FAKULTÄT FÜR BETRIEBSWIRTSCHAFTSLEHRE
Lehrstuhl für Corporate Finance
Prof. Ernst Maug, Ph.D.

UNIVERSITÄT MANNHEIM

MASTERTHESIS
Fall Term 2023
(As of 6. September 2023)

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: Mister Spex AG IPO

Supervisor: Bastian Koch

On January 1st, 2021, Mister Spex AG, the Berlin-based online glasses and contact lenses retailer, reported it was looking to launch a listing on the Frankfurt Stock Exchange in the first half of the year. The listing could have a value between EUR 300 million and EUR 400 million and value the company over EUR 1 billion. On June 30th, 2021 Mister Spex set the issue price at EUR 25 per share. Overall, it issued 9,782,609 new shares via a capital increase and 3,260,869 existing shares from holdings of certain shareholders. It further allocated 1,956,521 existing shares as an overallotment option. Altogether, the 14,999,999 shares are valued at EUR 374,999,975. On July 2nd, 2021, Mister Spex was successfully listed under the ticker MRX.

Mister Spex focuses on online and offline retail channels for eyewear in Europe. It operates a platform for fashionable and corrective eyewear, including prescription glasses, sunglasses, contact lenses, and contact lens care products. Mister Spex manages ten country-specific online stores across Europe and self-operated physical retail stores at major shopping locations in certain countries.

The goal of this thesis is to value Mister Spex AG and determine whether the offer price of EUR 25 per share was fair. To do so, the student should perform a comprehensive analysis of the industry. Then, the student should also perform a fundamental valuation and a multiples-based valuation. To assess the market reaction to the announcement, the student is required to perform a study of Mister Spex's competitors. The student should further elaborate on the first-day return by looking at the relevant academic literature on IPO first-day returns.

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

Introductory Literature: IPO Prospectus: https://ir.misterspex.com/websites/misterspex/English/9999/pdf-download.html?lg=en&filename=prospectus_en.pdf

Topic 2: Cherry AG IPO

Supervisor: Bastian Koch

On June 7th, 2021, Cherry AG, the Munich-based computer input device manufacturer, announced its intention to list on the Frankfurt Stock Exchange. The listing would consist of primary shares for proceeds of approximately EUR 140 million and an undisclosed volume of secondary shares. The overall base offer included 9.3 million shares with an additional 3.695 million as a potential over-allotment option. On June 23rd, 2021, Cherry set the price per share at EUR 32, valuing the base offer at EUR 297.6 million. On June 29th, 2021, the transaction was completed. The transaction was oversubscribed, including the over-allotment option, valuing the company at EUR 415.83 million. Mr. Rolf Unterberger, CEO of Cherry, said "Cherry is the worldwide leading manufacturer of switches for the premium gaming mechanical keyboard market. We are at an exciting growth stage and are looking forward to this next chapter in Cherry's development."

Cherry is a globally active manufacturer of high-end switches for mechanical keyboards and computer input devices. Its business focuses on mechanical keyboard switches for gaming keyboards and computer input devices used in various settings, mainly for gaming, office, industry, cybersecurity protection, and telematics solutions for healthcare practices. Since its foundation in 1953, Cherry has stood with its two business areas, Gaming and Professional, for innovative and premium quality products developed specifically for the needs of its customers.

The goal of this thesis is to value Cherry AG and to determine whether the offer price of EUR 32 per share was fair. To do so, the student should perform a comprehensive analysis of the industry. Then, the student should also perform a fundamental valuation and a multiples-based valuation. To assess the market reaction to the announcement, the student is required to perform a study of Cherry's competitors. The student should elaborate on the first-day return by looking at the relevant academic literature on IPO first-day returns.

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

IPO Prospectus: IPO Prospectus: https://ir.cherry.de/de/home/share/

Topic 3: The Carve-out of Porsche

Supervisor: Bastian Koch

On September 19, 2022, Volkswagen AG announced to take its subsidiary Dr. Ing. h. c. F. Porsche public through an IPO. Rumors about the deal started as far back as February 18, 2022. Volkswagen intended to list up to 25% of Porsche on the Frankfurt Stock Exchange. Initial reports suggested that, even though Porsche CEO Mr. Oliver Blume supported the listing if Volkswagen pursued it, Volkswagen CEO Mr. Hebert Diess was not interested in the listing. On February 24, 2022, Porsche and Volkswagen reached an agreement concerning the listing, and subject to shareholder approval, Porsche would proceed with the IPO.

Volkswagen is an international leader in the automobile manufacturing industry headquartered in Germany. It was founded in 1937 and has steadily increased its market share through various acquisitions. Up until the carve-out, Porsche was a strong subsidiary of Volkswagen. Porsche specializes in producing high-performance sports cars, such as the iconic 911 model. In 2009, Volkswagen acquired a majority stake in Porsche AG and integrated it as a holding company under the Volkswagen Group. This move allowed Volkswagen to expand its product portfolio and strengthen its position in the luxury car market. The acquisition was part of Volkswagen's long-term strategy to become the world's leading automaker and diversify its revenue streams.

Porsche published the prospectus for the IPO on September 19, 2022, and was divided into 911 million shares, half of which were ordinary shares and the other half preferred shares. Porsche issued 25% of the total preferred shares in the base offering with about 14.9 million shares as an over-allotment option. It set the issuing price between EUR 76.5 and EUR 82.5 per share. The offer period was between September 20, 2022, and September 28, 2022. Eventually, the listing took place on September 29, 2022, with an issue price of EUR 82.5, and a total of 113.875 million shares were issued.

The goal of the study is to value the carve-out and determine whether the offer price of EUR 82.5 was fair. The student should also assess the market reaction to the announcement of the IPO. To this end, the student should examine Volkswagen and its competitors in an event study, as well as the competitors of Porsche. The student should also examine the medium to long-term effects of the divestiture by comparing the stock price movements of these two companies with the stock price movement of Volkswagen before the carve-out and elaborate on the effect, considering the relevant literature on the effects of carve-outs and IPOs.

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

Introductory Literature: IPO Prospectus: https://investorrelations.porsche.com/en/financial-figures/#presentations

Topic 4: Glencore Acquires PolyMet Mining

Supervisor: Luisa Langer

On June 30th, 2023, Glencore announced its intention to acquire the remaining 18% stake in PolyMet Mining Corp for about $73 million. The offer price of USD 2.11 a share implied a 167% premium over PolyMet's stock price. On July 17th, 2023, the offer was accepted based on the unanimous recommendation of an independent special committee of PolyMet's board of directors. Al Hodnik, Lead Independent Director of PolyMet welcomed the transaction as "the necessary step for the advancement of the NewRange Copper Nickel joint venture and the development of strategic minerals vital to our economy's clean energy transformation." NorthMet is expected to produce copper and nickel-copper concentrates, which Glencore has substantial experience in marketing.

PolyMet is a mine development company listed on the Toronto Stock Exchange and the NYSE. PolyMet's primary mineral property and principal focus is the commercial development of its NorthMet Project, a mining project in northeastern Minnesota, which hosts copper, nickel, cobalt, gold, silver, and platinum group metal mineralization. This mining project involves a 50:50 joint venture with Teck Resources, and it has long been criticized by environmental and tribal groups for its potential impacts on water resources and its risks to water quality. Glencore is the largest globally diversified natural resource company headquartered in Switzerland. The company produces, recycles, sources, markets, and distributes transition metals and minerals. Glencore is in the midst of a bigger acquisition bid for Teck Resources, as the miner will increase its exposure to energy transition metals such as copper and nickel.

The goal of this thesis is to evaluate the merger deal and to determine whether the merger terms were fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a fundamental and a multiple-based valuation for PolyMet and discuss potential synergies. To assess the stock market reaction to the merger announcement, the candidate is required to analyze the two companies and their competitors with event-study methods. The candidate should elaborate on the results by referring to the relevant literature on market responses to M&A announcements.

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

Introductory Literature:
Official announcement:
PolyMet enters into definitive agreement for Glencore to acquire full ownership.
News announcement:
Glencore proposes to buy remaining stake of PolyMet.

Topic 5: Malteries Soufflet acquires United Malt

Supervisor: Luisa Langer

On March 27th, 2023, Malteries Soufflet, a branch of French agribusiness InVivo, announced a non-binding proposal to acquire United Malt Group, an Australian malt producer. The merger deal was signed on July 2nd, 2023, at AUD 5 per share, representing an acquisition value of $1.5 billion. The cash offer represents a 45.3% premium to United Malt's closing price on March 24, when the offer was first disclosed. The deal would allow Malteries Soufflet to expand its activities geographically and supply new markets, including China and Oceania, as the CEO notes: "Joining both gives us a great platform to capture the growth of the beer market". This merger would bring together the number two and number four in the global malt market and create the world's largest malting group with an annual production volume of about 3.6 million tons of malt.

United Malt is a company listed on the Australian Securities Exchange and the world's fourth-largest commercial maltster, producing bulk malt for brewers, craft brewers, distillers, and food companies. It has 12 processing plants in Australia, Canada, the United States, and Britain, and produces around 1.25 million tonnes of malt annually. Malteries Soufflet is one of the top three operators in the global malt industry and a subsidiary of the leading European agricultural group InVivo Group. The company owns 28 malt houses across Europe, Latin America, Asia, and Africa. The acquisition deal is part of InVivo's effort to become the world's top malt producer. It acquired agribusiness peer Soufflet last year and signed an agreement in January to take over Belgian malthouse Castle Malting. The company also intends to grow malt volumes organically.

The goal of this thesis is to evaluate the acquisition deal and to determine whether the acquisition terms were fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a fundamental and a multiple-based valuation for United Malt and discuss potential synergies. To assess stock market reactions to the merger announcement, the candidate is required to analyze the two companies and their competitors using event-study methods. The candidate should elaborate on the results referring to the relevant literature on market responses to M&A announcements.

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

Introductory Literature:
Official announcement:
Malteries Soufflet announces non-binding, indicative proposal to acquire United Malt Group.
United Malt enters into scheme implementation deed with Malteries Soufflet.
News announcement:
Malteries Soufflet signs binding deal to buy United Malt at $5 a share.

Topic 6: ONEOK acquires Magellan Midstream Partners

Supervisor: Minrui Gong

On May 14th, 2023, it was announced that ONEOK Inc. (NYSE: OKE) reached an agreement with Magellan Midstream Partners, L.P. (NYSE: MMP) to acquire the latter, paying 25 USD in cash plus 0.6670 ONEOK common shares for each outstanding common unit held by Magellan's shareholders. The offer represents a total value of 18.8 Billion USD (including assumed debt) and a bid premium of 23.02% (based on Magellan's closing price on May 11th, 2023). The transaction "brings together two premier energy infrastructure businesses with strong returns on invested capital and diverse free cash flow generation: The transaction adds a leading, and primarily fee-based, refined products and crude oil transportation business to ONEOK," ONEOK said in a news release.

Magellan primarily transports, stores, and distributes refined petroleum products and crude oil. Incorporated in 2000, the company owns a refined petroleum products pipeline system in the US and can store more than 100 million barrels of petroleum products, such as gasoline, diesel fuel, and crude oil. ONEOK is a midstream service provider owning natural gas liquids (NGLs) systems that connect producers and end-users and a network of natural gas gathering, processing, storage, and transportation assets. Originally founded in 1906 as an interstate natural gas pipeline business in Oklahoma, the company has become an industry leader.

The goal of this thesis is to evaluate the acquisition deal and to determine whether the acquisition terms were fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a fundamental and a multiple-based valuation for Magellan, and discuss potential synergies. To assess the stock market reaction to the merger announcement, the candidate is required to analyze the two companies and their competitors with event-study methods. The candidate should also elaborate on the results referring to the relevant literature on market responses to M&A announcements.

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

Introductory Literature:
Official announcement: https://ir.oneok.com/news-and-events/press-releases/2023/05-14-2023-232007760

Topic 7: Allkem merges with Livent

Supervisor: Minrui Gong

On May 10th, 2023, Allkem Ltd. (ASX: AKE), an Australia-based lithium exploration services provider, announced that it had agreed to merge with Livent Corporation (NYSE: LTHM), a US-based lithium energy storage manufacturer. A new company (yet to be named, NewCo hereafter) would be created. Shareholders of Allkem would receive one new CDIs (instruments traded on the Australian Stock Exchange that allow non-Australian companies to list their shares on the exchange and use the exchange's settlement systems) in the NewCo for every share held while shareholders of Livent would receive 2.406 shares in the NewCo. Upon closing of the transaction, shareholders of Allkem and shareholders of Livent would own 56 percent and 44 percent respectively in the NewCo. The combined company is valued at USD 10.6 billion. Commenting on the deal, Mr. Paul Graves, President and CEO of Livent, said the combined company would become "a leading force in our industry driving growth in EV and energy storage applications."

Livent was founded in 1942 and is headquartered in Pennsylvania, US. It is a manufacturer of performance lithium compounds including battery-grade lithium hydroxide, butyllithium, and purity lithium metal. Allkem is a specialty lithium chemicals company based in Queensland, Australia. It is principally engaged in mineral extraction, production, and chemical processing.

The goal of this thesis is to evaluate the merger deal and to determine whether the merger terms were fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a fundamental and a multiple-based valuation for Livent, and discuss potential synergies. To assess the stock market reaction to the merger announcement, the candidate should analyze the two companies and their competitors with event-study methods. The candidate should elaborate on the results referring to the relevant literature on market responses to M&A announcements.

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

Introductory Literature:
Official announcement: https://ir.livent.com/news/news-details/2023/Allkem-and-Livent-to-Create-a-Leading-Global-Integrated-Lithium-Chemicals-Producer/default.aspx

Topic 8 : Emerson Electric acquires National Instruments

Supervisor: Minrui Gong

On April 12th, 2023, Emerson Electric Company (NYSE: EMR, Emerson hereafter), a multinational conglomerate, announced that it had reached an agreement with National Instruments Corporation (NASDAQ: NATI, NI hereafter), a US-based measurement and automation products manufacturer, to acquire the latter for 60 USD per share. This offer represents a total value of 8.2 BUSD and a bid premium of 14.11% (based on NI's closing price on April 11th, 2023). This offer was preceded by a months-long unsuccessful attempt to take over the target. Mr Lal Karsanbhai, President and CEO of Emerson, expected the acquisition to help Emerson "develop a cohesive, higher growth and higher margin portfolio and build on its global automation focus."

NI, headquartered in Texas, US, is a multinational company that provides software-defined platforms, automated test equipment, and virtual instrumentation products for engineers and scientists. Emerson, incorporated in 1890, is a multinational technology and engineering company that provides various solutions for customers in industrial, commercial, and consumer markets worldwide.

The goal of this thesis is to evaluate the acquisition deal and to determine whether the acquisition terms were fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a fundamental and a multiple-based valuation for NI, and discuss potential synergies. To assess the stock market reaction to the merger announcement, the candidate is required to analyze the two companies and their competitors with event-study methods. The candidate should elaborate on the results referring to the relevant literature on market responses to M&A announcements.

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

Introductory Literature:
Hostile takeover bid: https://www.emerson.com/en-us/news/2023/emerson-national-instruments-announcement
Official announcement: https://www.emerson.com/en-us/news/2023/04-emerson-ni-acquisition