

**Topics of Bachelor Theses
 Spring Semester 2018**

1.	The acquisition of Mobileye by Intel – DCF Valuation	<p>On March 13, 2017, Intel Corp (INTC.O) announced that it had agreed to purchase the Israeli autonomous vehicle technology firm Mobileye (MBLY.N) for \$63.54 per share in cash, valuing Mobileye's equity at approximately \$15.3 billion. This price values Mobileye at 60 times of its earnings. Investment analysts raised concerns whether the merger would generate sufficient synergies between Intel and Mobileye, as well as the acquisition's price.</p> <p>Intel has dominated the microchip market for years before supplying much of the internal architecture for most desktop computers. Recently, Intel has struggled as people's habits have increasingly turned to the mobile world, where the company's chips have lost out to rivals. The company seems to be moving into the market for autonomous driving.</p> <p>Mobileye, which was founded in Jerusalem in 1999, has signed deals with several automakers for the use of its vision and camera technology. The technology uses machine learning and complex neuroscience to avoid obstacles on the road.</p> <p>The goal of the thesis is to value Mobileye using DCF analysis and to estimate potential synergies from the transaction. The thesis should further investigate whether the transaction would create value for the shareholders of Mobileye and Intel and whether the offer price was fair.</p>	
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2.	The acquisition of Mobileye by Intel – Multiples Valuation and Event Study Analysis	<p>On March 13, 2017, Intel Corp (INTC.O) announced that it had agreed to purchase the Israeli autonomous vehicle technology firm Mobileye (MBLY.N) for \$63.54 per share in cash, valuing Mobileye's equity at approximately \$15.3 billion. This price values Mobileye at 60 times of its earnings. Investment analysts raised concerns whether the merger would generate sufficient synergies between Intel and Mobileye, as well as the acquisition's price.</p> <p>Intel has dominated the microchip market for years before supplying much of the internal architecture for most desktop computers. Recently, Intel has struggled as people's habits have increasingly turned to the mobile world, where the company's chips have lost out to rivals. The company seems to be moving into the market for autonomous driving.</p> <p>Mobileye, which was founded in Jerusalem in 1999, has signed deals with several automakers for the use of its vision and camera technology. The technology uses machine learning and complex neuroscience to avoid obstacles on the road.</p> <p>The goal of the thesis is to value Mobileye using multiples at the time of a takeover announcement and to examine whether the offer price was fair. The thesis should further examine the price reactions of Intel, Mobileye, and optionally their competitors on the announcement date using event study analysis. In addition, the author can examine other dates during the negotiation process.</p>	
3.	The acquisition of Mead Johnson by Reckitt Benckiser - DCF Valuation	<p>On February 2nd, 2017, consumer goods giant Reckitt Benckiser announced an offer for the US baby formula maker Mead Johnson. Benckiser offers \$90 per share, a premium of 29% above the closing price on February 1st, valuing Mead Johnson at \$17bn. The deal would be the largest acquisition in the history of Reckitt Benckiser. The share of Mead Johnson rose by 24% after the announcement of the deal.</p> <p>Reckitt Benckiser is a British consumer goods company headquartered in Slough, England. It was formed in 1999 by the merger of Reckitt & Colman plc and Benckiser NV.</p> <p>Mead Johnson is a major manufacturer of infant formula with its flagship product Enfamil. It has a strong focus on Asia, especially China, which contributed about 31.3% of the company's total revenues in 2014.</p> <p>The goal of the thesis is to value Mead Johnson using DCF analysis and to estimate potential synergies from the transaction. The thesis should further investigate whether the transaction would create value for the shareholders of Mead Johnson and Reckitt Benckiser, and to determine whether the price paid by Reckitt Benckiser was fair.</p>	

4.	<p>The acquisition of Mead Johnson by Reckitt Benckiser - Multiples Valuation and Event Study Analysis</p>	<p>On February 2nd, 2017, consumer goods giant Reckitt Benckiser announced an offer for the US baby formula maker Mead Johnson. Benckiser offers \$90 per share, a premium of 29% above the closing price on February 1st, valuing Mead Johnson at \$17bn. The deal would be the largest acquisition in the history of Reckitt Benckiser. The share of Mead Johnson rose by 24% after the announcement of the deal.</p> <p>Reckitt Benckiser is a British consumer goods company headquartered in Slough, England. It was formed in 1999 by the merger of Reckitt & Colman plc and Benckiser NV.</p> <p>Mead Johnson is a major manufacturer of infant formula with its flagship product Enfamil. It has a strong focus on Asia, especially China, which contributed about 31.3% of the company's total revenues in 2014.</p> <p>The goal of the thesis is to value Mead Johnson using multiples at the time of a takeover announcement and to examine whether the offer price was fair. The thesis should further examine the price reactions of Mead Johnson, Reckitt Benckiser, and optionally their competitors on the announcement date using event study analysis. In addition, the author can examine other dates during the negotiation process.</p>	
5.	<p>The acquisition of Anacor by Pfizer – DCF Valuation</p>	<p>On May 16, 2016, Pfizer Inc. (NYSE:PFE) and Anacor Pharmaceuticals, Inc. (NASDAQ:ANAC) published a joint press release announcing their definitive merger agreement. Pfizer will acquire Anacor for \$99.25 per share in cash for a total transaction value, net of cash, of approximately \$5.2 billion. Pfizer is a U.S. pharmaceutical company known for its drug against erectile dysfunction, Viagra.</p> <p>Anacor is a Palo Alto, California based biopharmaceutical. It was founded in 2002 based on a technology created at Stanford and Pennsylvania State University. Since then, it has specialized in developing and commercializing boron-based therapeutics.</p> <p>The goal of the thesis is to value Anacor using DCF analysis and to estimate potential synergies from the transaction. The thesis should further investigate whether the transaction would create value for the shareholders of Anacor and Pfizer, and to determine whether the price paid by Pfizer was fair.</p>	

6.	The acquisition of Anacor by Pfizer - Multiples Valuation and Event Study Analysis	<p>On May 16, 2016, Pfizer Inc. (NYSE:PFE) and Anacor Pharmaceuticals, Inc. (NASDAQ:ANAC) published a joint press release announcing their definitive merger agreement. Pfizer will acquire Anacor for \$99.25 per share in cash for a total transaction value, net of cash, of approximately \$5.2 billion.</p> <p>Pfizer is a U.S. pharmaceutical company known for its drug against erectile dysfunction, Viagra.</p> <p>Anacor is a Paolo Alto, California based biopharmaceutical. It was founded in 2002 based on a technology created at Stanford and Pennsylvania State University. Since then, it has specialized in developing and commercializing boron-based therapeutics.</p> <p>The goal of the thesis is to value the target company, Anacor, with multiples of comparable companies and comparable transactions and to analyze whether the offer price was fair. The thesis should further examine the price reactions of Anacor, Pfizer, and optionally their competitors on the announcement date using event study analysis. In addition, the author can examine other dates during the negotiation process.</p>	
7.	The acquisition of Syngenta by ChemChina - DCF Valuation	<p>On February 3rd, 2016, the Chinese chemicals group ChemChina and the Swiss-based agribusiness company Syngenta entered an agreement under which ChemChina would acquire all outstanding shares of Syngenta (SIX Swiss Ex: SYNN) for a total of \$43 billion, or SFr480 in cash per share. This offer price represents a 28% premium to the closing price of Syngenta's stock at the 1st of February 2016.</p> <p>Syngenta is the market leader in the area of crop protection and the third largest seed producer. In 2015, Syngenta generated \$13.4 billion in revenues and employed 28,700 employees in over 90 countries worldwide.</p> <p>ChemChina is one of the largest state-owned companies in China with \$45.6 billion in revenues and 140,000 employees. The acquisition of Syngenta is the largest cross-border M&A by a Chinese firm.</p> <p>The goal of the thesis is to value the target company, Syngenta, using DCF analysis and to estimate potential synergies from the transaction. The thesis should further investigate whether the transaction price was fair.</p>	

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9.	The IPO of Trivago - DCF Valuation	<p>The German hotel search platform, Trivago GmbH (TRVG.O), started trading on NASDAQ Global Select Market on December 16, 2016. Surprisingly, the offer price of \$11 was far below the initial offer range of \$13-\$15. The offer included 26.1 million American depository shares (ADS), raising a total of \$287 million from the offering.</p> <p>The company states its mission "to be the traveler's first and independent source of information for finding the ideal hotel at the lowest rate". In contrast to other travel sites, Trivago earns its money not from commissions on actual bookings, but from the money hotel advertisers pay for each click on their offer. The consumer can then make the actual booking by clicking through to their main shareholder, Expedia, or some other travel booking websites. Therefore, Trivago's profit depends largely on the traffic on their website and consequently, the visibility of their brand.</p> <p>The goal of the thesis is to value Trivago using DCF analysis and to determine whether the offer price was fair. In order to do so, the student should conduct a comprehensive analysis of the industry and understand the business model of Trivago.</p>	

10.	The IPO of Trivago - Multiples Valuation and Event Study Analysis	<p>The German hotel search platform, Trivago GmbH (TRVG.O), started trading on NASDAQ Global Select Market on December 16, 2016. Surprisingly, the offer price of \$11 was far below the initial offer range of \$13-\$15. The offer included 26.1 million American depository shares (ADS), raising a total of \$287 million from the offering.</p> <p>The company states its mission “to be the traveler’s first and independent source of information for finding the ideal hotel at the lowest rate”. In contrast to other travel sites, Trivago earns its money not from commissions on actual bookings, but from the money hotel advertisers pay for each click on their offer. The consumer can then make the actual booking by clicking through to their main shareholder, Expedia, or some other travel booking websites. Therefore, Trivago’s profit depends largely on the traffic onto their website and consequently, the visibility of their brand.</p> <p>The goal of the thesis is to value Trivago with multiples of comparable companies and to analyze whether the offer price was fair. An analysis of the stock price reactions for Trivago’s competitors and its main shareholder, Expedia, should complement the analysis.</p>	
11.	The acquisition of NXP by Qualcomm - DCF Valuation	<p>Qualcomm announced its intention to acquire NXP on October 27, 2016, at a price of \$110 per share. Qualcomm announced on May 31, 2017, that at the price of \$110, only 14.1% of the shares were tendered. At that time, the deal was approved by authorities in the US but was still awaiting the approval by the EU antitrust regulators.</p> <p>Qualcomm is an American semiconductor and telecommunications equipment manufacturer, deriving most of its revenues from selling chips and licensing patents to other companies. With the satiation of the smartphone and tablet markets, the company is looking to extend its business towards virtual reality and the automotive industry.</p> <p>NXP NV is a Netherlands-based semiconductor company involved in the design and production of electronic identification and security systems, as well as networking solutions and autonomous driving platforms.</p> <p>The goal of the thesis is to value the target company, NXP, using DCF analysis and to estimate potential synergies from the transaction. The thesis should further investigate whether the transaction price was fair.</p>	

12.	<p>The acquisition of NXP by Qualcomm - Multiples Valuation and Event Study Analysis</p>	<p>Qualcomm announced its intention to acquire NXP on October 27, 2016, at a price of \$110 per share. Qualcomm announced on May 31, 2017, that at the price of \$110, only 14.1% of the shares were tendered. At that time, the deal was approved by authorities in the US but was still awaiting the approval by the EU antitrust regulators.</p> <p>Qualcomm is an American semiconductor and telecommunications equipment manufacturer, deriving most of its revenues from selling chips and licensing patents to other companies. With the satiation of the smartphone and tablet markets, the company is looking to extend its business towards virtual reality and the automotive industry.</p> <p>NXP NV is a Netherlands-based semiconductor company involved in the design and production of electronic identification and security systems, as well as networking solutions and autonomous driving platforms.</p> <p>The goal of the thesis is to value the target company, NXP, with multiples of comparable companies and comparable transactions and to analyze whether the deal was fair. To assess the market reaction to the announcement of the acquisition and subsequent news, the student should also look at the stock market movement of NXP and Qualcomm, as well as competitors in their respective industries.</p>	
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13.	The IPO of X-FAB – DCF Valuation	<p>The German producer of semiconductors, X-Fab Silicon Foundries, announced its intention to go public on March 7th, 2017. With a revenue stream of €513 million and 3,800 employees, it represents the biggest IPO of a German company in that industry for the past decade. The listing began on April 6th, 2017, on Euronext Paris on the lowest end of the price range of €8-€10.50. During the first day of trading X-FAB's newly listed shares experienced an increase in value of about 5%. Through the offering, which mainly consisted of primary shares, the company collected about €400 million in new equity capital to finance its planned expansion. Its main shareholder, Xtrion Holding, which currently holds 61.4% of the existing shares, did not sell any shares in the IPO.</p> <p>The X-FAB Silicon Foundries is a group of semiconductor foundries. This group specializes in the fabrication of analog and mixed-signal integrated circuits for semiconductor companies, as well as microsystems and solutions for high voltage applications. Although X-FAB has its headquarters in Belgium, its roots lie in Eastern Germany. Since 2016, the company has had six plants, which are located in Germany (Erfurt, Dresden, and Itzehoe), France, Malaysia and the United States.</p> <p>The business model focuses on the production of pre-designed semiconductors and has, therefore, only very limited R&D expenditures. X-FAB CEO De Winter believes that "Our business model is gaining an increasing market share in the semiconductor market". Unlike many other tech IPOs that go public while being in the red, X-FAB already achieved a profit margin of approximately 10% in 2016. In the same year, the company achieved a revenue growth of more than 50% after a stagnation in the fiscal year of 2015.</p> <p>The goal of the thesis is to determine whether the offering price of €8.00 was fair. To that end, the student is asked to conduct an industry analysis of the semiconductors market and then value the company using a DCF analysis.</p>	
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14.	<p>The Acquisition of Reynolds American by British American Tobacco – DCF Valuation</p>	<p>On 21st October 2016, British American Tobacco announced its intention to buy the remaining 57.8 percent of Reynolds American for \$47 billion. Nearly three months later, on 17th January 2017, Reynolds American accepted the offer for \$49 billion, or \$59.64 per share. This offer constitutes a premium of 26 percent over the company's closing price before the initial offer in October. The acquisition, if successful, will create a tobacco giant with a significant presence around the world. The deal is expected to be completed in the third quarter of 2017.</p> <p>British American Tobacco (BAT) is a British multinational tobacco company headquartered in London, United Kingdom. It is one of the world's five largest tobacco companies. It has a market-leading position in over 50 countries and operations in around 180 countries. The company's sales comprise well-known brands, such as Lucky Strike and Pall Mall. Its shares are primarily listed on the London Stock Exchange and are a constituent of the FTSE 100 index.</p> <p>Reynolds American, Inc. (NYSE: RAI) is an American tobacco company and is the second-largest tobacco company in the United States. Its subsidiaries manufacture and market a variety of tobacco products, including cigarettes (e.g., Camel and Natural American Spirit) as well as moist snuff. In 2010, Reynolds American's operating companies sold about 28% of all cigarettes sold in the U.S.</p> <p>The goal of the thesis is to determine whether the offer price of \$59.64 was fair. To that end, the student is asked to conduct an industry analysis of the tobacco market and then value the target company as well as potential synergies using a DCF analysis.</p>	
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15.	<p>The Acquisition of Reynolds American by British American Tobacco – Multiples Valuation and Event Study Analysis</p>	<p>On 21st October 2016, British American Tobacco announced its intention to buy the remaining 57.8 percent of Reynolds American for \$47 billion. Nearly three months later, on 17th January 2017, Reynolds American accepted the offer for \$49 billion, or \$59.64 per share. This offer constitutes a premium of 26 percent over the company's closing price before the initial offer in October. The acquisition, if successful, will create a tobacco giant with a significant presence around the world. The deal is expected to be completed in the third quarter of 2017.</p> <p>British American Tobacco (BAT) is a British multinational tobacco company headquartered in London, United Kingdom. It is one of the world's five largest tobacco companies. It has a market-leading position in over 50 countries and operations in around 180 countries. The company's sales comprise well-known brands, such as Lucky Strike and Pall Mall. Its shares are primarily listed on the London Stock Exchange and are a constituent of the FTSE 100 index.</p> <p>Reynolds American, Inc. (NYSE: RAI) is an American tobacco company and is the second-largest tobacco company in the United States. Its subsidiaries manufacture and market a variety of tobacco products, including cigarettes (e.g., Camel and Natural American Spirit) as well as moist snuff. In 2010, Reynolds American's operating companies sold about 28% of all cigarettes sold in the U.S.</p> <p>The goal of the thesis is to determine whether the offer price of \$59.64 was fair and analyze the market's reaction to the acquisition. To that end, the student is asked to conduct an industry analysis of the tobacco market, value the target company as well as potential synergies using a multiples valuation, and conduct an event study analysis on the acquirer, the target, and their competitors.</p>	
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