MASTERTHESIS
Fall Term 2019
(As of 28. August 2019)

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: Common Ownership and Bank Competition

Supervisor: Mattia Colombo

In the last two decades, the US economy has experienced a dramatic increase in the mutual fund industry and investment funds now hold significant stakes among competing firms across all major sectors. In 2018, 88% of S&P500 firms had as largest shareholder one among the four largest asset managers, Backus et al. (2019).

According to the common ownership hypothesis, when firms in the same industry share a large shareholder, they will have the incentive to weaken competition by increasing prices, producing fewer units, decreasing investment and limiting entry to new competitors. Recent studies showed that common ownership may, indeed, cause an increase in prices in the airline and banking industries, but do not provide any robust and reliable evidence, Backus et al. (2019).

The goal of this thesis is to analyze the effects of common ownership in the US syndicated loans market. Do banks sharing large shareholders engage in anticompetitive practices? By exploiting exogenous variation implied by the merger of the two largest ETF providers (Blackrock and Barclays Global Investors) in 2009, the candidate will analyze the impact of common ownership on loan pricing and amount and bank syndicate formation.

The Chair will provide data on mutual funds holdings, syndicated loans, and Compustat matching tables. Departing from previous finance literature, the candidate will compute a direct measure of common ownership using profit weights as defined in Backus et al. (2019) and will rely on the commonly used methods in banking literature to control for other factors affecting loan prices and separate demand and supply. Finally, the candidate will match the final dataset to Compustat financial data.

Preliminaries: Ability to work with Stata and large data sets, ability to collect data from public sources and databases, basic econometric skills.

Introductory Literature:

Backus, M., Conlon, C., & Sinkinson, M. (2019). *The Common Ownership Hypothesis: Theory and Evidence*.

Cici, G., Gibson, S., & Rosenfeld, C. M. (2015). *Cross-Company Effects of Common Ownership: Dealings between Borrowers and Lenders with a Common Blockholder*. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2705856

Gramlich, J., & Grundl, S. (2017). *Estimating the Competitive Effects of Common Ownership*. *Finance and Economics Discussion Series* (Vol. 2017). https://doi.org/10.17016/FEDS.2017.029r1

Schwert, M. (2018). Bank Capital and Lending Relationships. *The Journal of Finance*, *73*(2), 787–830. https://doi.org/10.1111/jofi.12604

Saidi, F., & Streitz, D. (2018). *Bank Concentration and Product Market Competition*. Retrieved from http://www.farzadsaidi.com/papers/bank_concentration.pdf

Santos, J. A. C., & Winton, A. (2019). Bank Capital, Borrower Power, and Loan Rates. *The Review of Financial Studies*. https://doi.org/10.1093/rfs/hhz001

Topic 2: IPO of Adyen Nv.

Supervisor: Hamed Davari

Adyen Nv. announced its IPO on June 12, 2018. Adyen announced offering 13.4% (3,945,362) of its common shares at 240€. This amounts to a market capitalization of 7.1B€ and proceeds of 849 M€. On the first trading date, the price opened at 400€ (+66% w.r.t. the IPO price) and reached 455€ (+90%) at the end of the day, which is equivalent to a valuation of 13.4 B€ for the company. This shows investors substantial optimism toward Adyen Nv.

Adyen is a Fintech company founded at 2006 and based in the Netherlands. The company's business relies on settlement fees and processing fees charged per transaction. The list of its major clients includes Uber, Facebook, Netflix, Spotify, and rather recently eBay. Even though most of the startups are not profitable before their IPOs, Adyen was profitable for several years and made 71.3 B€ of net income in 2017.

The goal of this thesis is to value Adyen Nv. and to determine whether the offer price of 240€ per share was fair. To that end, the candidate should first conduct a comprehensive industry analysis. In a next step, s/he should perform a fundamental and a multiples-based valuation. To assess the market reactions to the announcement, the student is further required to analyze the stock market reactions for Adyen's competitors. In addition, s/he should elaborate on the first day return by looking at the relevant academic literature on first day IPO returns.

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

Introductory Literature:
https://www.adyen.com/press-and-media/2018/adyen-ipo-priced-at-240-per-share

https://www.cnbc.com/2018/06/13/adyen-ipo-everything-you-need-to-know-about-the-8-billion-fintech-company.html

https://www.adyen.com/dam/jcr:ab990e2d-7911-44b7.../Adyen%2520Prospectus.pdf

Topic 3: Bristol-Myers Squibb acquires Celgene

Supervisor: Peter Severin

On January 3rd, 2019, Bristol-Myers Squibb Co. agreed to buy Celgene Corp. in a deal valued at about $74bn, representing one of the largest transactions to have ever happened in the pharmaceuticals industry. The offer price represents a 54% premium based on Celgene's previous closing price. In a cash-and-stock offer, Bristol-Myers Squibb and Celgene shareholders are expected to own 69% and 31% of the merged entity, respectively. Share prices of both firms experienced strong one-day announcement returns – in opposite directions. While Bristol-Myers shares lost more than 13% of their value, Celgene's stock price was up by about 24%. The merger is expected to close in the third quarter of 2019 but antitrust approval still stands out.

Bristol-Myers Squibb (BMS) is a pharmaceutical company that was created in a merger of Bristol-Myers Company and Squibb Corporation in 1989. The firm is headquartered in New York City and its current CEO is Dr. Giovanni Caforio. With revenues of more than $22bn and net income of about $5bn, the firm is one of the largest and most profitable pharma companies in the world.

The target firm Celgene is an American biotechnology company founded in 1986 and is headquartered in New Jersey. One of the firm's major products is Revlimid, which serves as a treatment for multiple myeloma. The company experienced significant revenue growth over the past few years and is highly profitable with a profit margin of about 25%.

The goal of this thesis is to value Celgene and to determine whether the offer price is fair. To that end, the student should first conduct a comprehensive industry analysis. In a 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:

Reuters, 3rd January 2019, "Bristol-Myers to buy Celgene for $74 billion in largest biopharma deal": https://de.reuters.com/article/us-celgene-m-a-bristol-myers/bristol-myers-to-buy-celgene-for-74-billion-in-largest-biopharma-deal-idUKKCN1OX0VM

The Economist, 14th January 2019, "Why pharmaceutical companies are on a shopping binge": https://www.economist.com/the-economist-explains/2019/01/14/why-pharmaceutical-companies-are-on-a-shopping-binge

Financial Times, 28th February 2019, "Bristol-Myers $90bn Celgene deal at risk from investor backlash": https://www.ft.com/content/4986f16c-3ae3-11e9-b856-5404d3811663

Topic 4: AbbVie acquires Allergan

Supervisor: Peter Severin

AbbVie agreed to buy Allergan for about $63bn on 25th June 2019 following the announced acquisition of Celgene by AbbVie's competitor Bristol-Myers Squibb. AbbVie offered to pay $188 worth of stocks and cash per share of Allergan, which represents a premium of about 45% to the previous closing price. Shareholders at AbbVie were not thrilled about the deal and saw the stock price plunge by 16%. Allergan's shares jumped in value by about 25% indicating that the deal still awaits regulatory approval. Including debt, the deal is worth about $80bn and thereby represents one of the largest transactions in the health care and pharmaceutical industry ever.

The biotech and pharmaceuticals company AbbVie was founded via a spin-off from Abbott Laboratories in 2013. It is headquartered in Illinois and is active in the research areas of, among others, hepatitis and oncology. In 2018, the firm achieved revenue of about $33bn with a net income of more than $5bn. The firm currently employs about 29,000 people.

Allergan is an Ireland-based pharmaceutical company. In spite of its headquarter-location being in Dublin, the firm is mostly active in the US. The firm was domiciled to Ireland in a tax inversion deal in 2013. The most famous product of Allergan is botulinum toxin, or more commonly known as Botox. Among other companies, Allergan is being sued by several municipalities and states in the U.S. for its responsibilities in relation to the opioid epidemic. The NYSE-listed company generated a net income of more than $5bn from its revenues of $15bn in 2018.

The goal of this thesis is to value Allergan and to determine whether the offer price of $188 per share is fair. To that end, the student should first conduct a comprehensive industry analysis. In a 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:
Financial Times, 25th June 2019, "AbbVie to acquire Botox maker Allergan for $63bn":
https://www.ft.com/content/9784d312-9735-11e9-9573-ee5cbb98ed36

Reuters, 25th June 2019, "AbbVie looks beyond Humira with $63 billion deal for Botox-maker Allergan":
https://www.reuters.com/article/us-allergan-m-a-abbvie/abbvie-looks-beyond-humira-with-63-billion-deal-for-botox-maker-allergan-idUSKCN1TQ15X

New York Times, 27th June 2019, "Drugmaker deals are near record pace in 2019, but investors don't love them all":
https://www.nytimes.com/2019/06/27/business/dealbook/abbvie-allergan-drugmakers.html

Topic 5: Fiserv acquires First Data

Supervisor: Mengqiao Du

On January 16, 2019, Fiserv announced a $22-billion deal to purchase First Data Corp. in an all-stock transaction. Under the terms of the agreement, First Data shareholders will receive a fixed exchange ratio of 0.303 Fiserv shares for each share of First Data common stock they own, for an equity value of $22 billion. This represents $22.74 based on closing prices as of January 15, and a premium of 29% to the five-day volume weighted average price as of that date. Following the close of the transaction, Fiserv shareholders will own 57.5% of the combined company, and First Data shareholders will own 42.5%, on a fully-diluted basis. The all-stock transaction is intended to be tax-free to First Data shareholders, the companies said.

First Data Corporation is a financial services company headquartered in Atlanta, Georgia, United States. The company's STAR Network provides nationwide domestic debit acceptance at more than 2 million retail POS, ATM, and Online outlets for nearly a third of all U.S. debit cards. First Data has six million merchants, the largest in the payments industry. The company handles 45% of all US credit and debit transactions, including handling prepaid gift card processing for many US brands such as Starbucks. It processes around 2,800 transactions per second and $2.2 trillion in card transactions annually, with an 80% market share in gas and groceries in 2014. First Data's SpendTrend Report is a key shopping metric for national news networks such as WSJ, USA Today, ESPN, The New York Times, Vox Media, and Bloomberg.

Fiserv, Inc. is a global provider of financial services technology. The company's clients include banks, thrifts, credit unions, securities broker dealers, leasing and finance companies, and retailers. In October 2015, American Banker and BAI ranked the company third by revenue among technology providers to U.S. banks. In summer of 2018, Fiserv obtained the naming rights to the Fiserv Forum, home to the Milwaukee Bucks, for 25 years. Fiserv has been named as 2019 Fortune World's Most Admired Companies, sixth consecutive year it has earned this recognition and 9 times in the last 11 years.

The goal of this thesis is to value First Data and to determine whether the offer price of $22 billion is fair. To that end, the student should first conduct a comprehensive industry analysis. In a 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:

CUToday, January 17, 2019. Fiserv to Acquire First Data in $22 Billion Deal / Fresh Today / CUToday.info - CU Today.

PYMNTS, January 17, 2019. First Data And Fiserv: The ‘Industrial Logic’ Behind $22B Payments Tech Megadeal.

Topic 6: Chevron acquires Anadarko

Supervisor: Mengqiao Du

Chevron Corporation announced on April 12, 2019 that it has entered into a definitive agreement with Anadarko Petroleum Corporation to acquire all of the outstanding shares of Anadarko in a stock and cash transaction valued at $33 billion, or $65 per share. Based on Chevron's closing price on April 11, 2019 and under the terms of the agreement, Anadarko shareholders will receive 0.3869 shares of Chevron and $16.25 in cash for each Anadarko share. The total enterprise value of the transaction is $50 billion.

Anadarko Petroleum Corporation is a company engaged in hydrocarbon exploration. The company was the subject of multiple environmental cases, including the largest environmental contamination settlement in American history - the 2014 settlement related to the former Tronox subsidiary of Kerr McGee, a company purchased by Anadarko in 2006. In addition to exploration and production, the company engaged in petroleum and natural gas gathering, processing, treating, and transportation. The company also participated in the hard minerals business through its ownership of non-operated joint ventures and royalty arrangements.

Chevron Corporation is an American multinational energy corporation. Chevron is engaged in every aspect of the oil, natural gas, and geothermal energy industries, including hydrocarbon exploration and production; refining, marketing and transport; chemicals manufacturing and sales; and power generation. Chevron is one of the world's largest oil companies. Chevron's downstream operations manufacture and sell products such as fuels, lubricants, additives and petrochemicals. The company's most significant areas of operations are the west coast of North America, the U.S. Gulf Coast, Southeast Asia, South Korea, Australia and South Africa.

The goal of this thesis is to value Anadarko and to determine whether the offer price of $65 per share is fair. To that end, the student should first conduct a comprehensive industry analysis. In a 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:

Chevron press release, April 12, 2019. Chevron Announces Agreement to Acquire Anadarko.

Business insider, April 12, 2019. Chevron agreed to buy Anadarko on Friday for $33 billion, the third largest transaction announced this year.

CNBC report, April 15, 2019. Occidental bid for Anadarko reached mid-$70s per share before Chevron deal disrupted talks: Sources.

Topic 7: Aston Martin Lagonda IPO

Supervisor: Marc Gabarro

Aston Martin Lagonda Global Holdings plc, a British luxury car manufacturer, announced plans for an initial public offering during the summer of 2018. The newly issued stocks were priced at 19 pounds on the London Stock Exchange, giving it a valuation of 4.3 billion pounds.

Aston Martin was founded in 1914 by Lionel Martin and Robert Bamford. Aston Martin has had a mixed history, enjoying long periods of success but also several bankruptcies. Aston Martin as a luxury brand is renowned by the DB5 appearance in the James Bond movie *Goldfinger*. Aston Martin has its headquarters and main production in Gaydon, England.

Before the IPO, Aston Martin main shareholders were Investindustrial and a group of Kuwait-based investors. They sold a quarter of the company's stock through the IPO but the company did not raise any additional funds for its own operations.

The British car industry has placed several warnings regarding Brexit since most brands import several parts from the EU. Specifically, Aston Martin imports about 60 percent of its parts from the EU. However, Aston Martin Chief Executive Andy Palmer said Aston Martin was "relatively well insulated" from the Brexit because Europe is not its biggest market.

The goal of this thesis is to value Aston Martin to determine whether the offer price of 19 pounds 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 Aston Martin's competitors. The student should elaborate on the first day return by looking at the relevant academic literature on the first day IPO returns. Exploring the role of private equity and Brexit is encouraged.

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

Introductory Literature:

IPO Information (including prospectus): https://www.astonmartinlagonda.com/investors/ipo

Topic 8: T-Mobile and Sprint merge

Supervisor: Dong Yichun

On Apr. 29. 2018, T-Mobile and Sprint clinched an all-stock merger deal, uniting the third and fourth-largest telecommunications carriers in the US. Under the terms of the agreement, a fixed exchange ratio is set at 0.10256 T-Mobile shares for each Sprint share, which sets the implied enterprise value at approximately $59 billion for Sprint and at $146 billion for the combined company based on the closing price on Apr. 27. 2019. While according to T-Mobile, the merger would pose the new company as a force for positive change in the US wireless, video, and broadband industries, and a strong competitor in the 5G era, the deal was expected to face an ambiguous regulatory backdrop. On Jul. 26. 2019, the Trump administration formally blessed this takeover from T-Mobile as the Department of Justice said it would not try to block the transaction after T-Mobile and Sprint agreed to divest $5bn of assets to satellite television provider Dish and give it access to their wireless spectrum for seven years.

T-Mobile US, Inc., commonly shortened to **T-Mobile**, is a United States-based wireless network operator, whose majority shareholder is the German telecommunications company Deutsche Telekom (DT). Its headquarters are located in Bellevue, Washington, in the Seattle metropolitan area. T-Mobile is the third largest wireless carrier in the United States with 83.1 million customers as of end of Q2 2019. T-Mobile US provides wireless voice and data services in the United States, Puerto Rico and the U.S. Virgin Islands under the T-Mobile and Metro by T-Mobile brands (which it acquired in a reverse takeover in 2013, resulting in the company going public on the NASDAQ stock exchange), and also serves as the host network for many mobile virtual network operators. The company has annual revenues of over $40 billion.

Sprint Corporation is an American telecommunications company that provides wireless services and is an internet service provider, based in Overland Park, Kansas. It is the fourth-largest mobile network operator in the United States and serves 54.5 million customers as of March 2019. The company also offers wireless voice, messaging, and broadband services through its various subsidiaries and wholesale access to its wireless networks to mobile virtual network operators. In July 2013, a majority of the company was purchased by Japanese telecommunications company SoftBank Group Corp., although the remaining shares of the company continue to trade on the New York Stock Exchange.

The goal of this thesis is to value the Sprint Corporation and to determine whether the offer price is fair. To that end, the student should first conduct a comprehensive industry analysis. In a 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:

FT, Apr.29.2018, “T-Mobile and Sprint agree all-stock merger”:
https://www.ft.com/content/d6c5c556-4bc6-11e8-8a8e-22951a2d8493

FT, Jul.26.2019, "T-Mobile and Sprint clinch US approval for merger":
https://www.ft.com/content/048a149a-af00-11e9-8030-530adfa879c2

T-Mobile Website Announcement:
https://www.t-mobile.com/news/5gforall