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PE Challenge CVS - Valuation

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Abstract

CVS Group plc is a British provider of veterinary services operating in a fast-growing market with strong value creation potential. Future value will be created through buy-and-build, growing membership programme and expanding online retail, resulting in a fund return of 3.4x over five years. Given the economic uncertainty, a defensive financing structure with only 5.5x EBITDA at a 13.9x EV/EBITDA valuation is applied. The exit is targeted via a secondary buyout. The second section looks at the main valuation methods, covering relative and intrinsic valuation. Finally, it explains the football field graph an industry wide practice to illustrate valuation results.

Keywords

Private Equity, Leveraged Buyout, Veterinary Services, Value Creation

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Table of Contents

1.0 Group part

We have chosen to scrutinize CVS Group PLC as a potential LBO target, because of its strong positioning in a fast-growing market, great target size, strong potential for value creation, its experienced management team as well as great exit routes. In the following, we present every aspect in detail, starting with the company, followed by a market overview. Followingly, we present the developed value creation strategies as well as the resulting LBO model and the valuation including capital structure and returns. To realize these returns, we present the key areas of due diligence, as well as the exit options. For further details please refer to the accompanying excel model as well as Investment Committee Paper.

1.1 Stage 1

1.1.1 Company Overview

CVS Group is one of the leading integrated veterinary service providers to companion, equine and farm animals in the UK. Headquartered in Diss (UK) and founded in 1999, CVS employs 7,913 people (2022), including 2,079 veterinary surgeons and 2,839 nurses, and generates revenue of £554.2m in 2022. With most of its veterinary practices located in the UK (428 out of 472) together with its 7 crematories and 3 laboratories, CVS has great geographical coverage which is further enhanced by an online pharmacy, food, and accessory shop. Besides the UK, CVS operates 17 practices in Ireland and 27 practices in the Netherlands.

The group operates in four business segments of which “Veterinary Practices” generates the biggest share of revenue (85.5%, +8.5% growth from 2021 to 2022), followed by “Animed Direct” (8.1%, +11.8% growth from 2021 to 2022) which is the online pet food and pharmacy retailer, “Laboratories” (4.7%, -2.9% from 2021 to 2022) and “Crematoria” (1.7%, +18.8% growth from 2021 to 2022).

The biggest business unit (Veterinary Practices) generates most of their revenue from treatment of equine, companion and farm animals in first-opinion and referral practices. Among others,

CVS' own brand products (nutrition supplements, prescription only medicine, pet accessories and pet food) and health care schemes are accompanying activities that boost and diversify the business unit's revenue. Their two healthcare schemes offer preventative healthcare for companion animals or equine: "Healthy Pet Club" reports 470,000 active members (450,000 in 2021, +4.4%) which accounts for c. 40% of CVS' active client base and "Healthy Horse Programme" reports 10,000 members. With over 1.2m initial touchpoints with customers (1.1m in 2021), CVS is therefore able to treat animals directly, refer them to specialty practices, receive follow-up work from initial touchpoints or even grow their customer base for their healthcare schemes.

CVS's Online Retail business unit, which accounts for 8.1% of total revenue, grew tremendously in the last year (+11.8%). Through their retail platform "Animed Direct", CVS sells a portfolio of over 2,000 products, including pet food, medication, and accessories across the UK. In the financial year 2020, the business benefited largely from Covid-19 lockdowns since consumers were forced to switch from offline to online retail. Even though offline retail opened again later, CVS' good customer service allowed to retain a high number of these new customers in the following years, together with an incline in value per customer.

CVS' laboratory business was the only business unit which faced a slight decline in revenues (-2.9%) after having a sharp incline in revenues from 2020 to 2021 (+32.7%). The business unit provides in-practice desktop analyzers and diagnostic services to CVS' practices and to third-party customers. In the financial year 2022, this business unit performed 445,000 tests, which shows a slight decline in comparison to 497,000 performed tests in financial year 2021.

CVS' crematory business, which offers services for both CVS and third-party practices, grew by 18.8% in financial year 2022. The services range from clinical waste disposal to communal and individual cremation. The latter gained attractiveness in the past years since customers can step away from low-budget procedures to luxurious versions including pickup, golden urns, a

variety of casquets and consideration of final wishes.

The variety of service offerings around the business model's core of first opinion practices makes CVS a fully integrated veterinary platform that allows top-notch end-to-end care and can maximize the transaction value per customer. When looking at the whole business, 74% of revenues come from one-time sales which are mainly sales of veterinary services, and 26% are recurring revenues. CVS generates recurring revenue via the lease of analyzers and their two preventative healthcare schemes.

CVS has several advantages in comparison to their competitors, the first one being the only veterinary service provider with a fully integrated business model and own labs in the UK. The latter is a business with high entry barriers due to the highly specialized work which is a clear advantage for CVS. Furthermore, the strong geographical coverage grants customers access to high-quality veterinary care in the form of first-opinion and referral hospitals. Their successful M&A history allows for deployment of synergy effects, greater buying power and thus an increase in margins. Since consumer preferences are continuously shifting towards the online channel, CVS' online retail platform together with their own branded products reveal immense potential for future growth. Lastly, their sophisticated graduate program together with retention bonuses enables CVS to be successful in the war for talent in the long run even though the UK healthcare market has been threatened by a veterinary shortage.

On the financial side, CVS has been able to grow total revenues by 18.7% per year, namely from £108.7m in 2012 to £554.2m in 2022 and their EBITDA by 16.8%, from £22.7m in 2012 to £107.4m in 2022. While CVS' gross margin increased steadily from 36% (2012) to 44% (2022), EBITDA margin remained stable at 18.4% on average. Until 2019, an aggressive M&A strategy, aiming at increased geographical coverage, was in place. Even though it was successfully executed and the growth driver behind CVS' returns, the newly installed management shifted the focus to organic growth after the market heated up and acquisition

strategies became less profitable.

1.1.2 Market Overview

CVS' product and service offerings range over several markets within the veterinary sector. The total addressable market in the United Kingdom amounts to £17.9b and is expected to grow at a compounded annual growth rate (CAGR) of 8.4% from 2022 to 2027. It is composed of the equine market, which amounts to £4.7b, the laboratory market (£3.4b), the crematory market (£0.1b) as well as the addressable pet care market (aPCM). The aPCM itself consists of the following markets: pet food (£3.1b), veterinary activities (£5.4b), accessories (£1.0b) as well as grooming (£0.2b). Since all markets are expected to grow at different CAGRs, the overall CAGR of 8.4% is computed as the weighted average of all single market CAGRs. The strong market growth is driven by several factors, foremost the increased willingness of people to spend money on the health of their pets. This is due to the increasing humanization of pets; people tend to treat their pets as family members. As a result, they are more willing to buy high quality food, accessories and specially to finance high quality diagnostics and treatments. This trend was strong before the Covid-19 pandemic but is even increasing since people spend more time at home and want a companion, not to feel alone. This also leads to an increase in registrations for pet insurance schemes, which allows pet care providers, such as CVS, to generate stable recurring revenue. The value creation chapter describes how CVS can exploit this growth after the acquisition. Furthermore, the online retail market, in which CVS is present with "Animed direct" is experiencing solid growth, due to the shifting consumer preference from in-store to online purchases of anything that does not require consultation.

However, there are also restraints harming the market growth. In the past, the number of pets increased faster than the number of veterinary professionals, leading to a shortage of doctors and a high pet per doctor ratio. For the employing pet care companies this led to an increasing labor cost – if they could even find vets to employ – which made it difficult for the players in

the market to exploit the full market potential. Furthermore, even though Covid-19 boosted the pet market, the resulting economic uncertainty, which was further increased by the energy crisis, inflation, and the fear of an upcoming recession, lowers spendings for non-essential products and services. While households that already have a pet might still spend money on pet care, the purchase of new pets may decrease.

International markets

Next to the UK, all four business segments are also expected to grow significantly across Europe. The overall pet care market in Europe is valued at £32.4b and is expected to grow at a CAGR of 4.0% until 2027. Moreover, the international market is driven by the United States and the APAC region. The worldwide market is valued at £183.0b and is expected to grow at a CAGR of 5.6% until 2028. The North American market alone accounts for 34% of that (£62.2b). Given the international buy and build strategy described in the value creation chapter, the most important market outside of the UK for the investment period is going to be France. While the French market does not show the biggest growth expectations (Size: £ 4.5b; Growth: 3.2% CAGR until 2027), it is defined by comparably low consolidation, 19% of all practices belong to one of the 12 major companies (consolidators). Furthermore, pet care spendings per person are among the highest in the world.

Competitive landscape

Among the UK, four players define the competitive landscape next to individual practices.

IVC Evidensia is owned by EQT, a Swedish PE fund, since 2014, where it was acquired as IVC. In 2017 IVC was combined with Evidensia, to form one of Europe's biggest pet care providers. In their 2,300 clinics across Europe, the 28,000+ employees offer a broad spectrum of pet care products, veterinary services, crematories as well as pet insurance programs. In 2021 IVC Evidensia started internationalizing in North America, by acquiring 270 practices and clinics (4,000 employees) in Canada. In 2021 IVC Evidensia generated £1.8b revenue and

£373m EBITDA, which results in an EBITDA margin of 20.7%.

Pets at home is a publicly traded competitor that derived from in-store and online retail and has entered the veterinary market in the UK. It was acquired by Bridgepoint in 2004, sold to KKR in 2010 who brought it to the public market in 2014. It generated £1.3b revenue in 2021, with over 80% of that coming from retail. The EBITDA in 2021 was £70.8m resulting in an EBITDA margin of 5.4%, due to the high retail focus. Pets at home reward customer loyalty with pet insurance schemes (1.5m registrations) and a frequent buyer bonus club (6m registrations).

VetPartners was established in 2015 in York, UK, with three veterinary practices. Today it is owned by BC Partners, a London based PE-fund and runs 163 practices with 7,500 employees across the UK. In 2021, VetPartners generated a revenue of £430.6m and an EBITDA of £88.9m resulting in an EBITDA ratio of 20.6%. It offers veterinary services, an online retail store called VetUK and crematory facilities ("Time Right") across Europe. Unlike other large players, the veterinary practices who are acquired by VetPartners get to keep their brand to maintain the local identity.

Lastly **Medivet** is a smaller veterinary care provider focused on the UK. It was founded in 1987 and is today owned by the PE fund CVC. Medivet generated £220.3m revenue in 2021 on an EBITDA ratio of 19.1%, resulting in 2021 EBITDA of £42.1m.

Amongst all, CVS is the third biggest, but offers the most integrated approach by offering services among their veterinary, crematory, laboratory, and online retail unit. Furthermore, CVS is the only competitor without any PE involvement.

1.2 Stage 2

1.2.1 Value creation

As explored in the previous chapters, CVS is a very promising company which reported constant growth across all four business units. They proved to be able to successfully implement strategic redirections and still have potential to make use of the overall market growth in all four business units due to their unique and therefore excellent market positioning. The strategy for value creation over the proposed 5-year investment horizon consists of three pillars that drive both organic and inorganic growth.

Buy and build

The first pillar describes the inorganic European internationalization strategy that creates £26.1m additional EBITDA which contributes +0.3x MM to the exit in 2027. Two of the rationales behind the strategy are to lever the network of veterinary practices outside the UK to expand geographical footprint and to exploit cross-selling opportunities and margin internalization. After looking into several geographically close European markets like France, Germany, Italy and Belgium, France appeared to be the most attractive one for the upcoming five years. The other markets remain to be interesting opportunities for further growth and internationalization after the successful expansion to France. France sticks out in terms of attractiveness due two factors: solid market growth expectations of c. 3.2% (CAGR 2022-2027) and comparably low consolidation rate of c. 19%. To expand to France, a platform acquisition of “Centre Hospitalier Veterinaire Fregis” plus selective acquisitions of stand-alone practices are planned. Including the platform, CVS would therefore acquire 15 practices per year and the average EV/EBITDA multiple on acquisitions is expected to be 7.0x in the investment case and 7.7x in the bank case. Since the acquired EBITDA will be valued with 13.9x when CVS is being sold, it allows for multiple arbitrage. Besides the objective to establish a footprint in France, selective acquisitions are also planned for the UK to strengthen CVS’ brand name and

market share. This ambition is not as strong as in CVS' past since advanced consolidation and regulatory restrictions are harming great numbers of acquisitions there. The total value creation of this first value creation pillar would then account for £26.1m EBITDA growth and +0.3x MM accounts for 15.1% of total value created during the investment period.

Membership Programs

The second pillar, namely the Membership Programs ("Healthy Pet Club"), generates an EBITDA growth of £48.8m during the investment period. The growth can be split into two actions with one being the increase in active members, which accounts for EBITDA growth of £21.4m, and one being the introduction of an add-on service, which generates EBITDA growth of £27.3m. Together, this second pillar contributes 0.6x MM throughout the entire holding period. The rationale behind this pillar is firstly, that active members only account for 40% of companion animal active client base of c. 1.2m in 2022. Even though count of members grew at a CAGR of 11% between 2016 and 2022, CVS still has enough space to exploit this growth potential, especially since they are planning further inorganic and organic growth which even increases the potential for new memberships. Since the membership increases customer loyalty and retention while generating steady recurring cash flows, growing and expanding the offering is a logical step for CVS' growth story. Growth of memberships is planned to be accelerated by advertising and temporary discounts for new joiners to increase conversion into the program. Estimated total marketing expenses of £10.0m during the first three years are deducted from the projected revenue growth. Besides growing the number of members, the second value creation pillar also includes introducing a new add-on offering: 24/7 emergency hotline. With this new offering, CVS' focus on healthcare treatment will be reinforced. The new service will cost additional £2.99 per month and includes online veterinary consultation at any time. With an adoption rate of c. 50% of current and new customers, this offering makes CVS unique and sets it apart from competitors, strengthens its healthcare focus and positions the group as an

innovative service provider. The estimated additional marketing costs of £10.0m are deducted from the membership's returns during the first three years. Each of the two building blocks will generate an additional +0.3x MM in value creation which together accounts for 28.2% of total value created during the investment period.

Online retail

The third pillar is grounded in CVS' second biggest business unit, online retail. Since consumer preferences are increasingly shifting towards online purchases and away from offline purchases, and in-store purchases will be surpassed by online ones by 2025, growing the online shop further will enable both long- and short-term growth and stability for CVS. The strategy is backed by the favorable UK pet care e-commerce market which is expected to grow at a CAGR of 11.3% until 2027. Four actions are defined to achieve this growth, the first one being an VIP online program and subscription models to strengthen the customer base. The program allows customers to earn bonus points which can be later used as discounts. Furthermore, VIP customers will be granted first access to promotions and their pets will receive a birthday gift every year. Personalized subscription models for pet food will increase convenience drastically while generating recurring revenue for CVS. This more loyal customer base is expected to increase their value per customer since CVS will expand the product offerings by e.g. adding premium products of higher quality. Lastly, enhanced customer loyalty will make it easier for CVS to cross-sell to their veterinary services and the other way around. Retail booths with top sellers will be placed in big practices to increase awareness and convert more veterinary service clients to online shop customers. The increased marketing efforts are incorporated in the model. Lastly, cultural change within the company needs to be accelerated by a cultural change coming from new experienced hires. With that, CVS will take the next step in getting closer to their vision of being one of the leading pet care online retailers. Overall, the online shop growth generated additional £1.7m EBITDA which equals +0.02x MM and 1.0% of total value

creation. Even though the short-term effect is modeled defensively and thus is limited, a grown online shop will enhance CVS' exit story and will still leave room for improvement.

1.2.2 Operating model

In the following paragraph, the structure of the operating model, the assumed planning logic and the most crucial assumptions will be explained and set into context. This section aims to cover the most relevant aspects; however, it is not sufficient to fully explain every single detail of the operating model. The operating model is set up in a structure that allows the group to develop and plan the financials of the firm's business divisions individually and in the most exact and intuitive way. For each one of CVS's divisions (veterinary, laboratories, crematoria and online retail) individual logics and assumptions were applied. The planning horizon starts with the first year 2023 (i.e. Jul. 2022 – Jun. 2023) and ends in 2027. Even though the model is modelled until 2031, we only focus on the first 5 years since this is the time horizon assumed until the fund expects to exit the case.

The revenue of the veterinary division is calculated as revenue per practice. At the end of 2022 (base year) CVS has 472 practices generating £1.0m revenue per practice on average. Revenue growth is determined by two factors. The number of veterinary practice acquisitions and the revenue growth expectation of the existing veterinary practices. Between 2023 and 2027 it is assumed that CVS acquires 75 additional practices. To account for the fact that the planned acquisitions will be executed throughout the year and not all at the beginning of the financial year, it is assumed that only 50% (time factor) of the acquired 12-month revenue contributes to CVS's total revenue in the first year of acquisition. After the first year 100% of its revenue can be realized and revenue per practice will grow in line with the revenue per practice of the existing practices. Growth of revenue per practice equals the weighted expected veterinary market growth rate (CAGR '22 -'27) and amounts to 9.4% p.a. In our model, the revenue generated by veterinary practices includes the revenue CVS generates through its several

membership programs like the Healthy Pet Club. This membership program generated revenue of £67.3m in 2022. As part of our value creation strategy, we identified the opportunity to increase revenue and grow the value of CVS by expanding the membership programs in its size (i.e. increasing the share of members in the active customer base, which has been stable at c. 40% during the past years) and increase the revenue per member. Since the published financial statements and reports of CVS only publish the generated revenue of the membership programs but not the associated costs, we decided to assume a base case for the share of active membership in the customer base (40%) and the realized revenue per customer to add the additionally generated revenues and costs to the profit and loss statement. We set up a separate and simplified P&L statement for the newly created 24/7 emergency hotline which is a highly profitable add-on service to the exiting membership programs and will contribute additional EBITDA to the group. Revenue and expenses were finally added up to the main operating model.

Revenue of the laboratory business is modelled based on revenue per test in 2022 and amounts to £58.9 for 445,000 tests performed. Expected growth rates for revenue per test equals weighted expected inflation rate for CVS's core markets (UK, Netherlands, Ireland, France) and amounts to 8.5% in 2023 and declines steadily to 2.1% in 2027. The growth rate for the number of tests performed equals the expected market growth of the veterinary market CVS operates in. For the revenue of the crematory division an annual growth rate of 12.0% has been derived from market studies and is applied throughout the whole investment period.

Online retail revenue is modeled as average revenue per customer multiplied with number of customers. Starting with the year 2022, revenue per customer grows with the weighted expected inflation rate for CVS's core markets while the number of customers grows with the expected market growth of 8.3% p.a.

For all four divisions, the historic EBITDA margin has been calculated and used as a basis to

calculate total operating expenses and SG&A for each division. In the investment case, EBITDA margin for the veterinary and laboratory division is expected to improve by 0.8% p.a. compared to the last year. Expenses for depreciation and amortization (D&A) are calculated as a percentage of revenue. In the past three years D&A rate of revenue amounted to 9.6%. This rate is carried forward with an annual improvement of 1.0%. Other expenses and costs relating to business combinations were evaluated historically and modelled for the investment period in a plausible and conservative approach.

In total, revenue of CVS grows by 15.9% annually from £544.2m in 2022 to £1,160.6 in 2027. At the same time EBITDA grows by 21.2% annually from £107.4m in 2022 to £280.5m in 2027.

Working Capital has been modelled based on the group's average "days inventory outstanding" (DIO), "days sales outstanding" (DSO) and "days payables outstanding" (DPO) of the past three years. No working capital metric improvements have been assumed. Maintenance capex, which is used by the firm to maintain the profit, has been derived as percentage of revenue over the past three years and amounts to 1.9% p.a. Expansion capex, which is used by the firm to increase profit (i.e., investments in new sites, relocations etc.) has been derived as percentage of revenue over the past three years and amounts to 1.7% p.a. For both, no improvement is assumed. Acquisition capex, which is used to acquire new practices has been determined by applying an EBITDA multiple of 7.0x to the acquisition targets. In total, free cash flow of CVS grows by 29.1% annually from £45.7m in 2022 to £163.8m in 2027.

1.3 Stage 3

1.3.1 Valuation

In the following, we explain the methods we used to arrive at our overall valuation result of 13.9x EV/EBITDA and the results of the individual methods. The three most common methods were used to value CVS Group plc. These methods include the relative valuation and within this the Comparable Company Analysis (CCA) and the Comparable Transaction Analysis (CTA) as well as the intrinsic valuation method and within this the Discounted Cash Flow method (DCF).

To apply the CCA, we screened various databases and websites for comparable publicly traded companies. By doing so we identified 12 true comparable companies of which eight are in the primary industry of veterinary services, two within medical products and two within online pet supplies/pharmacy. The selection of the trading comparable aims to best cover CVS' diverse business model. The trading comparable indicates a maximum EV/Sales of 6.0x (Vimian Group), minimum of 0.5x (Patterson Companies), mean of 2.0x and a median of 2.0x. For the EV/EBITDA multiple the following numbers were obtained: maximum of 20.8x (Vimian Group), minimum of 6.4x (Pets at home), mean of 13.0x and a median of 12.2x. For the second part of the relative valuation, we looked at comparable transactions for the past five years. Therefore, we screened various databases and websites such as Reuters, Cision and other more general news websites for past relevant transactions. Thereby we identified ten relevant transactions ranging from 2017 until 2022. These transactions include both financial and strategic buyers from the universe of buyers and are all in the primary veterinary services industry. The CTA indicates a maximum EV/Sales ratio of 6.2x (nutravet (UK) limited) in 2020, minimum of 1.1x (Greencross) in 2018, mean of 3.1x and a median of 2.8x. For the EV/EBITDA the following values were obtained: Maximum multiple of 20x (Vetone) in 2021, minimum of 9.0x (Perrigo) in 2019, mean of 14.6x and a median of 14.1x. The CTA results in

higher median multiples than CCA, which can be traced back to the control premiums paid in the acquisitions.

The intrinsic valuation method applied is the discounted cash flow method. To determine the implied EV, several assumptions had to be made about the discount rate as well as the terminal value. To apply the method, the Unlevered Free Cash Flows (UFCF) were taken from the operating model. A crucial factor of this method is the discount rate and since we used UFCF, the weighted average cost of capital (WACC) was chosen. The calculation of the cost of equity is based on the Capital Asset Pricing Model (CAPM), where the Risk-free Rate (RFR) is the UK 10Y Government yield, the Market Risk Premium (MRP) the average of the UK Equity Market Premium during the last six months and Leveraged Equity Beta (LEB) is based on the average of the last five years' financial data. We have assumed that although the capital structure will change over the years, the LEB will remain the same as the inherent business risk increases over the years due to the high volume and complexity of strategic add-on acquisitions. Taken those thoughts into account the cost of equity is 9.4% (RFR (3.5%), MRP (6.0%), LEB (0.99)). For the cost of debt, we took the average from November's 2022 SONIA (2.6%) and the average credit costs. For the average credit cost (1.5%) the average interest rate between 2021 and 2022 was taken from CVS' annual report 2021/2022. Those numbers totaled to cost of debt of 4.08%. As a last step the tax rate was assumed to be 19.0% and to remain at that level for the next years and a risk-adjustment of 1.7% was added as a lump-sum adjustment to account for the risky expansion, growth strategy, international supply chain and political uncertainties. Those figures lead to a WACC of 8.5% for 2023, 8.6% for 2024, 8.6% for 2025, 8.8% for 2026 and 9.0% for 2027. The UFCF were then discounted with the respective discount rates. For the terminal value three methods were applied the Gordon Growth (GGM), Trading and Transaction multiple. For the GGM the expected growth rate is 1.0% which equals the expected GDP growth rate for UK from 2024 onwards. For the Trading (16.3x) and Transaction (18.0x) EV/EBITDA multiple the

75th percentile figures were applied to account for CVS' high profitability resulting from its strong integrated value creation and customer offerings. Those figures led to an EV in the forecasted period of £389m. The terminal value amounts to £1,594m when using the GGM, £3,448m using Trading and £3,797m using Transaction multiples. The overall EV is therefore £1,983m when applying GGM, which leads to an EV/EBITDA multiple of 18.5x.

Using the average EV of the three presented valuation methods we derived an EV for CVS of £1,489m. This leads to an EV/EBITDA multiple of 13.9x, on which we base our further LBO valuation.

1.3.2 Leveraged Buyout

Financing structure

As it is the typical private equity approach, the acquisition of CVS is modeled as a leveraged buyout. This suggests a high usage of debt to improve the return on equity, however the debt ratio is also subject to market conditions. Therefore, we have chosen a more conservative approach with 5.5x EBITDA debt on the described 13.9x EV/EBITDA multiple (D/V of 37.5%) in the light of a possibly upcoming recession and increasing interest rates. Total sources and uses amount to £1,578.0m and are split on the sources side amongst debt and equity as well as the enterprise value and arising fees on the uses side.

Sources of Funds	£ M	x EBITDA	%		Uses		£ M
Debt							
Senior debt					EBITDA 2022		107.4
Term Loan A	128.9	1.2x	8.2%		Multiple		13.9x
Term Loan B	171.8	1.6x	10.9%		**Enterprise Value**		**1,488.7**
Term Loan C	171.8	1.6x	10.9%		*Cash*		49.0
Subordinated debt					*Debt*		84.3
Mezzanine	118.1	1.1x	7.5%		Net debt adjustment		35.3
Total debt	**590.7**	**5.5x**	**37.4%**		*Lease liabilities*		104.5
		TRUE			*Pensions*		5.9
					Total other adjustments		110.4
					Equity Purchase Value		**1,343.0**
Equity							
Fixed Return Instrument	**895.6**	8.3x	56.8%				
Ordinary Equity	**91.7**	0.9x	5.8%		**Total Fees**	**6.0%**	**89.3**
Institutional Ords	80.7				*IB*	2.0%	*29.8*
Sweet Equity	11.0		12.0%	of ordinary shares	*DD*	1.0%	*14.9*
					Arrangment Fee	1.0%	*14.9*
Total Equity	**987.3**	**9.2x**	62.6%		*Banking Fees*	2.0%	*29.8*
Total sources	**1,578.0**	**14.7x**	**100.00%**		**Total Uses**		**1,578.0**

Figure 1 Sources and Uses

The debt is split between three senior tranches, Term loan A to C as well as a mezzanine part.

Term loan A (1.2x EBITDA) has a term of 6 years and is amortized over the years. The amortization is split into 0% in the first year, 15% in the second year, 20% in the third and fourth year, 25% in the fifth year as well as 20% in the sixth and last year. The interest rate amounts to 7.8% based on the five-year swap rate and a 4.0% margin. Term loan B and C (both 1.6x EBITDA) have a term of 7 and 8 years and are structured as a bullet loan, that only pays interested during the period. The interest rates on Term loan B and C amount to 7.9% and 8.2% respectively. The Mezzanine debt accounts for £118.1m (1.1x EBITDA) and is paid a total interest of 13.7% (5.7% cash and 8.0% PIK). Total debt therefore amounts to £590.7m, 5.5x EBITDA.

The total equity sums up to £987.3m and is split between ordinary shares and the fixed return instrument. The ordinary shares account for £91.7m and are divided into the institutional strip and sweet equity, which is supposed to incentivize the management team to achieve the desired targets. The (non-) executive management team is paying £11m for 12.0% of the ordinary shares, with the aim to achieve close to £300m exit proceeds for the management.

Name	Salary in £k	Shares	Value of shares in £k[1]	Expected contribution in £k
Richard Fairman	821.0	29,462.0	709.4	2,843.0
Robin Jay Alfonso	534.0	2,000.0	48.2	1,435.6
Benjamin David Jacklin	610.0	5,446.0	131.1	1,716.1
Richard Connell	116.0	164,500.0	3,960.6	4,261.2
Deborah Kemp	47.0	6,559.0	157.9	279.1
Richard Gray	45.0	5,000.0	120.4	237.4
David Wilton	37.0	5,500.0	132.4	227.6
Sum	2,210.0	218,467.0	5,260.0	11,000.0

Figure 2 Sweet equity contribution and distribution

Note 1: Based on the share price of the 24.11.2022 as well as a 20% acquisition premium, amounting to £24.08 per share

The split within the team is based on their current salary as well as current stake in the company, on which they would cash out during the acquisition. The institutional ordinary equity accounts for the remaining £80.7m of ordinary shares. The fixed return instrument amounts to £895.6m and is paid a PIK-structured interest of 8.0%.

Covenants

Given the defensive approach due to the uncertain economic conditions, the financing structure is set up in a way that the covenants are met with significant headroom. Like this the pressure on the company is lower, in case the overall economic situation worsens, and the cash generation is lower than projected in the defensive bank case.

Covenant	2023	2024	2025	2026	2027	2028
Cash Cover	1.4x	1.4x	1.6x	1.6x	1.8x	2.4x
Interest Cover	2.7x	3.0x	3.6x	4.6x	5.4x	6.5x
Net Debt / EBITDA	4.5x	3.7x	2.9x	2.0x	1.4x	0.8x

Figure 3 Development of Covenants

While this may harm returns, it significantly decreases the risk profile of the deal. As shown below, even with the conservative approach, returns are still in a strong range. The minimum projected cash cover in the bank case 1.4x, interest cover is 2.7x and maximum leverage cover (net debt/EBITDA) is 4.5x.

Exit returns

CVS is projected to reach an enterprise value of £3,887.6m in 2027, the targeted exit year, based on an EBITDA of £280.5m and an EV/EBITDA multiple of 13.9x, assuming no multiple arbitrage. Given the described financing structure, this results in a money multiple (MM) of 3.4x and an internal rate of return (IRR) of 28.0%. The management receives £278.9m in total, leading to a MM of 25.4x. This additional compensation is targeted close to £300m.

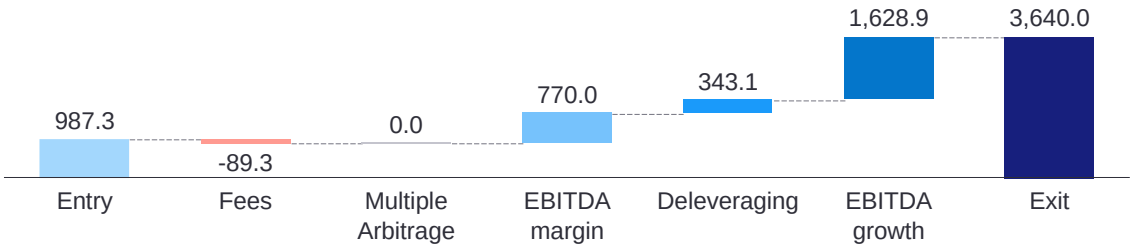

Figure 4 Return Breakdown

The return can be broken down into deleveraging (£343.1m, 12.5%), EBITDA growth (£1,628.9m, 59.4%) and EBITDA margin improvement (£770.0, 28.1%) amounting to a total

created value of £2,742.0m. The EBITDA increase can be broken down into growth, that can be directly linked to CVS' actions and growth due to an increasing market.

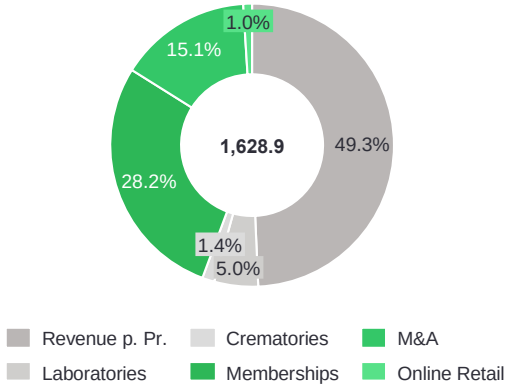

Figure 5 EBITDA growth breakdown

With a contribution of 49.3%, the increasing revenue per practice is the major driver of overall revenue growth. Together with the smaller contributors laboratory (5.0%) and crematory growth (1.4%), this can be attributed to the growing overall market. For the additional revenue stemming from the 24/7 emergency hotline offer for members of the pet clubs, as well as the growth of the entire membership program, which create a value of £675.9m (28.2%), together with the buy and build value add of £362.0m (15.1%), it is crucial, that the right actions towards the presented value creation strategies are taken by the management, hence the significant incentives via sweet equity. The returns prove to be robust, even the downside scenarios show good returns.

Additional value creation strategies

Furthermore, there are additional value creation opportunities not in a primary scope and not included in the operating model. These options include the early refinancing of loans either to remain the debt ratio, but at lower costs in case of a better debt market situation, or dividend recapitalization, that re-levers CVS back to 5.5x EBITDA to payback money to the fund early to improve the IRR and decrease the risk of the investment. Additionally, due the positive market outlook, it is realistic that the veterinary sector remains interesting for investors and that CVS can be sold at a higher multiple than it has been acquired, leading to a significant value

increase by multiple arbitrage.

Alternative financing structure

Since the presented structure shows strong returns, the question arises, how the returns work out without the least subordinated mezzanine debt. Not including mezzanine debt into the financing structure decreases the leverage severely, which negatively influences the returns. However, due to their low subordination, mezzanine debt providers are much more demanding, both financially (13.7% interest rate) as well as when it comes to restructuring processes after covenant breaches. In economically challenging times, not including mezzanine debt provides the company with much more freedom and headroom to covenants in downside scenarios. As returns prove to be still strong, 3.2x fund MM in the investment case, it is worth considering not to include mezzanine. However, as we strongly believe in the robust business plan, we suggest using mezzanine to further improve returns.

1.3.4 Due Diligence

To gain the necessary confidence about the described assumptions, an extensive due diligence (DD) must be performed for the potential acquirer to reveal major risks, to better understand financial and operational capabilities and to find potential "deal breakers". We defined five major topics; Commercial, Financial, Legal & Tax, Valuation & Exit, Human Resources, which we perceive as highly relevant to further elaborate our case, grow our understanding of CVS and define the "deal breakers". The first three topics are classified with a high priority while the last two topics have a medium priority in the order of execution. Key task for the commercial DD includes assessment and verification of the UK and France veterinary market and growth expectations, CVS's brand image and market positioning as well as conducting a representative study to verify the pricing and adoption assumptions of the membership programs and its additional new 24/7 emergency hotline. In case the DD would find out that the expected market growth for CVS's relevant markets within the next year would be below 5% and/or the 24/7

emergency hotline adoption rate would be below 20%, we would not advise on going forward with the acquisition of CVS. Key task for the financial DD comprises assessment of the required financial resources to enter the French veterinary market through the acquisition of veterinary practices/platforms, conduction of a holistic financial analysis for each business division and market as well as a verification of the financial forecast (operating model) per business unit. The most critical outcome and potential "deal breaker" would be required resources that are too high to enter the French market and unsuitable and too expensive acquisition targets. The focus of the Legal & Tax DD is to analyze currency and interest rate risks, potential (tax) law conflicts and risks as well as potential threats and limitations through the antitrust law in UK and France since these represents CVS's largest markets. Too restricted laws prohibiting further market consolidation in CVS's core markets and uncontrollable exchange and interest rate risk were set as potential deal breakers as well. Through the valuation & Exit DD, the presented valuation should be critically assessed and verified, and the proposed exit options and strategy should be confirmed. As part of the HR DD, it is crucial to investigate the existing shortage of veterinary specialists in the UK which has the potential to limit growth and expansion.

1.3.5 Exit Options

In the case of CVS and in the context of our presented value creation strategy, we are convinced that there are two major exit strategies worth considering. First, a secondary buyout to another PE firm with deep expertise in the veterinary sector looks very appealing. We identified several PE funds which already operate in the veterinary and pet food and supplies sector, including major funds such as EQT and KKR. The acquiring fund could realize synergies with its existing portfolio, however selling to another PE fund which intends to maximize its own return might lower the achievable exit price. Therefore, including strategic buyer into the sell side process would increase bidding competition and would potentially lead to higher exit returns. Strategic buyers are normally able to realize more synergies with its existing firms and are consequently

willed to pay higher prices. Currently, there are some major players in the market, such as Mars and Chewy, which entered the pet and veterinary business through add-on acquisitions to their existing portfolio and might be interested in making further add-on acquisitions of considerable size. At the same time, there are only a few strategic buyers which might possess the financial resources to acquire a firm with the size of CVS. In short, we consider the secondary buyout as the most favorable exit choice because the high interest of PEs in this sector, the resilient character of CVS and its recent attractive growth record show strong future growth opportunities. Alternative exit routes include the initial public offering, which however is highly dependent on the market situation and is a high effort process.

2.0 Valuation Methods

Business Valuation is the process of estimating the economic value of a business or company. It is a process used to determine the intrinsic/fair market value of a business, which is usually used to help owners decide when to buy or sell a business, raise capital, or to merge with another company. The valuation process takes into account a variety of factors such as the company's assets, liabilities, past, present and future financials, and industry trends. The most renowned valuation methods can be divided into two groups, namely into relative and intrinsic valuation models. The first method is used to value a company by comparing it to other comparable companies based on a predefined metrics such as EV/Sales, EV/EBITDA, and P/E ratios. The underlying rationale is that comparable assets should be assessed the same value. To derive such comparable companies professionals, look at comparable public companies (trading company) and comparable transactions (precedent transactions). The second valuation method values a business based on the present value of its expected future cash flows, most common methods include Discounted Cashflow, and Dividend Discount Model. In contrast to the relative form, intrinsic valuation looks only at the inherent value of a company itself. However, the predominant valuation methods used in practice to derive the value of a company are DCF and relative valuation. Thereby are the two main ways to measure “Value” Equity Value and Enterprise Value. Equity Value describes the value of all assets a company owns (e.g. non-current and current assets) that are available to equity investors such as common shareholders. On the other hand, Enterprise Value describes the value of the company`s core assets meaning only those related to its core business operations, but available to all investors, including equity and debt holders. The following sections discusses the most common valuation methods.

2.1 Enterprise Value vs. Equity Value

Generally speaking, in finance, a company`s value can be measured in two ways, first in the company’s market value (defined by the stock market) and the company`s implied or intrinsic

value (considering own assumptions). Deviations in these two values can arise from different perception of the company`s future development or appropriate discount rates. The concept of value can be further differentiated by looking at who the addressee is. If one wants to value all assets a company has that are distributable to equity investors, it is referring to the Equity Value (EqV). On the other hand, if one wants to value all company`s assets that a company owns that are distributable to all investors, one referrers to the Enterprise Value (EV) (Berk and DeMarzo 2017).

Most practioners use valuation methods which lead to the company`s EV, so in order to derive the EqV, one has to apply the so-called Equity Bridge. The Equity Bridge implies, that one subtracts the debt and debt equivalents, non-controlling interest, and preferred stock, and add cash and cash equivalents. Debt and debt-like figures are deducted as they represent other shareholders than equity holder. Cash and Cash equivalents are added since, after paying of the debt and debt-like holders it is attributable to equity shareholders. Typical components of Cash and Cash Equivalents are marketable securities, short-term deposits and commercial paper. Typical components of debt and debt-like figures are short- and long-term forms of interest-bearing debt such as loans, bonds, provisions commercial paper and leases. Other factors that could affect EqV are working capital normalizations due to seasonality or pension deficits (Berk and DeMarzo 2017).

To conclude, EV measures the total value of the company including EqV, debt and debt-like items. For investors, the most important information is what they get paid once they sell. Therefore, investors apply the equity bridge and subtract net debt from EV to derive the company's EqV.

2.2 Relative Valuation Methods

The relative valuation method can be further divided into two methods: Comparable Company Analysis (CCA) and Comparable Transaction Analysis (CTA). The main difference between

the two methods is that the CCA is based on current stock prices of comparable companies, whereas the CTA is based on comparable transactions. The key rational of the CCA is to find out what the target company would be worth if it were listed on the stock market, compared to its public peers. On the other hand, the key rational of the CTA is to determine what value would be attributed to a company if the valuation were analogous to the prices paid in comparable transactions. In order to speak of comparability, certain characteristics must be met. The main criteria are geography, industry, size and financials (e.g. deal size, EBITDA etc.). In the case of the CTA, however, it must be noted that a time component is added to ensure that the deals are not too far apart. The selection of comparable companies and transactions forms the valuation Peer Group.

In a next step, some (often anticipated) factors are taken from the income statements of the peer companies and compared with capital market information or enterprise value. The ratios determined in this way are then applied to the company being valued.

The most common valuation metrics are EV/Sales and EV/EBITDA, with EV/EBITDA being the most commonly used multiple as it is largely unaffected by the impact of different accounting standards and is an indicator of operating cash flow. EV/Sales multiples are typically used for companies with strong growth but high cyclicality and low or negative profitability (Zeisberger, Prahl and White 2017). Nevertheless, sales multiples are an incomplete comparison because they do not take into account profitability or cash flow. One ratio that does take profitability into account is the price/earnings ratio. Although it is one of the best-known multiples, it has little or no application in business valuation. This is explained by the highly individual character of the ratio, as it includes the effects of taxes, non-cash events and capital structure. As these factors vary greatly depending on the industry and region, comparability between different companies is not very high. However, both relative methods have several advantages and disadvantages.

The biggest advantage of the CCA method is the availability and recency of data. Since only listed companies are considered, the data is based on current market data that can be updated daily or intraday, making the valuation method very up-to-date. Another important advantage is that the valuation is market-based, allowing market assumptions about the growth rates and risks of comparable companies as well as market sentiment to be incorporated into the valuation, thus diversifying the reliance of other valuation tools on estimates and forecasts. Finally, this method allows for a quick calculation of a fair value approximation and is rather easy to understand.

Although the fact that the valuation method is market-based brings some of the most important advantages, it also comes with a major disadvantage. The heavy reliance on the market carries the risk that the valuation may be influenced by transitory market conditions or non-fundamental factors and may therefore be distorted during periods of market irrationality. This kind of distortions is especially present for companies with a relatively small market capitalization and or small free float of shares. Another important drawback is the lack of listed peer companies, especially in niche markets, which could lead to a too small peer group. To avoid this, analysts will loosen the search criteria, thus introducing a potential selection bias, as the peer group selected is not representative of the company one is trying to value. In most cases, picking a peer group of 5–10 firms based on a straightforward selection criterion, such growth rates, is on average on par with picking a peer group made up of an entire sector/industry (Cooper and Lambertides 2008).

On the other hand, the second relative valuation method (CTA) also has some non-negligible advantages. One of the most important advantages is that precedent transactions indicate actual payments of control premiums, for real-life deals instead of trade multipliers, which are subject to the pressure of supply and demand. In addition, the precedent-based approach allows for greater objectivity and avoids subjective assumptions about a company's future performance

that could lead to further distortions. Another important advantage relates to fact that precedent transaction could reveal valuable information on industry consolidation trends, potential buyer and seller universe. This information can be levered to either define an exit strategy or to identify potential strategic add-on or platform acquisitions. Moreover, the acquired information can be useful in Mergers and Acquisitions negotiations and discussion as it provides an indicative picture of a potential market price for the target company.

On the other hand, this method has several drawbacks, the most important of which is that business cycles and market conditions such as the competitive environment, macroeconomic factors such as inflation, the state of the bond markets, and the resulting liquidity of the overall markets can distort valuations through inappropriately low valuations or lack of business activity. Based on this, another important disadvantage is that the valuation only relates to one or two future fiscal years and not to a longer period that would smooth out random fluctuations in one year and take into account the company's long-term development. Finally, in precedent transactions, the actual control premiums paid for comparable target companies can be tracked, but not the underlying valuation bases. If the buyer bases its valuation on the future financial performance of the target company and not on the reported LTM financial data, there may be strong valuation discrepancies.

In summary, the relative valuation method can be divided into two groups: CCA and CTA. Both groups use a set of financial ratios such as EV/Sales, EV/EBITDA, and P/E ratio to estimate a company`s intrinsic EqV or EV. In CCA analysis, these ratios are obtained by analyzing data sets of listed companies using predefined selection criteria such as geography, industry, size and financials. In CTA analysis, the predefined criteria are supplemented by time and are benchmarked against a dataset of past transactions. The final selection of public companies and past transactions is then referred to as the corresponding CCA or CTA peer

group. The financial ratios of the respective peer group are then applied to the key financial ratios of the target company to obtain an estimate of the company's intrinsic EqV or eEV.

2.3 Intrinsic Valuation

The greatest distinction between intrinsic and relative valuation is that in the former, an asset's value is determined by its predicted cash flows rather than by what someone believes it is worth. The value primarily relies on the valuer's expectations of how the business will evolve, considering its growth rate, margins and investments made in new business assets. In the intrinsic valuation the two most prominent methods are the Discounted Cash Flow Model (DCF) and Dividend Discount Model (DDM). While the former values the net operation assets and non-operating investments of the firm and deduct the value of debt claims to arrive at the final EqV estimate, the second directly values the equity of the firm by discounting expected dividend payments. In the following pages both methods will be further evaluated.

The DCF method is one of the EV methods and thus determines the cash flows to which all providers of capital - equity and debt holders - are entitled. Accordingly, the DCF requires accurate forecast of a company's financials (operating model) from which the respective Unlevered Free Cash Flow (UFCF) can be calculated. These UFCF are discounted using a weighted average cost of capital (WACC) that reflects the return requirements of both equity and debt providers $WACC = \frac{D}{E+D} * k_d(1 - T_m) + \frac{E}{E+D} * k_e$, where debt (D) and equity (E) are measured using market values. Within this discount factor the cost of equity are mostly obtained by applying the Capital Asset Pricing Model (Graham, Harvey and Rajgopal 2006) (CAPM) $k_e = r_f + ERP * \beta_l$ (Sharpe 1964), (Mossin 1966), (Lintner 1965) where (r_f) indicates the Risk-Free Rate (RFP), (ERP) the Equity Risk premium and b_l the Levered Equity Beta (LEB). The RFR represents what an investor could earn on a safe government bond denominated in the same currency as the company´s cash flows. ERP represents the excess return of the stock market of the country in which the company operates above the and beyond the rate on safe

government bonds. The ERP can be either obtained by looking at the past performance of the stock market which indicates a premium between 4%-6% (Fama and French 2001) and (Kaplan and Ruback 1995) or using an alternative approach suggested by (Damodaran 2022) $Value = \frac{Excpected\ Dividends\ Next\ Period}{(Required\ Return\ on\ Equity - Expected\ Grwoth\ Rate)}$. LEB indicates how volatile the company is relative to the market as a whole considering both inherent business risk and risk from leverage. Theoretically, the company`s historical LEB could be used for the calculation of the cost of equity. A more sophisticated approach is to look at peer companies and use the median. However, to make the different betas of the Peer Group comparable the LEB has to be unlevered, to isolate the inherent business risk. Once all betas are unlevered, the median calculation can be applied to determine the new unlevered equity beta (asset beta) of the company. As a next step to reflect the change in risk due to changes capital structure the Unlevered Equity Beta is re-levered with the company's current, optimal or targeted capital structure. After deriving all necessary components for the WACC calculation, the WACC is calculated. Once the WACC is calculated, the UFCF can be discounted in each year of the projected period to its Present Value. An important factor to consider is that if the capital structure changes significantly during the projection period, the discount rate must be adjusted accordingly by taking the new capital structure into account when re-leveraging the unlevered equity beta as well as when weighting the cost of capital. The second part of the DCF valuation refers to the terminal period and the calculation of the terminal value (TV). In contrast to the projected, the growth rate and discount rate do stay the same forever. In practice there are two commonly used methods to calculate TV, first Gordon Growth Model (GGM) (perpetual growth) (Gordon 1959) and exit multiple. Here, perpetual growth means that the company will generate cash flows at a constant rate forever, while the latter, similar to relative valuation, assumes that the company will sell for a multiple of a given market metric. Academics prefer the GGM, while practitioners prefer the exit multiple. The calculation of TV is very important,

as it represents between 60-80% of the total value of the company (Williams 1938). One of the biggest influencers of the TV is the growth rate, when GGM is applied. Therefore, realistic assumptions should be made for this rate. In practice, it is often assumed that the company will grow at the same rate as the country's economy indefinitely. With an infinite time horizon, a higher growth rate would mean that the company would one day be larger than the entire economy. This would not be a realistic scenario. However, if a country's long-term GDP growth is very uncertain or the country's government is unstable, the GGM would not be very reliable. In this case, the multiple approach would be more appropriate. As a final step of the DCF, the TV has to be discounted at the WACC and added to the Present Value of the projected period.

The DCF method is one of the most commonly used methods in practice, which seems reasonable given the advantages of this method. The main advantage is its fundamentals-oriented approach combined with a high degree of flexibility resulting from its assumption-oriented character. The DCF method allows to identify and model each of the underlying value drivers. Since the UFCF has the strongest influence on the EV and the UFCF is highly dependent on various value drivers such as sales growth, profit margin, CAPEX and working capital investments, which can be modeled individually, the DCF allows for a high degree of flexibility. Another important advantage is that the model shows a high degree of market independency, since all assumptions are based on the subjective perception of the modeler. More specifically, it doesn’t rely on market sentiments, avoids the risk of pricing in market anomalies and introducing a selection bias due to the lack of comparable public companies or transactions as it might be the case with relative valuation methods.

On the other hand, the biggest advantage of the DCF method is also its biggest disadvantage. This mainly results from the high sensitivity of the underlying assumption. Concretely this means, that minor changes in key assumptions such as terminal growth rate or discount factor have material impacts on DCF valuation. In the Table I (see appendix) some change to the DCF

valuation and the impact on cost of equity, cost of debt, WACC and EV are illustrated.

Another major drawback is the implicit assumption of DCF, when a constant discount rate is used, that the company has either a target D/E ratio or a constant D/E ratio. Realistically, however, this is often not the case. If D/E changes over time, the WACC has to be adjusted accordingly, which complicates the application of this method. Therefore, a more suitable valuation method (at least from an academic point of view) is used for complex debt schedules, the so-called adjusted present value (APV) (Luehrman 1997). Although this method could lead to a more accurate valuation from an academic point of view, it is less used in practice due to the higher complexity caused by the additional assumptions that have to be made in order to calculate the present value of the tax shield. These assumptions include whether the risk of the tax shield is equal to the risk of the debt or equal to the risk of the company's assets. The latter is assumed if the company is highly leveraged or if the level of debt fluctuates with the value of the company (constant D/V). The former is assumed if debt is predetermined (D is constant) and has a low level or if the company is highly leveraged but maintains a certain investment grade level.

The second valuation model that is commonly used is the DDM. The valuation method is critical on some industries such as commercial banks and insurances. The main difference between DCF and DDM is that the second calculates the Equity Value directly by discounting expected dividend payments at the cost of equity. The procedure of obtaining the cost of equity is identical as with DCF. In both cases CAPM is used. However, the TV is calculated with an equity multiple, such as the P/E-ratio, an alternative would be the GGM.

This method implies a few advantages; however, the disadvantages outweigh, which is why the DCF is the pre-dominated method. Looking at the stock market, dividend policies have a strong influence on stock prices giving its signaling effect. (Brav, et al. 2005). Therefore, companies tend to keep dividend policies in line with the fundamental metrics of the company, making

prediction about future dividend payments more accurate.

On the other hand, a major potential disadvantage is that this model only works for stable companies with a continuous dividend history. Particularly high-growth companies, especially in the technology sector, which do not pay dividends or only at a later point in their development, cannot be valued using this approach. Another major drawback is that this method does not take into account other forms of value creation, such as share buybacks, which increase value by reducing the number of shares outstanding, or other investments in potentially highly profitable opportunities such as new products or geographic expansions. Finally, this method mostly assumes a constant growth rate for the dividend payments, which is not 100 percent reliable given macro-economic challenges. Such deviations from the expectation will tremendously influence the valuation outcome.

To conclude, the intrinsic valuation methods are useful to get a market independent value approximation of the target asset. This helps to get a better of the business underlying value driver such as UFCF, sales growth, profit margin, CAPEX and working capital investments, and how they might be influenced by macro-economic events. However, since there is no clear-cut valuation method, as the advantages and disadvantages of presented techniques show, it is more appropriate to consider several valuation techniques in order to approach an in-depth understanding of a potential valuation range of the company. One way to get such an overview is to use a Football Field, which is discussed in the following chapter.

2.4 Football Field Chart

A Football Field Chart (FFC) is a graphical illustration of the different valuation methods (relative and intrinsic) to summarize a range of indicative company values. Furthermore, it reduces the margin of errors as the median above all valuation methods is used to receive an indicative valuation, which should not be interpreted as the true company value. However, since

it is impossible to pinpoint the actual value of a company the FFC, has a supportive function when it comes to illustrating the possible outcomes when negotiating.

The previously discussed valuation methods can most likely be sorted by their valuation result in the following order, although there may be deviations in some special situations. Generally, the CTA will lead valuations above the CCA which can be traced back to the fact, that in CTA buyers pay so-called control premiums, which lifts valuation above CCA. The classification of the DCF method cannot be generalized, as it depends very much on the underlying assumptions. However, it can generally be said that the leveraged buyout model delivers the lowest value, as it is subject to a target return. In practice, this method is often used to show a floor value (Zeisberger, Prahl and White 2017).

Overall, it can be said, that the FFC is a useful tool which is primarily used by professionals to show clients a potential valuation range of their business and summarize the calculated values in an illustrative chart.

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Appendix

Table 1

DCF Change	Cost of Equity	Cost of Debt	WACC	Implied EV
Smaller Company	Increase	Increase	Increase	Decrease
Increase in Debt	Increase	Increase	Decrease until certain point	Increase until certain point
Higher Cost of Debt	Increase	Increase	Increase	Decrease
Higher RFR	Increase	Increase	Increase	Decrease
Higher ERP	Increase	N/A	Increase	Decrease
Higher LEB	Increase	N/A	Increase	Decrease
Higher Taxes	Decrease	Decrease	Decrease	Increase