FAKULTÄT FÜR BETRIEBSWIRTSCHAFTSLEHRE
Lehrstuhl für Corporate Finance
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UNIVERSITÄT MANNHEIM

MASTERTHESIS
Spring Term 2022
(As of 28. Februar 2022)

Prerequisites:
- Proficiency in Microsoft Excel and willingness to become acquainted with statistical analysis software (e.g., Stata)
- Solid command of English
- Ability to conduct own data research
- Good knowledge of methods in Corporate Finance (company valuation etc.)

Topics are either case studies or empirical studies in corporate finance. Therefore, conducting literature research in research journals and especially in books is generally less important compared to data research in newspapers, databases and/or homepages.

The thesis can be written in German or English. Specific requirements are noted in the individual topic descriptions.

Please refer to the information available on our homepage at https://www.bwl.uni-mannheim.de/maug/lehre/masterlehre/masters-thesis/ , especially the document "How to Write a Thesis".

For case studies, please regard the following references:

Company valuation:
- In general: see literature references for the course Corporate Finance 1 on our homepage
- Banks: Copeland, T. E., Koller, T., Murrin, J., 2000, Valuation, 3rd Ed., Wiley, Chapter 21
- Implementation in Excel: Benninga, S., 2008, Financial Modeling, 3rd Ed., MIT Press

Event studies:
- Lecture Slides, Corporate Finance 1, Event Study Methodology
- Example: Weston, J. F., Siu, J. A., Johnson, B. A., Takeovers, Restructuring, and Corporate Governance, 3rd Ed., Prentice Hall, Appendix B, pp. 171-185
- Formal representation: Campbell, J. Y., Lo, A. W., and MacKinlay, A. C., 1997, The Econometrics of Financial Markets, Chapter 4
- Additional Method for very (!) many events: Dittmann, I., Maug, E., Schneider, C. (2008), How Preussag became TUI: A Clinical Study of Institutional Blockholders and Restructuring in Europe, Financial Management, 37 (3), pp. 571-598

Topic 1: The merger deal between Veolia and Suez

Supervisor: Luisa Langer

On 12th April 2021, Veolia and Suez, two companies in the water and waste management industry, announced a merger deal worth nearly €13 billion. The agreement values Suez at €20.50 per share. This merger deal occurred after eight months of fierce resistance from Suez's management, when Veolia bought 29.9% of Suez at €18 per share and said it wanted to launch a full bid. Although both companies are rivals, Veolia pursued the acquisition of Suez, arguing that together they could better fight new global competitors emerging in China. The companies would also be better placed to innovate in growth areas such as environmental services and recycling.

Veolia, is a French transnational company with activities in three main service and utility areas: water management, waste management and energy services. In 2020, the Veolia group supplied 95 million people with drinking water and 62 million people with wastewater services, produced nearly 43 million megawatt hours of energy and treated 47 million metric tons of waste. Veolia recorded consolidated revenue of €26,010 billion. Veolia's business markets are particularly strong in central and eastern Europe and the UK.

Suez is a French-based utility company which operates largely in the water and waste management sectors, for 160 years. Suez recorder revenues of €7.2 billion and employed 86,000 employees across five continents in 2010. Suez's traditional markets include Spain and Northern Europe.

The two groups agreed that a new Suez would be created, consisting of assets that will form a coherent and sustainable group from an industrial and social standpoint, with real growth potential in regions where the need for services is immense (including Africa, India, and China) and revenue of around €7 billion.

The goal of this thesis is to value Suez and to determine whether the offer price of €20.50 per share is fair. To that end, the student should first conduct a comprehensive industry analysis. In the next step, the candidate should perform a fundamental and a multiples-based valuation of the stand-alone firm, as well as potential synergies. To assess the market reactions to the announcement, the student is further required to analyze the stock market reactions of the companies involved in the deal and their competitors. Exploring the role of a potential harm to competition, as suggested by regulators, is highly encouraged.

Preliminaries: Ability to conduct company valuations and event studies in Excel.

Introductory Literature:

- Company announcement: Veolia-Suez merger: press releases
- Financial Times news: Veolia agrees deal for arch-rival Suez
- Bloomberg news: Veolia agrees to buy Suez, ending bitter takeover battle
- Reuter news: Watchdog fears Veolia-Suez could harm competition in UK

Topic 2: National Express acquires rival Stagecoah

Supervisor: Luisa Langer

On 14th December 2021, two of the UK's largest public transport operators, namely National Express and Stagecoach, announced a merger deal that would create a transport business worth £1.9 billion. Stagecoach shareholders would get 0.36 new National Express shares in exchange for each share held, valuing Stagecoach at £470 million. Under the deal, National Express shareholders would own about 75% of the combined group and Stagecoach shareholders would own 25%. The offer represents an 18% premium on the closing price of Stagecoach shares on the night before the merger deal was revealed. The proposed merger is expected to be completed in late 2022, bringing Stagecoach's UK local bus operations together with National Express's intercity coach network.

National Express Group is a leading transport provider delivering services in the UK, Continental Europe, North Africa, North America, and the Middle East. The company holds the largest market share for long haul coach transport in both Spain and the UK, is the second largest school bus provider in North America and is the largest bus operator in Morocco. The company made a revenue of £1,955.90 million in 2020, have a fleet of 32,000 vehicles, and made 939 million annual passenger journeys.

Stagecoach Group is a Scottish transport group which operates buses, express coaches, and tram services in the UK. Stagecoach is the UK's biggest bus and coach operator. The company is listed in the London Stock Exchange, employs more than 24,000 employees, has a fleet of 8,400 buses and coaches, and serves more than 3 million customers a day. The company reported a revenue of £1,417.6 million in 2020.

During the Covid pandemic, both Stagecoach and National Express received government support to keep services running in an environment of travel restrictions and discouragement from using public transport. The companies said the merger would lead to cost savings of £45 million per year through efficiencies in sharing depots, optimizing their routes, and combining back offices.

The goal of this thesis is to value Stagecoach and to determine whether the offer of 0.36 new National Express shares for each Stagecoach (approximately an offer price of 88.5 pence per share) is fair. To that end, the student should first conduct a comprehensive industry analysis. In the next step, the candidate should perform a fundamental and a multiples-based valuation of the stand-alone firm, as well as potential synergies. To assess the market reactions to the announcement, the student is further required to analyze the stock market reactions of the companies involved in the deal and their competitors.

Preliminaries: Ability to conduct company valuations and event studies in Excel.

Introductory Literature:

- National Express' investor presentation: Investor presentation following the recommended combination of National Express Group and Stagecoach Group
- Financial Times news: National Express to buy Stagecoach for £470 million
- Reuter news: British transport group National Express to buy Stagecoach in all-share deal

Topic 3: Australia's CSL acquires Swiss Vifor Pharma

Supervisor: Luisa Langer

On 14th December 2021, Australian-based CSL signed a definitive agreement for the acquisition of all publicly held stakes of Switzerland-based Vifor Pharma in a deal worth $11.7 billion in cash. CSL launched a tender offer of $179.25 per share, which represents an implied premium of approximately 40% to the closing price of Vifor Pharma on 1st December 2021. The boards of directors of CSL and Vifor approved the merger deal unanimously, and the merger transaction is expected to be completed around mid-2022 subject to customary conditions and regulatory approvals.

Vifor Pharma is a global specialty pharmaceutical company with leadership in iron deficiency, nephrology, and cardio-renal therapies. The company develops, manufactures, and markets pharmaceutical products for precision patient care. Vifor Pharma Group is headquartered in Switzerland and is listed on the Swiss Stock Exchange. On acquisition, the company will have a pipeline of 37 products at various stages of development.

CSL is a leading global biotechnology company with a dynamic portfolio of life-saving medicines, including those that treat hemophilia and immune deficiencies, as well as vaccines to prevent influenza. CSL divides its operations into two business segments. CSL Behring, which develops and markets medicines for rare and serious diseases, is the larger one, accounting for more than 80% of the company's $10.3 billion in annual revenue. Seqiris is CSL's influenza vaccine division. That business unit is the former flu vaccines business of Novartis, which CSL purchased in 2015.

The goal of this thesis is to value Vifor Pharma and to determine whether the offer price of $179.25 per share is fair. To that end, the student should first conduct a comprehensive industry analysis. In the next step, the candidate should perform a fundamental and a multiples-based valuation of the stand-alone firm, as well as potential synergies. To assess the market reactions to the announcement, the student is further required to analyze the stock market reactions of the companies involved in the deal and those of their competitors.

Preliminaries: Ability to conduct company valuation and event studies in Excel.

Introductory Literature:
- Company announcement: CSL Limited announces tender offer to acquire Vifor Pharma Ltd
- Reuters news: Australia's CSL to buy Swiss drugmaker Vifor for $11,7 billion
- Bloomberg news: Australia's CSL to buy drugmaker Vifor
- Australian regulator ASX: CSL Limited tender offer to acquire 100% of Vifor Pharma Ltd

Topic 4: Vantage Towers Carve Out[1]

Supervisor: Marc Gabarro

Vantage Towers is one of the largest operators of transmission towers in Europe. Vantage Towers acquires tower positions, builds the required infrastructure and maintains it. The company's assets include towers, rooftop sites, and small cells. Vantage Towers owns about 82,000 cell towers in ten countries, being the market leader or the close follower in each of them. In Germany, Vantage Towers has around 19,400 transmitters and a market share of 29%.

Vantage Towers was founded in 2020 and it is headquartered in Düsseldorf. Vantage Towers operates and leases its passive infrastructure to telecommunications providers, with the Vodafone Group being the most important client.

The company completed its IPO on the Frankfurt Stock Exchange on 18th March 2021. The final offer price was €24, implying a market capitalization of Vantage Towers of €12.1 billion. Vantage Towers placed 96 million shares with gross proceeds to Vodafone of €2.3 billion. The Vodafone Group retained a majority stake in the company. Nick Read, Vodafone’s CEO, explained this was the culmination of a restructuring process: "Eighteen months ago we started the carve out of Vantage Towers as part of our strategy to improve returns on our assets. We have moved at pace and today's successful [Vantage Towers] IPO is the culmination of all that hard work. […] The strategy to reshape Vodafone to create sustainable stakeholder value continues.” The Vantage Towers IPO proceed will reduce the Vodafone Group’s debt.

The goal of this thesis is to value Vantage Towers to determine whether the offer price of €24 per share was fair. To do so, the student should perform a comprehensive analysis of the industry. Then, the student should perform a fundamental valuation and a multiples-based valuation. To assess the market reactions to the announcement, the student is required to perform a study of the Vantage Towers competitors. The student should elaborate on the first day returns. Additionally, the student should consult the literature and explain the role of parent company financial needs when deciding to carve out a division, and why a carveout was chosen over other forms of divestitures. The student may then study whether the financial needs of the parent company play a role in the IPO price.

Preliminaries: Ability to conduct company valuations and event studies in Excel.

Introductory Literature:
IPO prospectus: https://www.vantagetowers.com/en/investors/ipo

[1] For those students who took FIN 640, this is the same sector as the Antin case covered in class. Having taken FIN 640 is not a requirement for choosing this topic.

Topic 5: Synlab IPO

Supervisor: Marc Gabarro

Synlab is the leading medical diagnostic services provider in Europe. Synlab carries out about 500 million laboratory tests per year, with over 5,000 routine and specialized different tests in their catalogue. Synlab operates in 36 countries in the four continents with 450 laboratories and more than 1,600 blood collection points, holding a market leader position in most of the countries it operates. Synblab employs over 20,000 people and works directly with patients but also for practicing doctors and clinics.

Synlab operates in a growing market, with Synlab sales achieving an annual sales growth rate of 11% over the last years. Synlab has also completed over 100 acquisitions since its foundation in 2015, with Synlab expanding into seven new countries since 2017 through acquisitions.

The company completed its IPO on the Frankfurt Stock Exchange on 30th April 2021. The final offer price was €18, at the very bottom of the price range between €18 and €23. This implied a €4 billion market capitalization. The company offered €400 million newly issued shares plus a €271 million existing shares. The pricing at the bottom for the price range was likely due to investors doubts about Synlab capacity to sustain the 2020 level of earnings: 2020 Synlab earnings spiked 71% to €679 million pushed by the strong demand for Synlab’s COVID-19 testing capacities. About a fifth of Synlab’s sales are COVID-19 related.

The goal of this thesis is to value Synlab to determine whether the offer price of €18 per share was fair. To do so, the student should perform a comprehensive analysis of the industry. Then, the student should perform a fundamental valuation and a multiples-based valuation. To assess the market reactions to the announcement, the student is required to perform a study of the Synlab competitors. The student should elaborate on the first day returns. Then, the student may discuss the advantages and disadvantages of a growth through acquisitions strategy, specially in the international context.

Preliminaries: Ability to conduct company valuations and event studies in Excel.

Introductory Literature:
IPO prospectus: https://ag.synlab.com/3745d281ee31030a144cbd2fed714861

Topic 6: InPost SA IPO

Supervisor: Hamed Davari

On 27 January 2021, InPost S.A., the Polish e-commerce enablement company, got listed on Euronext Amsterdam. InPost was listed through the admission to trading of 500 million shares, with the issue price set at €16.00 per share. The company's market capitalization was €8.0 billion on the day of listing. With a considerable investors demand, InPost's shares closed 15% higher than the offer price, leading to a market capitalization of €9.2 billion.

InPost S.A ("InPost") is an e-commerce enablement platform founded in 1999 by Rafal Brzoska in Poland. In contrast to standard courier delivery for goods, InPost offers a network of automated lockers — which the company calls automatic parcel machines (APMs) — located around towns and cities where customers can pick up purchases more or less at their convenience, rather than waiting for a courier to arrive. InPost operates 12,254 APMs, including over 1,100 in UK, as well as to-the-door couriers and fulfilment services to e-commerce merchants. In 2020, InPost handled 249 million parcel deliveries through its APMs, working with over 26,000 merchants. Strategically positioned in the fast-growing e-commerce ecosystem, InPost benefits from supportive market trends which drives further APM adoption.

APMs claims that its locker delivery results in a reduction of CO2 emissions by two-thirds compared to to-the-door deliveries in urban areas and 90% in rural areas as well as significant reduction in congestion. In addition, APMs provide a more convenient solution to parcel delivery for consumers, allowing for 24/7 access without the need for consumers to stay at home. A strong track record of rapid growth effected in doubled revenue and nearly trebled Operating EBITDA, outpacing most of the companies in the European STOXX 600 index.

The goal of this thesis is to value InPost SA to determine whether the offer price of €16 per share was fair. To do so, the student should perform a comprehensive analysis of the industry. Then, the student should perform a fundamental valuation and a multiples-based valuation. To assess the market reactions to the announcement, the student is required to perform a study of the InPost SA competitors. The student should elaborate on the first day returns.

Preliminaries: Ability to conduct company valuations and event studies in Excel or Stata.

Introductory Literature: InPOst Prospectus

Topic 7: AGC Inc. acquisition of MolMed S.p.A

Supervisor: Hamed Davari

On 16 March 2020 **AGC Inc.** entered into an agreement to acquire **MolMed S.p.A.** for approximately €240 million. As per the offer, AGC Inc. will acquire 463.45 million shares of MolMed S.p.A at an offer price of €0.51 per share. The transaction is unanimously approved by the Board of MolMed S.p.A and on 30 September 2020, AGC Inc. completed the acquisition of 100% stake in MolMed S.p.A. Upon completion, MolMed's entity name has been changed to AGC Biologics S.p.A.

MolMed S.p.A. is a clinical stage biotechnology company focused on research, development, manufacturing, and clinical validation of gene & cell therapies and offers GMP services for the development and manufacturing of gene & cell therapies for third parties and/or in partnership at its authorized facilities ("CDMO Services").

Gene & cell therapy is an innovative therapeutic method, that aim to treat diseases that do not have adequate treatments to date. Approximately 1000 clinical trials are underway worldwide, and the market is expected to grow at a rapid rate. MolMed has strengths especially in vectors and cells manufacturing backed by its robust production platform, also providing third party GMP manufacturing services of engineered cells and viral vectors for various companies from large biopharmaceuticals to biotech companies.

AGC Inc., formerly Asahi Glass Co. Ltd., is a Japanese global glass manufacturing company, founded in 1907 and headquartered in Tokyo. It is the largest glass company in the world and one of the core Mitsubishi companies. The company is active in glass, electronics, chemicals, ceramics, and other businesses with operating businesses in more than 30 countries in Asia, Europe and Americas. Under its AGC plus management policy, the AGC Group has made a commitment to position its life-sciences related business, including the biopharmaceutical CDMO business, as one of its strategic initiatives, aiming at sales above the 100-billion-yen range by 2025. To date, AGC has actively invested in its small molecule pharmaceutical CDMO business and its biopharmaceutical CDMO business and has established a stable presence in the industry. Through the acquisition of MolMed, AGC enters the innovative gene & cell therapy field to expand its CDMO offering.

The goal of this thesis is to value **MolMed S.p.A.** and to determine whether the offer price of €0.51 per share is fair. To that end, the student should first conduct a comprehensive industry analysis. In the next step, the candidate should perform a fundamental and a multiples-based valuation of the stand-alone firm, as well as potential synergies. To assess the market reactions to the announcement, the student is further required to analyze the stock market reactions of the companies involved in the deal and their competitors.
Preliminaries: Ability to conduct company valuations in Excel.
Introductory Literature:
https://www.molmed.com/en/node/512
https://www.agc.com/en/ir/stock/notice/index.html

Topic 8: Corporate green bonds

Supervisor: Mengqiao Du

A recent development in corporate finance is the use of corporate green bonds—that is, bonds whose proceeds are committed to finance environmental and climate-friendly projects, such as renewable energy, green buildings, or re-source conservation. For example, in March 2014, Unilever issued a £250 M green bond to "cut in half the amount of waste, water usage and greenhouse gas emissions of existing factories." Similarly, in June 2017, Apple issued a $1B green bond to finance "renewable energy and energy efficiency at its facilities and in its supply chain." Corporate green bonds have become increasingly popular in recent years—Morgan Stanley refers to this evolution as the "green bond boom." Corporate green bonds were essentially inexistent prior to 2013. In that year, the total issuance of corporate green bonds was about $5B. Since then, the issuance of corporate green bonds has sky- rocketed. In 2018 alone, the corporate sector issued green bonds worth $95.7B.

Intuitively, it might seem puzzling that companies choose to issue green bonds in lieu of conventional bonds, as the proceeds from green bonds are committed to green projects, which restricts companies' investment policies. Moreover, to qualify as a "certified" green bond, companies have to undergo third-party verification to establish that the proceeds are funding projects that generate environmental benefits, which gives rise to administrative and compliance costs. Given the constraining nature of green bonds, a seemingly superior strategy would be to issue conventional bonds and then invest the proceeds in green projects if they are deemed to be financially more viable than other projects.

Green bonds become popular despite the constraints because they may serve as a credible signal of the company's commitment toward the environment. Due to their constraining nature, green bonds may allow companies to credibly signal that they are indeed committed to undertaking investments in green projects and improving their environmental footprint. In addition, if green bond investors are willing to trade off financial returns for societal benefits, companies may issue green bonds to obtain cheaper financing.

The goal of this thesis is to empirically examine corporate green bonds. The student should first conduct a literature review on environmental, social and corporate governance (ESG)-related corporate investment and financing decisions and the development of green bonds. In the empirical part of this thesis, the student should replicate the analyses in Flammer (2021). The analyses should include but are not limited to the market reaction of firms when they issue green bonds as well as the effect of green bond issuance on the firms' ownership changes and ESG performance.
Preliminaries: The analysis requires obtaining data from Bloomberg. We recommend that the candidate has at least basic knowledge of a statistical software program (e.g., Stata) and econometrics.

Introductory Literature:

- Flammer, C. (2021). Corporate green bonds. Journal of Financial Economics, 142(2), 499-516.
- "Unilever issues £250 m green bond," Financial Times, March 19, 2014.
- "Should you invest in "green bonds"?" Forbes, June 29, 2017.
- Morgan Stanley, "Behind the green bond boom," October 11, 2017.
- SIFMA (Securities Industry and Financial Markets Association), "Capital markets fact book 2019," 2019.