 2013, total deal count increased by 20% and volume by as much as 70% (Chart 2). Companies have increasing confidence in M&A and less uncertainty and fear for new deals. According to an Ernst & Young Survey, the appetite for M&A is on a 5-year-high (Baigorri 2015). Moreover, the acquisition premium which is often considered a good indicator for transaction risk is with 20%-25% significantly lower and less fluctuating than in the years after the crises (Appendix 3).

The reason for the positive market sentiment and recovery of the M&A market can be explained by a reviving world economy, historically low interest rates and as a consequence high cash balances companies are holding.

According to the KPMG 2014 M&A Outlook Survey Report, the main reasons of acquiring other firms are opportunistic (i.e. targets appear to be cheap and become available) and the expansion of customer bases and geographic reach. Entering into new lines of businesses or products are less important reasons. Industries with structural changes and in which regulations are prevalent such as Technology/Media/Telecom and Healthcare/Pharmaceuticals but also Energy/Oil & Gas are expected to be most attractive for M&A deals in 2014.

Chart 2: M&A total deal volume in \$ and total deal count by quarter



In terms of regions, developing countries are expected to be attractive target regions since the high growth potential, but also the opportunity to gain technological knowhow lures acquirers from developed countries (Marsh, Mercer & Kroll 2008).

Nevertheless, as M&A appear in waves of activity, regulatory and political reforms, technological changes, fluctuations in financial markets, the role of leadership and tension between scale and focus (B. Wasserstein, 1998) can quickly change the current overall positive market sentiment.

3. Company and industry background

3.1 Company Profile Siemens

Siemens is a German engineering and manufacturing company, positioned along the electrification value chain. The company was founded in 1847, employs 343.000 people and operates in 190 countries⁹. Albeit more than half of the revenue is generated in Europe, Siemens has strong business activities overseas, both in Asia and Americas. In 2014, Asia & Australia and Americas accounted for 20% and 26% of the overall revenue.

⁹ www.siemens.com/investor - Annual Report 2013

The Munich-headquartered global player divides its business into the four core divisions Energy, Infrastructure and Cities, Industry and Healthcare and the following nine sub-divisions:

Energy - Power and Gas:

The Power and Gas division serves customers such as utilities, independent power producers, engineering, procurement or construction companies with power generation, using fossil or renewable fuels for energy production. With more than €12.5 billion in revenue, operating income of €2.2 billion and operating profit margins above 17%¹⁰, Power & Gas is one of the most important components of Siemens' business portfolio.

Wind Power and Renewables:

Wind Power and Renewables delivers clean, renewable energy from offshore and onshore installations. As the segment serves both, business and environmental needs, it helps Siemens to be well positioned for the energy transformation process from fossil fuels to environmental friendly renewable energy solutions. Although this segment has limited profitability yet, it has high strategic future potential.

Energy - Power Generation Services:

Power Generation Services include factory or field services support, maintenance, repairs, replacements, modernizations and upgrades of components. The division is one of the leading service partners worldwide and helps utility firms, oil & gas and industrial processing industries to optimize their business.

Energy - Energy Management:

Energy Management offers clients products, systems, solutions and services for economical and reliable transmission and distribution of electrical power. Although the division had more than €10 billion revenue in 2014, it is critical for Siemens because of the lack of profitability. Operating Income was negative in 2014.

¹⁰ Data Source: Bloomberg, Financial year 2014

Energy - Building Technologies:

Building Technologies is the world market leader for safe, energy efficient and environmentally friendly buildings and infrastructure. The sub-division offers e.g. fire safety, security, building automation, heating or ventilation and air conditioning.

Infrastructure and Cities - Mobility:

This segment is responsible for the efficient and integrated transportation of people and goods by rail and road. Apart from the full range of vehicles, the mobility section offers infrastructure efficiency solutions such as signal and control technologies or road traffic control and information systems.

Industry - Digital Factory:

Digital Factory is responsible for providing hardware, software and technology-based services to support companies in their manufacturing process. The segment is highly profitable with operating margins above 18% (2014) and consequently absolutely crucial for Siemens' business portfolio.

Industry - Process Industries and Drives

Process Industries and Drives supports the client in improving reliability, safety and efficiency of products, processes and plants and provides additional value for customers. In 2014, revenues were almost reaching €10 billion, however profitability was relatively low with around 8%.

Healthcare

Siemens' Healthcare segment forms one of the world's largest suppliers of technology to the healthcare industry and is a leader in medical imaging, laboratory diagnostics and healthcare IT. Moreover, Healthcare provides clinical consulting and training. The division had 43.000 employees worldwide, revenue worth €11.7 billion and profits of more than €2 billion in the fiscal year 2014. Consequently, Healthcare is substantial for Siemens' portfolio.

A detailed profitability overview of Siemens' segments can be found in Appendix 6.

From a financial point of view, Siemens had been able to stabilize its profitability over the last five years. With constant sales figures and increasing net profits (CAGR of 16% from 2009 to 2013), Siemens managed to sustainably overcome the implications of the financial crisis (Table 6).

Siemens Total Debt/Total Capital Ratio had been relatively constant between 38% and 43% over the last five years, which is in line with the competitors' average of 37%.¹¹ In addition to that, the company has remarkably cheap access to debt and currently refinances itself with a weighted cost of market debt at 1.37%¹² (Appendix 7).

Table 6: Siemens key financials 2009-2013

Siemens - Consolidated Data (€ Million)	2009	2010	2011	2012	2013	CAGR
Financials						
Sales	76.651	68.978	73.515	78.296	75.874	0%
EBITDA	9.196	9.262	10.755	9.614	8.099	-3%
<i>EBITDA Margin</i>	<i>12,0%</i>	<i>13,4%</i>	<i>14,6%</i>	<i>12,3%</i>	<i>10,7%</i>	
EBIT	6.272	6.946	8.105	6.778	5.838	-2%
<i>EBIT Margin</i>	<i>8,2%</i>	<i>10,1%</i>	<i>11,0%</i>	<i>8,7%</i>	<i>7,7%</i>	
Net Profit	2.292	3.899	6.835	5.053	4.087	16%
<i>Profit Margin</i>	<i>3,0%</i>	<i>5,7%</i>	<i>9,3%</i>	<i>6,5%</i>	<i>5,4%</i>	
Cash & Near Cash	10.159	14.108	12.468	10.891	9.190	-2%
Total Assets	94.926	102.827	104.243	108.280	101.938	2%
Working Capital	7.124	9.569	9.253	9.492	9.070	6%
Long Term Debt	18.940	17.497	14.280	16.880	18.509	-1%
Ratios						
Return on Assets	2%	4%	6%	4%	4%	14%
Return on Common Equity	9%	14%	21%	13%	15%	14%
Current Ratio	1,2	1,2	1,2	1,2	1,2	1%
Quick Ratio	0,7	0,7	0,6	0,6	0,7	1%
Total Debt/Total Capital	41,8	42,3	38,6	41,4	43,4	1%
Total Debt/Total Equity	72,0	73,3	62,8	70,5	76,7	2%

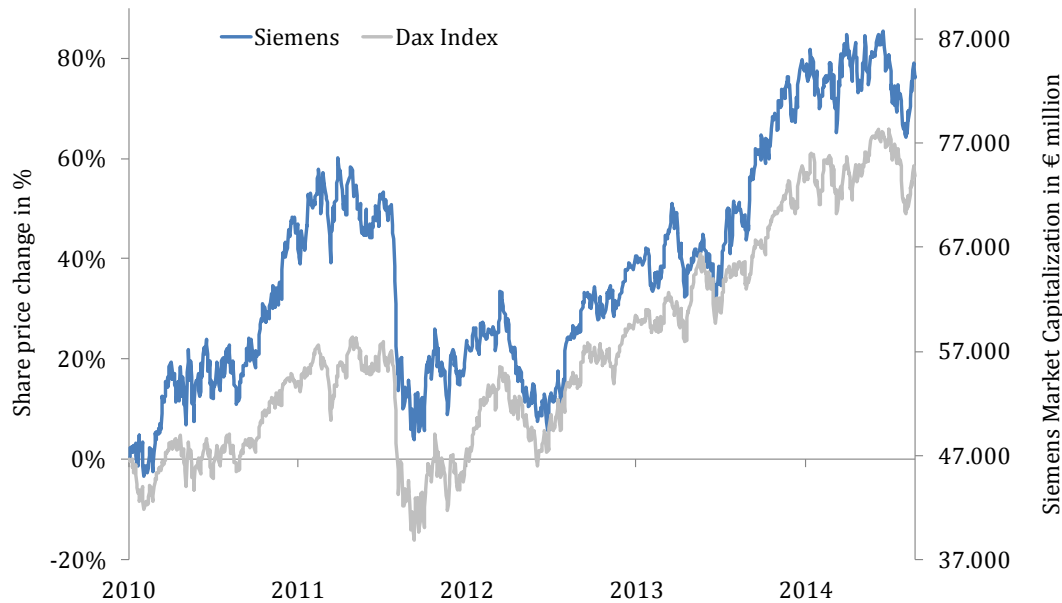
On September 1, 2014 common equity was worth €84.205 million and Siemens' stock price had been outperforming the benchmark Index DAX 30 since January 2010 (Chart 3). The company's historic stock prices have a beta with the DAX 30 index of 0.70.¹³

¹¹ Average Total Debt / Total Capital Ratio Peer Group Siemens, as of August, 28 2014

¹² Calculated as weighted yield to maturity by notional amount, converted into Euro as of 01.09.2014

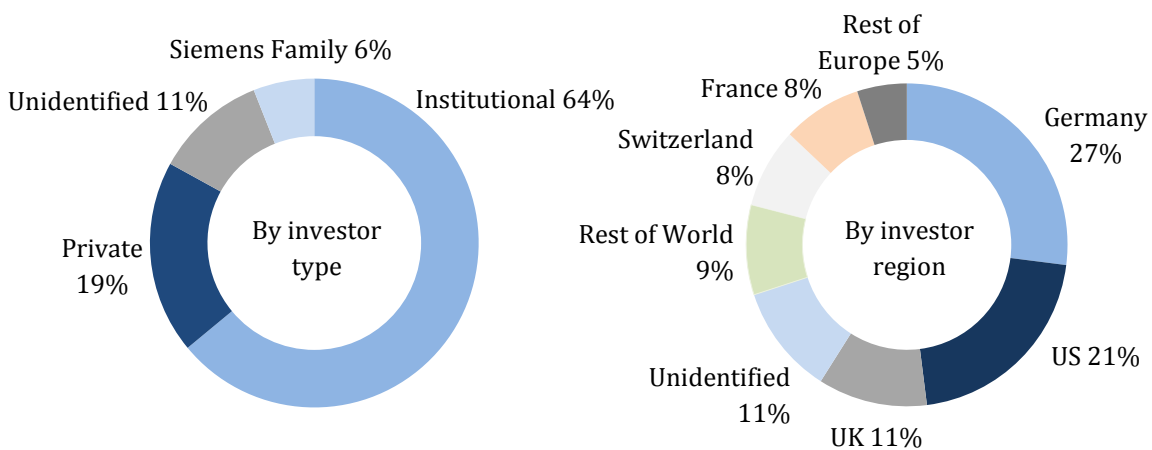
¹³ Beta calculated with five year weekly return data (Appendix 12)

Chart 3: Siemens stock price performance vs. DAX 30 (January 2010 – September 2014)



The Munich-based firm has 882 million shares outstanding and a free float of 85.9%. The largest shareholders are Siemens Family (6%), Blackrock (6%), Qatar Holdings (3%) and Norges Investment Management (2%).¹⁴

Chart 4: Siemens shareholder structure by investor type and region



As of September 2014

In order to attain inorganic growth, Siemens regularly taps into the M&A market with a focus on smaller to medium sized targets. The most remarkable deals by value since

¹⁴ Adjusted by Siemens' 5% own shares, as of September 2014

2010 are Invensys Rail LTD (GBP 1.742 million), Connectors and Measurements Divisions (€470 million) and Siteco Lighting GmbH (GBP 254 million). Since the company is operating on a global basis, acquisition targets are predominantly foreign companies. Siemens thereby gains access to new markets and is able to realize growth.

Strategic Outlook:

In the context of the strategic focus “Vision 2020”, Siemens’ goals for the near future are:¹⁵

1. Driving Performance by cost reduction and business excellence (cost reduction of €1 billion).
2. Underperforming businesses fixed.
3. Solid execution of financial target system:
 - a. Capital efficiency: ROCE 15-20%.
 - b. Growth > most relevant competitors.
4. Global and decentralized management structures.
5. Partners of choice for customers (Net Promoter Score¹⁶ up by >= 20%).
6. Employer of choice (Siemens Engagement Survey. Employee Engagement Index, Leadership and Diversity Index: >75%).
7. Ownership culture: Increase the number of employee shareholders by at least 50%.

3.2 Company Profile Dresser-Rand

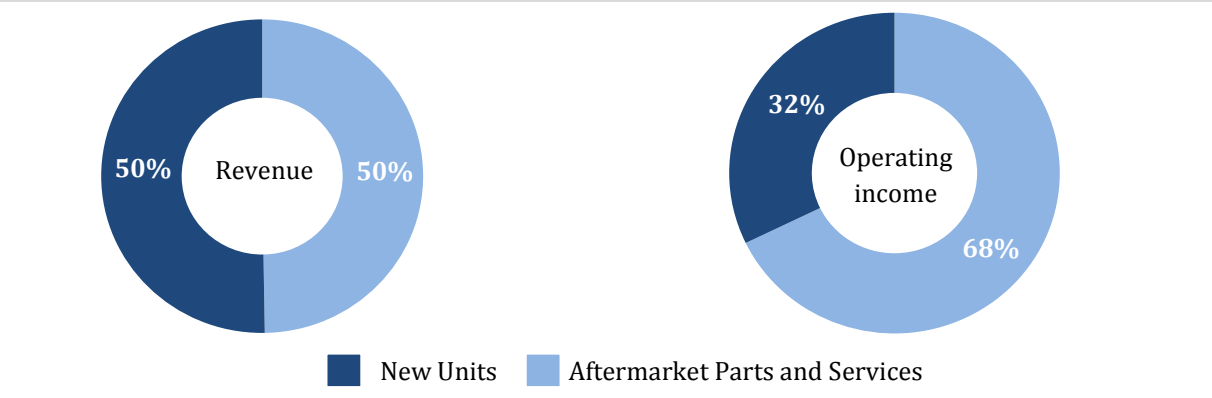
Dresser-Rand is a Houston based global manufacturer of oil and natural gas equipment and service provider. The company’s products and services include the fields of oil and gas production, high pressure field injection and enhanced oil recovery pipelines, refinery processes, natural gas processing and petrochemical production. Apart from that, Dresser-Rand operates in the market of power generation and its associated technologies such as biomass, waste-to-energy or compressed air energy storage. The company was founded in the mid-1800s and went public in 2005.

¹⁵ Siemens – Vision 2020, JP Morgan Pan-European Capital Goods CEO Conference, June 2014

¹⁶ Net Promoter Score (NPS) measures the loyalty that exists between a provider and a consumer

The business is divided into New Equipment and Aftermarket Parts and Services. New Equipment e.g. includes steam turbines, gas turbines or centrifugal and reciprocating compressors. Aftermarket Parts and Services offers the whole spectrum of service and support such as replacement parts, equipment installation or product training. Sales for both areas are almost at the same level of around \$1.5 billion. However, the Aftermarket Parts and Services segment is more profitable with profit margins of around 20%, twice as high as in New Equipment. Moreover, the Aftermarket Parts and Services segment is less sensitive to business cycles and therefore Dresser’s attractive business segment.

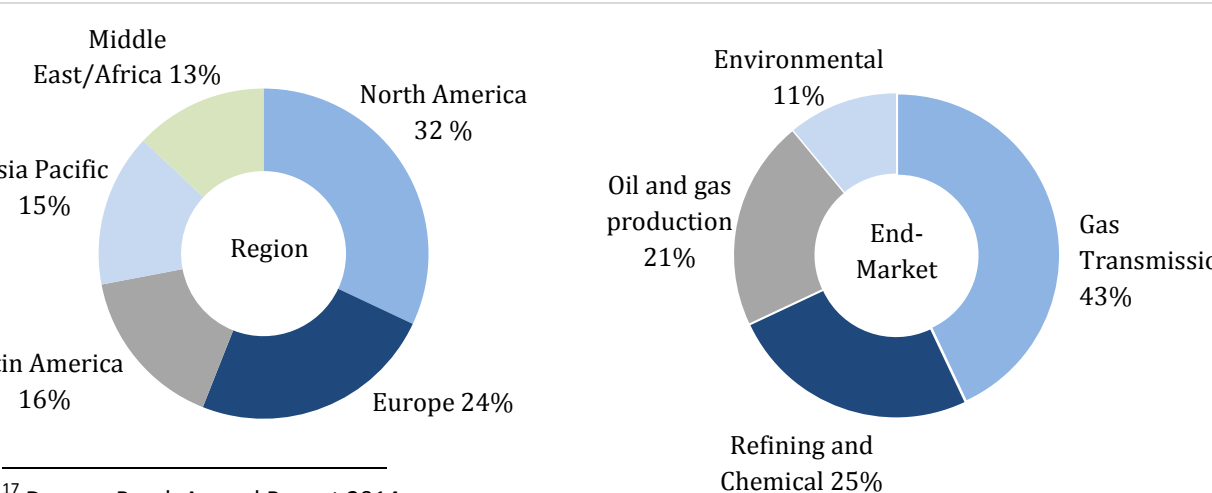
Chart 5: Dresser-Rand revenue and operating income breakdown by business segment (2013)



The company operates on a global basis, earning more than two thirds of its revenue outside the domestic market, North America. Apart from North America (32%), Europe (24%) and Latin America (16%) are the most important markets in terms of revenue.¹⁷

With respect to revenue by End-Markets, Gas Transmission accounts for 43% of the revenue followed by Refining and Chemical (25%) and Oil & Gas Production (21%).

Chart 6: Dresser-Rand revenue by region and end-market



¹⁷ Dresser-Rand, Annual Report 2014

Over the last five years, Dresser-Rand had been able to increase sales by 7% annually. Nonetheless, net profit was not in line with the sales increase. Furthermore, the company had a constantly increasing level of debt. Total Debt to Total Capital increased by 85% and Long Term Debt by even 237% over the last five years.

Table 7: Dresser-Rand key financials

Dresser-Rand - Consolidated Data (\$ Million)	2009	2010	2011	2012	2013	CAGR
Financials						
Sales	2.290	1.954	2.312	2.736	3.033	7%
EBITDA	400	315	338	421	413	1%
<i>EBITDA Margin</i>	<i>17,5%</i>	<i>16,1%</i>	<i>14,6%</i>	<i>15,4%</i>	<i>13,6%</i>	
EBIT	349	263	257	336	321	-2%
<i>EBIT Margin</i>	<i>15,2%</i>	<i>13,4%</i>	<i>11,1%</i>	<i>12,3%</i>	<i>10,6%</i>	
Net Profit	211	160	130	179	168	-5%
<i>Profit Margin</i>	<i>9,2%</i>	<i>8,2%</i>	<i>5,6%</i>	<i>6,5%</i>	<i>5,6%</i>	
Cash & Near Cash	223	421	128	123	190	-4%
Total Assets	2150	2314	3064	3354	3738	15%
Working Capital	351	415	218	393	766	22%
Long Term Debt	370	370	990	1015	1247	35%
Ratios						
Return on Assets	10%	7%	4%	6%	5%	-17%
Return on Common Equity	24%	14%	12%	18%	14%	-12%
Current Ratio	1,6	1,6	1,2	1,4	1,8	3%
Quick Ratio	0,9	1,1	0,6	0,7	0,9	2%
Total Debt/Total Capital	26,8	25,4	54,1	49,0	49,7	17%
Total Debt/Total Equity	36,5	34,0	117,9	96,0	98,9	28%

On September 1, 2014 Dresser-Rand's common equity was worth \$5.3 billion. The firm's biggest shareholders were Blackrock (8.42%), Vanguard Group (6.14%) and Janus Capital Management (6.07%).

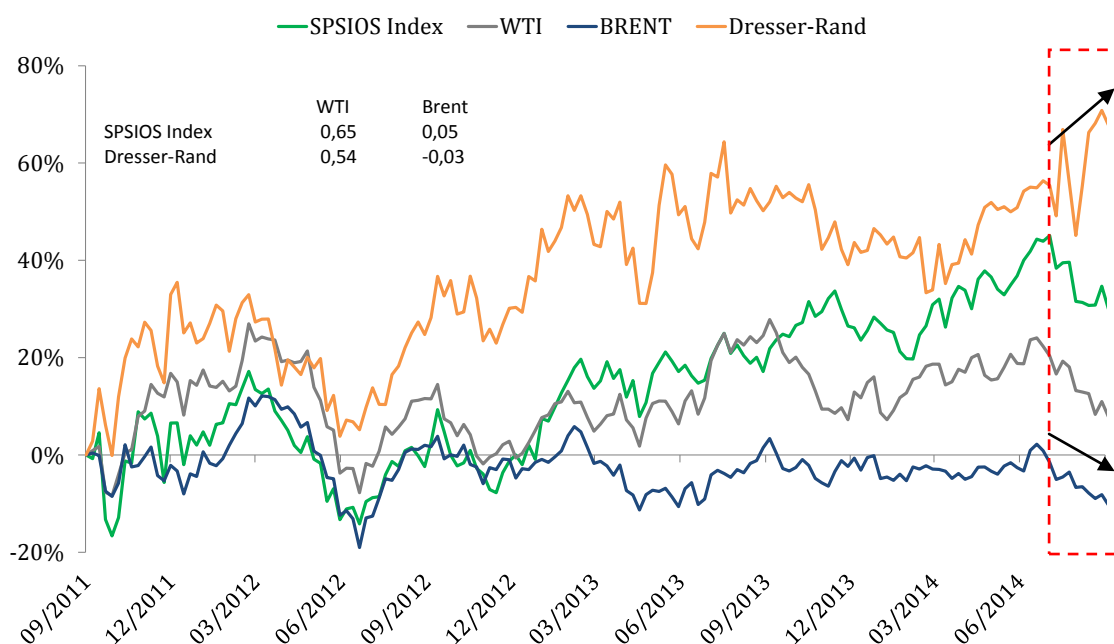
The shares of Dresser-Rand significantly outperformed its benchmarks. In particular, over the last six months, Dresser-Rand performed better than the Dow Jones, Dow Jones Sub index for Oil and Gas and the S&P Oil and Gas Equipment and Services Select Industry Index. The stock price of Dresser-Rand may have already incorporated takeover rumors. Dresser-Rand's beta with the S&P Index is 1.47 (Appendix 12). The company's payout policy focuses on retaining earnings instead of paying dividends. Since the IPO in 2005, there has not been any dividend payment.

Table 8: Dresser-Rand share price – benchmark comparison as of August 29, 2014

	3 months	6 months	1 years	2 years	3 years	4 years
Dresser Rand	+13,23%	+27,6%	+13,7%	+36,9%	+63,3%	+95,1%
Dow Jones Industrial Index	+2,3%	+4,8%	+15,4%	+30,6%	+47,2%	+70,7%
Dow Jones Subindex - US Oil&Gas	+2,6%	+12,1%	+18,8%	+33%	+49,2%	+85,6%
S&P Oil&Gas Equipment and Services Select Industry Index	-1,6%	2,9%	+15%	+40%	+27,6%	+75,4%

Dresser-Rand’s business model highly depends on the oil industry market sentiment. Consequently, the financial success of Dresser-Rand is linked to oil prices. A three-year correlation analysis based on weekly returns reveals that the stock of Dresser-Rand is correlated with WTI-oil (+ 0.54). Interestingly, Dresser-Rand’s shares are not correlated with Brent-oil (-0.03). This phenomenon can be explained by the fact, that Dresser-Rand is an American based firm and their business focuses on the American type of oil - WTI. Since July 2014, when oil prices started to decrease and rumors of Siemens’ takeover plan could have been in the market, the stock price movement has been more volatile and correlation with WTI is less positive. (Chart 7)

Chart 7: Dresser-Rand vs. Oil Prices (September 2011 – September 2014)



The firm's key strategic objectives are:

1. Increase Sales of Aftermarket Parts and Services to the Existing Installed Base.
2. Expand Aftermarket Parts and Services Business to Non-Dresser-Rand Equipment.
3. Grow Alliances.
4. Expand Performance-Based Long-Term Service Contracts.
5. Introduce New and Innovative Products and Technologies.
6. Improve Profitability.
7. Selectively Pursue Acquisitions.

3.3 Oil & Gas Equipment and Services Industry

The Oil & Gas Equipment and Services Industry operates as a supplier for the Oil & Gas Refinery and Extraction Industry. The industry is closely related to the economic condition of its clients and therefore to oil and gas prices. The S&P Sub index, Oil & Gas Equipment and Services¹⁸ has a relatively strong three year correlation coefficient with WTI (+0.65).¹⁹ Consequently, WTI-oil can be considered one of the main industry drivers and makes the industry cyclical and volatile (Chart 7).

Although the share of Oil & Gas in total consumption decreased from 62% in 1973 to 56% in 2012, Oil & Gas is still the most consumed fuel worldwide and supplies approximately 5000Mtoe (Chart 8).²⁰

Demand for Oil & Gas has been steadily increasing. Unconventional extraction methods such as hydraulic fracturing have made gas more attractive and new resources became available. Interestingly, the excess capacity is significantly higher for oil than for gas. Since 2007, the demand for gas has been exceeding the supply (Appendix 8). Until 2035, it is expected that renewable energy and natural gas meet approximately 66% of incremental energy demand.²¹ As Fossil Fuels are limited, new technologies and extraction and refinery methods will play a more substantial role in the future. There is a huge demand for highly specialized equipment. The Oil & Gas Field Equipment

¹⁸ Bloomberg Ticker SPSIOS Index

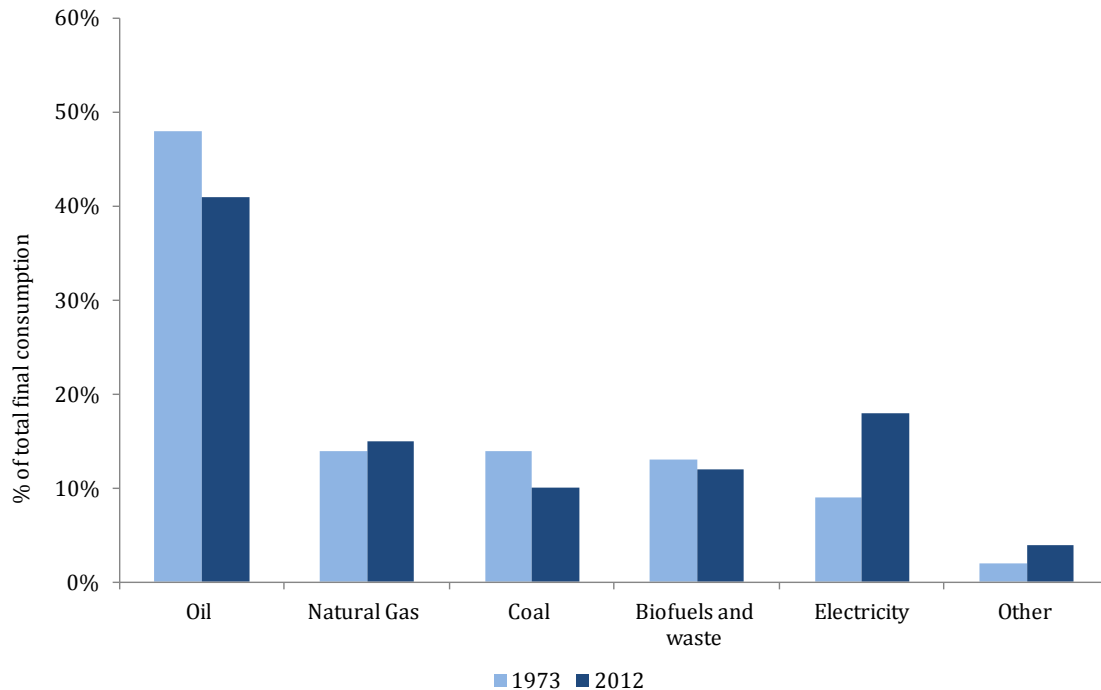
¹⁹ Correlation measured with 3-year-weekly returns

²⁰ International Energy Agency, 2012

²¹ International Energy Agency forecasts

Industry is a key part in the Oil & Gas value chain and can be considered the key future driver of the whole Oil & Gas industry.

Chart 8: Fuel shares of total final consumption (1973 vs. 2012)



Data Source: International Energy Agency, 2012

Applying the concept of Porter’s five forces to analyze the level of competition within the industry helps to find out, that the competitive rivalry in the Oil & Gas Equipment and Services Industry is relatively low (Appendix 9):

Threat of new Entrants:

The threat of new entrants can be considered low, as multiple high entry barriers exist. The industry is characterized by high capital and technological requirements and a need for highly specialized workers and industry know how. Moreover, strict and long-term refinery extraction service rights and contracts, as well as economies of scale available for existing firms hampers new entries. Companies being active in the Oil & Gas Equipment and Services Industry have to follow strict regulatory and legal restrictions. Product patents, hydraulic fracturing laws are other restrictions which lower the attractiveness for new market participants. Environmental burdens play a more substantial role and potentially hamper the business.

Bargaining Power of Buyers:

Buyers for the Oil & Gas Equipment and Services Industry are e.g. the big Oil & Gas extraction and refinery firms such as Exxon Mobile, BP or Shell. Their buying power is limited, as the size of the order is normally relatively small and products are highly specialized. In particular, aftermarket parts and services serve niche demands. In addition to that, high switching costs, low buyer's price sensitivity and the lack of alternative energy equipment solutions make the buyer relatively powerless.

Bargaining Power of Suppliers:

Suppliers for the industry are providers of raw materials such as steel, aluminum, or iron. These materials have low levels of specialization and market concentration. As a result, members of the Oil & Gas Equipment and Services Industry can easily change suppliers due to low switching costs. Consequently, the Bargaining Power of Suppliers is low. This result changes, when suppliers provide more specialized products with higher technical requirements e.g. computer systems, hardware or software. These kinds of suppliers tend to have stronger power than the raw material suppliers.

Threat of Substitutes:

Within the Oil & Gas Equipment and Services Industry itself, the threat of substitutes is low because of the high specialization level. Services are related to specific facilities and are therefore unique. Substitutes are rare. This changes when we consider substitutes for Oil & Gas. Multiple alternatives like coal, wind power or nuclear energy exist and form a strong potential threat of substitutes – in terms of energy type substitutes. As long as alternative energy types (Renewable Energy types) are not able to provide enough supply to serve the high level of demand, fossil fuels like Oil & Gas remain the most important energy type and the industry remains profitable (Chart 8). In the near future, the threat of substitutes outside the Oil & Gas Industry is manageable. However, it might become a serious threat in the future.

Competitive Rivalry:

On the one hand, high buyer's switching costs, high product differentiation and a lack of numerous competitors of equal size and strength create an environment of low competitiveness. On the other hand, high exit barriers and high fixed costs foster

competitiveness. Overall, the low competitive rivalry factors outweigh the high competitive rivalry factors. Hence the rivalry is relatively low. Moreover, the industry is less dynamic due to long-term contracts and slow decision maker processes (Laws, governmental or political negotiations).

3.4 Deal Rationale

1. Technological opportunities

Chakrabarti, Hauschildt & Süverkrüp (1994) as well as Sleuwaegen & Valentini (2006) stress the fact that innovation and technology changes foster M&A activity. Through M&A, firms are better and quicker able to fill gaps in their technological portfolio and to keep pace with the faced-paced technological environment. Internal development is less profitable according to Capron & Mitchell (2009). A deal would enable Siemens to enter the high-speed engine technology market. In the Oil & Gas Industry the current trend goes towards liquefied natural gas (LNG). Siemens could participate in the profitable hydraulic fracturing method, by which fluid is injected into cracks to force them further open. This technology uncovers huge new supply. Nevertheless, it is controversially discussed due to environmental scruple. In many other countries such as Siemens' home market Germany, it is prohibited above a soil level of 3000m²². Not adopting this technique in today's world of Oil & Gas business means competitive disadvantages on a global basis and therefore the acquisition of Dresser-Rand is paramount to the future success of Siemens Oil & Gas Business.

2. Additional growth opportunities

Acquiring Dresser-Rand could also mean expanding the area of growth – both in terms of regions and applications (up-/down-stream). With Dresser-Rand, Siemens would be able to utilize "home market" advantage in the United States and Siemens could become a world class provider for the growing Oil & Gas market. An acquisition could help Siemens to strengthen its US presence – the most important region in the Oil & Gas business. Dresser-Rand would be most efficient for Siemens by implementing the business into the Power & Gas, as well as the Power Generation Services segment. Without synergies, Siemens could increase sales by additional \$3 billion (2013) – an

²² As of September 2014

increase for the Power & Gas segment by almost 25%. Given a successful post-merger implementation, the two relevant segments could take advantage of Dresser-Rand's high profit margins. In particular the highly profitable segment of Aftermarket Parts and Services with profit margins of around 20% is attractive for Siemens.

3. Beneficial window of opportunity:

According to Becker-Blease, Golderberg and Kaen (2008), industry shocks coin and trigger M&A transactions. In the business of Oil & Gas, decreasing oil prices can be considered an industry shock or at least a factor which strongly affects the industry. As Dresser-Rand's business is positively correlated with WTI-oil, decreasing prices (WTI decreased by 10% between June, 13 2014 and August, 29 2014²³) could make the target attractive, regarding the acquisition price. The overall aspiring and positive sentiment in the current M&A environment supports the timing of a potential transaction. The opportunity of buying an attractive potential strategic fit at a good price at the right time plays a key role in the deal rationale.

4. Strategic Fit for other recent transactions – Optimizing Portfolio

Another good reason to acquire Dresser-Rand can be found in Siemens' acquisition strategy. The company is in acquisition talks with Rolls-Royce Energy gas turbine and compressor business. An acquisition of Dresser-Rand could complete a potential Rolls-Royce transaction and could be used to increase overall efficiency by economies of skill, scale and scope. In particular the strong Aftermarket Parts and Services division fits into the portfolio of Siemens' energy division. After the failed bid for Alstom, the French global leader in power generation, power transmission and rail infrastructure, Siemens appetite for acquisitions to complete the plan to become a global leader in the Gas Business is huge. From a strategic point of view, the acquisition of Dresser-Rand fits into Siemens' strategy and looks at a first glance advantageous.

²³ Data Source: Thomson Reuters

4. Valuation

4.1 Siemens

4.1.1 Financial Projections

EBIT and EBITDA forecasts are optimistic for all of the next three years with Compound Annual Growth Rates (CAGRs) from 2013 – 2016 of 9.3% and 10.5%. Sales are expected to grow in line with the 3.4% world GDP growth rate forecasted for 2014 (Statista 2015). Two cost reduction programs help the Munich-based company to increase its profitability, while having moderate sales growth. “Siemens 2014” – a €6 billion savings program - will affect financial data from 2014 onwards. Furthermore, with respect to its long term strategic program “Vision 2020”, Siemens wants to reduce overhead and support function costs by approximately €1 billion through removing additional layers (cluster, sectors), combining certain divisions and businesses and optimizing corporate services.

Table 9: Siemens – Income Statement projections

(€ million)	2011	2012	2013	2014e	2015e	2016e	CAGR
Net Sales	73.515	78.296	75.874	78.454	81.121	83.879	3,4%
Operating Expenses	62.760	68.682	67.775	68.239	70.559	72.958	2,5%
EBITDA	10.755	9.614	8.099	10.215	10.562	10.921	10,5%
Depreciation & Amortization	2.650	2.836	2.261	3.075	3.180	3.288	13,3%
EBIT	8.105	6.778	5.838	7.139	7.382	7.633	9,3%

In addition to that, Siemens plans to increase efficiency by inorganic growth. In the past, Siemens’ acquisition targets have had high profitability business models, which have helped the firm to increase its overall efficiency and to overcome short term market and business turbulences.

Depreciation and Capital expenditures depend on the following relation:

$$PPE_t = PPE_{t-1} + \text{capital expenditures} - \text{depreciation}$$

$$\text{Capital expenditures} = PPE_t - PPE_{t-1} + \text{depreciation}$$

Property, Plant and Equipment (PPE) as a percentage of sales is expected to remain constant at the historic five-year-average of 14%. As depreciation is linked to PPE, I

assumed depreciation to constantly develop at the five-year depreciation as a % of PPE average of 28%.

In perpetuity, capital expenditures equal depreciation, which implies a non-growing business state.

Table 10: Siemens – Capital Expenditures & Depreciation projections

(€ million)	2013	2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e
PPE	9.815	10.984	11.357	11.743	12.142	12.555	12.982	13.423	13.880
Sales	75.874	78.454	81.121	83.879	86.731	89.680	92.729	95.882	99.142
PPE % of sales	13%	14%	14%	14%	14%	14%	14%	14%	14%
Capex	1.869	4.244	3.553	3.674	3.799	3.928	4.062	4.200	4.343
Depreciation	2.261	3.075	3.180	3.288	3.400	3.515	3.635	3.759	3.886
as a % of PPE	23%	28%	28%	28%	28%	28%	28%	28%	28%

When forecasting operating working capital, I assumed all asset items to remain at their respective 5-year-average percentage-of-sales-ratio in the future (Appendix 10). Siemens' high working capital indicates short-term financial health – the company is capable of covering its short term debt with short term assets. Despite that, a high working capital may also indicate that the company has either too much inventory or does not efficiently invest excess cash.

Table 11: Siemens – Working Capital projections

(€ million)	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Working Capital	9.070	9.082	9.390	9.710	10.040	10.381	10.734	11.099	11.476
Increase in Working Capital		12	309	319	330	341	353	365	377

4.1.1.2 Divestment Bosch Siemens Hausgeräte (B/S/H/)

At the beginning of September 2014, the rumor that Siemens plans to sell its 50% stake in B/S/H/ was in the markets. B/S/H/ – a joint venture between Siemens and Bosch - is the largest manufacturer of home appliances in Europe and one of the leading companies worldwide. Siemens considers a divestment due to a lack of synergies to their business in technology or go-to-market. Moreover, the joint venture faced

increasing competitive pressure from market consolidation. As the likelihood of a successful divestment was relatively high, this case proceeds as if B/S/H/ was sold. As a consequence, Siemens' financial figures and forecasts are adjusted by the transaction (Appendix 11). According to Siemens Management, Bosch was willing to pay € 3 billion in cash and an additional € 250 million dividend and the transaction is expected to be closed in summer 2015.

4.1.2 Discounted Cash Flow Valuation

4.1.2.1 Free Cash Flow estimation

Siemens FCFF forecasts without a B/S/H/ divestment from 2014-2021 underlie the following assumptions:

- Sales will grow by 3.4% which equals the expected world GDP growth rate of 2014 (Statista 2015).
- EBIT-Margins remain constant at the 3 year average of 9.1%.
- Tax payments on EBIT equal 27% - the 3 year average effective tax rate.
- Depreciation equals the 5-year-average of depreciation as a percentage of PPE - 28% (Table 10).
- Working Capital requirements are forecasted under the assumption that all current Assets and Liabilities will remain its respective 5-year-average-as-a-%-of-sales ratio in the future (Table 11).
- Capital Expenditures equal $PPE_t - PPE_{t-1} + \text{depreciation}$ (Table 10).
- Long-Term Growth rate equals 1%.

In perpetuity:

- EBIT, Sales and Working Capital requirements will grow by 1% (long-term growth rate).
- Tax as a percentage of EBIT will be unchanged.
- Depreciation equals capital expenditures.
- Capital expenditures equal the amount in 2021E.

FCFFs are at a first step calculated as if Siemens would not sell its B/S/H/ stake and at a next step FCFFs are adjusted by the divestment.

Table 12: Siemens - Free Cash Flow to the Firm (FCFF) Summary

(€ million)	2013	Forecast Period								Perpetuity
		2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e	
Sales	75.874	78.454	81.121	83.879	86.731	89.680	92.729	95.882	99.142	100.133
Sales B/S/H/			5.719	5.966	6.225	6.494	6.775	7.069	7.375	7.448
Sales ex divestment			75.402	77.913	80.506	83.186	85.954	88.813	91.767	92.685
EBIT	5.838	7.139	7.382	7.633	7.893	8.161	8.438	8.725	9.022	9.112
EBIT B/S/H/	255	338	353	368	384	401	418	436	455	460
EBIT ex divestment			7.029	7.265	7.508	7.760	8.020	8.289	8.567	8.652
Tax	1.630	1.928	1.993	2.061	2.131	2.203	2.278	2.356	2.436	2.460
Tax B/S/H/	71	101	106	110	115	120	125	131	137	138
Tax ex divestment			1.887	1.950	2.016	2.083	2.153	2.225	2.299	2.322
Tax as a % of EBIT	-27,9%	27,0%	27,0%	27,0%	27,0%	27,0%	27,0%	27,0%	27,0%	27,0%
NOPAT ex divestment			5.142	5.314	5.493	5.677	5.867	6.064	6.267	6.330
Depreciation	2.888	3.075	3.180	3.288	3.400	3.515	3.635	3.759	3.886	4.343
Depreciation B/S/H/	189	197	205	214	223	233	243	254	265	314
Depreciation ex divestment			2.975	3.074	3.177	3.282	3.392	3.505	3.622	4.029
Gross Cash flow ex divestment			8.117	8.388	8.669	8.959	9.259	9.569	9.889	10.359
Increase in Working Capital	-422	12	309	319	330	341	353	365	377	381
Increase in Working Capital B/S/H/	163	-6	45	47	49	51	54	56	58	59
Increase in Working Capital EX divest.			264	272	281	290	299	309	319	322
Capex	-1.869	-4.244	-3.553	-3.674	-3.799	-3.928	-4.062	-4.200	-4.343	-4.343
Capex B/S/H/	-189	-233	-243	-254	-265	-277	-288	-301	-314	-314
Capex ex divestment			-3.310	-3.420	-3.534	-3.652	-3.773	-3.899	-4.029	-4.029
Free Cash Flow without B/S/H/		4.032	4.543	4.696	4.854	5.018	5.186	5.361	5.541	6.008
Cash Flows from sales of B/S/H/			3.250							
Free Cash Flow with B/S/H/	5.649	4.032	4.707	4.867	5.032	5.203	5.380	5.563	5.752	6.271

4.1.2.2 Weighted Average Cost of Capital

The calculation of an appropriate discount rate – the WACC – is based on certain assumptions:

1. The risk free rate equals the 10 year German Bund yield of 0.88% from September 1, 2014.
2. The Beta of 0.70 is estimated by levering the company's industry (peer-group) beta to the company's target debt-to-equity ratio (Appendix 12).
3. Equity Market Risk Premium: 9.55% (Market Return 10.43%²⁴ – Risk Free Rate 0.88%).
4. Cost of Debt equals 1.37% - As Siemens is an investment grade rated firm, the yield to maturity is a suitable proxy according to Koller, Goedhardt & Wessels (2010). I used a weighted yield to maturity by notional amount translated to Euro²⁵ of all outstanding traded bonds.²⁶
5. For the tax rate, the 3-year-average effective tax rate of 27% (2014) is used.
6. The Capital structure is observed from enterprise and equity market values as of September 1, 2014.²⁷ The Equity ratio equals 85% and the debt ratio 15%.

4.1.2.3 DCF base case valuation

When discounting back the FCFs²⁸ to the present value at a WACC of 6.54%, the enterprise value of Siemens is worth €97.685 million. After deducting the net debt of 11.656²⁹, Siemens equity value is worth €86.029 million, which is equivalent to a share price of €98.

²⁴ Source: Bloomberg – September 1, 2014 (Bloomberg calculates the Market Return with the Internal Rate of Return weighted by the market cap of each index member. It is a forward-looking estimate of market returns. The internal rate of return comes from the Dividend Discount Model function, and is based on estimates from the Current Consensus function for the first few years. After that, Bloomberg uses a proprietary model for growth years)

²⁵ Currency translation as of September 1, 2014 (EUR/USD 1.3128)

²⁶ Negative YTM's are converted to zero

²⁷ Current Market Cap: €84.205 million and Current Enterprise Value: €99.537 million – data source bloomberg

²⁸ Including a divestment of the 50% stake of B/S/H/

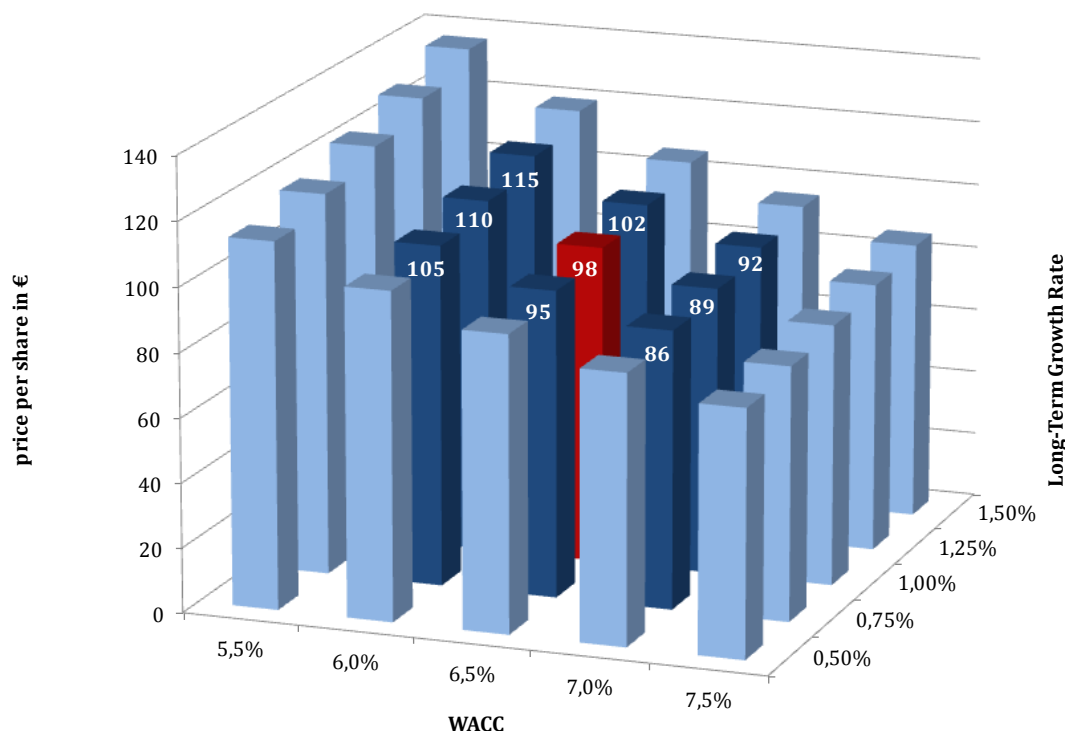
²⁹ Calculated as Long Term Debt 2014e (€21.346 million) + Short Term Debt 2014e (€2.592 million) – Cash & Cash Equivalents 2014e (€11.737 million) - Net Financial Debt B/S/H/ (€545 million)

Table 13: Summary of Siemens WACC & DCF Valuation

WACC Summary		DCF Valuation Summary	
Cost of Debt	1.37%	NPV of Cash Flows in € million	97.685
Cost of Equity	7.54%	Net debt in € million	11.656
Risk free rate	0.88%	Equity Value in € million	86.029
Beta	0.70	Numbers of shares in million	881
Market Premium	9.55%	Equity Value per share in €	97.65
Marginal tax rate	27%	Current share price in €	92.42
Equity Ratio	85%	Upside	+5.7%
Debt Ratio	15%		
WACC	6.54%		

4.1.2.4 Sensitivity Analysis

Chart 9: Siemens DCF sensitivity analysis



The WACC and the long-term growth rate are two of the major value drivers for the DCF valuation. As highlighted in Chart 9, the most realistic assumptions for these two parameters are WACCs between 6% and 7% and long-term growth rates of 0.75% and 1.25% (dark blue area). Within these assumptions the company is worth between €86 and €115.

4.1.3 Adjusted Present Value

Applying the concept of the APV model, namely valuing the company first as if it was all-equity financed and then adding the Present Value of Interest Tax Shields (ITS), results in a price per share of €101, which is 9% above the current market value.

The APV model takes into consideration two different discount rates. FCFs are discounted at the unlevered cost of equity (6.76%), whereas Interest Tax Shields at the cost of debt (1.37%). As interest tax shields can be considered as uncertain as principal and interest payments are, the cost of debt reflects the appropriate riskiness for ITS.

Table 14: Siemens - Adjusted Present Value (APV)

Year	Free cash flow (€ million)	Interest tax shield (€million)	Present value of FCFF (€ million)*	Present value of ITS (€ million)**
2014	4.032	42	3.776	41
2015***	7.793	43	6.837	42
2016	4.696	45	3.859	44
2017	4.854	47	3.736	45
2018	5.018	49	3.617	46
2019	5.186	52	3.502	48
2020	5.361	54	3.391	49
2021	5.541	56	3.283	50
Continuing value	91.806	15.441	54.391	13.850
Present Value			86.394	14.215
Present value of FCFF				86.394
Present value of interest tax shields				14.215
Present value of FCFF and interest tax shields				100.609
Less: Value of debt				11.656
Equity Value				88.952
Equity Value per share in €				100,97
Δ current Share Price				9,25%

* Discount factor FCFF: unlevered cost of equity = 6.76% [risk free rate (0.88%) + unlevered beta (0.62) x (market premium 9.55%)]

** Discount factor Interest Tax Shields: Cost of debt = 1.37%

*** 2015 includes €3.250 million cash receipt from the B/S/H/ sale

4.1.4 Multiples

To obtain a thorough analogical benchmark valuation, a representative peer group of companies with similar business activities, similar risk/return profiles and capital structures is crucial. Siemens has a peer group of 15 competitors which allows a detailed value deviation (Appendix 14). I considered EV/Sales, EV/EBITDA, EV/EBIT and Price/Earnings ratios as a good mix of Multiples.

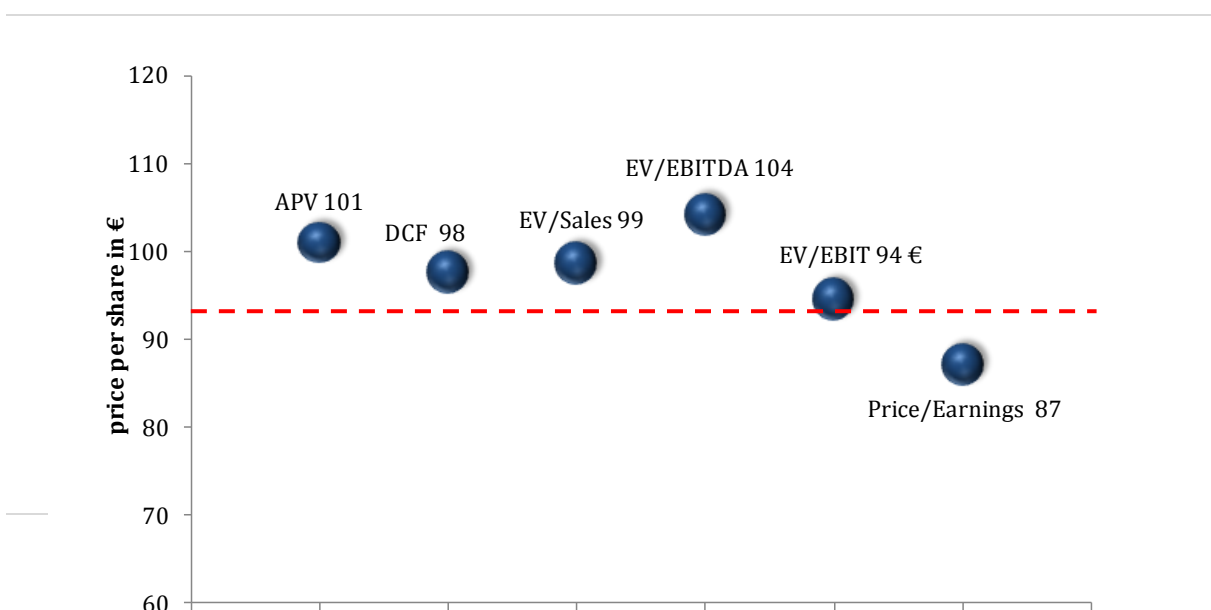
Table 16: Siemens – Market Multiple Valuation

Peer Group Valuation		Siemens Valuation		Enterprise Value	Net Financial Debt	Equity Value	Price per share	Δ Current Price per share*
EV/Sales	1,26 x	Sales 2014e:	78.454	98.590	11.657	86.933	98,68 €	7%
EV/EBITDA	10,13 x	EBITDA 2014e:	10.215	103.436	11.657	91.778	104,18 €	13%
EV/EBIT	13,29 x	EBIT 2014e:	7.139	94.893	11.657	83.236	94,48 €	2%
Price Earnings Ratio	14,75 x	Earnings 2014e	5.204			76.738	87,10 €	-6%

The analogical valuation approach leads to a valuation price per share range of €87 to €104. Interestingly, the price earnings ratio as an equity multiple, delivers a significantly lower valuation than the current market price. From this perspective, Siemens tends to be overvalued. Despite that, valuations derived from enterprise multiples are slightly higher than Siemens' current valuation of €92 a share.

4.1.5 Valuation Summary

Chart 10: Siemens Valuation Summary



In conclusion, Siemens valuation ranges from €87 to €104 a share. The company tends to be undervalued as all valuation methods except for the P/E ratio are above the current market valuation of €92.

The average analyst recommendation price of \$101.30³⁰ is at the upper end of the valuation range of €87 - €104 and supports the finding that Siemens is currently undervalued (Appendix 15).

4.2 Dresser-Rand

4.2.1 Financial Projections

Net Sales, EBIT and EBITDA are expected to increase over the next three years. The positive outlook in the industry of Oil & Gas Supply, in combination with increasing energy demand and increasing demand for environmental energy solutions, set a bright future for Dresser-Rand. The projections are promising with yearly increasing EBITDA and EBIT Margins of 14.8% and 17.8% from 2013 to 2016. The company has protected its market share over the last several years through superior technology and its value proposition.

Table 17: Dresser-Rand Income Statement projections

(\$ million)	2011	2012	2013	2014e	2015e	2016e	CAGR
Net Sales	2.312	2.736	3.033	3.254	3.492	3.746	7,3%
Operating Expenses	1.974	2.315	2.619	2.704	2.905	3.122	6,0%
EBITDA	338	421	413	550	586	625	14,8%
Depreciation & Amortization	80	86	92	95	97	100	2,7%
EBIT	257	336	321	456	489	524	17,8%

In the past, Dresser-Rand's business model has not been very capital intensive due to a lot of outsourcing and capital expenditures are expected to remain at 2.2%³¹ of sales.

³⁰ 30 analysts covering Siemens as of September 2014

³¹ 5-year-average capital expenditures as a percentage of sales ratio

Table 18: Dresser-Rand Capital Expenditures & Depreciation

(\$ million)	2013	2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e
Sales	3.033	3.254	3.492	3.746	4.020	4.313	4.628	4.966	5.329
Capex	83	72	77	83	89	95	102	110	118
Depreciation & Amortization	92	95	97	100	103	106	110	113	117

depreciation forecasts are based on the assumption that the average operating life of rotating equipment is 30 years³² and Dresser-Rand applies a linear depreciation method (Appendix 16).

Net Working Capital is expected to decrease in 2014 and after that to steadily increase. Dresser-Rand's management mentions difficulties in receiving cash payments from clients as a reason for inflating Working Capital Requirements. Moreover, Working Capital Requirements will rise because of the development of longer-term contracts (including installation) which are booked using the percentage-of-completion method.³³ (Appendix 17)

Table 19: Dresser-Rand Working Capital

(\$ million)	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Net Working Capital	669	481	516	553	594	637	684	734	787
Working Capital Requirements		-188	35	38	40	43	47	50	54

³² As stated in the Annual Report Dresser-Rand 2013

³³ Dresser-Rand Annual Report 2014

4.2.2 Discounted Cash Flow Valuation

4.2.2.1 Free Cash Flow estimation

In contrast to the matured and well-diversified company Siemens, Dresser-Rand's financial figures are more dynamic.

Forecast figures from 2014 to 2021 underlie the following main assumptions:

- Sales will grow by the five-year-average compound annual growth rate of 7.3%.
- EBIT-Margins will remain constantly high at the 5 year average of 14%.
- Tax as a % of EBIT equals 33.4% (effective Tax Rate 2009-2013).
- Depreciation figures are forecasted assuming an average asset life cycle of 30 years and a straight line depreciation method (Table 18).
- Working Capital requirements are forecasted considering all current Assets and Liabilities will remain its respective 5-year-average as a percentage of sales ratio in the future (Table 19 and Appendix 17).
- Capital Expenditures will increase at the five-year-average capital expenditures as a percentage of sales ratio of 2.2% (Table 18).

For the FCFF calculation in perpetuity, I considered a long-term growth rate of 3% which equals the world GDP growth.³⁴ Furthermore, I expected Sales, EBIT and Working Capital Requirements to increase by the long-term growth rate and tax to keep a constant percentage-of-EBIT-ratio of 33.4%. In perpetuity, the company is in a steady state and depreciation equals capital expenditures.

³⁴ Data 2014 – Worldbank

Table 20: Dresser-Rand - Free Cash Flow to the Firm (FCFF)

<i>in \$ million</i>	2013	Explicit Period								Perpetuity
		2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e	
Free Cash Flow Calculation										
Sales	3.033	3.254	3.492	3.746	4.020	4.313	4.628	4.966	5.329	5.488
Sales growth	-0,8%	7,3%	7,3%	7,3%	7,3%	7,3%	7,3%	7,3%	7,3%	3%
EBIT	321	456	489	524	563	604	648	695	746	768
EBIT margins	10,6%	14,0%	14,0%	14,0%	14,0%	14,0%	14,0%	14,0%	14,0%	14,0%
Tax	88	152	163	175	188	202	216	232	249	257
Tax as a % of EBIT	27,5%	33,4%	33,4%	33,4%	33,4%	33,4%	33,4%	33,4%	33,4%	33,4%
NOPAT	233	303	326	349	375	402	432	463	497	512
Depreciation	92	95	97	100	103	106	110	113	117	118
Gross Cash flow	325	398	423	449	478	508	541	576	614	630
Working Capital Requirments	-373	-188	35	38	40	43	47	50	54	54
Capex	-83	-72	-77	-83	-89	-95	-102	-110	-118	-118
Free Cash Flow to the Firm (FCFF)	-131	514	311	329	349	370	392	417	443	566

4.2.2.2 Weighted Average Cost of Capital

The WACC calculation is based on certain assumptions:

1. As Dresser-Rand is an American firm with main business activities in North America, the risk free rate equals the yield for the 10 year U.S. Government Bond as of September 1, 2014 – 2.34%.
2. The Beta of 1.47 is calculated by levering the company’s industry (Peer-group) beta to the company’s target debt-to-equity ratio (Appendix 12).
7. Equity Market Risk Premium: 7.25% (Market Return 9.59%³⁵ – Risk Free Rate 2.34%).
3. The Cost of Debt will be 6.5% - derived from the only marketable bond (\$375 million, 2021, 6.5%).
4. The Tax Rate equals 33.4%.
5. The Capital structure is obtained from enterprise and equity market values as of September 1, 2014. The market value of equity of \$5.263 million and the enterprise value of \$6.362 million³⁶ result in an equity ratio of 83% and a debt ratio of 17%.

4.2.2.3 DCF base case valuation

Table 21: Summary of Dresser-Rand WACC & DCF Valuation

WACC Summary		DCF Valuation Summary	
Cost of Debt	6.50%	NPV of Cash Flows in \$ million	4.738
Cost of Equity	12.96%	Net debt in \$ million	1.089
Risk free rate	2.34%	Equity Value in \$ million	3.650
Beta	1.47	Numbers of shares in million	77
Market Premium	7.25%	Equity Value per share in \$	47.52
Marginal tax rate	33%	Current share price in \$	68.36
Equity Ratio	83%	Upside	-30%
Debt Ratio	17%		
WACC	11.53%		

³⁵ Source: Bloomberg – September 1, 2014

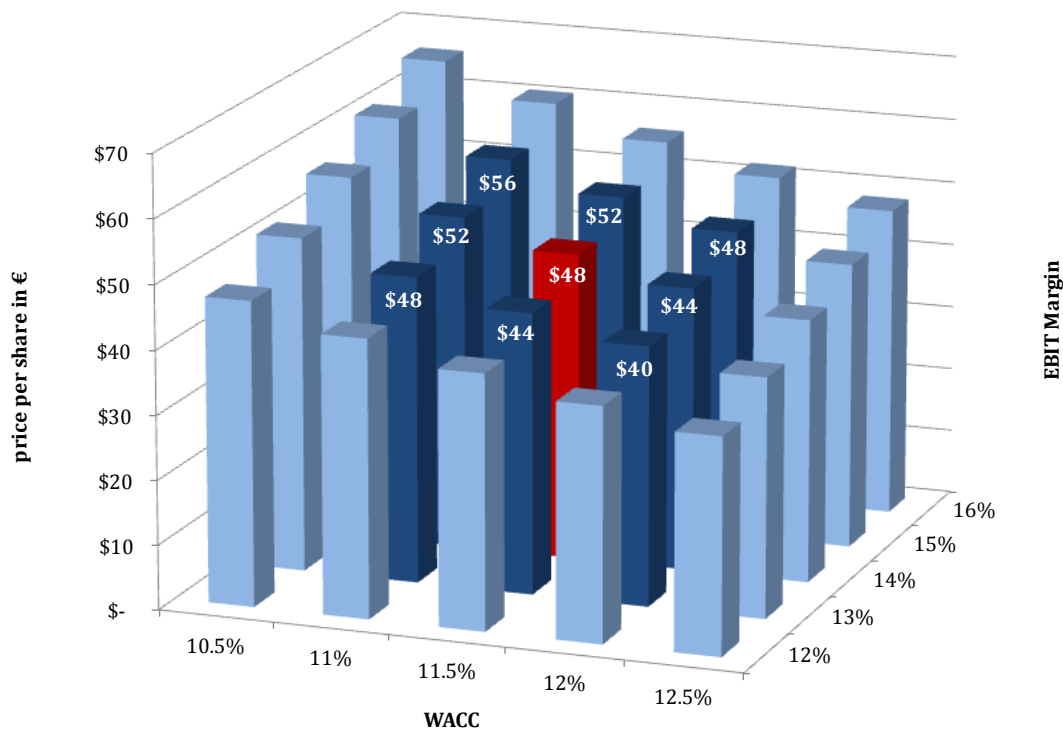
³⁶ Data Source: Bloomberg – September 1, 2014

According to the DCF Model, Dresser-Rand is worth \$48 a share. When deducting the net debt of \$1.089 million³⁷ from the enterprise value of \$4.738, the total equity value is worth \$3.650 million. The valuation is 30% lower than the current market price of \$68. The mismatch can be explained by already incorporated, potential takeover speculations³⁸ and a general optimistic oil- and oil supply industry valuation.

4.2.2.4 Sensitivity Analysis

When calculating the different values for Dresser-Rand, while changing the parameters WACC and EBIT-Margins, Dresser-Rand’s most appropriate valuation range can be defined between \$40 and \$56 (dark blue area).

Chart 11: Dresser-Rand DCF Sensitivity Analysis



³⁷ Long term debt (\$1.247 million) + Current Portion of Long-Term debt (\$40 million) – cash & cash equivalents (\$198 million)

³⁸ Apart from Siemens, General Electric and Sulzer were also involved in the bidding process

4.2.3 Adjusted Present Value

Dresser-Rand has had an unstable capital structure in the past (Appendix 18). Between 2006 and 2010 the Total Debt / Total Capital Ratio fluctuated between 25% and 54%. Therefore, the DCF approach does not deliver the most accurate results and the APV model can be used to adjust for changing capital structures. After applying the unlevered cost of equity of 11.67% as the discount rate for the FCFs and the cost of debt of 6.5% for ITS (Appendix 19), Dresser-Rand is worth \$4.428 million or \$58 a share. Interest Tax Shields are discounted differently compared to FCFs since the risk of the FCFF and the ITS is different. ITS cash flows can be considered as uncertain as interest and principal payments and therefore the cost of debt is more suitable.

Table 22: Dresser-Rand Adjusted-Present-Value

Year	Free cash flow (\$ million)	Interest tax shield (\$ million)	Present value of FCFF (\$ million)*	Present value of ITS (\$ million)**
2014	514	23	461	21
2015	311	26	249	23
2016	329	29	236	24
2017	349	33	224	26
2018	370	38	213	28
2019	392	43	202	30
2020	417	49	192	32
2021	443	56	183	34
Continuing value	5.679	1.638	2.349	990
Present Value			4.310	1.207
Present value of FCFF in \$ million				4.310
Present value of interest tax shields in \$ million				1.207
Present value of FCFF and interest tax shields in \$ million				5.517
Less: Value of debt in \$ million				1.089
Equity Value in \$ million				4.428
Equity Value per share in \$				57,66
Δ current Share Price				-16%

* Discount factor FCFFs: Unlevered cost of equity = 11.67% [risk free rate (2.34 %) + unlevered beta (1.29) x (market premium 7.25%)]

** Discount factor ITS: Cost of debt = 6.5%

4.2.4 Multiples

According to the analogical valuation method, more precisely market multiples, Dresser-Rand can be valued between \$37 and \$60 a share. As this valuation range is below the current market price, the shares of Dresser-Rand appear to be overvalued.

Table 23: Dresser-Rand Analogical Valuation Method – Market Multiples

Peer Group Valuation		Dresser-Rand Valuation		Enterprise Value	Net Financial Debt	Equity Value	Price per share in \$	Δ Current Price per share*
EV/Sales	1,76 x	Sales 2014e:	3.254	5.720	1.089	4.631	60,30	-12%
EV/EBITDA	7,03 x	EBITDA 2014e:	550	3.866	1.089	2.777	36,16	-47%
EV/EBIT	9,99 x	EBIT 2014e:	456	4.549	1.089	3.460	45,06	-34%
Price Earnings Ratio	14,33 x	Earnings 2014e:	200			2.867	37,33	-45%

Figures in \$ million except for price per share

Peer-Group Dresser-Rand (Appendix 20)

Besides market multiples, the value for Dresser-Rand can also be obtained from similar market transactions (Appendix 21). Deriving the value of Dresser-Rand from other similar transactions results in higher valuations than in the case of market multiples. The valuation range from \$66 to \$88 is relatively high and reveals, that similar transactions were priced at a relatively high level.

Table 24: Dresser-Rand Analogical Valuation Method – Transaction Multiples

Transaction Valuation	Average		Dresser-Rand Valuation		price per share in \$	Δ Current Share Price
TV/Sales	2,41	x	Sales 2014e:	3.254	87,94	29%
TV/EBITDA	11,12	x	EBITDA 2014e:	550	65,50	-4%
TV/EBIT	13,68	x	EBIT 2014e:	456	66,97	-2%

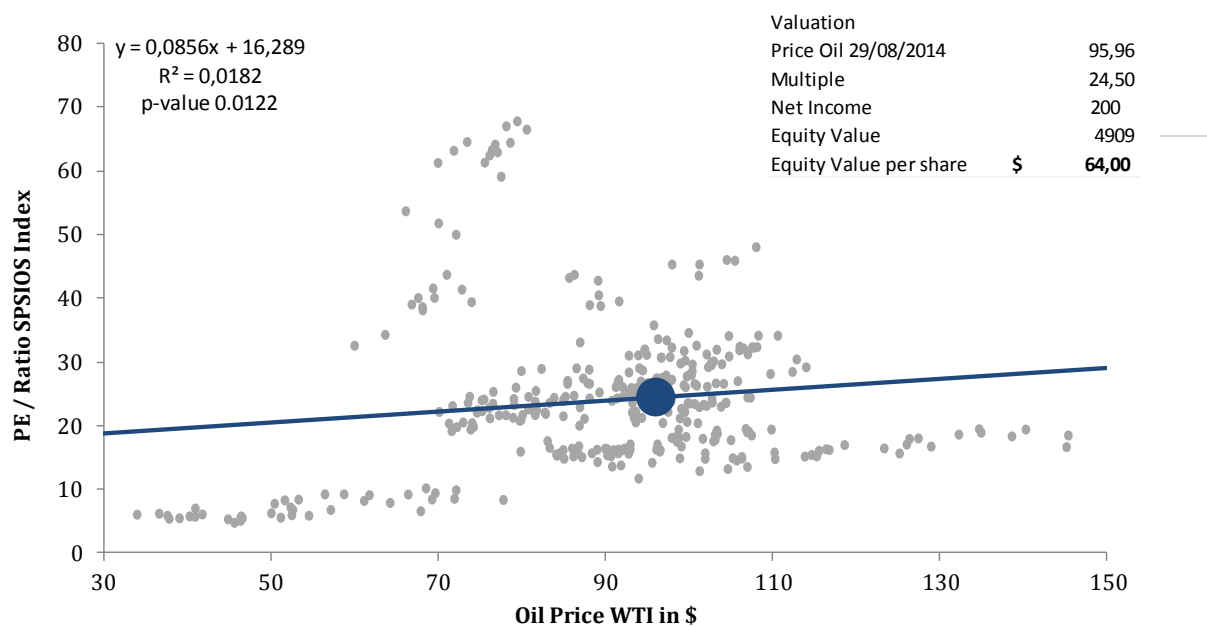
Figures in \$ million except for price per share

4.2.5 Alternative Valuation

The Houston-based firm is correlated to WTI-prices as mentioned earlier. To find out the relationship between the value of the firm and the level of oil prices, I ran a linear regression with WTI-Oil prices as the independent variable (x) and PE / Ratios of the Sub Index Peer Group “S&P Oil&Gas Equipment and Services Select Industry Index” as the dependent variable (y). The outcome of this regression is that the P/E ratio of this

Sub-Index is dependent on the WTI price level. Given the assumption that the Sub-Index is a reasonable proxy for Dresser-Rand, the Houston based firm can be approximated on the basis of WTI prices. The current WTI price of \$96 delivers an equity value of \$64 per share.

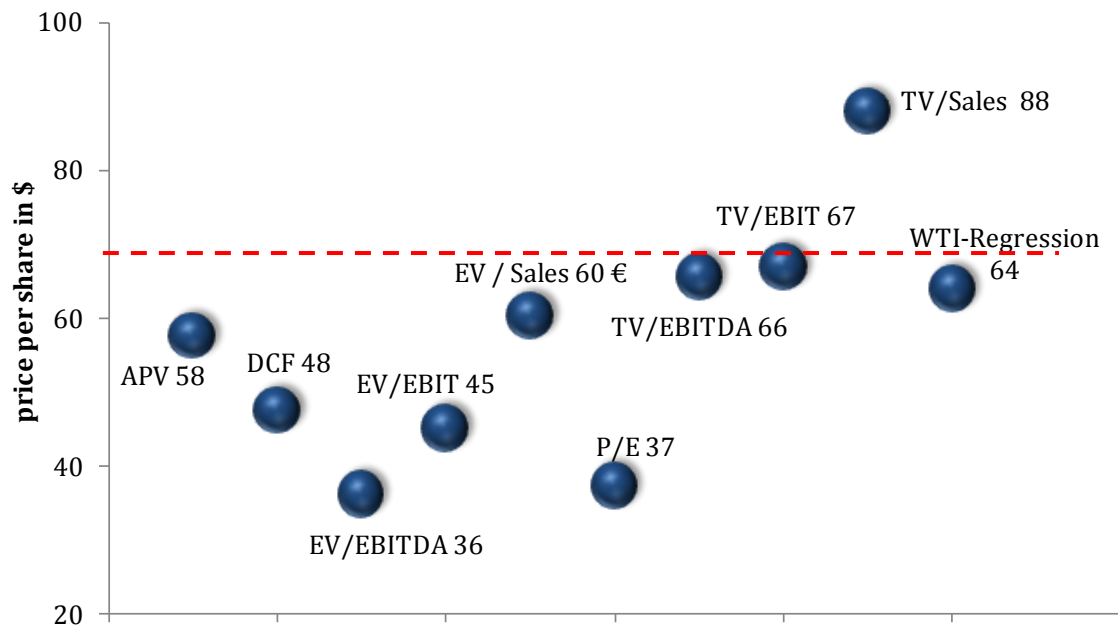
Chart 12: Dresser-Rand alternative valuation – oil price regression



4.2.6 Valuation Summary

In conclusion, the various valuation techniques deliver relatively different results. A possible valuation range for Dresser-Rand can be defined from \$36 to \$88 a share. However, as most of the valuation techniques, in particular market multiples, DCF and APV result in relatively low valuations, Dresser-Rand tends to be overvalued. The huge valuation spread reveals high uncertainty in terms of valuing the company. Interestingly, the Oil-Price regression and EBIT and EBITDA Transaction multiples deliver close valuations to the current market price. This might explain that Dresser-Rand is currently valued more on the basis of oil-prices and current market trends, than on intrinsic values. Furthermore, transaction multiples result in higher valuations than market multiples, which reveal that companies such as Dresser-Rand are attractive targets for which acquirers accept high premiums at the moment.

Table 25: Dresser-Rand Valuation Summary



4.3 Synergy Valuation

4.3.1 Introduction

In M&A, the identification and quantification of synergies is absolutely crucial and mainly determines whether or not a deal is beneficial. The quantification of synergies makes the evaluation of a transaction difficult and sometimes even nebulous, due to the numerous assumptions and forecasts. Damodaran (2005) claims that synergies are “often promised and seldom delivered”. Devine (2002) goes even further and describes synergies as “mysterious elements” which are the “driving forces for M&A”.

In order to calculate a reasonable bid price for Dresser-Rand, this case study focuses on reliable core synergies which have higher tendencies to create value and to be realized than dubious and vague synergies. A potential acquisition of Dresser-Rand by Siemens uncovers the following core synergies:

1. Synergies from revenue enhancements, resulting from new market access and additional customers.
2. Cost synergies
 - i. Reduced Research & Development Costs.
 - ii. Reduced Selling, General & Administrative Expenses.

The synergy quantification requires a business breakdown for Siemens to adequately analyze where in detail synergies come into play. Acquiring Dresser-Rand almost exclusively affects Siemens Power & Gas sector.

The following calculations are based on the assumption that Dresser-Rand will be acquired and will remain a separate entity. As it is an M&A transaction of unequal parties, the calculations focus on synergy effects on the acquirer Siemens.

4.3.2 Operating Synergies

4.3.2.1 Revenue enhancements

Not only due to new market and customer access, but also due to the combination of different functional strengths, the acquisition of Dresser-Rand could enable additional revenue for Siemens. The revenue synergy valuation is based on the major assumption that a deal affects and coins Siemens' Power & Gas business. An acquisition of Dresser-Rand could allow Siemens to adopt Dresser-Rand's long-term growth rate of 6.6%³⁹ for its total Power & Gas business unit, which has a current long-term growth rate of 6%⁴⁰. Given this assumption, 0.6% of additional sales create additional deal synergy value of €116 million. The synergy potential can be justified by additional customers (geographic expansion) and additional services and new equipment (vertical & functional expansion).

Table 25: Impact of operating Synergies – additional revenue on Siemens' FCFE

SIEMENS (€ million)	2014	2015e	2016e	2017e	2018e	2019e	2020e	2021e
Sales Power & Gas without Dresser	12.720	13.483	14.292	15.150	16.059	17.022	18.044	19.126
Operating synergy impact - additional growth +0,6%	0	+80,90	+85,75	+90,90	+96,35	+102,13	+108,26	+114,76
Impact (Δ)								
EBIT	0	+7,36	+7,80	+8,27	+8,77	+9,29	+9,85	+10,44
Tax on EBIT	0	+1,99	+2,11	+2,23	+2,37	+2,51	+2,66	+2,82
Free Cash Flow to the Firm (FCFF)	0	+5,37	+5,70	+6,04	+6,40	+6,78	+7,19	+7,62

³⁹ According to Dresser-Rand's Management

⁴⁰ www.siemens.com/investor - January 2015

Impact on Siemens Valuation		Scenario	NPV FCFF in € million	Equity Value per share in €	Δ per share in €	Value of synergy in €million
NPV with synergy impact in € million	97.801	+0,3% growth	97.743	97,72	0,07	58
Net Financial Debt in € million	11656	+0,6% growth	97.801	97,78	0,13	116
Equity Value with synergy impact per share in €	97,78	+0,9% growth	97.860	97,85	0,20	175
Δ synergy per share in €	0,13	+1,2% growth	97.918	97,91	0,26	233
value of synergy in € million	116	+1,5% growth	97.976	97,98	0,33	291

4.3.2.2 Reduced Costs

4.3.2.2.1 Research & Development costs

Apart from revenue synergies, a Dresser-Rand deal could create cost synergies, resulting in higher EBITs and therefore higher Free-Cash-Flows-to-the-Firm. After a potential transaction, Research & Development (R&D) expenses by Dresser-Rand are no longer necessary to be also allocated from Siemens. Otherwise, these costs would have been paid twice. Based on the assumption that the nature of both firms' R&D expenses is similar, I considered Dresser-Rand's R&D expenses the reduction for Siemens' cost base and therefore the additional value. For Dresser-Rand's R&D expense forecast, I applied the three year average of 1.2% as a % of Sales ratio. Following these assumption, R&D cost synergies are worth €49 million.

Table 26: Impact of operating Synergies – reduced R&D costs

DRESSER-RAND	2015	2016	2017	2018	2019	2020	2021
R&D as a % of Sales	1,19%	1,19%	1,19%	1,19%	1,19%	1,19%	1,19%
Sales in \$	3492	3746	4020	4313	4628	4966	5329
R&D expenses in \$	42	45	48	51	55	59	63
R&D expenses in €* Impact (Δ) for Siemens	32	34	36	39	42	45	48
EBIT	+2,88	+3,09	+3,32	+3,56	+3,82	+4,10	+4,40
Tax on EBIT	+0,78	+0,83	+0,90	+0,96	+1,03	+1,11	+1,19
Free Cash Flow to the Firm (FCFF)	+2,10	+2,26	+2,42	+2,60	+2,79	+2,99	+3,21

Impact on Siemens Valuation		Scenario	NPV FCFF in € million	Equity Value per share in €	Δ per share in €	Value of synergy in €million
NPV with synergy impact in € million	97.733	-50%	97.709	97,68	0,03	24
Net Financial Debt in € million	11656	-25%	97.722	97,69	0,04	37
Equity Value with synergy impact per share in €	97,70	base scenario 1,19%	97.733	97,70	0,06	49
Δ synergy per share in €	0,06	+25%	97.746	97,72	0,07	61
value of synergy in € million	49	+50%	97.758	97,73	0,08	73

* R&D expenses need to be translated into EURO (at 1.3128 – September 1, 2014) as the impact on Siemens' FCFF is measured

4.3.2.2.2 Selling, General & Administrative costs

Another operating synergy comes from reducing Selling, General & Administrative (SG&A) expenses. This particular synergy of increasing profitability by reducing costs is relatively likely to be implemented. I assumed the Power & Gas business of Siemens is able to reduce its SG&A expenses due to economies of skill, scale and scope by around 50 basis points. Forecasts for SG&A expenses are made on the basis of Siemens Power & Gas three year SG&A as a %-of Sales ratio average of 7.43%. These economies of skill & scale create additional synergies of €97 million.

Table 27: Impact of operating synergies – reduced SG&A costs

SIEMENS (€ million)	2015e	2016	2017	2018	2019	2020	2021
Sales Power & Gas	13.483	14.292	15.150	16.059	17.022	18.044	19.126
SG&A expenses*	1.002	1.062	1.126	1.194	1.265	1.341	1.422
SG&A expenses - 50bps	67	71	76	80	85	90	96
SG&A expenses after synergie impact	935	991	1.050	1.113	1.180	1.251	1.326
Impact (Δ) for Siemens							
EBIT	+6,13	+6,50	+6,89	+7,31	+7,75	+8,21	+8,70
Tax on EBIT	+1,66	+1,76	+1,86	+1,97	+2,09	+2,22	+2,35
Free Cash Flow to the Firm (FCFF)	+4,48	+4,75	+5,03	+5,33	+5,65	+5,99	+6,35

Impact on Siemens Valuation		Scenario	NPV FCFF in € million	Equity Value per share in €	Δ per share in €	Value of synergy in €million
NPV with synergy impact in € million	97.782	-10bps	97.704	97,67	0,02	19
Net Financial Debt in € million	11656	-25bps	97.733	97,70	0,06	49
Equity Value with synergy impact per share in €	97,76	-50bps	97.782	97,76	0,11	97
Δ synergy per share in €	0,11	75bps	97.830	97,81	0,17	146
value of synergy in € million	97	100bps	97.879	97,87	0,22	194

* SG&A expenses are expected to remain their 3-year-average-sales ratio of 7.43%

4.3.3 Other Synergies

Financial Synergies

Apart from operating synergies a potential acquisition might also uncover financial synergies. Even though Dresser-Rand will remain a separate entity afterwards and even though the firm will be listed separately in America, the company could take advantage of Siemens' beneficial access to debt. Dresser-Rand's future cost of issuing debt might decrease. This phenomenon was first described and defined as the coinsurance effect by Lewellen (1971). Due to its speculative and vague character, a thorough quantification

of this type of synergy is not possible. Nevertheless it should be taken into consideration when valuation the acquisition price of Dresser-Rand.

Synergies from Cash-Slack

Synergies from Cash-Slack are also conceivable: Siemens' advantageous financial position, in particular the cheap access to capital markets and the high level of cash might help Dresser-Rand to implement additional projects the company might have rejected without Siemens' acquisition. The Houston-based company together with three other firms for instance announced an \$8 billion project which would link a wind farm in Wyoming with one of the biggest energy storage facilities. The project has huge potential to bring large amounts of clean energy to Los Angeles. Nevertheless, it was not possible to estimate an NPV for the project and consequently a reliably quantified synergy value. Furthermore, I could not clarify whether or not Dresser-Rand would have undertaken the project without a merger with Siemens. A quantification is too speculative. Nevertheless, this kind of synergy is likely to occur and influence the bid price for Dresser-Rand.

4.3.4 Implementation & Transaction costs

M&A deals are expensive, both in terms of transaction and more importantly in implementation costs. For this case study, I considered transaction fees of 75bps of the deal value. Implementation costs are more difficult to quantify because of the lack of predictability. Problems may occur in the future which might have not been anticipated beforehand. Nevertheless, \$150 million can be recognized as a realistic expense for a successful implementation of Dresser-Rand's business over a period of three years.

Table 28: Transaction Costs

Acquisition Costs in € million	2015	2016	2017
Fees – 1% of the total deal volume*	23		
Implementation Costs	60	50	40
Total Acquisition Costs	83	50	40
NPV of Costs	78	44	33
Sum of NPVs in €	155		

* Total Deal Value: Standalone value Dresser-Rand (DCF) (\$3.650/€2.780) + synergy base case sales (€116/\$153) + synergy base case R&D (€49/\$64) + synergy base case SG&A (€97/\$127) = \$3.994/€3.043
exchange ratio EUR/USD: 1,3128 (as of 1/29/2014)

4.3.5 Synergy Summary

Due to the fact, that synergy valuations can be biased and sometimes even nebulous, different scenario calculations are useful. For each type of synergy, this case study considers a pessimistic, base and optimistic scenario. The respective assumptions can be obtained from Table 29.

Table 29: Total Synergy values – scenario comparison

Type of Synergy	Pessimistic*		Base **		Optimistic ***	
	€	\$	€	\$	€	\$
Operating Synergy						
Increasing Revenue	58	76	116	153	175	229
Decreasing Costs						
R&D	37	48	49	64	61	80
SG&A	49	64	97	127	146	191
Total Synergy Value	143	188	262	344	452	593
Total Transaction Costs	207	271	155	203	103	135
Total Synergie Value - Total Costs	-63	-83	107	141	349	458

* Siemens Power & Gas sales +0,3% - R&D expenses 20% lower than base case of 1.2% of Sales from Dresser-Rand – SG&A 25bps reduction from average of 7.43% of Siemens Power & Gas sales – Transaction fees: 1% of the total deal value and implementation costs €200 million over the next 3 years.

** Siemens Power & Gas sales +0,6% - R&D expenses equal 1.2% (3 year average) of Sales from Dresser Rand – SG&A 50bps reduction from average 7.34% of Siemens Power & Gas sales - Transaction fees: 0.75% of the total deal value and implementation costs €150 million over the next 3 years

*** Siemens Power & Gas sales + 0.9% - R&D expenses 20% higher than base case of 1.2% of Sales from Dresser-Rand – SG&A 75bps reduction from average 7.43% of Siemens Power & Gas sales - Transaction fees: 0.5% of the total deal value and implementation costs €100 million over the next 3 years

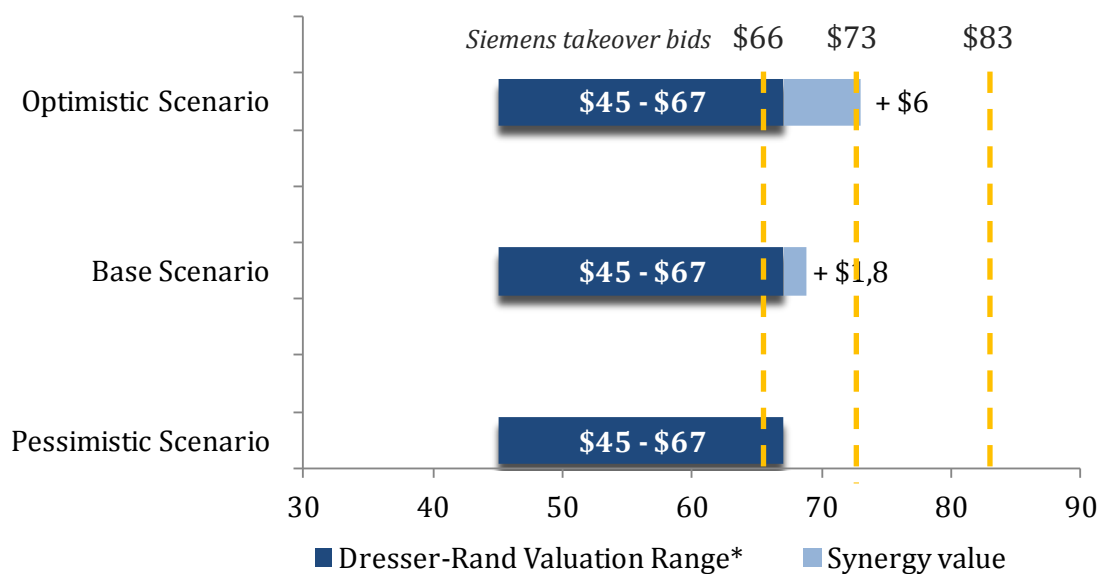
In conclusion, the synergy value, which comes along with the acquisition of Dresser-Rand, can be quantified between \$141 and \$458 million or €1.8 and \$6 a share. The base case can be considered the most realistic and valid estimation.

5. Conclusion

5.1 Real offer versus theoretical price

Having valued Dresser-Rand as a stand-alone firm and having added potential synergy values, leads to the conclusion, that the real bid price of \$83 a share is fairly high. Even when considering the most optimistic synergy view, the final offer price by Siemens significantly exceeds this valuation by \$10 a share. (Chart 13)

Chart 13: Dresser-Rand offer price – scenario comparison in \$



* Dresser-Rand's valuation can be summarized to \$45 – \$67 a share by adjusting for “outliers” (EV/EBITDA, P/E and TV/Sales)

There are multiple reasons for the difference between the offer price of this case study and the real offer price:

First, it could be possible that Siemens' target valuation, as well as potential synergy valuations might be over optimistic.

Besides that, external and internal valuations may differ due to the access to information. Strictly confidential information is not accessible for the public. Siemens might have

taken into account additional synergies from other acquisitions, which are not yet completed and publicly known. In particular, a potential acquisition of the gas turbine and compressor business of Rolls Royce could create additional synergies when acquiring Dresser-Rand. The two companies could complete each other.

Furthermore, Siemens might pay this premium because of strategic potential which can barely be quantified and valued by an external party. Although, literature condemns M&A which are undertaken for strategic reasons, it might affect Siemens' offer price.

Another reason for paying more is the fact that Siemens tries to take over Dresser-Rand in a friendly takeover. Current target shareholders require a premium to be compensated for the transaction risk and the post-transaction changes. Siemens could pay for control in this case without facing shareholder barriers.

It might also be possible that Siemens faces pressure to close a deal after missing the acquisition of Alstom. This pressure may force management to pay much more than the target is worth. The fact that similar transactions were also priced at a high level might have supported Siemens' plan to pay such a high premium.

Furthermore, a higher premium could be paid due to a personal bidding competition between Joe Kaeser (Siemens CEO) and Peter Löscher (Sulzer, Chairman of the Board of Directors and former CEO of Siemens).⁴¹ Although, personal interests and power demonstrations should not influence professional business decisions, one might assume that this factor did influence the bidding price in this case.

The fact that Siemens changed its offer price from \$66 to \$83 could reveal that non-financial reasons overwhelm initial financial calculations. Chart 13 reveals that the second bid of \$73 was the maximum price Siemens should have offered.

5.2 Implementation Risks

The Siemens and Dresser-Rand deal creates the following core implementation and post-acquisition risks:

⁴¹ Löscher was CEO of Siemens from 2007 -2013. Kaeser was his CFO. At Sulzer, Löscher was involved in the bidding process for Dresser-Rand

1. Regulatory and legislative risks: The European Commission claimed that the merged company would compete only with General Electric in turbo compressors and drivers for trains (Reuters 2015). Moreover, the EU's antitrust unit had concerns that the transaction may reduce competition in the market for small steam turbines (Norman 2015). Consequently, it is likely that the deal completion date could be postponed and certain assets or sub-divisions need to be sold to fulfill regulatory requirements.

2. Overall economic and M&A market sentiment risk: The current economic environment is favorable to complete the deal and the economic uncertainty can be considered relatively low. Nevertheless, the political problems in Europe, namely in Russia and Greece, may change the positive market sentiment in the near future and should be taken into consideration.

3. Improper target identification and valuation: It goes without saying that the business of Dresser-Rand fits into Siemens' Energy division from a strategic point of view. However, as the valuation part revealed, Siemens offer price of \$83 a share is too high and may create significant post transaction risks. Siemens might face criticism from shareholders, government, employees, customers or other stakeholders if the high price is not justified by additional future cash flows.

4. Currency and Oil-price risk: The strong Euro against Dollar⁴² might depreciate in the following months⁴³ – in particular with respect to a potential interest rate hike in the US. As a result the transaction value for Siemens in Euro increases. A similar effect can be obtained from decreasing oil-prices. As Dresser-Rand's business is related to WTI, a further price decrease could lower the value of the target. Since market prices are mostly hedged, one can assume that Siemens is not strongly affected by market movements. Nevertheless, the price for hedging should be taken into consideration and influences the overall transaction value.

5. Control risk: The control risk is relatively low, as Siemens offered a high premium to Dresser-Rand's shareholders and thereby minimizes the risk for potential control

⁴² EUR/USD – 1.3128 as of September 1, 2014

⁴³ Goldman Sachs expects EUR/USD parity by the end of 2017 – as of September 18, 2014 – (Ro 2015)

problems. In addition to that, Dresser-Rand’s management already recommended accepting Siemens offer.

6. Walk-away risk: The walk away risk is at a low level with termination fees for Dresser-Rand of \$200 million and \$400 million for Siemens. In relation to the size of the company, Dresser-Rand’s termination fees set stronger incentives not to walk away from the deal than Siemens’ \$400 million.

7. Siemens’ Shareholder Value at Risk (SVAR) of 1.05% is relatively small due to the mismatch in market values between acquirer and seller. Despite the fact that Siemens offers a price which is 21% above the current market value, the risk for its shareholders if synergies are not realized is limited. In total, €856 million of Siemens €84.205 million are at risk.

Table 30: Shareholder Value at Risk

Offer Price in \$	83,00
Current Share Price in \$	68,36
Premium Paid %	21%
Total Premium Paid in \$	1.124
Market Value Buyer €	84.205
Market Value Buyer \$	110.544
Market Value Seller \$	5.263
Market Value Seller €	4.009
<hr/>	
SVAR	1,02%
<hr/>	

* EUR/USD exchange rate as of 01.09.2014 – 1,3128 USD

* Market Values as of 01.09.2014

In conclusion, transaction risks can be considered relatively low, except for regulatory and legislative issues. As the size of target and acquirer is different, the implementation of Dresser-Rand is easier than in the case of merger of equals. Moreover, Siemens with its frequent acquisitions has the necessary know-how and experience to minimize post-transaction risks.

5.3 Summary

From a strategic point of view the acquisition of Dresser-Rand has potential to significantly add value to Siemens' energy division. Dresser-Rand's comprehensive portfolio of compressors, steam turbines, gas turbines and engines could complement Siemens' Oil & Gas business and could help the company to position for future energy business changes. In particular, the participation in the business of hydraulic fracturing, which is yet concentrated in the United States, is indispensable in the future. In addition to that, the efficient Aftermarket Parts and Services division could help Siemens to increase its profitability and generate additional revenues. Furthermore, after the unsuccessful bid for Alstom, an acquisition of Dresser-Rand would increase the competitive edge against competitors. The target could complete Siemens' Oil & Gas portfolio and could fit to a potential acquisition of Rolls-Royce's Energy aero-derivative gas turbine and compressor business.

To judge, whether or not Siemens' offer of \$83 a share is a reasonable and fair price is complex, since a third person often has less transparency in synergy calculations and other internal information. Evaluating synergies and therefore economic reasoning in M&A is still relatively subjective and sometimes even vague. Nevertheless, after having valued Dresser-Rand independently and having valued potential synergies, the price of \$83 appears fairly high. Taken into consideration the assumption that Dresser-Rand's pre-acquisition price is overvalued and potential synergies range from \$141 to \$458 million, leads to the conclusion that \$83 is inaccurate and does not reflect the true value of a potential acquisition. Interestingly, synergy valuations can justify a relatively high premium for Dresser-Rand. Nonetheless, the current valuation of \$68 appears to be too high to pay a premium of 21%. The facts that Siemens increased its initial offer by 25%, Dresser-Rand's Board of Directors unanimously recommended the shareholders to accept the offer and the termination fee of \$400 for Siemens support these findings. An acquisition price of \$47 to \$73 appears to be more justifiable.

This case study has shown that the world of M&A is fascinating, but also complex. Bid-prices and current market values often substantially diverge – depending on the strategic fit and potential synergies. The main drivers for Siemens' generous \$7.6 billion offer can be found in:

1. Capital Markets and Shareholder pressure to realize additional growth and revenue.
2. Unsuccessful recent acquisition activities – Losing the bidding competition for Alstom to the main competitor General Electric could have affected Siemens' choice to place a high bid offer price for Dresser-Rand.
3. Legal domestic burden – The method of hydraulic fracturing is considered the most effective and profitable oil & gas exploration technique. The United States offers a more liberal legal environment to take advantage of these techniques than other countries – in particular Germany.
4. Technological burden – The current shift in the energy business from conventional to renewable energy solutions requires frequent technological evolution. To keep track with standards, Siemens might undertake the acquisition in order to import external knowledge and know how.
5. High amount of cash – The current low interest rate levels and therefore the cheap refinancing created significant cash reserves for many companies. The beneficial situation of excess cash drives the appetite for inorganic growth and high offer prices can be observed more frequently. After receiving €3.250 for the B/S/H/ stake, Siemens has excess cash to invest.
6. Personal interest – Although personal interests should not drive M&A activities, Siemens' CEO Joe Kaeser might have been influenced by the fact, that his former boss, Peter Löscher who is now CEO of Siemens' competitor Sulzer, was also involved in the bidding competition.

The last driver uncovers the question of how much power a CEO should have in M&A transactions. A CEO should act on behalf of the shareholder, working closely with the Board of Management and especially closely with the CFO. A transaction should be solely based on numbers and not on strategic, unquantifiable reasons. Furthermore, as Cullinan, Le Roux & M. Weddigen (2004) suggest, the acquirer should define a strict walk away price which avoids paying too much for an acquisition. This deal, with its continuing bidding revises, appears to have a less strict walk away strategy.

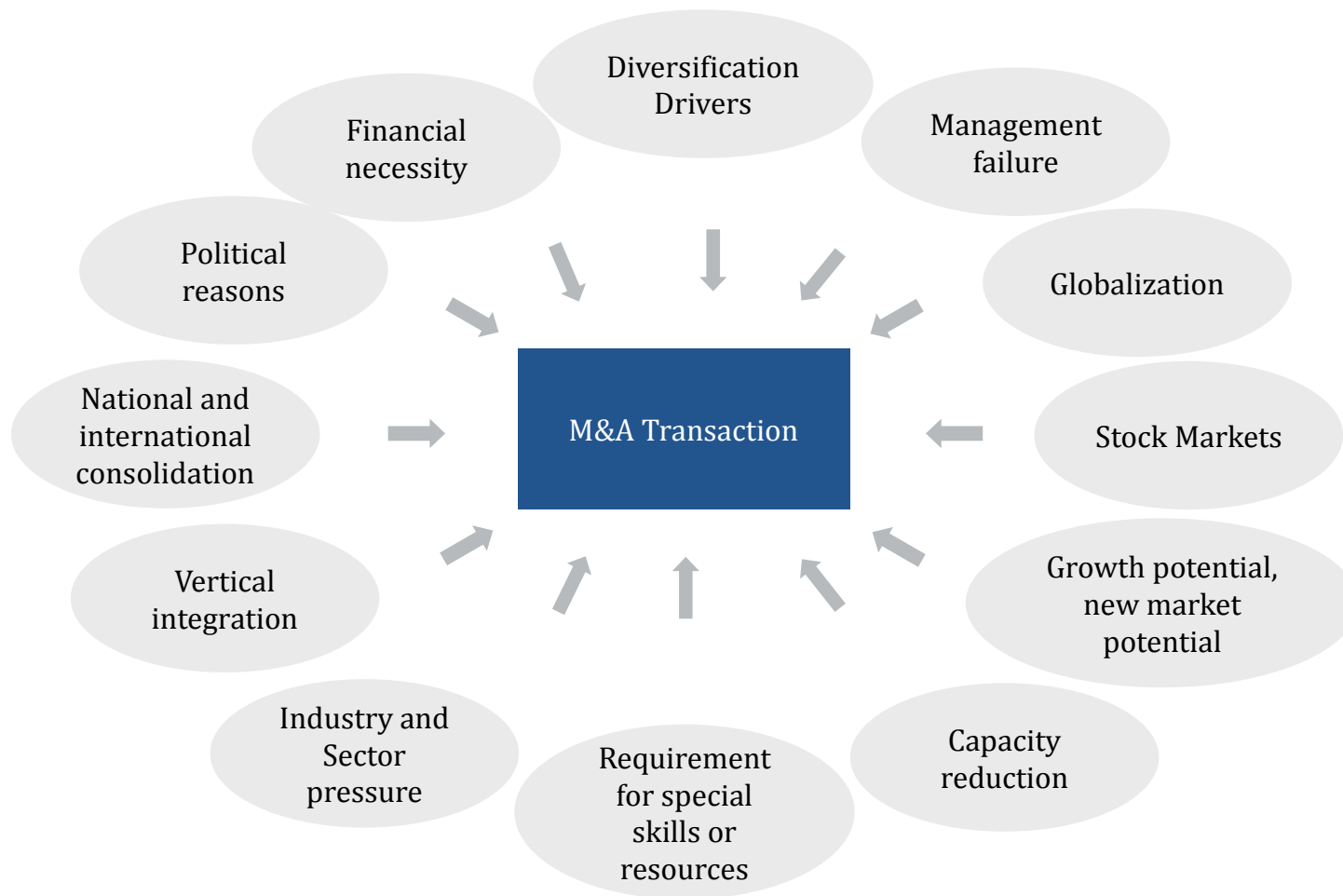
6. Appendix

Appendix 1: Valuation approaches

	Intrinsic Value approach	External benchmark approach	Analogical approach	Patrimonial approach
	“The company is worth, what it will generate”	“The company is worth, what others buy/sell it for”	“The company is worth what other companies are worth”	“The company is worth what it owns”
	Based on future	Based on present	Based on present	Based on past
	Economic Value Creation	Market Value	Market Value	Accumulation of wealth
<i>Underlying Financial Statement</i>	Forecasts (“business plan”)	Share price	P%L / Balance Sheet	Balance Sheet
<i>Valuation Method</i>	Discounted Cash Flows	Share price	Trading multiples / M&A multiples	Restated Net Worth / “Sum of the parts”

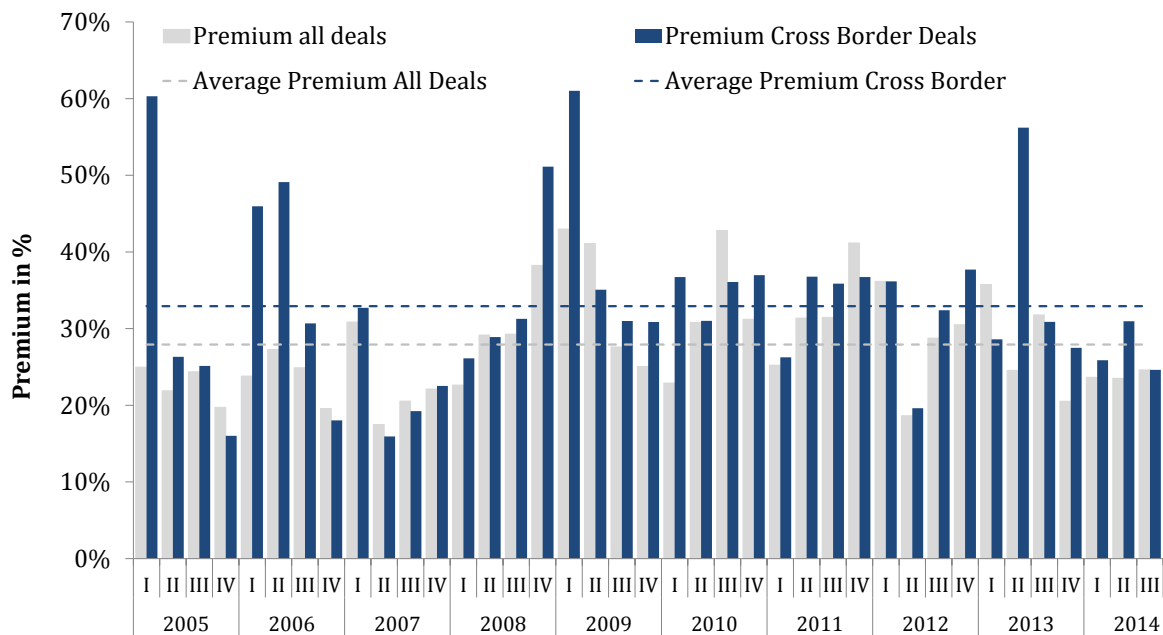
Source: Adapted from C. Nijdam, Alpha Value (www.alphavalue.net)

Appendix 2: M&A transaction drivers



Source: Roberts, Wallace and Moles (2010)

Appendix 3: Cross-border M&A premium



Source: Bloomberg

Appendix 4: Managing Mergers

M&A deals are more likely to fail when firms enter an unprofitable industry, refuse to exit from one or step into a market they have rare competencies in. Furthermore, deals have a lower chance to be successful in case economic benefits are improbable or the acquirer fails to seek some economic advantage. In addition to that, the way of deal structuring also significantly decides the outcome of a merger [Bruner (2004)]. Eccles, Lanes & Wilson (1999) suggest not allowing the negotiating manager to price the deal to avoid subjective, biased merger management.

Moreover, Cullinan, Le Roux & Weddigen (2004) lay stress on a proper due diligence. The acquirer should also be aware of what in detail they are buying, what the target's stand-alone value is, what synergies could be realistically implemented and most importantly what the walk away price is.

Sirower & Sahni (2006) developed an earnings-based model to help in the process of managing mergers and to avoid the synergy trap. They invented a Meet the Premium

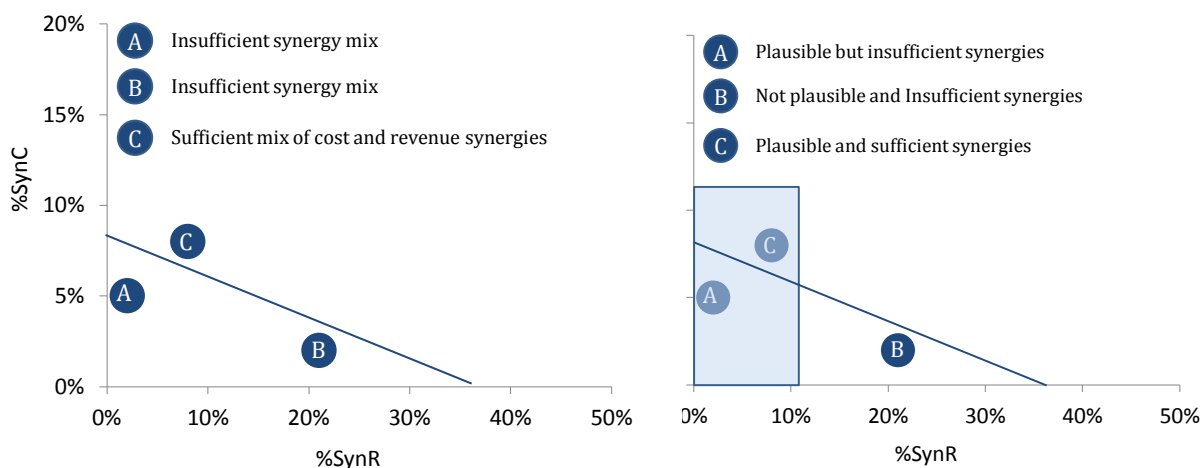
Line (MTP) to figure out whether or not a synergy mix is sufficient. In addition to that, a plausibility box and a feasibility check help to assess whether or not the synergy mix is plausible and feasible.

1. Set up a Meet the Premium (MTP) Line to figure out whether or not a synergy mix is sufficient or not. The MTP combines management’s revenue- and cost synergy expectations and is defined as:

$$\%SynC = \frac{\pi}{1 - \pi} * (\%P - \%SynR)$$

The Meet the Premium Line (MTP Line)

Plausibility Box



Cost Synergies (%SynC) are determined by the premium offered (%P), the pre-tax profit margin which equals EBIT in the model (π) and the expected percentage revenue synergies (%SynR). Higher premiums paid require higher cost and revenue synergies. Only if a synergy mix is above the line, the deal should be realized.

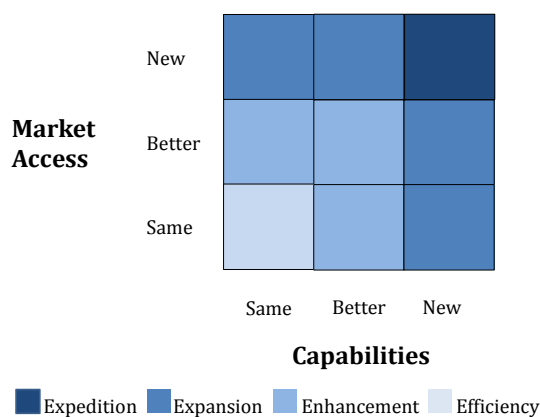
2. Analyze synergies through a Plausibility Box:

To apply the concept of the MTP line, it is also important to look whether a synergy mix is plausible or not. Even though a mix is above the line, the deal is not necessarily profitable. If the expected synergies are not plausible and the mix consequently lies outside the plausibility box the deal should not be realized.

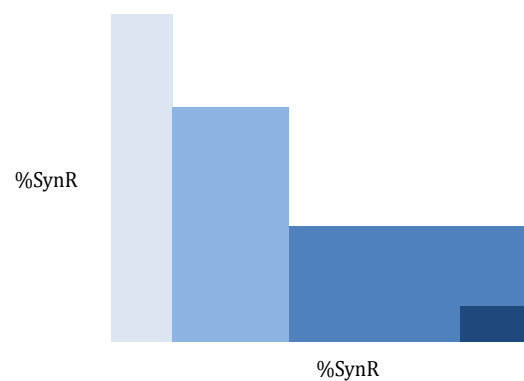
3. Feasibility check – sources of synergies

For the acquirer it is not always trivial to classify the kind of synergy and therefore the MTP line and the plausibility check is difficult to apply. To avoid this drawback Sirower & Sahni (2006) suggest a capabilities/market access matrix which helps to classify synergies. New capabilities in new markets usually create revenue synergies whereas same market access and same capabilities result in economies of scales – Cost synergies

Capabilities/Market Access Matrix



The Synergy Mix



Source: (Sirower & Sahni 2006)

In addition to that, Sirower & Sahni (2006) defined the Shareholder Value at Risk (SVAR) as a useful tool to assess the relative magnitude of synergy risk. The SVAR shows how much of a company is at risk if no post-acquisition synergies are realized. The authors describe the ratio as a “bet your company index” and define it as:

$$SVAR = \frac{\text{Total Premium Paid}}{\text{Market Value Buyer}} \quad SVAR = \text{Premium Paid \%} \times \frac{\text{Market Value Seller}}{\text{Market Value Buyer}}$$

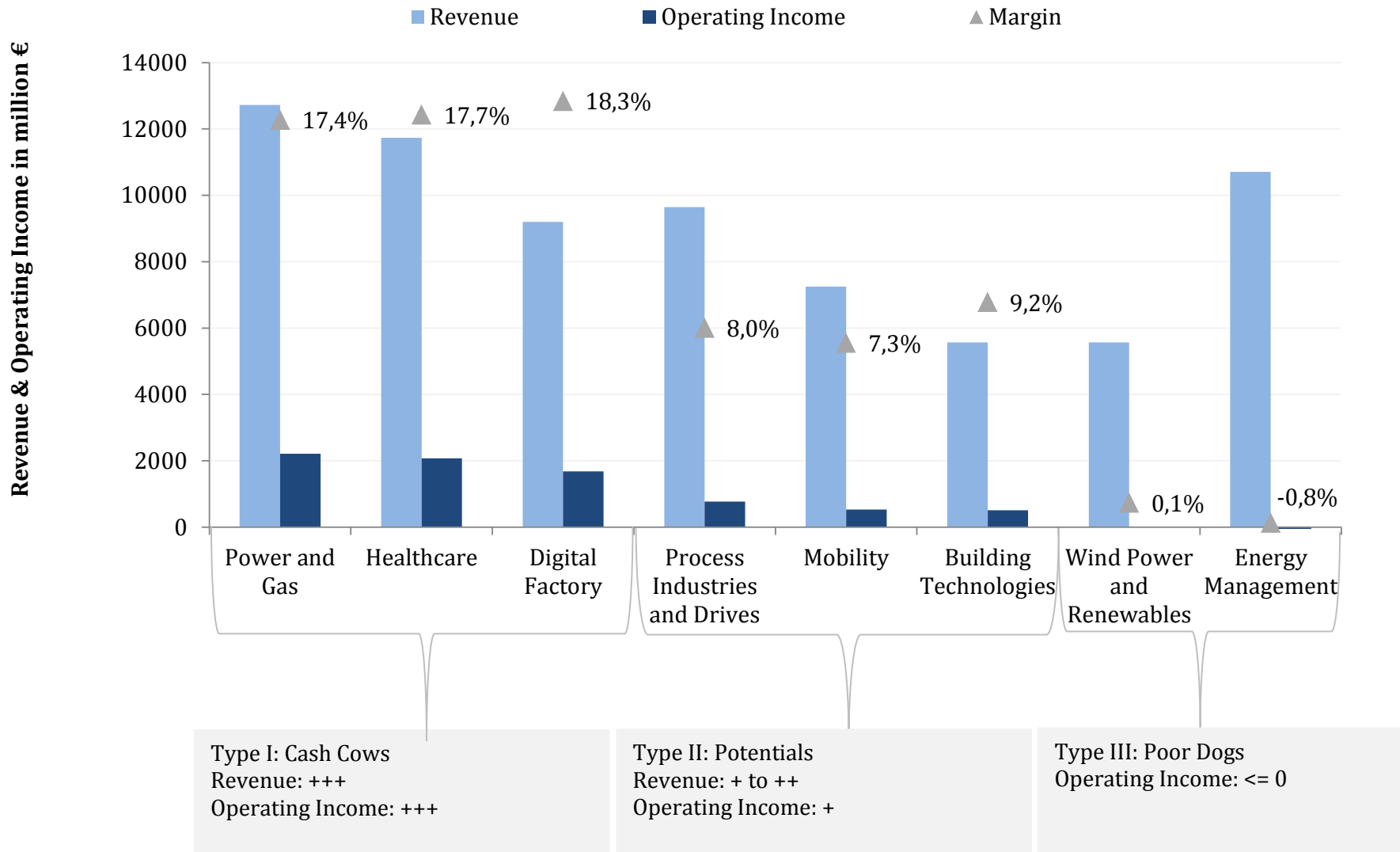
The greater the premium percentage paid to sellers and the greater their market value relative to the acquiring company, the higher the SVAR. The main drawback of the method is that in cases in which acquirers lose more than their premium, SVARs underestimate risks.

Today's management should take advantage of the extensive skill set of anti-takeover strategies to remain autonomous and to be able to react to hostile takeovers. In times of dynamic M&A markets, take-over protection and shareholder structure management is absolutely crucial. Literature divides takeover defense into preventive and active. Active strategies are applied once a takeover is publicly known. A thorough strategy however should include management actions beforehand (Appendix 5).

Appendix 5: Takeover defense strategies

Defense Strategy (Preventive/Active)	Description
Poison pill (P)	Rights which allow holders to purchase share at a discount. Cost of potential takeover becomes expensive.
People pill (P)	When takeover happens, recent management of the target firm resigns at the same time. Success of this strategy depends on the situation: If managers are skillful and the bidder wants to keep them it is counterproductive. In the normal case, where the bidder wants to change management and restructure the target it is a highly efficient preventive takeover strategy.
Poison put (P)	Gives the bondholder the right to be redeemed at par before maturity.
Staggered board (P)	Limited number of board directors can be elected at one time, difficulties for bidder to get significant control. New controlling shareholders have to wait before winning total control.
Supermajority Provisions (P)	Special rule where a simple board majority is not sufficient to make decisions.
Dual capitalizations – different classes of stock (P)	Different voting rights and dividend entitlements: intention to distribute shares with voting rights in the hands of shareholder who are more loyal to the firm and less likely to accept an offer from a hostile bidder
Move to a state with stronger antitakeover laws (P)	
Golden Parachute (P)	Lucrative benefits to the top executives in case the company is not taken over.
Macaroni Defense (P)	Issue a large number of bonds which will be redeemed at a higher price if the company is taken over.
Antitrust lawsuit (A)	Even though the lawsuit is expected not to be successful it provides time to implement other defense strategies.
Greenmail / Goodbye Kiss (A)	Payment to the bidder of a sufficient amount so that it retreats and stops with the takeover plans. Popular in the 1980s – Today, relatively unpopular defense strategy.
White knight (A&P)	Selling shares to a more friendly party.
Restructure the company (A&P)	Making the firm less attractive through asset sales and/or purchases.
Leveraged Recapitalization / Capital structure change (A&P)	Amount of debt that can be raised by a bidder to finance the transaction becomes lower - results in difficulties for the bidder in financing the takeover. Limited strategy, highly depends on the optimal level of debt.

Appendix 6: Siemens Business Segments – Revenue & Profitability (2014)



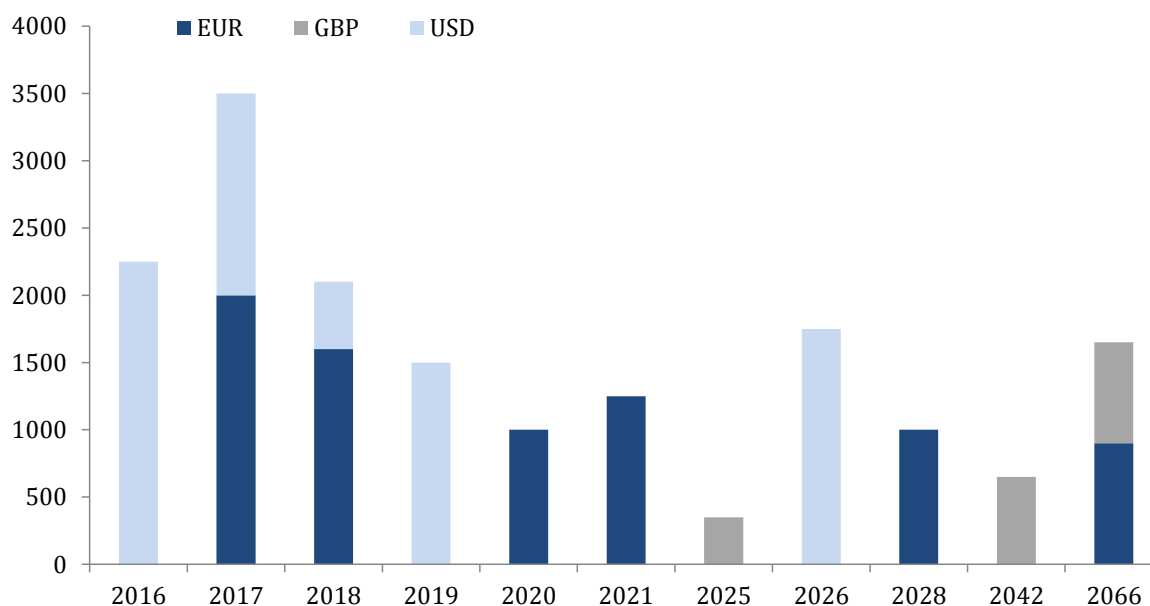
Appendix 7: Siemens Cost of Debt

WKN	Currency	Maturity	Notional Amount in million	National Amount in EUR	Market Value	Coupon	Yield to Maturity	Weighted YTM
XS0247659542	USD	16.03.2016	500	381	107,32	5,63%	0,708	0,02%
XS0264823567	USD	17.10.2016	1750	1333	109,42	5,75%	1,16	0,10%
XS0413806596	EUR	20.02.2017	2000	2000	111,61	5,13%	0,379	0,05%
DE000A1G0WB9	USD	16.08.2017	1500	1143	112,38	1,05%	-2,938	0%*
DE000A1HGXL7	USD	12.03.2018	500	381	99,92	1,50%	1,458	0,04%
XS0369461644	EUR	11.06.2018	1600	1600	118,90	5,63%	0,542	0,06%
DE000A1G0WD5	USD	16.08.2019	1500	1143	116,80	1,65%	-1,598	0%*
DE000A1G85B4	EUR	10.03.2020	1000	1000	104,37	1,50%	0,69	0,04%
DE000A1UDWM7	EUR	12.03.2021	1250	1250	106,00	1,75%	0,801	0,06%
DE000A1G85C2	GBP	10.09.2025	350	443	95,40	2,75%	3,253	0,09%
XS0264824375	USD	17.08.2026	1750	1333		6,13%	3,524	0,30%
DE000A1UDWN5	EUR	10.03.2028	1000	1000	112,89	2,88%	1,792	0,11%
DE000A1G85D0	GBP	10.09.2042	650	822	98,71	3,75%	3,826	0,20%
XS0266838746	EUR	14.09.2066	900	900	108,25	5,25%	2,224	0,13%
XS0266840486	GBP	14.09.2066	750	949	106,88	6,13%	2,825	0,17%
								1,37%

* Currency spots rate as of 09/01/2015: EUR/USD 1,3128 | GBP/EUR 1,265

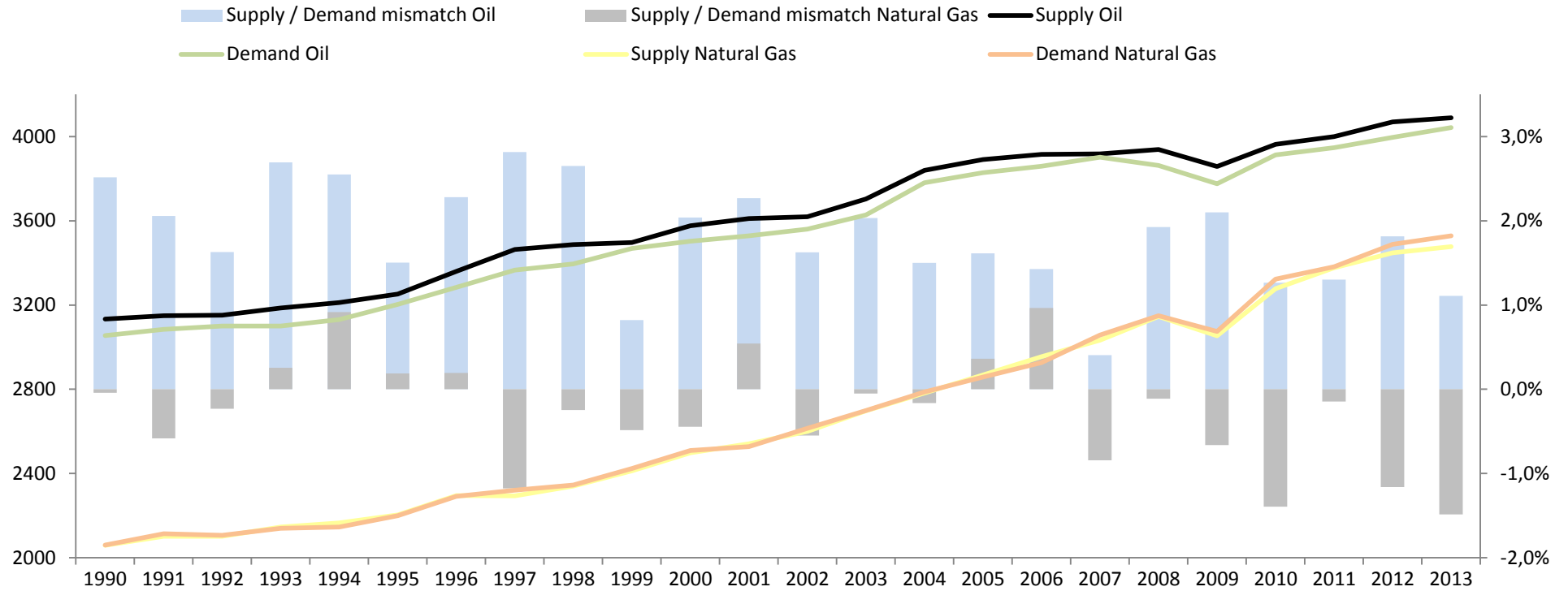
* To avoid bias, negative Yield to Maturities were converted to zero

Debt Redemption Profile in domestic currency in million



Source: Bloomberg

Appendix 8: Oil & Gas - Demand and Supply



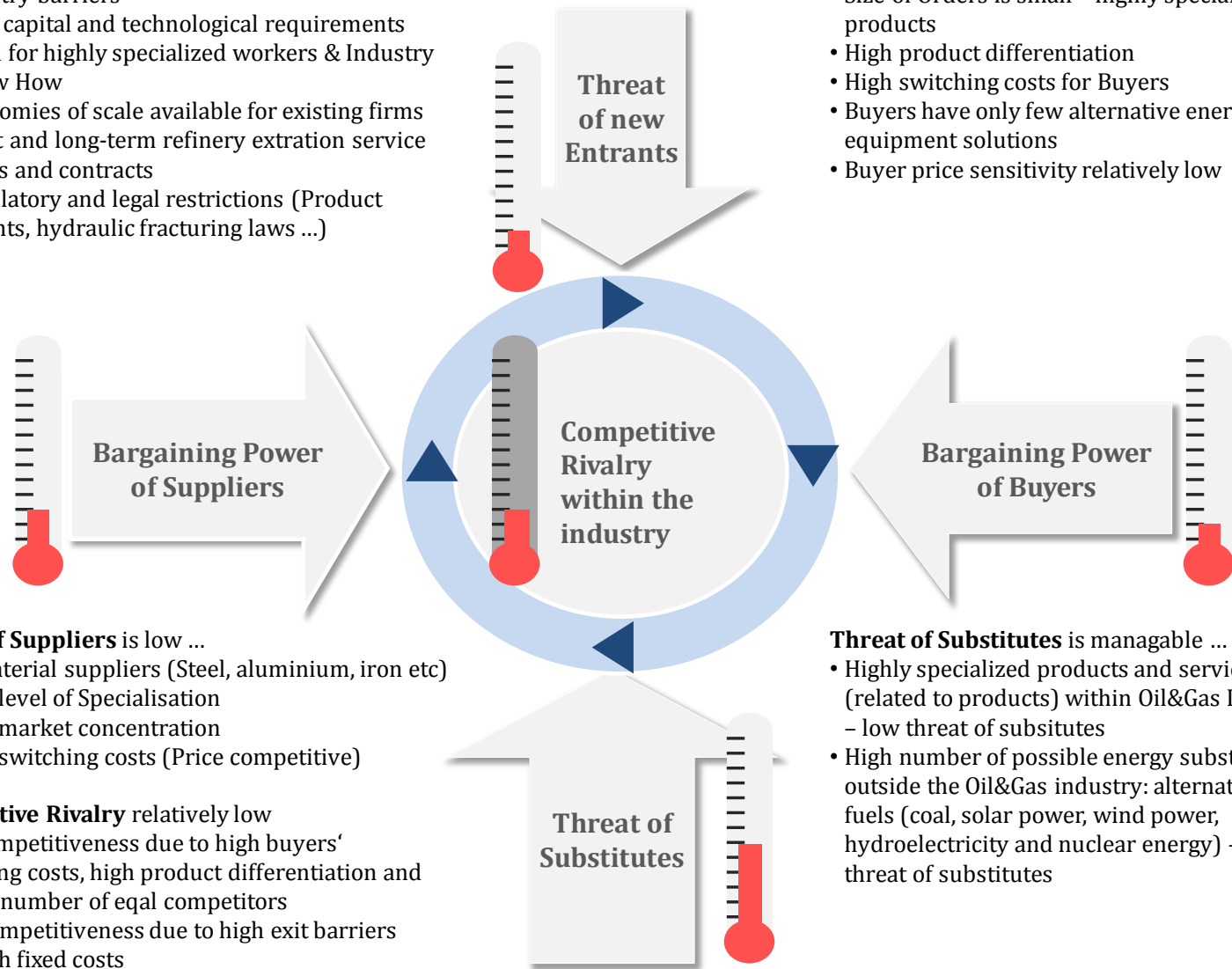
Appendix 9: Industry Analysis - Porter's five forces

Threat of new Entrants is low ...

- High entry barriers
 - High capital and technological requirements
 - Need for highly specialized workers & Industry Know How
 - Economies of scale available for existing firms
 - Strict and long-term refinery extraction service rights and contracts
 - Regulatory and legal restrictions (Product patents, hydraulic fracturing laws ...)

Power of Buyers is relatively low...

- Size of Orders is small – highly specialized products
- High product differentiation
- High switching costs for Buyers
- Buyers have only few alternative energy equipment solutions
- Buyer price sensitivity relatively low



Power of Suppliers is low ...

- Raw Material suppliers (Steel, aluminium, iron etc)
 - Low level of Specialisation
 - Low market concentration
 - Low switching costs (Price competitive)

Threat of Substitutes is manageable ...

- Highly specialized products and services (related to products) within Oil&Gas Industry – low threat of substitutes
- High number of possible energy substitutes outside the Oil&Gas industry: alternative fuels (coal, solar power, wind power, hydroelectricity and nuclear energy) – high threat of substitutes

Competitive Rivalry relatively low

- Low competitiveness due to high buyers' switching costs, high product differentiation and limited number of equal competitors
- High competitiveness due to high exit barriers and high fixed costs

Appendix 10: Siemens Working Capital Forecasts (2014 – 2021)

in €million	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Current Assets									
Cash and Cash equivalents	9190	11.737	12.136	12.549	12.976	13.417	13.873	14.345	14.832
as a % of sales	12%	15%	15%	15%	15%	15%	15%	15%	15%
Marketable securities	601	417	431	446	461	476	493	509	527
as a % of sales	1%	1%	1%	1%	1%	1%	1%	1%	1%
Receivables	14853	15.340	15.862	16.401	16.959	17.535	18.131	18.748	19.385
as a % of sales	20%	20%	20%	20%	20%	20%	20%	20%	20%
Inventory	15560	15.572	16.101	16.649	17.215	17.800	18.405	19.031	19.678
as a % of sales	21%	20%	20%	20%	20%	20%	20%	20%	20%
Deferred income taxes	794	790	817	845	874	904	934	966	999
as a % of sales	1%	1%	1%	1%	1%	1%	1%	1%	1%
Other current assets	5940	6.856	7.089	7.330	7.579	7.837	8.103	8.379	8.664
as a % of sales	8%	9%	9%	9%	9%	9%	9%	9%	9%
Total Current Assets	46938	50.712	52.436	54.219	56.063	57.969	59.940	61.978	64.085
Current Liabilities									
Short-term debt	1944	2.592	2.680	2.771	2.865	2.963	3.063	3.168	3.275
as a % of sales	3%	3%	3%	3%	3%	3%	3%	3%	3%
Accounts payable	7599	8.002	8.274	8.556	8.846	9.147	9.458	9.780	10.112
as a % of sales	10%	10%	10%	10%	10%	10%	10%	10%	10%
Accrued liabilities	4485	4.901	5.068	5.240	5.419	5.603	5.793	5.990	6.194
as a % of sales	6%	6%	6%	6%	6%	6%	6%	6%	6%
Deferred income taxes	2151	2.092	2.163	2.236	2.312	2.391	2.472	2.556	2.643
as a % of sales	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other current liabilities	21689	24.044	24.861	25.706	26.580	27.484	28.419	29.385	30.384
as a % of sales	29%	31%	31%	31%	31%	31%	31%	31%	31%
Total Current Liabilities	37868	41.631	43.046	44.510	46.023	47.588	49.206	50.879	52.608
Net Working Capital	9.070	9.082	9.390	9.710	10.040	10.381	10.734	11.099	11.476
Working Capital Requirements		12	309	319	330	341	353	365	377

Current Asset and Liability Items are expected to remain at their respective 5-year-%-of-sales ratio

Appendix 11: FCFF B/S/H/

in € million	2013	Forecasts								Perpetuity
		2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e	
Free Cash Flow Calculation										
Sales	10.508	10.963	11.438	11.933	12.449	12.988	13.551	14.137	14.749	14.897
Sales growth	7,2%	4,3%	4,3%	4,3%	4,3%	4,3%	4,3%	4,3%	4,3%	1%
EBIT	509	677	706	736	768	802	836	873	910	919
EBIT margin	4,8%	6,2%	6,2%	6,2%	6,2%	6,2%	6,2%	6,2%	6,2%	6,2%
Tax	143	203	212	221	231	240	251	262	273	276
Tax as a % of EBIT	28%	30%	30%	30%	30%	30%	30%	30%	30%	30%
NOPAT	366	474	494	516	538	561	585	611	637	644
Depreciation	377	393	410	428	447	466	486	507	529	628
Gross Cash flow	743	867	904	944	984	1.027	1.072	1.118	1.166	1.272
Increase in Working Capital	325	-12	90	94	98	103	107	112	117	118
Capex	377	467	487	508	530	553	577	602	628	628
Free Cash Flow to the Firm (FCFF)	41	412	327	341	356	371	388	404	422	526
50 % stake of FCFF			164	171	178	186	194	202	211	263
Siemens FCFF with B/S/H/			4.707	4.867	5.032	5.203	5.380	5.563	5.752	6.271
Siemens FCFF without 50% stake of B/S/H/			4.543	4.696	4.854	5.018	5.186	5.361	5.541	6.008
Cash received from sale			3.250							
Change in FCFF			3.086	-171	-178	-186	-194	-202	-211	-263

Forecast Assumptions:

- Sales will grow by the 3-year-CAGR of 4.3%
- EBIT Margins remain at the 3-year-average of 6.2%
- Tax as a % of EBIT equals 30%
- PPE as a percentage of sales equals the ratio of 2013 - 16%
- Depreciation as a percentage of PPE remains constant at 22% (ratio 2013)
- Capital Expenditures = $PPE_t - PPE_{t-1} + \text{depreciation}$

Appendix 12: Beta Estimations

Peer	Total Debt to		
	Levered Beta	Equity Ratio	Unlevered Beta
SUPERIOR ENERGY SERVICES INC	1,66	40%	1,29
WEATHERFORD INTERNATIONAL PL	0,89	117%	0,49
CAMERON INTERNATIONAL CORP	1,33	55%	0,96
BAKER HUGHES INC	1,53	25%	1,30
FMC TECHNOLOGIES INC	1,25	49%	0,92
HALLIBURTON CO	1,56	54%	1,13
NATIONAL OILWELL VARCO INC	1,92	15%	1,74
RPC INC	0,95	13%	0,87
TENARIS SA	1,09	8%	1,03
SCHLUMBERGER LTD	1,60	33%	1,30
DRIL-QUIP INC	1,43	0%	1,43
ION GEOPHYSICAL CORP	3,39	55%	2,45
OCEANEERING INTL INC	1,61	4%	1,57
OIL STATES INTERNATIONAL INC	1,98	15%	1,80
EXTERRAN HOLDINGS INC	1,68	95%	1,01
Ø Industry Unlevered Beta			1,29
Dresser-Rand levered beta		20%	1,47
Dresser-Rand unlevered beta		20%	1,29

Peer	Total Debt to		
	Levered Beta	Equity Ratio	Unlevered Beta
GENERAL ELECTRIC CO	1,22	207%	0,49
ALSTOM	1,35	112%	0,74
ABB LTD-REG	0,90	49%	0,67
TOSHIBA CORP	0,95	89%	0,58
SCHNEIDER ELECTRIC SE	0,95	50%	0,69
MITSUBISHI ELECTRIC CORP	0,92	24%	0,79
LEGRAND SA	0,67	56%	0,48
EMERSON ELECTRIC CO	1,17	60%	0,81
HITACHI LTD	1,03	71%	0,68
MITSUBISHI HEAVY INDUSTRIES	0,78	55%	0,56
BHARAT HEAVY ELECTRICALS	0,75	14%	0,68
DONGFANG ELECTRIC CORP LTD-A	0,65	42%	0,50
WARTSILA OYJ ABP	0,74	38%	0,58
SHANGHAI ELECTRIC GRP CO L-A	0,74	23%	0,63
AREVA	0,92	195%	0,38
Ø Industry Unlevered Beta			0,62
Siemens levered beta		18%	0,70
Siemens unlevered beta		18%	0,62

To avoid bias, Siemens and Dresser-Rand are excluded from their respective Peer-Group

Data source raw beta and capital ratios: Bloomberg as of September 1, 2014

Levered Beta = Unlevered Beta * [1+ (1-t)*D/E]

Appendix 13: Siemens Interest Tax Shield Forecasts (2014 – 2021)

Year	prior-year net debt (€ million)	expected interest rate	interest payment (€ million)*	Tax rate	interest tax shield (€ million)	PV ITS (€ million)
2014e	11.263	1,37%	154	27%	42	41
2015e	11.759	1,37%	161	27%	43	42
2016e	12.277	1,37%	168	27%	45	44
2017e	12.818	1,37%	175	27%	47	45
2018e	13.383	1,37%	183	27%	49	46
2019e	13.972	1,37%	191	27%	52	48
2020e	14.588	1,37%	200	27%	54	49
2021e	15.231	1,37%	208	27%	56	50
Continuing Value**					15.441	13.850
						14.215
				Nopat growth:		1,00%
				Cost of Debt:		1,37%

Assumptions:

Nopat Growth 1%

Discount Rate ITS***: Cost of Debt: 1.37%

Tax-rate 27%

Net Debt: Increase at the 5-year CAGR of 4.41%

* Future interest payments are calculated with the current cost of debt of 1.37% (Appendix 7) assuming the debt capital funding access remains at the current rate.

** To determine the Continuing Value of interest tax shields beyond 2021, a growth perpetuity based on 2021 interest tax shields, the cost of debt and the NOPAT growth rate is used.

*** The cost of debt appropriately incorporates the riskiness of the ITS payments as they are as uncertain as interest and principal payments.

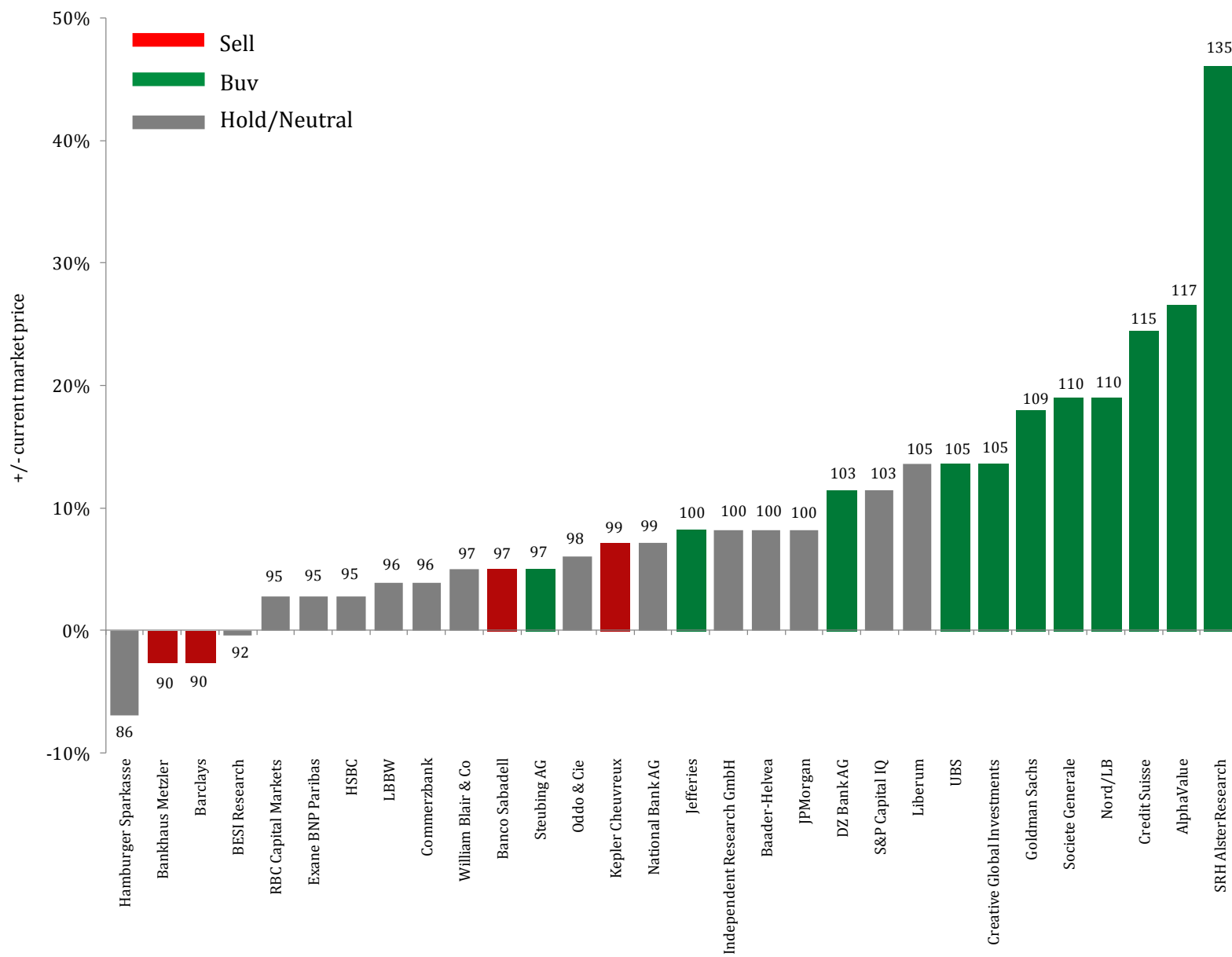
Appendix 14: Siemens Peer-Group

Name	Debt to Equity Ratio	domestic currency	Current Market Cap	Current Enterprise Value	Best Sales	Best EBITDA	Best EBIT	EBITDA Margin	Net Income
SIEMENS AG-REG	18%	Euro	84.655	99.987	78.454	10.215	7.139	11,75%	5.204
GENERAL ELECTRIC	56,30	USD	243.824	252.824	153.413	29.482	19.941	19,22%	17.641
ALSTOM	16,10	EUR	8.827	13.166	11.912	788	531	6,61%	730
ABB LTD-REG	17,14	CHF	39.790	41.243	40.011	5.957	4.661	14,89%	3.443
TOSHIBA	22,86	JPY	2.037.015	3.903.848	6.712.326	551.148	338.595	8,21%	150.746
SCHNEIDER ELECTRIC	22,73	EUR	39.473	46.413	24.879	3.869	3.175	15,55%	2.502
MITSUBISHI ELECTRIC	11,95	JPY	2.971.727	3.061.433	4.279.776	460.338	293.066	10,76%	184.525
LEGRAND SA	22,21	EUR	11.403	12.269	4.707	1.080	932	22,94%	625
EMERSON ELECTRIC	28,55	USD	41.403	45.097	24.512	5.049	4.260	20,60%	2.858
HITACHI LTD	27,59	JPY	4.271.815	8.227.143	9.577.092	998.041	608.493	10,42%	273.660
MITSUBISHI HEAVY INDUSTRIE	21,89	JPY	2.207.378	3.327.530	4.015.188	422.031	273.550	10,51%	135.694
BHARAT HEAVY ELECTRICALS	6,23	INR	618.386	545.114	336.373	32.007	36.141	9,52%	26.428
DONGFANG ELECTRIC	10,10	CNY	26.668	24.609	41.436	3.297	1.509	7,96%	2.166
WARTSILA OYJ ABP	13,62	EUR	7.546	7.921	4.739	695	581	14,67%	447
SHANGHAI ELECTRIC GRP	7,30	CNY	64.937	59.060	80.677	9.024	6.774	11,19%	2.485
AREVA	23,79	EUR	4.671	9.585	8.325	635	-28	7,63%	-394

Source: Bloomberg

Data in domestic currency (million)

Appendix 15: Siemens Analyst Recommendations in Euro (February 2015)



Appendix 16: Dresser-Rand Depreciation Forecasts (2014 – 2021)

(\$ million)	2013	2014e	2015e	2016e	2017e	2018e	2019e	2020e	2021e
Sales	3.033	3.254	3.492	3.746	4.020	4.313	4.628	4.966	5.329
Capex	83	72	77	83	89	95	102	110	118
Depreciation	92	95	97	100	103	106	110	113	117
↓									
2013	92	92	92	92	92	92	92	92	92
2014e*		2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4
2015e*			2,6	2,6	2,6	2,6	2,6	2,6	2,6
2016e*				2,8	2,8	2,8	2,8	2,8	2,8
2017e*					3,0	3,0	3,0	3,0	3,0
2018e*						3,2	3,2	3,2	3,2
2019e*							3,4	3,4	3,4
2020e*								3,7	3,7 *
2021e*									3,9
Total Depreciation	92	95	97	100	103	106	110	113	117

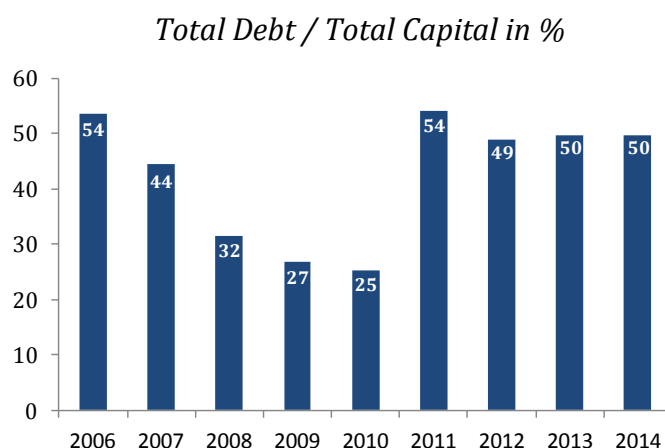
Capital Expenditures are linearly depreciated taking into consideration an average life of fixed assets of 30 years

Appendix 17: Dresser-Rand Working Capital Forecasts (2014 – 2021)

in \$ million									
Current Assets	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Cash and cash equivalents	171	268	287	308	331	355	381	409	439
as a % of sales	6%	8%	8%	8%	8%	8%	8%	8%	8%
Restricted cash	14	13	14	15	17	18	19	20	22
as a % of sales	0%	0%	0%	0%	0%	0%	0%	0%	0%
Accounts receivable	648	530	569	610	655	702	754	809	868
as a % of sales	21%	16%	16%	16%	16%	16%	16%	16%	16%
Inventories, net	653	572	614	659	707	759	814	874	937
as a % of sales	22%	18%	18%	18%	18%	18%	18%	18%	18%
Prepaid expenses and other	76	75	80	86	92	99	106	114	122
as a % of sales	3%	2%	2%	2%	2%	2%	2%	2%	2%
Deferred income taxes, net	29	47	50	54	58	62	67	71	77
as a % of sales	1%	1%	1%	1%	1%	1%	1%	1%	1%
Total Current Assets	1.591	1.505	1.615	1.733	1.860	1.995	2.141	2.297	2.465
Current Liabilities	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Accounts payable and accruals	671	649	697	748	802	861	924	991	1.064
as a % of sales	22%	20%	20%	20%	20%	20%	20%	20%	20%
Customer advance payments	176	312	335	360	386	414	444	477	511
as a % of sales	6%	10%	10%	10%	10%	10%	10%	10%	10%
Accrued income taxes payable	35	30	32	35	37	40	43	46	49
as a % of sales	1%	1%	1%	1%	1%	1%	1%	1%	1%
Loans payable	0	7	8	8	9	10	10	11	12
as a % of sales	0%	0%	0%	0%	0%	0%	0%	0%	0%
Current portion of long-term debt	40	26	27	29	32	34	36	39	42
as a % of sales	1%	1%	1%	1%	1%	1%	1%	1%	1%
Total Current Liabilities	922	1.025	1.099	1.180	1.266	1.358	1.457	1.564	1.678
Net Working Capital	669	481	516	553	594	637	684	734	787
Working Capital Requirements		-188	35	38	40	43	47	50	54

Current Asset and Liability Items are expected to remain at their respective 5-year-%-of-sales ratio

Appendix 18: Dresser-Rand Capital Structure



Appendix 19: Dresser-Rand Interest Tax Shield Forecasts (2014 – 2021)

Year	prior-year net debt (\$ million)	expected interest rate	interest payment (\$ million)	marginal tax rate	interest tax shield (\$ million)	PV ITS (\$ million)
2014e	1.050	6,50%	68	33%	23	21
2015e	1.193	6,50%	78	33%	26	23
2016e	1.355	6,50%	88	33%	29	24
2017e	1.540	6,50%	100	33%	33	26
2018e	1.749	6,50%	114	33%	38	28
2019e	1.987	6,50%	129	33%	43	30
2020e	2.257	6,50%	147	33%	49	32
2021e	2.564	6,50%	167	33%	56	34
Continuing Value					1.638	990
						<u>1.207</u>
				Nopat growth:		3,0%
				Cost of debt		6,50%

Assumptions:

- Nopat Growth 3% (equals Long-Term growth rate)
- Discount Rate ITS*: Cost of debt 6.5%
- Tax-rate 33%
- Net Debt increases at the historic CAGR (2012-2013) of 13.6%

Expected Interest Rate: As Dresser-Rand has only a single bond outstanding, the expected interest rate equals the coupon rate of this bond. After the redemption of the bond, I assumed re-issuance with a similar coupon payment

To determine the Continuing Value of interest tax shields beyond 2021, a growth perpetuity based on 2021 interest tax shields, the cost of debt and the NOPAT growth rate is used.

* The cost of debt appropriately incorporates the riskiness of the ITS payments as they are as uncertain as interest and principal payments

Appendix 20: Dresser-Rand Peer-Group

Company	Debt to Equity Ratio in %	Current Market Cap in local currency	Currency	Current Enterprise Value	Sales	EBITDA	Best EBIT	EBITDA Margin
SUPERIOR ENERGY SERVICES INC	22,42	5292	USD	6746	4533	1221	569	26,92%
WEATHERFORD INTERNATIONAL PI	43,21	17384	USD	26311	16828	3935	2570	23,39%
CAMERON INTERNATIONAL CORP	24,84	14542	USD	17429	11477	1930	1508	16,81%
BAKER HUGHES INC	16,12	29405	USD	33013	26811	5842	3860	21,79%
FMC TECHNOLOGIES INC	19,39	12819	USD	13766	8685	1515	1227	17,45%
HALLIBURTON CO	25,64	57368	USD	62849	36482	9056	6742	24,82%
NATIONAL OILWELL VARCO INC	9,31	34518	USD	33867	22978	5075	4272	22,09%
RPC INC	8,58	4825	USD	4935	2917	888		30,45%
TENARIS SA	6,48	20317	EUR	19488	11546	3135	2511	27,15%
SCHLUMBERGER LTD	19,45	132522	USD	139234	54200	15949	11986	29,43%
DRIL-QUIP INC	0,00	3706	USD	3363	927	304		32,82%
ION GEOPHYSICAL CORP	22,71	514	USD	554	588	211		35,86%
OCEANEERING INTL INC	2,36	7193	USD	7170	4130	997		24,14%
OIL STATES INTERNATIONAL INC	10,70	3380	USD	3504	1977	474	357	23,99%
EXTERRAN HOLDINGS INC	39,73	3114	USD	5091				

Source: Bloomberg as of September 1, 2014

Data in domestic currency (million)

Appendix 21: Dresser-Rand Transaction Multiples

Target Company	Announcement Date	Total Value in \$ million	TV/EBITDA	TV/EBIT	TV/Rev
Grant Prideco Inc	12/17/07	7032	11,62	12,88	3,93
SPN Fairway Acquisition Inc/TX	10/09/11	3357	6,07	9,34	1,59
Lufkin Industries Inc	04/07/13	3238	16,61	21,53	2,45
Maverick Tube Corp	06/11/06	2822	7,99	8,85	1,47
Hydril Co	02/12/07	1994	13,56	15,08	3,96
Lone Star Technologies Inc	03/28/07	1927	9,56	11,15	1,4
Wellstream Holdings Ltd	10/05/10	1367	14,33	17,33	2,23
Western Lakota Energy Services Inc	06/19/06	696	11,47	14,28	5,28
Enerflex Systems Income Fund	10/18/09	673	9,51	13,36	0,8
NATCO Group Inc	05/31/09	672	10,47	12,95	1,01
Median		1960	10,97	13,16	1,91
Average		2378	11,12	13,68	2,41
Min		672	6,07	8,85	0,80
Max		7032	16,61	21,53	5,28

Source : Bloomberg as of September 1, 2014

Appendix 22: Siemens Financial Statements (2011 – 2016)

Balance Sheet Siemens (2011 – 2016):

€ million, year-end Sep 30	2011	2012	2013	2014E	2015E	2016E
Cash and Cash equivalents	12.468	10.891	9.190	11.737	12.136	12.549
Marketable securities	477	524	601	417	431	446
Receivables	14.847	15.220	14.853	15.340	15.862	16.401
Inventory	15.143	15.679	15.560	15.572	16.101	16.649
Deferred income taxes	798	836	794	790	817	845
Other current assets	9.080	8.978	5.940	6.856	7.089	7.330
Long-term investments	4.966	4.436	3.022	3.214	3.464	3.718
Intangibles	20.150	21.664	22.940	23.485	25.143	26.542
Net fixed assets	10.477	10.763	9.815	9.737	9.755	9.856
Deferred income taxes	3.206	3.777	3.234	3.322	4.651	4.717
Other long-term assets	12.631	15.512	15.989	20.917	21.648	23.850
Total assets	104.243	108.280	101.938	111.387	117.097	122.902
Short-term debt	3.660	3.826	1.944	2.592	2.680	2.771
Accounts payable	7.677	8.036	7.599	8.002	8.274	8.556
Accrued liabilities	5.168	4.750	4.485	4.901	5.068	5.240
Deferred income taxes	2.032	2.204	2.151	2.092	2.163	2.236
Other current liabilities	25.023	23.820	21.689	24.044	24.861	25.706
Long-term debt	14.280	16.880	18.509	21.346	22.015	22.031
Pension plans	7.307	9.926	9.265	8.771	8.771	8.771
Deferred income taxes	595	494	504	501	501	501
Other accruals and provisor	6.345	7.043	7.165	6.974	6.974	6.974
Minority interest	626	569	516	516	542	585
Equity	31.530	30.733	28.111	31.648	35.248	39.530
Total liabilities and equity	104.243	108.281	101.938	111.387	117.097	122.902

Income Statement Siemens (2011 – 2016):

€ million, year-end Sep 30	2011	2012	2013	2014E	2015E*	2016E*
Net Sales	73.515	78.296	75.874	78.454	75.402	77.913
Growth	-3,2%	6,5%	-3,1%	3,4%	-3,9%	3,3%
Gross Profit	22.127	22.204	20.821	22.464	21.590	22.309
Gross Margin	30,1%	28,4%	27,4%	28,6%	28,6%	28,6%
R&D expense	-3.925	-4.238	-4.291	-4.291	-4.124	-4.261
% of sales	-5,3%	-5,4%	-5,7%	-5,5%	-5,5%	-5,5%
SG&A expense	-10.297	-11.162	-11.286	-11.281	-10.842	-11.203
% of sales	14,0%	14,3%	14,9%	14,4%	14,4%	14,4%
Other operating income/expense	53	516	76	80	55	65
Income from investments	147	-266	510	167	350	355
EBIT	8.105	6.778	5.838	7.139	7.029	7.265
EBIT Margin	11,0%	8,7%	7,7%	9,1%	9,3%	9,3%
Income from financial assets	0	0	0	0	0	0
Interest income (expense) of Operations	0	0	0	0	0	0
Interest (expense) income	491	506	159	188	62	116
Pre-tax income	9.242	7.279	5.843	7.327	7.091	7.381
Income taxes	-2.231	-2.094	-1.630	-1.978	-1.915	-1.993
Effective tax rate	24,1%	28,8%	27,9%	27,0%	27,0%	27,0%
Minority interest	-176	-132	-126	-145	-164	-188
Net Income	6.835	5.053	4.087	5.204	5.012	5.200

* Figures adjusted by the B/S/H/ Divestment

Cash Flow Statement Siemens (2011 – 2016):

€ million, year-end Sep 30	2011	2012	2013	2014E	2015E*	2016E*
Net Income	6.835	5.053	4.087	5.204	5.012	5.200
Minority interest	176	132	126	145	164	188
Depreciation and amortisation	2.650	2.836	2.261	3.075	2.975	3.074
Deferred taxes	2.231	2.094	1.630	0	0	0
Gain on disposals of assets, investments and businesses	-1.229	-146	-618	-400	0	0
Losses/(gains) on sale of marketable securities	0	0	0	-378	0	0
(Income)/loss from equity investees, net of dividends	21	373	0	273	-251	-254
Other, including interest paid and received	-2.041	-1.433	-1.097	0	420	420
Operating cash flow	8.643	8.909	6.389	7.919	8.320	8.628
Operating cash flow per share	10	10	8	9	10	11
(Inc)/dec inventories	-1.135	-85	-218	17	-806	-849
(Inc)/dec accounts receivables	-609	157	-293	33	-388	-390
Sale of trade receivables	0	0	0	0	0	0
(Inc)/dec other current assets	-428	0	0	0	0	0
Inc/(dec) accounts payable	668	197	-217	-370	375	395
Inc/(dec) accrued liabilities	56	0	0	0	0	0
Inc/(dec) other current liabilities	748	-2.218	0	0	0	0
Pension funding	0	0	0	0	0	0
Change in other assets and liabilities (provisions and cust	-350	-375	576	-500	-180	-185
Total change in other assets and liabilities	-1.050	-2.324	-152	-820	-999	-1.029
Capex as a % of revenues	2,95%	2,82%	2,46%	5,87%	4,35%	4,28%
Capex incl. Intangibles	-2.171	-2.206	-1.869	-4.244	-3.310	-3.420
Free cash flow from operations	5.422	4.379	4.368	2.855	4.011	4.179
Acquisitions	-1.314	-2.801	-957	0	0	0
Increase in receivables from financing activity	-1.770	-2.269	-2.332	-1.683	0	0
Proceeds from disposals	2.285	846	2.463	547	0	0
Capital issuance/(sha repurchase)	-764	-1.424	-1.409	-601	0	0
Dividends	-2.356	-2.629	-2.528	-3.226	-3.108	-3.224
Dividends paid to minorities	-158	-155	-152	-132	-139	-146
Foreign exchange effect on cash	5	68	-108	-55	0	0
Balancing item (inc. Currency, accounting changes)	-899	-1.472	847	976	-29	-29
Cash inflow/outflow	564	-4	-1	-631	3	3
Net debt/(cash) beginning	5.559	4.995	9.291	10.662	11.293	8.578
Net debt/(cash) ending	4.995	9.291	10.662	11.293	8.578	5.284
Cash inflow/outflow	564	-4.296	-1.371	-631	2.715	3.294

* Figures adjusted by the B/S/H/ Divestment

Appendix 23: Dresser-Rand Balance Sheet & Income Statement (2009 – 2013)

in \$ million(except per share amounts)	2009				2010				2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Assets																				
Current assets																				
Cash and cash equivalents	160	201	198	223	179	207	333	421	295	127	147	128	123	135	151	123	157	162	174	190
Restricted cash	0	0	0	0	0	0	0	0	0	11	28	30	24	27	24	18	25	12	12	8
Accounts receivable	295	326	310	290	260	267	286	304	279	366	358	477	410	409	412	566	513	647	707	727
Prepaid expenses and other	42	29	43	25	31	31	39	37	67	68	63	67	80	76	87	67	80	76	79	69
Deferred income taxes, net	22	23	23	45	44	42	43	32	32	32	37	40	41	43	40	31	30	30	30	25
Total current assets	883	975	947	936	836	842	998	1.084	982	1.007	1.059	1.151	1.126	1.162	1.221	1.356	1.423	1.491	1.714	1.736
Property, plant and equipment, net	247	252	260	269	272	267	269	278	278	487	458	466	465	445	458	467	465	460	468	472
Goodwill	419	442	465	486	483	458	490	487	505	874	840	851	914	880	894	911	887	891	918	928
Intangible assets, net	435	436	437	431	432	430	431	426	423	559	527	499	523	512	511	507	495	487	485	479
Deferred income taxes	22	26	25	28	27	26	26	29	42	40	38	11	11	18	12	15	14	21	18	12
Other assets									68	65	64	64	68	70	77	77	79	84	97	111
Total assets	2.005	2.132	2.132	2.150	2.050	2.022	2.214	2.305	2.229	3.035	2.988	3.042	3.108	3.088	3.173	3.333	3.362	3.434	3.700	3.738
Liabilities and Stockholders' Equity																				
Current liabilities																				
Accounts payable and accruals	385	402	393	412	340	339	357	401	371	504	521	595	573	511	544	600	623	661	673	729
Customer advance payments	281	302	210	165	131	131	221	254	303	283	309	272	256	261	260	282	204	166	169	165
Accrued income taxes payable	28	18	17	8	12	19	27	14	22	13	28	20	21	17	13	44	37	29	36	36
Loans payable	0	0	0	0	0	0	0	0	79	13	12	0	0	0	0	0	0	0	0	0
Current portion of long-term debt	0	0	0	0	0	0	0	0	0	36	39	39	37	48	27	36	42	35	44	40
Total current liabilities	694	722	620	585	483	489	605	669	774	849	909	927	887	838	844	963	905	891	921	970
Deferred income taxes	21	23	21	39	38	33	44	26	23	49	48	45	44	51	49	36	37	49	47	55
Postemployment and other employee benefit liabilities	109	111	112	110	106	104	108	109	90	86	83	136	128	125	124	143	136	134	127	74
Long-term debt	370	370	370	370	370	370	370	370	535	925	1.015	988	1.030	1.059	1.069	1.015	1.106	1.131	1.296	1.247
Other noncurrent liabilities	28	34	36	34	36	42	45	43	44	97	84	75	88	85	85	82	70	73	71	90
Total liabilities	1.221	1.259	1.158	1.138	1.033	1.037	1.171	1.217	1.466	2.005	2.139	2.171	2.177	2.157	2.170	2.238	2.254	2.278	2.463	2.436
Commitments and contingencies																				
Stockholders' equity																				
Common stock	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Additional paid-in capital	386	389	394	397	399	373	344	342	-	242	96	105	112	121	131	141	143	151	157	162
Retained earnings	462	522	597	638	660	695	733	785	778	796	836	905	929	963	1.004	1.085	1.118	1.171	1.220	1.253
Accumulated other comprehensive loss	-65	-40	-18	-23	-43	-84	-35	-40	-14	-6	-83	-139	-111	-156	-136	-135	-157	-172	-148	-119
Total Dresser-Rand stockholders' equity	784	873	974	1.013	1.017	986	1.043	1.087	764	1.032	850	872	930	929	1.001	1.091	1.104	1.151	1.231	1.297
Noncontrolling interest	0	0	0	0	0	0	0	0	-2	-2	-1	0	1	2	2	4	4	5	6	4
Total stockholders' equity	784	873	974	1.013	1.017	986	1.043	1.087	762	1.030	849	872	931	931	1.003	1.095	1.108	1.156	1.237	1.301
Total liabilities and stockholders' equity	2.005	2.132	2.132	2.150	2.050	2.022	2.214	2.305	2.229	3.035	2.988	3.042	3.108	3.088	3.173	3.333	3.362	3.434	3.700	3.738
Balance Sheet Metrics																				
Cash per Share	1,91	2,47	2,42	2,72	2,18	2,52	4,05	5,12	3,59	1,71	2,17	1,92	1,93	2,12	2,29	1,83	2,37	2,27	2,43	2,58
Working Capital	189	253	327	351	353	354	394	415	207	159	150	224	239	324	377	393	518	600	793	766
Book Value	784	873	974	1.013	1.017	986	1.043	1.087	764	1.032	850	872	930	929	1.001	1.091	1.104	1.151	1.231	1.297
Book Value per Share	9,35	10,69	11,90	12,35	12,39	12,04	12,68	13,23	9,30	12,75	10,52	10,60	12,23	12,21	13,11	14,25	14,38	15,00	16,00	16,86
Tangible Book Value	(69,4)	(5,9)	72,4	95,7	102,2	98,3	121,9	174,2	(163,4)	(401,4)	(517,6)	(478,6)	(507,1)	(463,2)	(404,9)	(327,0)	(277,8)	(226,8)	(172,3)	(109,2)
Tangible Book Value per Share	-0,83	-0,07	0,88	1,17	1,24	1,20	1,48	2,12	-1,99	-4,96	-6,41	-5,82	-6,17	-5,72	-5,02	-4,27	-3,62	-2,96	-2,24	-1,42
Debt to Capital	32,1%	29,8%	27,5%	26,8%	26,7%	27,3%	26,2%	25,4%	44,6%	48,6%	55,7%	54,1%	53,4%	54,3%	52,2%	49,0%	50,9%	50,2%	52,0%	49,7%
Net Debt to Capital	21,1%	16,2%	15,0%	12,7%	15,8%	14,2%	3,4%	-4,9%	29,5%	44,8%	51,2%	49,9%	49,7%	50,4%	47,9%	45,4%	46,6%	46,2%	48,2%	45,5%
Return on Equity				20,8%				14,7%				18,4%				16,3%				12,9%
Return on Capital Employed				22,3%				16,0%				12,4%				14,2%				11,6%

Income Statement Dresser-Rand:

in \$ million (except per share amounts)	2009	2010	2011	2012	2013
Net Sales of Products	1.841	1.484	1.640	1.925	2.220
Net Sales of Services	449	470	672	811	813
Total Revenue	2.290	1.954	2.312	2.736	3.033
Cost of Products Sold	1.324	1.030	1.184	1.429	1.664
Cost of Services Sold	308	337	478	575	583
Total Cost of Sales	1.632	1.367	1.662	2.004	2.247
Gross Profit	658	587	649	732	785
Selling and Administrative Expenses	287	301	365	366	386
Research and Development Expenses	20	24	28	30	39
Fixed Asset Impairment of Cogen Facilities					40
EBITDA	400	315	338	421	413
Operating Profit	349	263	257	336	321
Interest Expense, net	-32	-33	-55	-60	-47
Early Redemption Premium on Debt	0	0	-2	0	0
Other (Expense) Income, net	-5	-0	-3	0	-17
Income Before Income Taxes	312	229	198	276	258
Tax Rate	32,4%	30,1%	34,1%	33,7%	34,3%
Provision for Income Taxes	101	69	67	93	88
Net (Income) Loss Attributable to Noncontrolling Interests	0	0	-0	-4	-1
Net Income Attributable to Dresser-Rand	211	160	130	179	168
Earnings per Share					
Basic	2,58	1,98	1,68	2,34	2,21
Diluted	2,57	1,97	1,66	2,32	2,19
Weighted Average Shares					
Basic	81,7	81,0	77,5	76,5	76,1
Diluted	81,9	81,5	78,3	77,0	76,8
As a % of Revenue					
Total Cost of Sales	71,3%	70,0%	71,9%	73,2%	74,1%
Gross Profit	28,7%	30,0%	28,1%	26,8%	25,9%
Selling and Administrative Expenses	12,5%	15,4%	15,8%	13,4%	12,7%
Research and Development Expenses	0,9%	1,2%	1,2%	1,1%	1,3%
EBITDA	17,5%	16,1%	14,6%	15,4%	13,6%
Operating Profit	15,2%	13,4%	11,1%	12,3%	10,6%
Net Income Attributable to Dresser-Rand	9,2%	8,2%	5,6%	6,5%	5,6%
YOY Change					
Total Revenue	4,3%	-14,7%	18,3%	18,4%	10,8%
Gross Profit	6,3%	-10,7%	10,6%	12,8%	7,3%
EBITDA	3,6%	-21,4%	7,3%	24,8%	-1,9%
Operating Profit	3,3%	-24,7%	-2,0%	30,6%	-4,4%
Net Income Attributable to Dresser-Rand	6,6%	-24,0%	-18,8%	37,6%	-5,9%
Diluted Earnings per Share	9,2%	-23,6%	-15,5%	39,9%	-6,3%

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