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Vodafone - Kabel Deutschland Merger

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Abstract

This work project aims to analyse the acquisition of German cable operator Kabel Deutschland by the British telecommunications company Vodafone in September 2013. Analysis of the technologies and German telecommunications sector reveals the sources that motivate a transaction. The acquirer needs to find a way to react to the increasing demand for data on internet connections. Also, Vodafone has a weak infrastructure of fixed line and thus is missing a strong network to be able to offer the full Quad-Play services (TV/Fixed-Phone/Internet/Mobile). The acquisition target is a company with a strong cable network in place that is a good alternative to provide modern internet connections. Both companies seem to be highly complementary and would benefit from a merger by getting an improved competitive position and readiness for the Quad-Play trend. The offer price per share is with €87 per share 24% above the standalone DCF valuation and represents an attractive premium for target shareholders. Discounting the claimed Synergies by acquirer Vodafone result in an NPV of €4.5 billion. This means that Vodafone is paying away 33% of the Synergies to the target. However, Vodafone shareholders can still expect to gain from the investment as cost synergies seem credible and sufficient to cover the premium.

Key Aspects: German telecommunications industry, Quad-Play trend, Synergy credibility and Premium Paid

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1. Background Analysis

In order to understand the underlying reasons why the phone-operator Vodafone buys cable operator Kabel Deutschland, the technologies and operating environment that are part of the discussion need to be clarified.

a) Technologies

The main services that are part of the analysis include fixed-phone, mobile-phone, TV-services and Broadband Internet. In order to understand why companies start to offer these services combined (Quad-Play), it is useful to analyse how the internet affected the cable and telecommunications sector.

When the internet opened the isolation of local area networks (LANs) and connected computers on longer distances in the 1990s, it used a network that was already in place since the 1860s.[1] The network used was the telephone system, which was originally designed to carry sounds but successively used to transmit other signals. In order to meet increasing demand for internet and usage of phone& internet at the same time, improvements like broadband internet connections showed up.[1]

However, telephone lines were never designed to carry computer data and households being connected to the old-fashioned copper-wire technologies have problems getting a fast connection to meet increasing data demand for computers. Therefore, a new fibre optic infrastructure is built in order to replace the old-technology of copper-lines.[1]

The other network that showed to be able to provide internet access to households is the cable television infrastructure. Nowadays used for providing phone, cable and internet to

[1] Woodford, June 27th 2013

households, cable operators effectively start to compete with the traditional telecommunications operators and offer even faster connections.[2]

A similar development occurred in the cell phone network as smartphones and computers were able to connect to the internet using the mobile broadband. Mobile Internet means here being connected through a radio tower to a cellular telephone service provider.[3] While this way of connecting is of growing importance due to smartphones, tablets and laptops it can effectively compete with the wired telephone networks.[3] As different networks start to compete for the same customers, the idea of offering all services combined rather than duplicating network investments is referred to the Quad-Play.

b) German Telecommunications Industry

After clarifying the technologies that affect the industry in which both companies of the deal operate, this section gives an overview about size and recent development. The Sales and market share over the last three years by segment are shown in Appendix 1-Table 1. Sales have not changed much in the overall sector, remaining almost constant from 2011 to 2012F (€57.92 billion to €57.98 billion). Table 1 also shows that fixed and mobile services dominate sales (42% and 45% in 2012F), while cable still plays a minor role (7.55% in 2012F).

The overall data volume transferred has more than doubled from 2010 to 2012 as can be seen in Appendix 2 – Graph1.[4] Differentiation in the technology used to get internet access to households shows another interesting trend as shown in Appendix 3 – Graph 3. While the classical way of connecting homes through Analog & ISDN lost importance

[2] Kabel Deutschland and unitymedia Website (100MB/s)
[3] Woodford, June 27th 2013
[4] Year 2010 were 65.4 Gigabyte compared to 140 Gigabyte in 2012 as in Appendix 2

over the last four years (-6% CAGR), the new technologies of DSL and fibre cable (HFC, FTTH, FTTB)[5] gained importance (32% and 27% CAGR).

c) Industry Changes

Before turning to the current main players in the market, it is worth to mention that the German telecommunications industry was strongly affected by regulatory actions. A number of reforms was initiated by authorities to restore competition in the market at the end of the 20th century and still has effects on the current industry dynamics. The reforms made were Postreform I (1989) which separated the business of German monopolist Deutsche Bundespost into three operating segments (Postdienst, Postbank, and Telekom).[6] Later, with the Postreform II (1995) those businesses were privatised and went public in order to meet increasing capital investments. From the beginning of the 21th century, the emerged Deutsche Telekom was furthermore forced to sell its cable network in single parts to different investors (Kabel BW, Kabel Deutschland, unitymedia). [6] The liberalization is responsible for the current situation in the industry and the split of the cable operators into Kabel BW, Unitymedia and Kabel Deutschland.[7]

d) Competitive Environment

Having analysed the macro trends and recent history in this industry, it is worth analysing the main players and their services offered. The first segment and probably most important one in this analysis is broadband internet, where target and bidder operate. The Ranking of current German broadband operators by connections to households is shown in Appendix 4- Graph 3. The graph shows that the industry is dominated by market leader

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[5] Hybrid Fibre Coaxial, Hybrid to the Home and Hybrid to the Building
[6] Bundesanstalt für Post und Telekommunikation – Deutsche Bundespost, 2013
[7] Kabel Deutschland, 2013

Deutsche Telekom who almost holds half of the connections on the entire market, while Vodafone and others have to split the rest of the market between them.

The next important segment involves analysing the mobile service providers. Appendix 5 - Graph 4 shows that the mobile market is consolidated with 4 main operators in the market. Telekom and Vodafone have a leading positioning over their competitors with 37 and 34 million customers, respectively. Recent announcements about a merger between the two smaller operators E-Plus and O2 might change the whole competitive environment in the German market[8]. A new phone giant would evolve that would be larger than the current market leader Telekom. The merger, if approved is planned to evolve in 2014 and would result in higher industry concentration and probably a change for consumers.

Having seen the main broadband and mobile players, this section turns to the main cable operators. The three large cable operators are Kabel Deutschland, Kabel BW, Unity Media and several smaller local operators. By 1st of July 2012, Liberty Global, the owner of unity media bought Kabel BW and consolidated both operators to "Unitymedia Kabel BW"[9]. The consolidation is currently stopped by regulatory authorities and subject to further investigation[10]. As shown in Appendix 6- Graph 5, Kabel Deutschland would still be slightly ahead of the merged entity by having 7.6 million customers, while Kabel BW/Unitymedia have a combined customer base of 7.1 million[11]. "Unitymedia Kabel BW" focuses on the three federal states of North Rhine Westphalia, Hesse and Baden-Württemberg, while Kabel Deutschland serves the other 13 federal states.[12] Both main

[8] Thelocal.de retrieved on 23th July 2013
[9] Unitymedia (01.07.2012)
[10] Oberlandesgericht Düsseldorf, 2013
[11] Both companies Annual Report FY 2013
[12] Both Companies Websites (www.kabeldeutschland.de and www.umkbw.de)

players offer the triple-play services of TV, Internet and phone over their own network in place[13].

2. The Acquiring Company: Vodafone Group PLC

Vodafone Group PLC is one of the biggest mobile services company on a global scale, operating in over 30 countries with revenues of over 44.4 billion pounds in the last financial year of 2013[14]. The company sees itself to operate in a very dynamic and competitive market that brings up several challenges and has a wide range of strategic objectives to react to the challenges in this industry[15]. The most recent trends in the global operating environment as described by Vodafone are promising opportunities in emerging markets (demand for data service/growth) and challenging pressures in Europe (regulatory/economic).[14] Vodafone entered the German telecommunications market back in 1999, where it acquired Germany's second largest fixed-line telephone and internet provider Mannesmann (D2- Mannesmann Network) in a $183 billion stock exchange.[15]

In order to get a better understanding of the company's internal and external situation, a SWOT analysis is conducted and can be found in Appendix 7. While Vodafone is a company with global exposure, the analysis focuses on its presence in the German telecommunications market, where the transaction will take place. Summarising, the SWOT analysis shows that Vodafone has a strong position in its core lines of business (mobile phone market leader, strong brand recognition, mobile network state of the art technology) while it has weaknesses when it comes to the fixed line business. Vodafone

[13] Company Websites (www.kabeldeutschland.de and www.umkbw.de)
[14] Vodafone Annual Report 2013, Page 3
[15] www.vodafone.com

is strong in the core of its business mobile, as it has 35% of the German market measured by revenue. On the one side, the fixed line business is still a weakness for the company, being dependent on its main competitor Deutsche Telekom for using its ready network in place. On the other side, the fact that Vodafone has not made a step yet to invest more in its fixed line network is also a major opportunity to improve its competitive position. Facing increasing demand on mobile and broadband connections, an investment in a stronger network would enable Vodafone to offer unified services of mobile and their own fixed line. The Threats in the external environment are due to the economic crisis in Europe and regulatory changes that lead to decreasing margins and low cost competitors.

3. Target Analysis: Kabel Deutschland

a) Company Overview

Kabel Deutschland describes itself as Germany's largest cable operator and probably biggest national cable network in Europe with reaching over 15 million homes.[16] The services provided include a wide range of offerings for TV and telecommunications. Customers can select from a wide range of premium TV products (as HD digital TV), fast internet (up to 150Mbit/s) and fixed-phone services over the cable network.[16] The cable company serves 8.5 million homes and is serving in 13 of 16 federal states. Furthermore, the company believes that it is well positioned as a triple-play provider to benefit from strong growth and a consolidating German market.[16]

Similar to the analysis of Vodafone, a SWOT analysis has been conducted and can be found in Appendix 8. Summarising, the most important Strength to the company's success can be seen in the modern cable network in place that is able to deliver modern

[16] KD Annual Report, 2013 Page 14 and 15

digital TV services and very fast internet (up to 150 Mbit/s). The firm has a strong brand recognition and can be seen as the market leader in this segment (cable internet) with the largest customer base. Macroeconomic pressures have not strongly affected the company in Germany, as revenues were growing over the last years. A weakness of the firm is the limit to set prices of their services as most of them are limited by a maximum through either contracts or regulatory authorities. The customer base is also struggling to grow further and growth is coming from adding additional services of premium TV to the existing customer base.[17]

Major opportunities are good prospects for the German cable market, as there is increasing demand for high speed connections to households and the increasing importance for premium TV. As the fixed-line phone and internet are growing, Kabel Deutschland expects to gain from lower instalment costs per customer. The major threats for the company is the dynamic characteristic of the industry where technological changes can have a huge and fast impact on firm performance (e.g. mobile internet). The pressure to offer Quad-Play services might also be a major threat for the company, as Kabel Deutschland is not a mobile network operator. The company has increasing operating costs that might also threaten the profitability in this business, as regulation and consolidation put pressure on margins.

b) Financial Statement Analysis

In order to get a first impression of Kabel Deutschland's financials, appendix 9 shows the Balance Sheet for FY 2012/13 and appendix 10 the Income Statement for the last three financial years. The balance sheet shows a negative equity position of -1.48 billion in FY

[17] Kabel Deutschland Annual Report 2013, Page 27

2013 and a Total debt to Assets ratio of 1.5. The high level of debt is higher in comparison to direct competitor Kabel BW/Unitymedia that has a Total Debt to Assets ratio of 0.96[18]. However, interest Payments are easily covered out of operating profits, having an interest coverage ratio of more than 2.1 in FY 2013[19] (Kabel BW/Unitymedia 0.54[20]). The Rating of Kabel Deutschland's outstanding bonds is BBB+ and therefore upper-medium investment grade.[21]

Total Revenues grew by 7% CAGR from 2011 to 2013 which is mainly due to strong growth in the Phone& Internet Segment (CAGR 17%[22]). Margins are increasing, looking at EBITDA/Sales[23] ratio in the last three years by 1.65% which is a positive development. The result for EPS has been increasing over the last three years from -0.5 (FY 2011) over 1.8 (FY 2012) to 2.8 (FY 2013). Kabel Deutschland expects this positive trend in their financials of increasing EBITDA to persist. While the traditional business of basic TV services is declining, premium TV services and Internet & Phone can drive the future success of the company. The company expects to benefit from increasing internet penetration in the market, winning market shares of the cable operators from DSL and premium digital TV services.

c) Comparable cable Companies

In order to get a comparable picture of KD as a cable operator, the following sections discusses some selected ratios of the company itself and chosen peer operators from other countries. In finding peer competitors, the criteria have been: a) national cable operator

[18] Kabel BW/Unitymedia Annual Report 2012 Page II-3 and II-4
[19] EBIT/Interest Expense of 1.8 (FY2012) and 2.1 (FY 2013)
[20] Kabel BW/Unitymedia Annual Report 2012 Interest Coverage Ratio 0.5 (2011) and 0.54 (2012)
[21] Rating from 17.10.2013 Kabel Deutschland Website
[22] KD Annual Report 2013 Page 108 and Annual Report 2012 Page 59
[23] EBITDA/Sales FY 2011 to FY 2013 see Appendix 10 Income Statement

in Europe b) 1- 8 billion market capitalisation c) operating in the triple play (without significant mobile business). In order to compare the company before any influences of the deal could show up in the stock price, we used numbers from the financial year 2012.

Four European companies qualified for a direct comparison and the chosen ratios were Price/Earnings and EV/EBITDA as can be seen in Appendix 11. The average P/E ratio for fiscal year 2012 of the 4 peers was 21.2 with KD having a value of 26.4. A higher P/E ratio tells us that investors expect higher earnings growth in the future. Considering the fact that KD paid the first dividends in 2012 (€1.5) and 2013(€2.5), high expectations for the future do not seem surprising. The next chosen ratio is EV/EBITDA as an indicator of whether KD is in total valued higher than its peers. Finding an average value of 7.2 for the 4 industry peers, KD has a quite high multiple of 11.66 and is thus valued higher compared to its peer cable operators.

4. Rationale of the Deal

Having discussed both involved companies and analysed the German telecommunications industry, the following section narrows down to the rationale of the deal from the discussed aspects. The aim of analysing the rationale is to find the forces that ultimately lead to the decision of both companies to merge. This part of the analysis is especially important to assess the credibility of the claimed Synergies and communicate the findings to investors.

a) Synergies in Theory

As a starting point, the improvements achieved through the synergies should be classified. Common improvements can occur through revenue enhancements, cost reductions, asset reductions, tax reductions, financial synergies[24]. Revenue Enhancements might occur through cross selling or cross branding between both firms of the deal. Typical Cost reductions can be further categorised in Economies of Scale (as capacity utilization, purchasing power) and Scope (as technology, know how). Asset reductions might be more of a one-time effect by closing headquarters or unused plants among others. Tax reductions can include an increase in depreciation tax shields and transfer of net operating losses from target to the buyer. There might also be financial synergies involved in a transaction as the Coinsurance effect where the cash flows of both firms are not perfectly correlated.[24] Through one or several of these Synergies, the combined entity has a larger value than the sum of both firms individually.

a) Deal-specific Sources of Synergies

Besides finding a wide range of strategic reasons to combine two companies into a stronger, single one, it is important for valuation purposes to find Synergies that can be quantified. Furthermore, research found that investors discount cost savings less, while synergies of other origin more.[25] Thus, decomposing the Synergies and searching for their origin helps to determine a degree of credibility for them. Furthermore, the form of payment stock or cash is another indicator of the risks involved in the synergies.

The claimed synergies by Vodafone are composed of two types of synergies. The first type are Cost reductions through Opex & Capex Synergies.[26] Opex is expected to be reduced through overlapping activities in the distribution network, IT and SG&A. Capex are expected to be lowered through less expenditures in the networks and the backbone where Vodafone owns its own fixed-line network. Vodafone estimates a value of 300

[24] Bruner, 2004 Page 328
[25] Bruner, 2004 Page 60
[26] Operating and Capital Expenditures

million per year in gross value, pre integration costs. Appendix 12 shows a more detailed discussion of the cost reductions and their origin. These claims sound credible rather than being broad or vaguely defined and therefore should be included in this analysis. Cost Synergies are also a widely accepted driver of M&A activity to achieve savings in overlapping areas.[27]

The other type of synergy and probably most doubtful are expected revenue enhancements by opportunities in cross-selling in each other’s footprint and increased customer loyalty. These enhancements are expected to increase yearly revenue by about 150 million pre-tax. However, with the mentioned prevailing scepticism in the eye of the investor for synergies other than cost cutting, those expectations need more investigation. While these ideas make rational sense in theory, it is harder to include them in the same way as cost savings. Looking at the cross selling potential, Kabel Deutschland offers successfully TV-Internet-Phone while Vodafone offers Internet-Phone-Mobile. The question is where potential cross selling should appear and whether there might be a degree of Churn in favour or against increasing the Synergies.

Existing companies show that bundling the “triple package” of Phone-Internet-TV works well, however the idea of adding a fourth product mobile services is not well tested yet. The idea is that customers of Kabel Deutschland that are not using Vodafone as their current mobile provider might accept all four offerings from the same operator. However it might not be an easy task to convince consumers to switch providers, especially if they are committed in long term contracts. Also migrating the existing Vodafone ULL customers to cable might force them to sign a new contract and relocate the router in a

[27] Bruner, 2004 Page 60

different part of the house (Effect of Churn).[28] Thus, there are some reasons why the revenue enhancements might not turn out to be as high as expected.

The form of payment has another important implication for the synergies of the deal. It is found that returns to target shareholders are higher when the form of payment is in cash, while for buyers the payment in equity exceeds all-cash deals in the European Union.[29] The theory is that managers should be willing to pay in shares when they believe their stock is at the peak of the cycle. The fact that the Vodafone – Kabel Deutschland deal is a 100% Cash offer might be an indicator that the management of Vodafone assumes a reasonable priced stock. Another implication of the Cash Offer is that the execution risk of the synergies is completely in the hands of Vodafone shareholders. As the payment involves a premium to Kabel Deutschland shareholders, the risk of realizing all claimed synergies and earning the premium back is within the hands of Vodafone shareholders. The longer it takes to realize Synergies and if not realized as expected, the more costly it is for Vodafone shareholders. Thus, management should be quite sure of realizing most of the claimed synergies, as they impose a greater risk for their shareholder's returns.

5. Valuation and Price Paid

In order to analyse the value of the deal and the price paid, it is useful to look at the deal from a value creation framework. First, value is only created if present value of the combined Cash Flows is greater than it would have been if the deal was not completed. Second, value for Vodafone is only created when the value received is larger than the price paid to the target.

[28] J. Dellis, U. Rathe, N. Amjad and G. Thorne 2013 Page 1
[29] De Pamphilis 2010 page 31 and 32

Therefore, the first step is to determine a standalone value of Kabel Deutschland by discounting expected future cash flows or looking at the market price pre-announcement of the transaction. As shown in Appendix 13, using forecasted financial statements for the time period 2014-2017, the valuation results in an Enterprise value of around €8.92 billion. In order to get the price per share, the calculation subtracts net debt from Enterprise Value and divides by the number of shares. Using net debt of 2.8 billion and outstanding shares of 88,400,000, the implied share price is around €69.5. This estimated share price is in line with the 6-month average of Kabel Deutschland's traded share price before official announcement of the deal which is around €67. Having an estimation of Kabel Deutschland minimum value worth, it is possible to calculate the premium paid by Vodafone. The Deal was finally settled at €87 per share and thus represents a 24% premium on top of our standalone estimation.

In order to assess the premium paid, the next step in the calculation is to value the estimated synergies net of integration costs. Appendix 14 gives an overview of the expected synergies and integration costs. Vodafone estimates through these Synergies more than €300 million in annual cost and Capex Savings after the fourth year of completion. Revenue Enhancements are expected to be €150 million also after the fourth year of completion. Integration costs are expected to be €300 million over the first four years. Without further notation by Vodafone, the calculations assume that integration costs are split with 40% in the first year and 20% in the following three years.

In order to make a NPV estimate of the synergies and compare it to the claimed value by Vodafone, some assumptions have to be made. Assuming that the profits that result from the Synergies are taxed in the country of origin (Germany), the calculations apply the tax rate of the target. Furthermore, even as this is a cross-country transaction, we do not make any country specific adjustments to the discount rate of the acquirer as the United

Kingdom and Germany should be relatively high integrated. Vodafone is planning to integrate the operations of Kabel Deutschland but might still not experience a significant effect on their cost of capital due to relatively small size of the target. Appendix 14 shows that these assumptions lead to a NPV of total Synergies net of integration costs of around €4.5 billion. Using this estimate, the maximum value worth of the target from Vodafone's perspective should be around €122 per share[30]. Looking at the premium paid to Kabel Deutschland and comparing it to the estimated Synergies, Vodafone is paying away around 33% of total synergies.[31]

The previous analysis of the claimed synergies by Vodafone has shown that cost synergies seem credible, while revenue enhancements should be included carefully in our analysis. In order to address the uncertainty with the revenue enhancements, Appendix 15 shows a sensitivity analysis for the realization of synergies and the effect on the theoretical value worth of Kabel Deutschland shares. The table can give a good overview in how much of expected Synergies in Cost or Revenue have to be realized in order to cover the price paid for the target. Note that the previous discussion on synergies revealed that the risk of realizing them is totally in the hands of Vodafone shareholders, as the payment is 100% in Cash. Keeping this in mind, the sensitivity analysis shows that the transaction needs to realize at least 50% of the claimed cost synergies in order to not overpay.

6. Stock Market Reactions

In order to get a complete picture of both firms and their market presence, the following section discusses the historical stock price movements. Vodafone group PLC was

[30] Standalone value calculated €70 per share plus (4.5 billion /88.690.000 shares)
[31] Calculated by the estimated prices in the above paragraphs: (€87) - (€70) / (€121 - €70)

originally listed on 11/10/1988 with GBP170 per share[32]. Kabel Deutschland was listed on 22/03/2010 with EUR22 per share[33]. Appendix 16 gives an overview over the historical stock price of both companies.

The performance of Kabel Deutschland's stock has been strong since its IPO three years ago by an increase of 200% in the price[34]. A first hint that Vodafone might be interested in Kabel Deutschland was given at the Q3 IMS conference call on 7th February where CEO Vittorio Colao said that M&A in the fixed line segment is ''on the cards''. This announcement didn't trigger any significant stock price movement, with Kabel going down around 1% and Vodafone going up 1%. The first rumours that Vodafone might be interested in making an offer for Kabel Deutschland came up in the news on 13th of February where a stock jump of 8.7% was seen for Kabel Deutschland while Vodafone's stock decreased by 1.1%.

On 12th of June, Vodafone "confirms to have made a preliminary approach to KD regarding a possible offer for the company".[35] At this time there was no definite statement about the terms involved or whether a deal will ultimately be made. Nevertheless the news were sufficient to lead to a market reaction that increased KD's share by about 9% to €81 per share and above in the following days as shown in Appendix 17. Vodafone's stock reacted negative with a decrease of 4.9% after the announcement.

Vodafone confirmed its intention to offer €87 per share (including a 2.5 div) on 24th of June where the stock price was already trading around the implied value of €84.5. As can be seen, there is not an immediate jump that is triggered by an announcement by Vodafone, but rather a heating stock price based on rumours that Vodafone is about to

[32] Vodafone.com
[33] Kabeldeutschland.de
[34] IPO share-price: EUR22 Undisturbed stock price in February 2013: EUR66
[35] www.vodafone.com

make a move this year and the probable offer price. Overall, the news for an announcement had a significant positive effect on KD stock (8.7% and 9.1%) while VOD stock reacted negative (-1.1% and -4.9%). This might be an indicator that stock holders expected the deal to create value for KD shareholders probably through a high premium, while VOD shareholders don't expect the deal to be favourable for them.

7. Financing the Deal

The structure behind financing a deal is important as it has a direct impact on the capital structure, debt capacity and value of tax shields of the combined new entity. Vodafone decided to pay the total amount in 100% Cash to Kabel Deutschland shareholders. Furthermore, Vodafone said it would finance the Deal with the use of existing Cash resources and banking facilities. Choosing a form of financing a deal has direct effects on the financial statements of the combined firms. In general, while the decision to finance the deal more with stock than Cash creates more flexibility as no Cash on hand or borrowing capacity is consumed[36].

Vodafone estimates that a deal would raise group net debt to EBITDA by about 0.4 to 2.4[37]. As a first indicator, the rating of a company's debt is important to reflect the capital structure health, access to debt market and communication to shareholders. According to Moody's, the increase in Vodafone's debt would lead to downgrade to BBB+ from prior A- credit rating due to an increased debt burden[38]. While this would mean a significant burden on Vodafone's balance sheet by decreasing Cash on hand and increasing debt significantly, announcements of a dividend to be paid out from Verizon Wireless end of

[36] Bruner, 2004 Page 574
[37] Vodafone Investor Presentation 24th June 2013 "Cash Offer for Kabel Deutschland"
[38] Dattani and Wittig, 2013 Page 2

June 2013 will regain strength in the balance sheet. Also the announced sale of Vodafone's stake in Verizon for US$130 billion should enable management to regain strength and rebalance debt and Cash to target levels[39].

Thus, the stretch of Vodafone's capital structure does not seem to impose excessive risk on the company's ability to pay its debt and management has flexibility to restore target levels through the Verizon sale in the United States.

8. Medium Term Effect

Investors, Company executive and other involved stakeholders are generally concerned about the short term effect on EPS[40] due to a transaction, even though it is clear to most of them that long term value is not directly tied to this limited measure.[41] Thus, while calculating EPS, it is important to note that we should not rely entirely on the conclusion drawn by analysing this single measure.

a) Earnings per Share Effect

The concern about EPS is focused on the midterm effect over year 1 and 2 of the acquisition with the most frequently questions asked whether the deal is increasing (accretive) or decreasing (dilutive) EPS. While analysing EPS in an acquisition, it is necessary to include the effects of the transaction as method of payment, integration costs and synergy effect. Appendix 19 shows the formula used for calculating the effect on EPS in this transaction. Due to relative size of Vodafone's net income and the small impact of Kabel Deutschland's net income, it is more useful to first look at the effects of the merger separately.

[39] www.vodafone.com

[40] (Net Income - Dividends on preferred stock)/Average Outstanding Shares - Bruner, 2004 page 328

[41] Koller, Goedhart and Wessels, 2010, Page 13

As the number of shares stays the same, the only effect on EPS comes from net income of Kabel Deutschland plus any effects of the transaction (synergies, integration costs, increased interest payments). Using expected net income of Kabel Deutschland for the next years, Integration costs (as calculated before) and additional interest payments for half of the acquisition value, EPS show to be accretive from year one after the merger. This finding is in line with Vodafone's assumption.

b) Cash Flow Effect

Another medium term measure is the effect on FCF due to an acquisition and needs to be analysed. Combined FCF of Vodafone and Kabel Deutschland, including any effects of the synergies and integration costs are shown in Appendix 20. An overview of the Cash Flow effect in the years following the transaction is visualized in Appendix 19. Cash Flow shows to be slightly dilutive in year one of the acquisition even without accounting for the Offer price paid in Cash. From year two onwards, Cash Flow is accretive and reaching high growth in some years ahead. The negative impact on Free Cash Flow in year one is especially due to the assumption of integration costs that might be highest in year one after the transaction. Looking ahead, the positive impact of the Deal is only effective in year 4, where Cost and Revenue Synergies are expected to show up for the first time.

9. Comparable Transactions

In order to get a better sense for the price paid for KD in this deal, it is useful to put the deal in the context of comparable transaction as shown in Appendix 21. The deal values KD at 11x2014f EBITDA which seems to be out of the range of comparable transactions that changed ownership for an average of 8.22x EBITDA. This multiple however, falls to 6.3x 2014 EBITDA post Synergies and is then lower than comparable transactions that had an average of 7.35x EBITDA. Thus, comparing the price paid for KD to historical transactions shows that the Synergies will have a huge impact on the success of VOD as the price paid is well above what was paid for cable transactions before. While the synergy analysis has shown that Vodafone shareholders bear low risk in overpaying for this deal, an analysis of the comparable transactions has shown that Kabel is valued much higher with multiples than other targets.

However, higher synergies for Vodafone might make reasonable sense when checking the acquiring companies used in our comparable transactions. Mainly acquired by Liberty Global, there is no comparable cable transaction that has the same strategic acquirer in the position as VOD to be operating a mobile& fixed line business in the same geographic region as the target. Thus, our historical cable transactions can at best give us a rough comparison, but not lead to any reliable conclusions whether Vodafone paid a reasonable control premium.

10. Risks Analysis

While the analysis has shown that the deal offers clear sources of value that justify paying a premium for the target, it is necessary to describe the downside potential through various sources of risk. Analysis of the technologies showed that the mobile network is improving constantly and is able to compete with the fixed line network. Substitution of the fixed line network through mobile connections is referred to the term "wireless-substitution".[42]

Another source of risk derives from the competitive nature of the German telecommunications market and consolidating pressures. While quasi monopolist Deutsche Telekom has shown to loose market value over the last years, even a merger of

[42] Blumberg and Luke, 2012

Vodafone – Kabel Deutschland would not end its dominance in the broadband segment. Other competitive pressure would come from a merged entity of O2 and E-Plus (mobile) and Kabel BW/Unitymedia (cable) if the mergers get approval by regulatory authorities. These competitive and consolidating pressures might lead to more price competition and Quad-Play offerings.

Regulation has shown to play a major role in the German telecommunications sector, and the abandonment of Kabel Deutschland's bid for Telecombus has shown that authorities leave no action without investigation. A regulated decrease in MTRs[43] might be one example where revenue growth is limited even though with high growth prospects in the market. Specific remedies set by authorities as effect for the merged entity might also reduce expected synergies. Overall, there are some sources of risk that might have a negative impact on both firms. However, all of them are based on the nature of the telecommunications sector in the German market and both firms would be exposed to them even without the transaction.

11. Deal Analysis

After detailed discussion of different aspects of the deal, this section summarises the main findings. First, the analysis of the technologies used to connect households to the internet shows some interesting insights. The original infrastructure was never built to connect households to the internet and firms are struggling to update their network and deliver high speed connections. This finding is problematic for firms as the demand for data has shown to increase significantly over the last years. However, cable operators have shown to be a good alternative in delivering internet with a high level of speed. Mobile internet

[43] Mobile Termination Rates (Rates charged to other companies for using owned network)

is another technology that is updating delivery speeds rapidly and competes with the traditional ways of internet connections.

Analysis of the German telecommunications market shows that regulatory authorities play a major here. While the overall sector is dominated by Deutsche Telekom in mobile and broadband, Vodafone shows up to be strong in mobile as well. The cable market shows to be highly concentrated but still plays a minor for internet connections. There was recent announcement of a merger in the mobile and cable sector of different companies, which would increase industry concentration even more.

Analysis of the acquirer Vodafone has shown, that the British telecommunications company entered the German market with a large acquisition of a network in 1999. The strength of the operator are brand recognition and fast mobile connections. However, the company has deficits in the fixed-line network, where it has to rent the network of main competitor Deutsche Telekom and pay fees. The company is not yet a full Quad-Player, having these deficits in its fixed line and no significant TV business.

The Target Kabel Deutschland is Germany's largest cable operator, offering the Triple play of TV-internet-phone over its modern high speed network. The operator benefits from increasing internet demand and their premium TV business by having their modern network already in place. Threats might emerge from the Quad-Play trend if other competitors would offer combined services. Also the growing importance of the mobile network in delivering fast internet might reduce the advantage of a fixed infrastructure in place. While the financials show negative Equity and a high level of debt, the outlook is positive according to company statements and development over the last years. Using multiples and comparing the cable operator to peer companies shows that the market affirms the positive outlook.

The rationale of merging both companies is that their businesses are highly complementary and can strengthen their competitive position. Vodafone can address its needs to strengthen its fixed line network and make the next step into the Quad-Play. The dependency on its main competitor Deutsche Telekom and the implied fees for using its rented lines can be reduced. By acquiring a cable operator with a high-speed connection in place, less investments in an own network need to be made and the position of Deutsche Telekom is attacked. Kabel Deutschland can benefit from being part of a larger company that offers the Quad-Play and has a stronger competitive position. Consolidation in the mobile and cable sector in Germany show that the trend is higher industry concentration and targets might become rare, thus an investment is better now than in the future.

Valuing Kabel Deutschland on a standalone basis resulted in an implied share price of around €70 per share which is in line with the traded share price before any announcements of the transaction. Using this standalone value, the €87 per share offer represents a 24% premium for Kabel Deutschland shareholders.

Vodafone expects Cost Synergies of €300 million and Revenue Enhancements of €150 million per year after the fourth year of completion of the deal. Analysing the Synergies resulted in an NPV estimation of €4.5 billion post integration costs. The maximum implied share price that Vodafone should be willing to pay for Kabel Deutschland is thus €122 per share. Vodafone is paying away 33% of the total Synergies to Kabel Deutschland shareholder with the premium offered. While cost synergies seem to be credible, the revenue enhancements include execution risk and might not be realized in full. However, sensitivity analysis has shown that revenue synergies do not need to be realized in full as long as most cost synergies show up.

Stock market reactions show that rumours were heating up the stock price rather than a one-time reaction to announcement of the deal. The reaction on official announcement of the offer was positive for the target and negative for the acquirer. This implies that the acquiring shareholders do not expect the deal to create significant value for them.

Analysis of the financing ability of Vodafone shows that the deal would just slightly stretch its capital structure. The increased debt burden would result in small a downgrade of existing debt while still remaining at an acceptable level of risk. The recent transaction of selling its stake in Verizon Wireless should also enable Vodafone to restore target levels of debt.

Analysis of the medium-term reaction showed that EPS will be accretive from year one, while FCF will be accretive from year two. This finding might be important for investors that are generally concerned with the medium-term effect of an M&A transaction.

Comparing the deal to historical transactions shows that the target is bought at a significant higher multiple of EBITDA pre-synergies which changes to slightly lower post-synergies. The implications of multiples analysis however should not conclude with an overpayment or too high synergies by Vodafone. The reason is that Vodafone differs to the historical strategic buyers like Liberty Global that do not intend to integrate the Quad-play or reduce payments for using the local loop.

Thus, the Vodafone Kabel Deutschland deal has unique reasons on the buyer's side that justify a premium. Overall, Vodafone shareholders can expect to get an improved competitive position in Germany and realize a significant return on this deal. Even if revenue enhancements might not show up, cost synergies still cover the premium paid to the target. The transaction is also a major step to follow the convergence trend and invest in its own cable network in the German market. Being one of the first providers of Quad Play services might lead to upside potential of the deal through revenue enhancements and customer loyalty. Executing this deal now is the right decision to avoid being late in the Quad-play segment and pay a higher price for attractive targets in the future.

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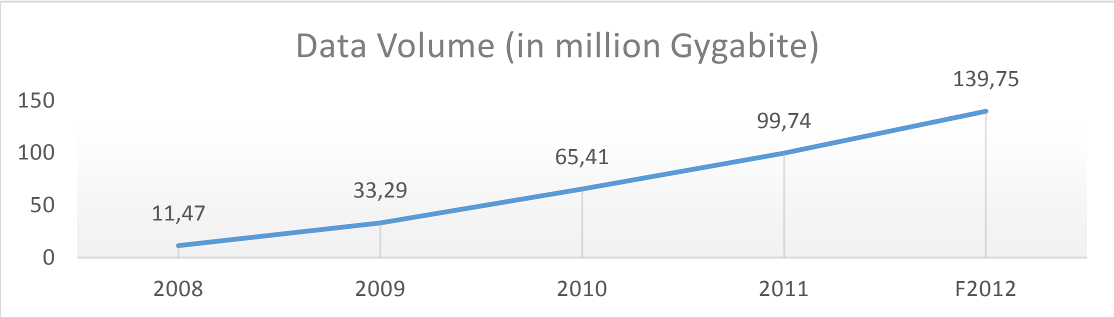
13. Appendix

Appendix 1: Overview of the German telecommunications market (2010-2012f)

All numbers in billion, Euros	**2010** in billion€	in %	**2011** in billion €	in %	**2012f** in billion €	in %
Sales Total	59.15		57.92		57.98	
Fixed Line	26.30	44.46	25.13	43.39	24.58	42.39
Cable	3.79	6.41	3.99	6.89	4.38	7.55
Mobile	25.84	43.69	25.55	44.11	26.07	44.96
Others	3.22	5.44	3.25	5.61	2.95	5.09

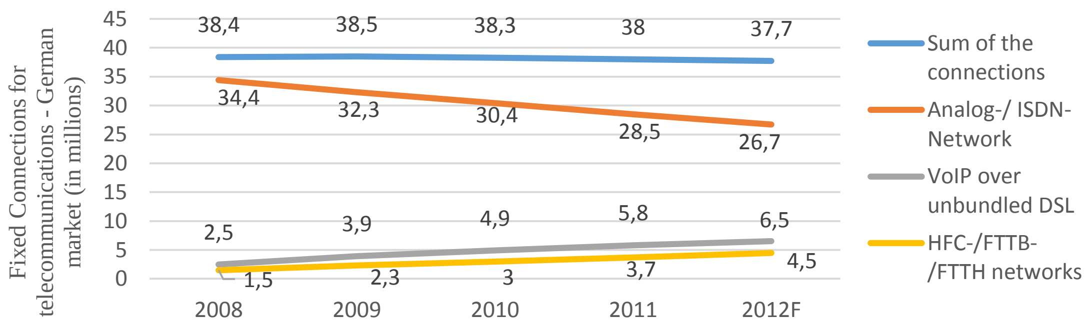
Table 1 (Source: Bundesnetzagentur, 2013)

Appendix 2: Data volume in German Mobile Networks



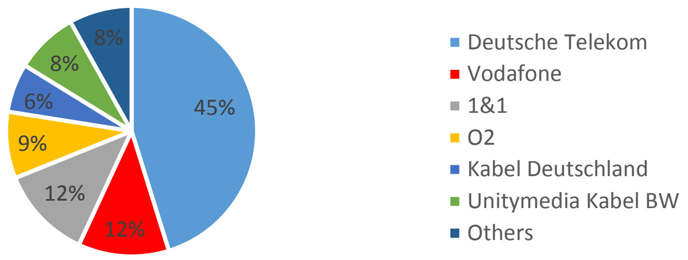
Graph 1: (Source: Bundesnetzagentur, 2013)

Appendix 3: Development of the fixed-line segment in the (2008-2012f)



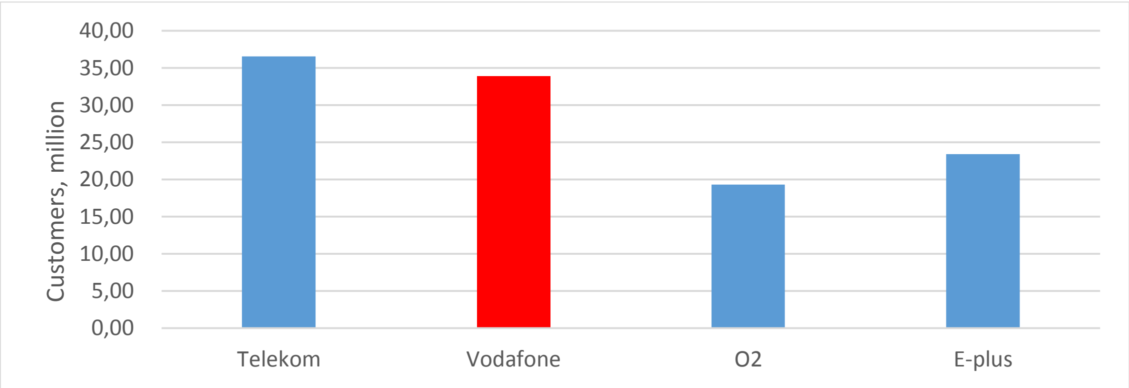
Graph 2 (Source: Bundesnetzagentur, 2013)

Appendix 4: Market Share of leading Broadband providers (Q4 2012)



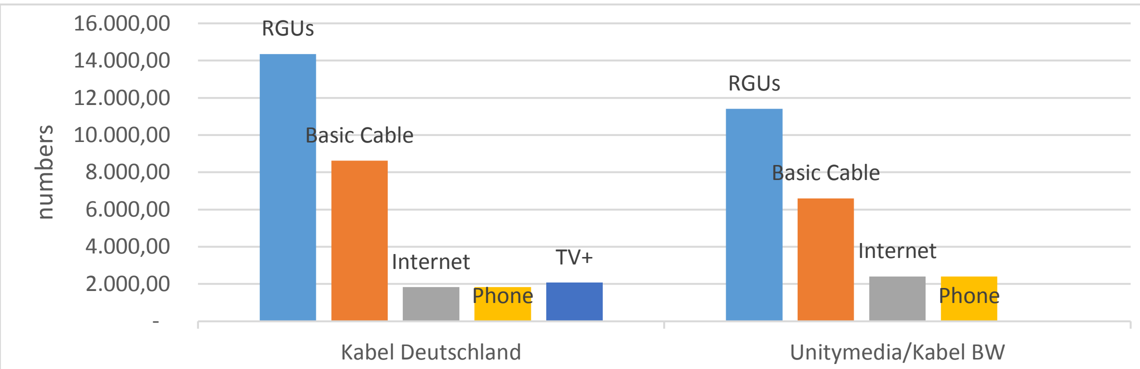
Graph 3 (Source: dsl.web.de Broadband report Germany Q4 2012)

Appendix 5: Leading mobile-service providers in Germany



Graph 4 (Source: dslweb.de Report Q4, 2012)

Appendix 6: Germany - Main Cable Providers



Graph 5 (Source: Both companies Annual report for the Financial Year 2013)

Appendix 7: SWOT Analysis Vodafone Group, PLC

Opportunities

- Demand for data on both mobile and broadband explodes
- Unified communication services of fixed and mobile
- Quad Play market is not developed yet – possible targets
- 45% Verizon Wireless sell of US$130 billion to invest in Europe
- Access next generation fixed line infrastructure

Threats

- Macroeconomic pressure
- Regulation lowered barriers to entry
- Price Ceilings
- Low cost competitors (mobile virtual network operators)
- Competitors offer 4-Play
- Substitution of traditional mobile service through apps

Internal Factors

Strengths

- Global Scale Operator (Economies of Scale& Scope, Diversified)
- Market Leader with 35% service revenue share in Germany
- State of the art Network 4G
- Brand strength (Purchasing decision for customers!)
- Strong Distribution Network and Retail in place

Weaknesses

- Dependency on Deutsche Telekom and its fixed cable network
- Dependency on the traditional lines of business, no offering of converged services in most markets (Quad-Play)
- Competitive Position to Deutsche Telekom weak

External Factors

Graph 6 (Source: Vodafone Annual report for the Financial Year 2013)

Appendix 8: SWOT Analysis Kabel Deutschland

Strengths

- Powerful, own state of the art network in place
- Market Leading position, biggest customer base
- Growing Revenue
- Mostly Unaffected by the crisis
- Almost all payments in EUR, no exchange rate exposure
- No Seasonal Effects, yearly payments in Jan/Feb.
- Stable Cash Flows and budgeting Costs reliably
- Strong EBITDA margin (47.1% 2013 to 35.0% 2006)

Weaknesses

- Part of the network is through Renting/Leasing
- Price increases are limited through contracts& regulatory authorities
- New staff membership needed due to growth (knowledge)
- Total Customer Base not growing
- No own mobile network, depending on Telefonica O2 (150.000 customers)

Internal Factors

Opportunities	**Threats**	
• Lower installment costs through more penetration of customer in the segment phone& internet (EOS) • Increasing Demand for high-speed Internet (100 Mbit/s) • Good prospects for the German cable market – offers advantaged to the broadband internet • Increasing Revenue by adding more premium contracts • Increasing Network quality through constant investment	• Increasing competitiveness in the Internet-TV business • Increasing Operating costs and Inflation Exposure • Very Dynamic industry, technological changes threat • Regulatory prohibition of acquisitions (Telecombus, Feb 2013) • Slowly decreasing number of direct cable basic customers	External Factors

Graph 7 (Source: Kabel Deutschland Annual report for the Financial Year 2013)

Appendix 9*:* Balance Sheet - Kabel Deutschland (see Attachment to this Thesis)

Appendix 10: Income Statement of Kabel Deutschland (see Attachment to this Thesis)

Appendix 11: Multiples Comparison: Selected national cable operators

Company	Market Cap (billion)	Price/Earnings	EV/EBITDA
Kabel Deutschland	6.4	26.4	11.66
European Comparable:			
Ziggo NA Equity	5	25.8	12.3
ZON Optimus	1	21.7	5.1
Virgin media	7.5	25.4	6.4
TDC DC (Denmark)	4.4	11.9	5.1
Average		21.2	7.2

Table 3 (Source: Bloomberg)

Appendix 12: Cost Synergies Decomposition

Network/ IT Yearly Savings of EUR120m

- Kabel Deutschland infrastructure in place for backhaul
- Merge national and regional backhaul
- Consolidate and simplify IT & Close overlapping offices where KD has fixed line services in place

ULL/ bitstream Yearly Savings of EUR120

- Save ULL + bitstream fees by migrating VOD customers from rented lines to KD cable infrastructure

Central functions Yearly Savings of EUR60m

- Overlapping functions
- Efficiencies in property and procurement

Figure 1: (source: Vodafone press release 24th June 2013 "Cash Offer for Kabel Deutschland" – Investor Presentation)

Appendix 13: DCF Valuation Kabel Deutschland (see Attachment to this Thesis)

Appendix 14: Synergy Overview (see Attachment to this Thesis)

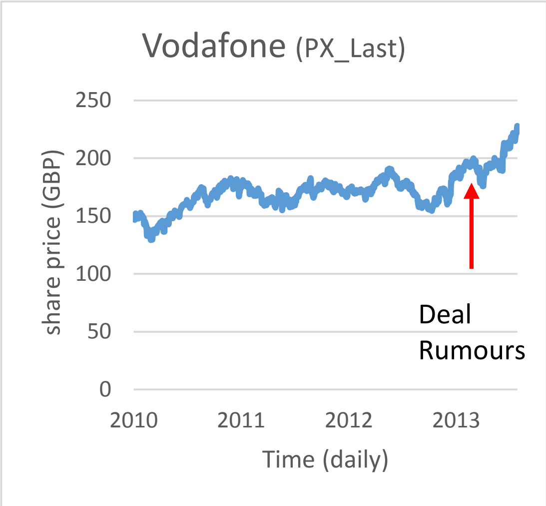
Appendix 15: Sensitivity Analysis of Synergies (Implied Price per share in EUR)

Cost Synergies (net of integration costs) Realized

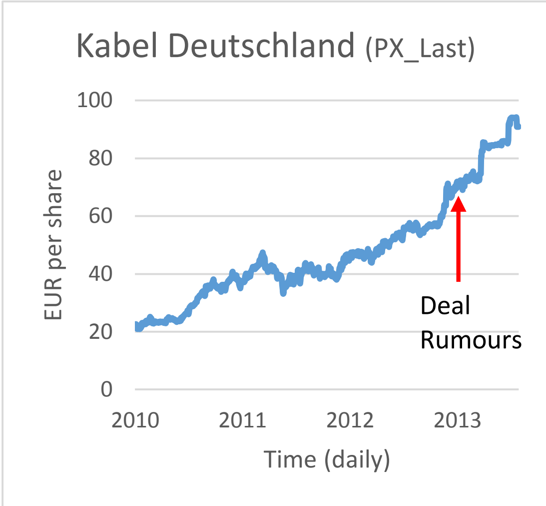
Revenue Enhancements Realized	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
100 %	122	118	115	111	108	104	101	97	94	90	87
90%	120	117	113	110	108	103	99	96	92	89	85
80%	119	115	112	108	106	101	97	94	90	87	83
70%	117	113	110	106	105	99	96	92	89	85	82
60%	115	112	108	105	103	98	94	91	87	84	80
50%	114	110	107	103	101	96	92	89	85	82	78
40%	112	108	105	101	100	94	91	87	84	80	77
30%	110	107	103	100	98	93	89	86	82	79	75
20%	109	105	102	98	96	91	87	84	80	77	73
10%	107	103	100	96	94	89	86	82	79	75	72

Graph 8: Calculations with the previous forecast of standalone value and Synergy estimates

Appendix 16: Historical Share Price Vodafone and Kabel Deutschland

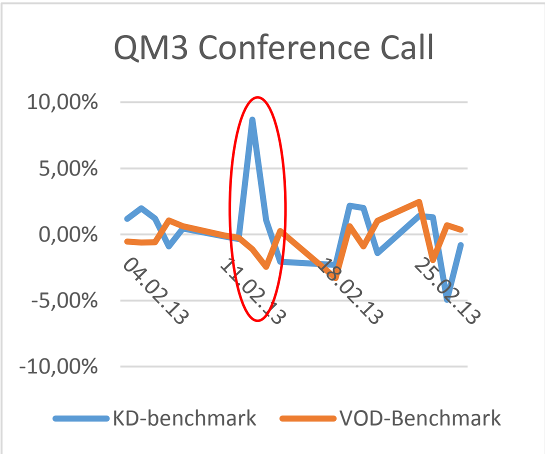


Graph 9: finance.yahoo.com

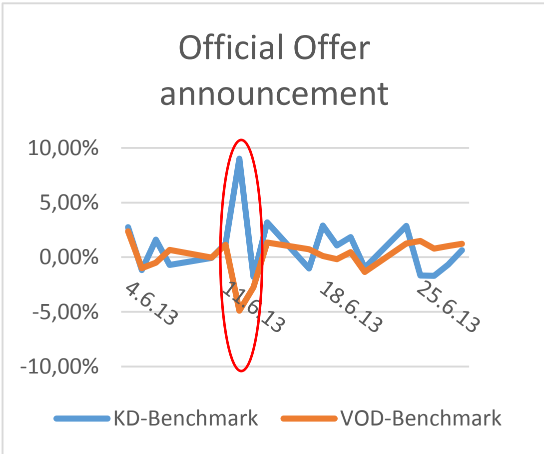


Graph 10: finance.yahoo.com

Appendix 17: Selected Stock movements of Vodafone and Kabel Deutschland



Graph 11: finance.yahoo.com

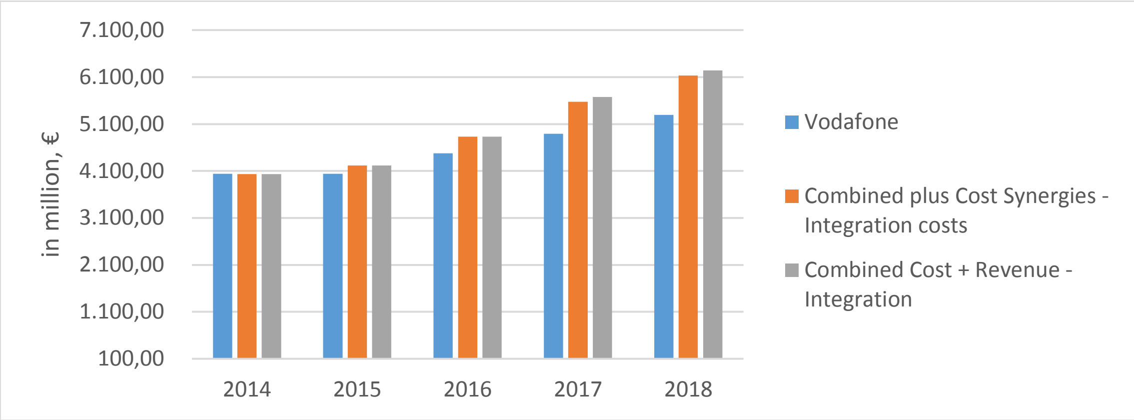


Graph 12: finance.yahoo.com

Appendix 18: Effect of financing decision by Vodafone (see Attachment to this Thesis

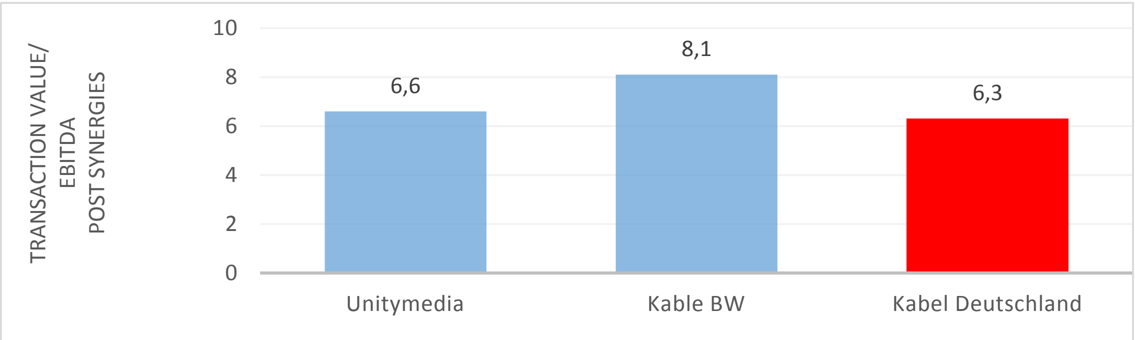
Appendix 19: EPS Formula for an All Cash Offer (see Attachment to this Thesis)

Appendix 20: FCF Effect of the Transaction

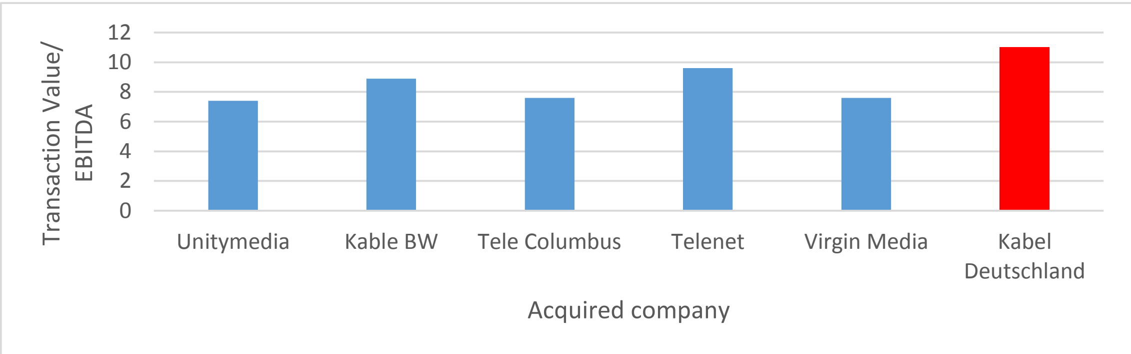


Graph 13: Consolidated statements as from Appendix 22 and Synergy Estimates

Appendix 21: Comparable Transactions



Graph 14: Equity Research Report Kerven, Dallal, and Wallace 25th June 2013 BofA Merrill



Graph 15: Equity Research Report Kerven, Dallal, and Wallace 25th June 2013 BofA Merrill

Appendix 22: Consolidated Financial Forecasts Vodafone and Kabel Deutschland (see Attachment to this Thesis)

Appendix 23: Calculation Vodafone Weighted Average Cost of Capital (see Attachment to this Thesis)

Attachment to the Work Project: Vodafone – Kabel Deutschland Merger

Appendix 9: Balance Sheet - Kabel Deutschland

Balance Sheet FY ended 31.March 2013 (in thousands, €)			
Current Assets		**Current Liabilities**	
Other Current Assets	30,305.00	Other Current Liabilities	700,786.00
Inventories	51,899.00	Short-Term Borrowings	40,130.00
Accounts Receivable - Trade	131,226.00	Total Current Liabilities	740,916.00
Cash and Equivalents	609,547.00		
Total Current Assets	822,978.00	**Non-Current Liabilities**	
		Other Noncurrent Liabilities	150,559.00
Noncurrent Assets		Long Term Debt	3,383,119.00
Other Noncurrent Assets	81,845.72	Total Noncurrent Liabilities	3,602,864.00
Property Plant & Equipment - Net	1,308,864.00		
Total Intangible Assets - Net	641,371.00	**Stockholder Equity**	
Total Non-Current Assets	2,039,790.00	Retained Earnings (Accumulated Deficit)	-1,595,320.00
		Other Equity	- 42,273.00
Total Assets	**2,862,768.00**	Additional Paid In Capital	68,058.00
		Common Stock	88,523.00
		Total Shareholders Equity	-1,481,011.00
		Total Liabilities and Shareholders Equity	**2,862,768.00**

Table 1 (Source: Kabel Deutschland Investor Relations Release FY 2012/13)

Appendix 10: Income Statement of Kabel Deutschland FY 2011 - 2013

Income Statement FY2011 to 2013 ended 31.March 2013 (in thousands, Euros)			
	FY2011	FY2012	FY2013
Sales	1,599,000.00	1,700,000.00	1,830,000.00
COGS	870,000.00	905,000.00	968,000.00
EBITDA (adjusted)	729,000.00	795,000.00	862,000.00
Depreciation & Amortization	490,000.00	396,000.00	350,000.00
Integration costs & non-recurring	- 32,000.00	- 27,000.00	- 79,000.00
EBIT	207,000.00	372,000.00	433,000.00
Interest Income	4,000.00	3,000.00	3,000.00
Interest Expense	- 273,000.00	- 202,000.00	- 206,000.00
Income from associates	4,000.00	2,000.00	2,000.00
EBT	- 57,000.00	176,000.00	226,000.00
Total Tax	12,000.00	- 16,000.00	21,000.00
Net profit	**- 45,000.00**	**159,000.00**	**240,000.00**
EPS	- 0.50	1.78	2.71
shares outstanding	90,000.00	89,408.17	88,522.94

Table 2 (Source: Kabel Deutschland Investor Relations Release FY 2012/13)

Appendix 13: DCF Valuation Kabel Deutschland

Financial Forecast Kabel Deutschland (in million, Euros except per share)				
	2013/14 E	*2014/15 E*	*2015/16 E*	*2016/17 E*
Revenues	*1,994.00*	*2,137.00*	*2,256.00*	*2,403.00*
Operating expenses	*1,052.00*	*1,102.00*	*1,129.00*	*1,183.00*
EBITDA	*942.00*	*1,035.00*	*1,127.00*	*1,220.00*
D&A	*424.00*	*426.00*	*510.00*	*587.00*
EBIT	*518.00*	*609.00*	*617.00*	*633.00*
Taxes (30%)	*155.40*	*182.70*	*185.10*	*189.90*
NOPLAT	*362.60*	*426.30*	*431.90*	*443.10*
plus: D&A	*424.00*	*426.00*	*510.00*	*587.00*
less: Capex	*- 624.00*	*- 631.00*	*- 540.00*	*- 537.00*
less: increase NWC	*63.00*	*5.00*	*13.00*	*6.00*
FCF	**99.60**	**216.30**	**388.90**	**487.10**
Discount Factor	1.05	1.10	1.15	1.21
DCF	94.95	196.56	336.90	
Terminal Value				9,938.67
Discounted Terminal Value				8,207.46
Implied Enterprise Value	8,920.56			
Net Debt	2,757.00			
Equity	6,163.56			
Implied Share Price	69.50			

Table 3: Financial Forecasts from Equity Research Report: „Kabel Deutschland – Bidding Competition set off" from 18th June 2013 by Commerzbank Corporates and Markets

WACC Assumptions							
Source of Capital	Proportion of Capital	Cost of Capital		Marginal Tax Rate	After Tax cost of capital	Contribution to weighted average	
Debt	0.34			30%	2.98%	1.01%	
Equity	0.66	5.8%				3.83%	
Inputs:							
YTM Bond	4.25%	Market Risk premium	5.80%		Market Capitalization	5.75 billion	
Beta	0.48	Outstanding Shares	88,690,000.00				
Risk Free Rate Estimate	3%	Market Value Debt	3 billion				

Table 4: Bloomberg, www.kabeldeutschland.com and Company Annual Reports

Appendix 14: Synergy Overview (all numbers in EUR, millions)

Yearly Forecast	1	2	3	4	5
Revenue				150	150
Opex				240	240
Integration Costs	-120	-60	-60	-60	
Sum	-120	-60	-60	330	390
Sum After Tax (30%)	-84	-42	-42	231	273
Capex				60	60
Sum Synergies	-84	-42	-42	291	333
	1	2	3	4	5
Discount Rate	1.06	1.12	1.18	1.25	1.32
DCF	-79.49	-37.61	-35.59	233.30	
Terminal Value					5862.68
Discounted Terminal Value	4447.66				
SUM of Both	4528.29				

Table 5: Vodafone press release *24th June 2013 "Cash Offer for Kabel Deutschland" and Equity Research Report: Dattani and Wittig 24th June 2013 as listed under References. Justification of Discount Rate as shown in Appendix 23*

Appendix 18: Effect of financing decision by Vodafone

(All numbers in million, GBP)	2013	Post-Merger	Change
Net Debt	26,958.00	31,860.00	4,902.00
EBITDA	13,275.00	13,275.00	
Net Debt/EBITDA	2.03	2.4	0.4
in million, GBP	*2013*	*Post-Merger*	*Change*
Cash & Equivalents	7,623.00	3,425.00	- 4,198.00

Table 6: Equity Research Report Dattani and Wittig 24th June 2013 as listed under References

Appendix 19: EPS Formula for an All Cash Offer

$$\text{Postmerger EPS} = \frac{E_{T+A} - D_{cost}}{N_A}$$

…where E_{T+A} is the sum of current earnings of target and acquiring Company plus any Effects of synergies on earnings

…where D_{cost} is the additional cost of debt used to finance the transaction

… where $\mathrm{N_A}$ is the amount of shares of the acquirer

Appendix 22: Consolidated Financial Forecasts Vodafone and Kabel Deutschland

Combined Financial Statements including Synergies in EUR, million	2013/14 E	2014/15 E	2015/16 E	2016/17 E	2017/18
Revenues:					
Combined	55,978.52 €	56,362.00 €	56,755.09 €	57,177.56 €	57,608.62 €
Revenue Enhancements	*- €*	*- €*	*- €*	*150.00 €*	*150.00 €*
Operating expenses:					
Combined	38,993.67 €	39,144.86 €	39,301.08 €	39,484.75 €	39,662.05 €
Opex Savings				*240.00 €*	*240.00 €*
Integration costs(Total 300million)	*150.00 €*	*51.00 €*	*51.00 €*	*51.00 €*	*- €*
Depreciation & Amortization:					
Combined	1,406.14 €	1,020.05 €	1,104.05 €	1,181.05 €	1,248.28 €
EBIT	15,428.71 €	16,146.10 €	16,298.96 €	16,850.76 €	17,088.29 €
Tax Rate (30%)					
Combined	4,628.61 €	4,843.83 €	4,889.69 €	5,055.23 €	5,126.49 €
NOPLAT					
Combined	10,800.10 €	11,302.27 €	11,409.27 €	11,795.53 €	11,961.80 €
plus: Depreciation &Amortization	1,406.14 €	1,020.05 €	1,104.05 €	1,181.05 €	1,248.28 €
less: Capex	- 8,383.52 €	- 8,377.43 €	- 7,958.77 €	- 7,641.96 €	- 7,315.22 €
Capex Savings	*- €*	*- €*	*- €*	*60.00 €*	*60.00 €*
less: increase NWC	- 214.38 €	- 273.57 €	- 278.67 €	- 285.67 €	- 285.67 €
Free Cash Flow					
Combined (without any Effects)	4,142.10 €	4,254.16 €	4,868.92 €	5,382.99 €	5,907.53 €
Combined (with Cost/Revenue/Integration)	4,037.10 €	4,218.46 €	4,833.22 €	5,680.29 €	6,240.53 €

Table 5: Equity Research Report Financial Forecasts from Equity Research Report a) *„Kabel Deutschland – Bidding Competition set off" from 18th June 2013 by Commerzbank Corporates and Markets and b) "Approaching Kabel Deutschland" from 13th June 2013 by Natixis Equity Markets*

Appendix 23: Calculation Vodafone Weighted Average Cost of Capital

Vodafone WACC Inputs:			
Source of Capital	Proportion of Capital	Cost of Capital	
Debt	25%	2.5%	
Equity	75%	6.7%	
		WACC:	5.68%
Cost of Equity		**Cost of Debt**	
Risk Free Rate Ger10Y	2.00%		
Beta	0.8	Ytm Bonds until FY2028	3.55%
Market Risk Premium	5.90%	Corporate Tax rate	30.0%
Implied cost of Equity	6.72%	After Tax Cost of Debt	2.49%
Capital Structure	(millions, GBP)		
Market Cap	104,676.50	75.49%	
ST Debt	12,001.00	8.65%	
LT Debt	21,991.00	15.86%	
Total	138,668.50	100.00%	

Table 4: Source Bloomberg