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

UNIVERSITÄT MANNHEIM

M A S T E R T H E S I S
Spring Term 2025
(As of 3. March 2025)

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:

<u>Company valuation:</u>
- 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

<u>Event studies:</u>
- 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: Mars to acquire Kellanova

Supervisor: Bastian Koch

On August 13, 2024, Mars Incorporated and Kellanova (NYSE: K) announced that they have entered into a definitive agreement under which Mars acquires Kellanova for $83.50 per share in cash, for a total consideration of $35.9 billion. The transaction price represents a premium of approximately 44% to Kellanova's 30-trading day volume weighted average price. The total consideration represents an acquisition multiple of 16.4x LTM adjusted EBITDA as of June 29, 2024.

Mars, Inc. is a family-owned global leader in the production and sale of confectionery, pet food, and other food products, with a rich history dating back to 1891. Its product portfolio includes iconic brands like M&M's, Mars, Snickers, and Pedigree, as well as innovative offerings in nutrition and health. Kellanova, formerly known as Kellogg Company, is a multinational manufacturer of snacks and convenience foods renowned for brands such as Pringles, Pop-Tarts, and Special K. The company operates in multiple regions, including North America, Europe, and the Asia-Pacific, offering products ranging from cereals to plant-based foods.

The goal of this thesis is to evaluate the acquisition deal and determine whether the acquisition terms are fair. To that end, the student should first perform a comprehensive industry analysis. Next, the student should conduct a DCF valuation and a multiples-based valuation for Kellanova and discuss potential synergies. To examine the stock market reaction to the acquisition announcement, the candidate should analyze the two companies and their competitors using event-study methods. The candidate should interpret the results by referring to relevant literature on market responses around M&A announcements.

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

Introductory Literature:

Announcement: https://s203.q4cdn.com/897568180/files/doc_news/2024/08/Kellanova-Acquisition_Press-Release-_FINAL_081324.pdf

Transaction documents: https://investor.kellanova.com/news-events/events-presentations/event-details/2024/Mars-Transaction-Key-Documents/default.aspx

Annual report Kellanova: https://investor.kellanova.com/financials/annual-reports/default.aspx

Topic 2: Zalando SE to acquire About You Holding SE

Supervisor: Bastian Koch

On December 11, 2024, Zalando SE (XTRA: ZAL) entered into a definitive business combination agreement to acquire About You Holding SE (DB: YOU) for €1.1 billion. Zalando has offered €6.50 per share and will finance the transaction using existing cash reserves. The offer price represents a premium of 107% to About You's 3-month volume-weighted average share price on December 10, 2024. Key shareholders, including Otto Group, Otto Family, HEARTLAND A/S, and About You's management, representing approximately 73% of About You's share capital, have entered binding agreements to sell their shares to Zalando. The transaction, which is subject to regulatory approval, is expected to close in summer 2025. Both the management board and supervisory board of About You have expressed their intent to recommend that shareholders accept the offer.

Zalando SE, founded in 2008 and headquartered in Berlin, Germany, is a leading online platform for fashion and lifestyle products. It operates across 25 European countries, offering shoes, apparel, accessories, beauty products, and services through its Fashion Store. About You Holding SE, founded in 2014 and headquartered in Hamburg, Germany, is a fashion and technology company that operates e-commerce platforms in Europe. Its operations include the ABOUT YOU online store, cloud-based software-as-a-service solutions, and advertising services.

The goal of this thesis is to evaluate the acquisition deal and determine whether the acquisition terms are fair. To achieve this, the student should first perform a comprehensive industry analysis. Next, the student should conduct a DCF valuation and a multiples-based valuation for About You and discuss potential synergies. To examine the stock market reaction to the acquisition announcement, the candidate should analyze the two companies and their competitors using event-study methods. The candidate should interpret the results by referring to relevant literature on market responses around M&A announcements.

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

Introductory Literature:

Announcement: https://corporate.zalando.com/en/investor-relations/zalando-and-about-you-team-lead-way-european-fashion-and-lifestyle-e-commerce

Offer document: https://www.the-perfect-fit.de/download/companies/ma4438/offer/Zalando_SE_Offer_Document_ABOUT_YOU_Holding_SE_Translation.pdf

Annual report About You: https://ir.aboutyou.de/download/companies/58027/Hauptversammlung/AY_HV2024_08-E-Annual_Report_FY_2023_2024.pdf

Topic 3: Douglas AG IPO

Supervisor: Henrietta Oppong-Adjei

On March 3, 2024, Douglas Group announced its intention to float on the Regulated Market of the Frankfurt Stock Exchange in the first quarter of 2024. The offer would include 34,592,908 bearer shares, consisting of 32,692,308 newly issued and 1,900,600 secondary shares offered by a selling shareholder (Kirk Beauty International S.A.). The initial price range was set at €26 - €30, with expected gross proceeds of about €809 million. The IPO proceeds would be channeled towards reducing the company's debt and decreasing its interest expense. The CEO, Sander van der Laan, said, "The DOUGLAS Group is ideally positioned to further capitalize on the large and resilient European premium beauty market. Our IPO is the logical next step for us to further deploy our ´Let it Bloom – DOUGLAS 2026´ strategy and leverage our full potential." On March 21, 2024, the shares began trading at € 26 per share and closed with a 9% reduction in the offer price.

Douglas AG (XTRA: DOU) is a leading omnichannel premium beauty destination with over 1,870 stores and an extensive digital presence in Europe. With a long history of evolution dating back about 200 years, Douglas Group is currently headquartered in Düsseldorf, Germany, with operations in 22 European countries and about 18,000 employees. The firm offers products and services in retail and wholesale for skin and hair care, fragrances, cosmetics, and beauty accessories, and boasted about €4.1 billion in Revenue in 2023.

This thesis aims to value Douglas Group and determine whether the offer price of €26 per share was fair. To do so, the candidate should perform a comprehensive industry analysis. Next, the candidate should conduct a DCF and a multiples-based valuation of Douglas AG. To examine the market reaction to the announcement, the candidate should analyze Douglas Group's competitors with event study methods. The candidate should interpret the results by referring to the relevant literature on IPO first-day returns.

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

Introductory Literature:

Prospectus: https://portal.mvp.bafin.de/database/VPInfo/prospekt.do?details=true&id=55296837&typId=40&bereich=3&cmd=zeigeProspektEmittentenSuche

Announcement: https://douglas.group/en/newsroom/press-releases/douglas-group-plans-initial-public-offering-ipo-on-frankfurt-stock-exchange

https://www.ft.com/content/749643e3-5dc0-4c96-8187-266af6f99945

Topic 4: PACS Group Inc IPO

Supervisor: Henrietta Oppong-Adjei

On April 10, 2024, PACS Group, Inc. (NYSE: PACS) announced the pricing of its initial public offering of 21,428,572 shares of its common stock being sold by the company at a public offering price of $21.00 per share for total gross proceeds of approximately $450 million, less underwriting discounts, commissions, and offering expenses. In addition, certain selling stockholders granted the underwriters a 30-day option to purchase up to 3,214,284 shares of the company's common stock at the initial public offering price. The option was fully exercised, and the share price rose by 10% on the first trading day. PACS Group Inc. further made a seasoned equity offering in September 2024.

Founded in 2013, PACS is one of the largest post-acute care platforms in the United States, investing in post-acute healthcare facilities, professionals, and ancillary services. The company operates 315 post-acute care facilities across 17 states through its subsidiaries, serving up to 30,000 patients daily. These subsidiaries provide services in assisted living, memory care, and independent living. After going public in 2024, the company acquired several Skilled Nursing facilities. Last year, 36 of its post-acute communities were named among the best by the U.S. News & World Report.

The goal of this thesis is to value PACS Group, Inc. and determine whether the offer price of $21 per share was fair. To do so, the candidate should perform a comprehensive industry analysis. Next, the candidate should conduct a DCF valuation and a multiples-based valuation of PACS Group. To examine the market reaction to the announcement, the candidate should analyze PACS Group's competitors with event study methods. The candidate should interpret the results by referring to the relevant literature on IPO first-day returns.

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

Introductory Literature:
SE filling: https://www.sec.gov/Archives/edgar/data/2001184/000162828024039734/pacsfollowon424b4.htm

Press release: https://ir.pacs.com/news-events/press-releases/detail/98/pacs-group-inc-announces-pricing-of-its-upsized-initial-public-offering

https://ir.pacs.com/news-events/press-releases/detail/107/pacs-group-inc-announces-pricing-of-its-upsized-public-offering

Topic 5: Noble Corporation acquires Diamond Offshore Drilling

Supervisor: Rongrong Wang

On June 10, 2024, Noble Corporation plc (CSE: NOBLE) (NYSE: NE) announced a definitive agreement to acquire Diamond Offshore Drilling, Inc. (NYSE: DO). According to the terms of the agreement, Noble would pay USD 15.52 per share of Diamond, consisting of USD 5.65 in cash and 0.2316 shares of Noble stock. The transaction is valued at over USD 1.61 billion. Based on Noble's closing share price of USD 13.93 on June 7, 2024, this offer represents a bid premium of 11.41%. On September 4, 2024, Noble announced that the transaction had been successfully completed. Robert Eifler, CEO of Noble Corporation, stated, "This acquisition enables Noble to continue our journey of delivering superior innovation and value to a broad range of the leading offshore operators across the world," emphasizing that the transaction would enhance shareholder benefits.

Diamond Offshore Drilling, Inc. is a global offshore drilling contractor that provides contract drilling services to the energy industry. Headquartered in Houston, Texas, the company operates a fleet of twelve floater rigs, including four owned drillships, seven owned semisubmersibles, and one managed rig.

Noble Corporation plc, incorporated in England and Wales, is a leading offshore drilling contractor providing services to the oil and gas industry in both established and emerging markets globally. The company operates an advanced fleet of offshore drilling rigs with a focus on ultra-deepwater and jack-up drilling. Noble is recognized for its operational efficiency and commitment to safety.

This thesis aims to evaluate the acquisition deal and determine whether the acquisition terms were fair. To achieve this, the candidate should first perform comprehensive industry and firm analyses. Subsequently, the candidate should conduct both a cash-flow-based and a multiples-based valuation for Diamond Offshore Drilling, Inc. and discuss potential synergies. Furthermore, to assess the stock market reaction around the merger announcement, the candidate is required to analyze the two companies and their competitors using event-study methods.

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

Introductory Literature:
SEC filling:
https://d18rn0p25nwr6d.cloudfront.net/CIK-0001895262/d5ab507e-00cf-46e3-9cff-23ad344bd0af.pdf

Press release:
https://noblecorp.com/investors/news/news-details/2024/Noble-Corporation-plc-announces-agreement-to-acquire-Diamond-Offshore-Drilling-Inc/default.aspx

Topic 6: Bitfarms acquires Stronghold

Supervisor: Minrui Gong

On August 21, 2024, Bitfarms Ltd. (NASDAQ/TSX: BITF), a Toronto-based Bitcoin miner, announced it had agreed to acquire its New York-based competitor, Stronghold Digital Mining (NASDAQ: SDIG), in an all-equity deal. Under the terms of the agreement, Stronghold's shareholders would receive 2.52 shares of Bitfarms for each share of Stronghold they owned, valuing Stronghold at $6.02 per share. This represents a 105% premium over Stronghold's closing price of $2.93 per share on August 20, 2024, the day prior to the announcement.

The cryptocurrency market more than doubled in size in 2024, reaching a market capitalization of approximately $3.5 trillion. Unlike traditional currencies governed by centralized authorities, cryptocurrencies operate through decentralized networks, where market participants validate transactions by solving complex mathematical puzzles. These participants, known as "miners," are rewarded with newly created cryptocurrency units for their efforts—a process commonly referred to as "mining." To counter inflation, the rewards for miners are halved roughly every four years. Following the fourth "halving" in April 2024, Stronghold announced its intention to sell the business.

Cryptocurrency mining is extremely energy-intensive. Unlike its competitors that source power directly from the grid, Stronghold generates electricity from waste materials known as coal refuse, a process that qualifies for state subsidies. Commenting on the acquisition, Bitfarms' CEO, Ben Gagnon, stated that the deal aligns with Bitfarms' strategy to "diversify beyond Bitcoin mining to create greater long-term shareholder value."

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 DCF valuation and a multiples-based valuation for Stronghold and discuss potential synergies. To examine the stock market reaction to the acquisition announcement, the candidate should analyze the two companies and their competitors with event-study methods.

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

Introductory Literature:
Introduction to Bitcoin mining: https://corporatefinanceinstitute.com/resources/cryptocurrency/bitcoin-mining/
News report on Stronghold's intention to sell itself: https://fortune.com/crypto/2024/05/02/stronghold-bitcoin-mining-greg-beard-halving-sale/
Bitfarms' acquisition announcement: https://investor.bitfarms.com/news-events/press-releases/detail/262/bitfarms-to-acquire-stronghold-digital-mining
Coal refuse energy and reclamation tax credit: https://dced.pa.gov/programs/coal-refuse-energy-reclamation-tax-credit/

Topic 7: Carlsberg acquires Britvic

Supervisor: Minrui Gong

On June 21, 2024, Carlsberg (OMX: CARL.B), a Danish brewer, revealed that it had offered to purchase Britvic (LSE: BVIC), a UK-based soft drinks manufacturer, for £12.5 per share in cash, up from an earlier bid of £12 per share. Britvic's board unanimously rejected both proposals. However, on July 8, 2024, Britvic announced that it had agreed to the acquisition. Under the terms of the deal, Britvic shareholders would receive £12.9 in cash, along with a special dividend of £0.25 per share. The total offer of £13.15 per share represents a 30% premium over the closing price of £10.15 on June 20, 2024, and a 9% premium over the closing price of £12.10 on July 5, 2024.

Since the 1960s, beer has steadily declined in popularity compared to wine in the UK. In 1964, British people consumed 40 times more beer than wine. By 2014, however, the consumption of the two alcoholic beverages had reached nearly equal levels, reflecting a significant shift in drinking preferences over the decades.

Mergers between brewers and soft drink manufacturers are rare in the UK. Through this acquisition, Carlsberg aimed to become the "preferred multi-beverage supplier" in the UK, offering a comprehensive portfolio of market-leading brands. Additionally, Carlsberg would secure a 20-year exclusive bottling agreement with PepsiCo through Britvic, elevating its relationship with the global soft drink giant. Despite these strategic advantages, Carlsberg's shareholders showed little enthusiasm for the acquisition, as evidenced by an 8% drop in its share price on June 21, 2024. Commenting on the market's negative reaction, the *Financial Times* noted that combining two mature companies in two stagnant markets is unlikely to prove a promising strategy.

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 DCF valuation and a multiples-based valuation for Britvic and discuss potential synergies. To examine the stock market reaction to the acquisition announcement, the candidate should analyze the two companies and their competitors with event-study methods.

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

Introductory Literature:
Alcohol consumption by type of alcoholic beverage, UK: https://ourworldindata.org/grapher/alcohol-by-type-1890?country=~GBR
Disclosure of the first two rejected proposals: https://www.carlsberggroup.com/media/uwemqkkt/30_21062024_statement-regarding-britvic-plc.pdf
Acquisition announcement: https://www.carlsberggroup.com/media/ch3jhoji/33_08072024_recommended-offer-to-acquire-britvic-plc.pdf
Report by *Financial Times*: https://www.ft.com/content/f97e8d0d-c824-45e4-af82-6ccdcd5282e4

Topic 8: QXO acquires Beacon

Supervisor: Minrui Gong

On November 18, 2024, *The Wall Street Journal* reported that QXO Inc. (NYSE: QXO), an acquisition vehicle of Brad Jacobs, a famous businessman, had made an offer to acquire Beacon Roofing Supply (NASDAQ: BECN), the largest distributor of roofing materials and complementary building products in the U.S. and Canada. However, Beacon's board unanimously rejected the proposal, with the offer price undisclosed. On January 15, 2024, QXO made its proposal public, offering $124.25 per share in cash and warning of a potential proxy fight if Beacon rejected the offer. "Our all-cash offer provides compelling value. We believe Beacon shareholders have a right to evaluate our proposal, despite the Board's attempt to withhold it from them," stated Brad Jacobs. Despite this, Beacon once again turned down the offer. On January 27, 2024, QXO initiated a tender offer with the same terms. Beacon responded by reiterating that the offer, unchanged from November 18, 2024, "significantly undervalued" the company and was "not in the best interests of Beacon and its shareholders."

The "buy and build" strategy has long been a favored method for achieving rapid, large-scale expansion. In 2011, Brad Jacobs entered the logistics industry and, over the following decade, turned XPO Logistics into a vertically integrated empire and a leading player in the sector through a series of strategic acquisitions. While the logistics giant ultimately spun off into three separate entities in 2021, Jacobs was already setting his sights on his next venture. The move to acquire Beacon highlights Jacobs' ambition to expand in the fragmented building materials industry.

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 DCF valuation and a multiples-based valuation for Beacon and discuss potential synergies. To examine the stock market reaction to the acquisition announcement, the candidate should analyze the two companies and their competitors with event-study methods.

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

Introductory Literature:
Report of QXO's bid for Beacon Roofing: https://www.wsj.com/business/deals/building-products-distributor-qxo-makes-bid-for-beacon-roofing-3f8acbb7
QXO's proposal to acquirer Beacon: https://www.qxo.com/news/qxo-proposes-to-acquire-beacon-roofing-supply-for-124-25-per-share-in-cash
Report on QXO's tender offer to acquirer Beacon: https://www.wsj.com/business/deals/building-products-distributor-qxo-launching-hostile-bid-for-beacon-de024410
Beacon's comments on QXO's unsolicited tender offer: https://www.businesswire.com/news/home/20250127666258/en/
Brad Jacob obtains control of QXO: https://www.jpe.com/press-releases/brad-jacobs-to-lead-equity-investment-of-1-billion-in-silversun-technologies