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Jakub Bezilla BSc

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This master thesis has not been previously presented as an examination paper in this or any other form in Austria or abroad.

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Signature
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### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX</td>
<td>capital expenditures</td>
</tr>
<tr>
<td>CAPM</td>
<td>capital asset pricing model</td>
</tr>
<tr>
<td>CAR</td>
<td>cumulative abnormal returns</td>
</tr>
<tr>
<td>CEO</td>
<td>chief executive officer</td>
</tr>
<tr>
<td>CFO</td>
<td>chief financial officer</td>
</tr>
<tr>
<td>DCF</td>
<td>discounted cash flows</td>
</tr>
<tr>
<td>EBIT</td>
<td>earnings before interest and taxes</td>
</tr>
<tr>
<td>EBITDA</td>
<td>earnings before interest, taxes, depreciation and amortization</td>
</tr>
<tr>
<td>EV</td>
<td>enterprise value</td>
</tr>
<tr>
<td>NWC</td>
<td>net working capital</td>
</tr>
<tr>
<td>ROA</td>
<td>return on assets</td>
</tr>
<tr>
<td>ROIC</td>
<td>return on invested capital</td>
</tr>
<tr>
<td>S&amp;P</td>
<td>Standard &amp; Poor’s</td>
</tr>
<tr>
<td>SCAR</td>
<td>standardized cumulative abnormal returns</td>
</tr>
</tbody>
</table>
1 Introduction

Companies of various sizes and industries are continuously trying to stabilize their position in the ever-changing business environment of today’s world. Mergers and acquisitions are often a convenient way for a firm to reach new markets or gain more control vertically. The most important decisions in these situations for the management to make are primarily how much the company will pay for the takeover or merger and when it is going to purchase the target. The result of such deal can often be determined only years after it’s been closed. Some of the merged companies complement each other perfectly and reach a better performance, others find out retrospectively that the acquisition was not a good decision and, in the worst case, even split up in the wake of inconsistency.

As my master thesis, I decided to analyze the acquisition of Marvel Entertainment by The Walt Disney Company from the year 2009. For the cash and stock acquisition, announced on August 31st, 2009, Disney paid $4.24 billion. As a result, Marvel Entertainment is currently a subsidiary fully owned by The Walt Disney Company.

The research questions of this thesis are whether The Walt Disney Company paid a fair price for the acquisition of Marvel Entertainment and, more generally, whether the acquisition was a good decision for Disney. To be able to answer these questions, a detailed financial and strategic analysis of both companies is needed, with a proper valuation of the acquired company. The most commonly used methods of firm valuation are multiples as a type of relative valuation and Discounted Cash Flows method (DCF) as one of direct valuation methods. In my study, I will perform a valuation of Marvel Entertainment using both methods.

Since the literature on the subject is very limited, this paper may provide a valuable insight into the acquisition for those interested in the topic. The focus of the thesis will lie on a thorough analysis of important aspects of the acquisition, that is, the description of all involved parties and the valuation of the acquired company. With the result obtained from the valuation, further conclusions will be drawn as to whether Marvel Entertainment was bought for a fair price and whether the acquisition was a good decision or not.
The rest of the thesis is organized as follows: Chapter 2 presents published studies on mergers and acquisitions in general, in the media industry and on the purchase of Marvel Entertainment itself. The entertainment industry, in which both companies operate, is described in Chapter 3, including its structure, financial development and takeover history. Segments, a brief history and basic financial performance measures of both the target company Marvel Entertainment and of the acquirer The Walt Disney Company are discussed in Chapter 4. In Chapter 5, the financial and strategic reasons for the acquisition are analyzed, followed by describing the process and details of the purchase in Chapter 6. The valuation of Marvel and of the synergies with Disney is performed in Chapter 7 using the Discounted Cash Flows model and multiples. Chapter 8 presents an event study analysis to determine the measure of success of the acquisition. The development of Disney and Marvel after the purchase is summarized in Chapter 9. Finally, the thesis is concluded in Chapter 10.

2 Literature review

Since the mergers and acquisitions (M&A) can have a profound impact even on the whole industry, they have been studied by a number of authors in the past. In 2001, Andrade et al. showed on a sample of ca. 4,300 mergers and acquisitions from the years 1973 to 1998 that the announcement of the deal has a positive effect on the stock of the combined companies. Furthermore, the post-merger performance was also increased, in comparison with the comparable firms in the industry. The efficiency of M&A is further analyzed in a paper by Andrade and Stafford from 2004: the authors showed that mergers naturally help to raise the company’s capital base but that they also play an important role in shaping the industry. In industries with excess capacity, mergers can facilitate the reallocation of assets and thus increase efficiency. In 2003, Shleifer and Vishny created a model of stock market driven M&A, based on the assumption that the purchases are driven by market mispricing of the companies. The model suggested that the firms are incentivized to pursue the overvaluation of their stock in order to acquire other firms with stock, which is often accomplished with earnings manipulation. On the other hand, the undervalued or less overvalued companies tend to become acquisition targets. The theory was further supported by the work of Rhodes-Kropf et al. in 2005, where the authors divided the market-to-book ratio into three different components which tracked the misvaluation of the whole company and of individual sectors and one that covered the long-run growth opportunities. As mentioned, the findings
supported the theory of Shleifer and Vishny – companies with higher error purchase lower-error targets with stock. Additionally, the analysis indicated that the periods with increased M&A activity are correlated with short-run discrepancies in long-run projections. (Andrade et al. 2001, p.103-105, Andrade and Stafford 2004, p.29, Shleifer and Vishny 2003, p.307-309, Rhodes-Kropf et al. 2005, p.600f.)

Numerous studies have also been published which analyzed the mergers and acquisition in the entertainment industry. In 1996, Greco inspected the changing trends in the market which included a significant reconfiguration of the whole industry in the years 1990-1995. The author identified five drivers which contributed the most to the transformation – the planning theories influencing the media executives, the technological convergence of communications companies, the aspiration to take control of all segments in the global market, increased supply and demand of media and a profound Telecommunications Act, passed in 1996. As a result, multiple segments converged and caused the media industry to be far more interwoven than before. Presented are numerous mergers and acquisitions, including Disney’s purchase of Cap Cities/ABC in 1995, Time Warner’s takeover of Turner Broadcasting and Westinghouse Electric Corporation buying CBS, Inc. This turbulent period of time for the media industry was further studied by Chon et al. in 2003, asking what impact the Telecommunications Act of 1996 and the advanced digital technology had on the amount of company consolidation. In their results, the authors find that there were indeed structural changes after 1996. The increased M&A activity moved from the content production companies to information delivery companies. Also, the centrality trends changed in the wake of the 1996 Act, leading to the decentralization of content production and computer-related firms and more central information delivery industry. In 2004, Peltier analyzed the economies of scale and scope which are often presented as the main reason for a merger or an acquisition. She tested a sample of 11 media companies from the United States and Europe for the effect of firm size and the presence in multiple businesses on company’s performance, asking whether the unsuccessful deals in the industry couldn’t be prevented. Author’s calculations indicated that operating in many businesses and the firm size do not increase company’s performance. On the other hand, the improving factor was the growing rate of firms’ internalization. (Greco 1996, p.5-11, Chon et al. 2003, p.149-154, Peltier 2004, p.271-275)
Available scientific literature on the purchase of Marvel Entertainment by The Walt Disney Company itself is very limited; only Joseph Calandro Jr. analyzed the acquisition in the journal Strategy & Leadership in 2010. The author performed the valuation using the Graham and Dodd approach, a method exercised also by thriving investors like Warren Buffett. It combines strategic and financial analyses and the author argues that it’s the ideal method to value corporate mergers and acquisitions. The firm’s value is computed in four steps – first, the net asset value of the company is calculated after adjusting the income statement. Subsequently, the earnings power value is determined, based on the level of historical earnings sustained into perpetuity. Furthermore, in the case that the earnings power value is significantly bigger than the net asset value, the difference represents a sustainable competitive advantage, also called a franchise – its value must be, however, reasonably validated. Lastly, the growth value of the company is computed. Resulting enterprise value is measured as the sum of the net asset value, franchise value and growth value. The author states, based on his calculations, that The Walt Disney Company paid too much for the acquisition. (Calandro 2010, p.43, 47)

3 Entertaiment industry

Marvel Entertainment as well as The Walt Disney Company are firms active in the entertainment industry. As depicted in Table 1, the industry can be divided into following, often overlapping segments, which are further categorized according to the structure of the respective market:

<table>
<thead>
<tr>
<th>Monopoly</th>
<th>Oligopoly</th>
<th>Monopolistic Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable TV</td>
<td>Movies</td>
<td>Books</td>
</tr>
<tr>
<td>Newspapers</td>
<td>Recorded music</td>
<td>Magazines</td>
</tr>
<tr>
<td>Professional sports teams</td>
<td>Network TV</td>
<td>Radio stations</td>
</tr>
<tr>
<td></td>
<td>Casinos</td>
<td>Toys and games</td>
</tr>
<tr>
<td></td>
<td>Theme parks</td>
<td>Performing arts</td>
</tr>
</tbody>
</table>

Table 1: Sectors in the entertainment industry

Source: Vogel (2011), p. 25
In the last decades, also Internet counts as one of the most important segments in the industry. The acquired company, Marvel Entertainment, operates primarily in the sectors “Magazines” and “Movies” and The Walt Disney Company in “Cable TV”, “Network TV”, “Movies” and “Theme parks”. These segments will be described for each company in more detail in Chapter 4. (Vogel 2011, p. 26, 29)

The economic development of the entertainment industry in the United States in the years 2005-2008, that is, four years before the acquisition of Marvel Entertainment, is summarized in Table 2. The sample consisted of 109 major companies of the industry, which covered 80% of the transaction volume. (Vogel 2011, p. 26)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Operating income</th>
<th>Assets</th>
<th>Operating cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>374.4</td>
<td>-</td>
<td>761.0</td>
<td>79.7</td>
</tr>
<tr>
<td>2007</td>
<td>260.8</td>
<td>54.1</td>
<td>737.8</td>
<td>197.4</td>
</tr>
<tr>
<td>2006</td>
<td>327.4</td>
<td>53.3</td>
<td>729.9</td>
<td>189.3</td>
</tr>
<tr>
<td>2005</td>
<td>327.4</td>
<td>48.8</td>
<td>813.1</td>
<td>180.0</td>
</tr>
</tbody>
</table>

Table 2: Entertainment industry - financial development, in $ billion
Source: Vogel (2011), p. 29

According to an outlook of the entertainment industry published by the company PwC in 2013, the revenues in the entertainment industry in the United States reached up to $479.23 billion in 2012, which accounted for 29.2% of the worldwide revenues in the industry. The American market still counts as the largest market for film industry in the world. For the upcoming years, the film segment is expected to attain a growth rate of 3.4% in the United States and 3.6% worldwide. This rate growth, however, is only seventh-biggest when looking at other segment of entertainment. With 13.1% annual growth, the Internet is the fastest-growing segment of the industry. (Bond 2013)

When looking at Marvel Entertainment specifically, the company is primarily active in the comic book market. As of 2013, the domestic sales of comic books rose to $870 million. In 2000, however, the sales reached only $265 million, which shows the recent rapid expansion of the industry. The sales were boosted by new graphic novels and comic books in digital
format, but the interest was raised also by the comic book inspired blockbusters like Marvel’s The Avengers, The Dark Knight or The Amazing Spider-Man. (Lubin 2014)

In the year 2009, when the acquisition of Marvel Entertainment was announced, the value of all mergers and acquisitions exceeded two trillion dollars. The entertainment industry accounted for 4.63% of these transactions, that is, almost 96 billion dollars. Within the industry, a number of important mergers and acquisitions took place, which changed the dynamics of entertainment market. In 1994, Viacom Inc. acquired the company Paramount Communications Inc. for $9.75 billion. However, the acquisition was preceded by a bidding war between Viacom and QVC. In 2001, one of the biggest deals was officially closed, between Time Warner and AOL, with AOL paying $164 billion. However, the acquisition turned out to be very unsuccessful, with the companies splitting in 2009. The chairman and chief executive of Time Warner, Jeff Bewkes even called the merger “the biggest mistake in corporate history.” (Andrews and Barnett 2010) Figure 1 shows the number and value of M&A acquisitions in the media and entertainment market for the years 1985-2013. Two distinct peaks indicating increased transaction activity are visible around the years 2000 and 2006. The drops in number of M&A occurred during two economic crises – the collapse of Internet bubble around the year 2000 and the financial crisis of 2007-2008. (Andrews and Barnett 2010, Bevins et al. 2010)

![Figure 1: Number and value of M&A in entertainment industry 1985-2013](image.png)

Source: IMAA 2015
4 Overview of the involved firms

In this chapter, both companies participating in the acquisition, that is, Marvel Entertainment and The Walt Disney Company, will be presented and analyzed. Discussed will be the brief history of each firm, their structure, main competitors and financial performance, with the focus laid on the years preceding the acquisition. To know the background and development of both companies is essential in order to fully understand their situation and decisions regarding the acquisition.

4.1 Marvel Entertainment

Marvel Entertainment, LLC is an American firm operating in entertainment industry, with headquarters in New York in the United States. It is well-known mainly for its comic book publishing activities and film production. According to Diamond Comics Distributors, the largest distributor of English-language comic books worldwide, Marvel was the world’s biggest comic book publisher in the year 2014 with market share of almost 35%. Popular superheroes such as Spider-Man, Captain America, Iron Man or Wolverine and superhero teams like X-Men, Avengers or Fantastic Four are part of Marvel’s fictional universe. (Diamond Comic Distributors 2015)

The history of the Marvel brand first started in 1939 when Martin Goodman, a pulp-magazine publisher from New York, founded the company Timely Publications, later renamed to Timely Comics; Marvel Comics was the name of the first publication. In 1941, one of the world’s most recognized superheroes, Captain America, was created and introduced. (World Collectors Net, FundingUniverse)

Since then, Marvel expanded into one of the biggest comic book publishers in the American market. The company was sold to several other firms and also changed its name a few times until it was acquired by The Walt Disney Company as Marvel Entertainment and adopted as its subsidiary. In 1986, it was bought by New World Pictures, a film production company, for $46 million and later in 1988 by Andrews Group for $82.5 million, as a consequence of substantial losses. Marvel made its initial public offering in 1991, raising enough money to
strengthen its position and pay off bank debt. It was then also able to buy Fleer Corporation, a trading card firm and invest in toy maker Toy Biz. In the following years, the company made even more purchases with the goal to further enhance its business. (FundingUniverse, Reference for Business)

The prosperous times didn’t, however, last long as in mid-1990s, Marvel was caught in a situation where sales and profits dropped and the company couldn’t pay back debts that arose from previous purchases. Marvel therefore went bankrupt and had to file for bankruptcy protection under Chapter 11. (Reference for Business)

Subsequently, two years later, the already mentioned toy manufacturer Toy Biz bought Marvel in order to save it from bankruptcy troubles. After the reorganization process, Toy Biz changed its name to Marvel Enterprises to make more use of the well-known brand. In the 2000s, the company licensed film production companies like Twentieth Century Fox Corporation or Sony Pictures Entertainment to use certain Marvel characters in live-action films as well as co-produced these films. As a result, successful blockbusters like *X-Men* (2000) or *Spider-Man* (2002) were created, followed by several sequels in the respective franchise. To reflect Marvel’s involvement in the increasing diversification of its products, the company changed its name again in 2005 to Marvel Entertainment. (Reference for Business)

As of 2008, shortly before the acquisition, Marvel Entertainment was operating in three segments – Licensing, Publishing and Film Production. The Licensing segment takes advantage of the wide library of well-known Marvel characters and licenses them to third-party companies which in turn produce films, publications and various consumer products like toys, clothing, games or collectibles. Marvel’s oldest business, creating and publishing of comic books falls into the Publishing segment. A large number of more than 5,000 characters enables Marvel to constantly come up with new stories involving popular superheroes and villains. Included in this segment are also revenues from advertisement and subscriptions. Last but not least, in the Film Production segment, Marvel Entertainment focused formerly mostly on licensing rights to use its characters in films to third-party production studios. In 2008, two films produced solely by Marvel Entertainment, specifically its subsidiary Marvel Studios, were released – *Iron Man* and *The Incredible
Hulk. The studio strives to create a series of films and TV shows set in a shared universe ever since. (Marvel Entertainment, Inc. 2008 Annual Report)

In the past, Marvel Entertainment also operated in the toy manufacturing segment, but quit it in early 2008. However, the company licensed Hasbro, Inc. to create and distribute Marvel-inspired toys. The revenues from toy-related activities, which were previously reported in the Toy segment, were afterwards reported primarily in the Licensing segment. (Marvel Entertainment, Inc. 2008 Annual Report)

Marvel Entertainment owns rights for a large amount of characters, which the company created since its birth. The recognition and overall popularity of these characters secures that Marvel doesn’t have many competitors. Prior to the acquisition, the main competitor of Marvel Entertainment in terms of comic book publishing, superhero-themed movie production as well as licensing was the company DC Entertainment, Inc. owned by Warner Bros. Entertainment Inc. DC Entertainment’s most famous characters are Superman, Batman, Wonder Woman, Green Lantern or the Flash. As for the comic book publishing segment specifically, publishing units Marvel Comics and DC Comics compete, with market shares of circa 33% and 30%, respectively, in the year 2014. Interestingly enough, as DC Comics was owned by Time Warner since 1989, it had more financial resources at its disposal. (Diamond Comic Distributors 2015, Marvel Entertainment, Inc. 2008 Annual Report)

Besides DC Comics, three more American publishers are considered to be major players in the industry. First is Image Comics (ca. 9% market share), known mainly for the series Spawn and The Walking Dead, which was successfully adopted into a television series. Second, IDW Publishing (ca. 5.5% market share) that concentrates on characters and franchises that are already known from film or toy industry like Star Trek, Transformers or Doctor Who. Last but not least, Dark Horse Comics (ca. 5% market share) is famous for comic books like 300, Sin City, Hellboy or Star Wars. Figure 2 summarizes the market shares of comic book publishers based on data from Diamond Comics. (Diamond Comic Distributors 2015)
Figure 2: Market shares of comic book publishers by Diamond Comics
Source: Diamond Comics 2015

As for the Film production segment, films from production studios like Twentieth Century Fox, Sony Pictures, Warner Bros. or Universal present the biggest competition for films created and produced by Marvel Entertainment. Recently, DC Entertainment – among other film studios – followed Marvel Entertainment’s film production strategy and strives to create a series of films set in a shared universe as well. The first film of the franchise was *Man of Steel* released in 2013, with ten more films scheduled for the years 2016-2020. (Marvel Entertainment, Inc. 2008 Annual Report, Beedle 2014)

In the Licensing segment, companies that own intellectual property rights and license them to other firms were the main competitors for Marvel Entertainment. These include again DC Comics and Warner Bros., NBC Universal, but also The Walt Disney Company before the acquisition. (Marvel Entertainment, Inc. 2008 Annual Report)

Table 3 shows the changes of Earning before interest and taxes (EBIT) and revenues in respective segments of Marvel Entertainment in the years 2005-2008.
<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>230.1</td>
<td>132.4</td>
<td>343.6</td>
<td>292.8</td>
</tr>
<tr>
<td>Publishing</td>
<td>92.4</td>
<td>108.5</td>
<td>125.7</td>
<td>125.4</td>
</tr>
<tr>
<td>Film Production</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>254.6</td>
</tr>
<tr>
<td>Other</td>
<td>68.0</td>
<td>110.9</td>
<td>16.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Total revenues</td>
<td>390.5</td>
<td>351.8</td>
<td>485.8</td>
<td>676.2</td>
</tr>
<tr>
<td>EBIT</td>
<td>175.0</td>
<td>114.0</td>
<td>277.0</td>
<td>373.5</td>
</tr>
</tbody>
</table>

Table 3: Marvel’s revenues and EBIT in $ million, 2005-2008

Source: Data from Marvel Entertainment, Inc. 2007 Annual Report, Marvel Entertainment, Inc. 2008 Annual Report and ADVFN.com

In the row “Other”, primarily toy sales from the ceased toy manufacturing business are reported. Earnings before tax and interest, as an index of firm’s profitability, are calculated as revenues minus the cost of sold products and operating expenses. The figures show that after a downturn in the year 2006, the company managed to improve its financial situation. The production of films in-house were a bold step forward, but apparently, it paid off – in 2008, when both Iron Man and The Incredible Hulk were released, the revenues in the Film production segment reached $254.6 million and also earnings before interest and tax increased by almost ten million dollars. While the licensing segment seems to be the major source of revenue for Marvel, the Film production segment might provide a significant stream of income for the company. (Berk and DeMarzo 2014, p.30)

4.2 Walt Disney Company

The Walt Disney Company is one of the largest entertainment companies worldwide. Since its foundation in 1923, when it started as an animation studio, it expanded its activities also to broadcasting, producing live-action films and building amusement parks worldwide. Its headquarters is located in Burbank, California in the United States. Nowadays, Disney operates numerous theme parks and is recognized as one of the major film studios in the world. In 2014, the company released 18 films and thus gained 15.45% market share. Since 1991, it serves as a component of Dow Jones Industrial Average, a well-known stock market index. (The Numbers 2015)
The birth of the company dates back to 1923 when Walt E. Disney started to create a series called *Alice Comedies* for film distributor Margaret Winkler. Five years later, Mickey Mouse, one of the most popular cartoon characters worldwide, made his debut in the short film *Steamboat Willie*. By 1940, the studio moved to its current headquarters in Burbank, California and also went public. (The Walt Disney Company 2015)

In 1955, Disney expanded its ideas and created the first theme park, Disneyland, in Anaheim, California. Although the company’s founder, Walt Disney, died of lung cancer in 1966, Disney gradually grew into an entertainment giant, further producing new films and building theme parks. (The Walt Disney Company 2015)

Several companies and investors tried to buy The Walt Disney Company over the years of its existence. First was The Coca-Cola Company in 1982, but it didn’t get hold of Disney. Two years later, Saul Steinberg, an American businessman, unsuccessfully attempted to take over the company as well. The Walt Disney Company itself, however, managed to acquire a considerable amount of companies that expanded its portfolio of products and services. These include film studios like Miramax (acquired 1993, sold in 2010), Pixar (acquired 2006) or the recent acquisition of Lucasfilm (2012), companies operating in the broadcast television market such as Capital Cities Communications (acquired 1996) and Fox Family Network (acquired 2001) or software companies like New Horizon Interactive (acquired 2007, now named Disney Canada, Inc.). (Parr 2012)

There were four segments in which The Walt Disney Company operated at the time of the acquisition of Marvel Entertainment – Media Networks, Parks and Resorts, Studio Entertainment and Consumer Products. The Media Networks segment is comprised first of all by domestic broadcast network, i.e. the ABC Television Network, where the revenues are generated mainly by the commercial advertisements. Disney further produces and distributes various television shows by a list of its subsidiaries like ABC Studios or Buena Vista Productions. In 2008, shows like *Desperate Housewives*, *Lost* or *Scrubs* were produced. The company also operated ten domestic television station, e.g. WABC-TV for New York City or WLS-TV for Chicago, a series of cable networks, where ESPN and Disney Channel are the most prominent, and several radio stations. Last but not least, the Media Networks segment includes internet and mobile operations as well, which care for the development,
production and distribution of online services like the websites ABC.com, Disney.com or ESPN.com. (The Walt Disney Company 2008 Annual Report)

As for the second segment, Parks and Resorts, The Walt Disney Company possesses and manages six parks and resorts in the United States – Walt Disney World Resort in Florida, the Disneyland Resort in California, the Disney Vacation Club, the Disney Cruise Line, Adventures by Disney and ESPN Zone, a chain of eight sport-themed restaurants. The company also owns a part of Disney theme parks in Paris and Hong Kong and licenses the park in Tokyo. Disney’s Studio Entertainment segment creates and distributed animation and live-action films, musical recordings and live performances. Films are in turn distributed in theatrical, home entertainment or television markets. At the end of the fiscal year 2008, Disney expected to release about 25 movies created by its subsidiaries next year and at the same time, more than 1,400 movies produced by Disney or one of its companies were available to the American home entertainment market. Concerning the theatrical market, Disney Theatrical Group creates and licenses Broadway musicals like Beauty and the Beast and other live performances such as Disney on Ice. (The Walt Disney Company 2008 Annual Report)

Lastly, Disney operates also in the Consumer Products segment, where the company, in cooperation with other firms, licenses, publishes and manufactures goods based on its popular characters and other intellectual property. These products include mainly books and magazines, clothing, food, toys and accessories. The merchandise is distributed via company’s own stores (The Disney Stores) and online shopping (Disneyshopping.com). Since 2009, Disney added another segment to its existing business, the Interactive Media segment, formerly reported under the Consumer Products segment. Here, Disney creates and distributes primarily video games and web sites for the international market. (The Walt Disney Company 2008, 2009 Annual Report)

The level of competition The Walt Disney Company has to face depends on the segment – in the Media Network segment, the company’s ABC Television Network competes with other broadcast networks. These include above all NBC, CBS, Fox Broadcasting Company and The CW Television Network. In the Parks and Resorts segment, the list of Disney’s competitors includes other amusement and theme parks and other forms of entertainment and relaxation activities. Furthermore, in the Studio Entertainment segment, Disney competes...
with other major film studios like Warner Bros. Pictures, Universal Pictures, Columbia Pictures, Twentieth Century Fox, Paramount Pictures and other live entertainment creators. Finally, other licensing and publishing companies like Mattel or Hasbro present a competition for Disney in the Consumer Products segment. (The Walt Disney Company 2008 Annual Report)

Table 4 summarizes the distribution of revenues of The Walt Disney Company among its business segments. The earnings before interest and tax for each segment are included as well.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Networks</td>
<td>13,207.0</td>
<td>14,638.0</td>
<td>15,104.0</td>
<td>16,116.0</td>
</tr>
<tr>
<td>Parks and Resorts</td>
<td>9,023.0</td>
<td>9,925.0</td>
<td>10,626.0</td>
<td>11,504.0</td>
</tr>
<tr>
<td>Studio Entertainment</td>
<td>7,587.0</td>
<td>7,529.0</td>
<td>7,491.0</td>
<td>7,348.0</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>2,127.0</td>
<td>2,193.0</td>
<td>2,289.0</td>
<td>2,875.0</td>
</tr>
<tr>
<td>Total revenues</td>
<td>31,944.0</td>
<td>34,285.0</td>
<td>35,510.0</td>
<td>37,843.0</td>
</tr>
<tr>
<td>EBIT</td>
<td>4,584.0</td>
<td>6,039.0</td>
<td>8,471.0</td>
<td>7,926.0</td>
</tr>
</tbody>
</table>

Table 4: Disney’s revenues and EBIT in million US dollars 2005 – 2008

The company’s earnings were increasing steadily over the years, with a drop in the year 2008. However, the revenues did rise in that year, which means that the operating expenses and cost of sales increased as well. The growth of revenues was boosted by all segments except the Studio Entertainment segment, where the revenues were slightly decreasing.

5 Reasons for the acquisition

Each acquisition deal requires an insightful analysis in advance, which evaluates pros and cons for both interested parties. In this chapter, reasons that support the idea of the acquisition of Marvel Entertainment by The Walt Disney Company will be presented, as well as potential risks emerging from the purchase. The incentives of the acquisition will be inspected in various segment of both companies. The aim is to find out to what extent is
Marvel a good fit for Disney and vice versa. The suggestions will be supported by statements of both Marvel’s and Disney’s representatives and other experts.

5.1 Financial reasons

A very important factor when looking at financial reasons for a merger or an acquisition is the financial performance of the acquired company. A firm with better financial indicators, which indicate higher efficiency and sustainability than its industry peers is a more attractive acquisition target for potential buyers.

In the following tables, four measures of financial performance and growth are presented for the acquired company Marvel Entertainment and its peers. These include companies that operate in the same industry – first, The Walt Disney Company itself, since before the acquisition, it could be seen as Marvel’s competitor. Marvel’s main rival, DC Entertainment, could not be included, since the firm is wholly owned by Time Warner and the data is not available. Instead, the parental company Time Warner, also operating in entertainment industry, was chosen. Lastly, DreamWorks Animation is an American animation studio founded in 1994, with about 2,400 employees. (ADVFN 2015)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marvel Entertainment</td>
<td>-10%</td>
<td>38%</td>
<td>39%</td>
</tr>
<tr>
<td>DreamWorks Animation</td>
<td>-15%</td>
<td>94%</td>
<td>-15%</td>
</tr>
<tr>
<td>The Walt Disney Company</td>
<td>7%</td>
<td>3.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Time Warner</td>
<td>1.3%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Average</td>
<td>-4%</td>
<td>35%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 5: Revenue growth of Marvel and its peers

Source: Data from ADVFN.com

The revenue growth was calculated from historical revenue data \(\frac{\text{Revenue}(t)}{\text{Revenue}(t-1)} - 1\). Table 5 shows that the smaller companies, i.e. Marvel and DreamWorks Animation, are more volatile in the revenue growth than the bigger ones – Time Warner and The Walt Disney Company. Marvel itself, after a drop in 2006, managed to increase its revenues so that the
growth reached about 38% two years in a row. As a result, in both 2007 and 2008, Marvel’s revenue growth was above industry average.

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marvel Entertainment</td>
<td>32%</td>
<td>57%</td>
<td>55%</td>
</tr>
<tr>
<td>DreamWorks Animation</td>
<td>16%</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>The Walt Disney Company</td>
<td>18%</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>Time Warner</td>
<td>20%</td>
<td>20%</td>
<td>-30%</td>
</tr>
<tr>
<td>Average</td>
<td>21%</td>
<td>33%</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Table 6: EBIT margin of Marvel and its peers**

Source: Data from ADVFN.com

According to Berk and DeMarzo (2014), the EBIT margin can be used as a measure of firm’s relative efficiency when looking at multiple firms of an industry. It’s calculated as a ratio of EBIT and sales of the company. In all cases, as seen in Table 6, Marvel’s EBIT margin is above that of its peers which implies a higher efficiency of company’s operations. (Berk and DeMarzo 2014, p.35)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marvel Entertainment</td>
<td>11.8%</td>
<td>18.8%</td>
<td>23.9%</td>
</tr>
<tr>
<td>DreamWorks Animation</td>
<td>1.2%</td>
<td>16.4%</td>
<td>10.9%</td>
</tr>
<tr>
<td>The Walt Disney Company</td>
<td>6.6%</td>
<td>8.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Time Warner</td>
<td>6.5%</td>
<td>5.2%</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Average</td>
<td>6.6%</td>
<td>12.3%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

**Table 7: ROA of Marvel and its peers**

Source: Data from ADVFN.com

Table 7 summarizes the return on assets (ROA) of the selected companies. This performance measure is calculated as a ratio of net income including interest expense and the book value of assets. The advantage of ROA is that it’s not as leverage sensitive as return on equity. Similarly as in the previous case, Marvel outperforms its individual competitors as well as the industry average in all three years. (Berk and DeMarzo 2014, p.43)
<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marvel Entertainment</td>
<td>19.2%</td>
<td>32.6%</td>
<td>50.8%</td>
</tr>
<tr>
<td>DreamWorks Animation</td>
<td>1.3%</td>
<td>20%</td>
<td>14%</td>
</tr>
<tr>
<td>The Walt Disney Company</td>
<td>7.9%</td>
<td>10.9%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Time Warner</td>
<td>6.8%</td>
<td>4.6%</td>
<td>-16.8%</td>
</tr>
<tr>
<td>Average</td>
<td>8.8%</td>
<td>17%</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

Table 8: ROIC of Marvel and its peers

Source: Data from ADVFN.com

The final financial performance measure, return on the invested capital (ROIC), is computed as follows:

$$ ROIC = \frac{EBIT(1 - \text{tax rate})}{\text{Book Value of Equity} + \text{Net Debt}} $$

Compared to return on assets, ROIC is not sensitive to working capital and is used as one of the most useful measures to judge the financial performance of a company. As summarized in Table 8, Marvel again shows higher results than industry peers, indicating a more efficient use of its assets. Overall, Marvel Entertainment can be considered to be a good acquisition target, since several performance measures imply high performance of the firm. (Berk and DeMarzo 2014, p.43)

According to Ferris and Petitt (2013), one of the most important motives behind mergers and acquisitions are the financial synergies that the companies, when combined, can achieve. As an example, Marvel could get cheaper financing opportunities, since Disney might “have access to a wider and cheaper pool of funds than small companies”. (Ferris and Petitt 2013) This funding will be primarily necessary for future film production activities.

Next two significant factors for both Marvel and Disney are the reduction of costs and revenue enhancement. Regarding the first mentioned, the acquisition would enable the companies to advantageously use each other’s resources, resulting in lower expenses. Most importantly, in order for The Walt Disney Company to obtain right to such large character library without acquiring the owner, the firm would have to pay a large license fee. The cost reduction possibilities are, however, evident also in other segments, where the Marvel’s and Disney’s businesses intersect. In the promising film production area, Disney’s presence
could considerably simplify and reduce the price of Marvel movies production. Before the acquisition, Marvel Entertainment had to pay several distributors about $20 to $60 million for distributing its films. With Disney’s own distribution network, the cost would significantly decrease without Marvel having to pay any distribution fees. Although these advantages constitute a big opportunity, Disney’s Senior Vice President of Investor Relations Lowell Singer stated at the acquisition announcement press conference that they are not the main reason of the takeover: “One thing that's important to note is that this deal is not motivated by cost savings or redundancies. What I think drives that is the synergies over time.” (Pepose 2009) Secondly, the revenue enhancements would be achieved by the already mentioned use of popular Marvel characters to increase sales. As expressed by Thomas Staggs, Disney’s chief financial officer (CFO): “We look to exploit the library of characters more broadly by leveraging Disney's infrastructure. That's when we think the revenue synergy is going to kick in.” (Pepose 2009, Berk and DeMarzo 2014, p.934, Young 2009)

5.2 Strategic reasons

In 2005, four year prior to the Marvel acquisition, the old chief executive officer (CEO) of The Walt Disney Company, Michael Eisner, was replaced by Robert “Bob” Iger. The confidence of the whole company seemed to rise under his lead, since several acquisition decisions were made, despite the economy being on the downgrade. Iger stated that the acquisition of Marvel Entertainment was “a great opportunity at the right time”. (Graser 2009b)

The Walt Disney Company traditionally pursues to become a global creator of entertainment for the whole family. However, when looking at the hits of 2008 that included Hannah Montana, High School Musical or the Jonas Brothers, the content was often more appealing to young girls than boys. A clear exception was the animated film Cars, produced by Pixar Animation Studios and released in 2006 by Disney. The brand still profits on selling merchandise like toys. (Graser 2009a)

This is therefore probably the main reason why Disney decided to acquire Marvel Entertainment. Miller Tabak & Co. analyst David Joyce supports this assumption: “This helps give Disney more important exposure to the young male demographic that they have
sort of lost some ground with in recent years.” (Thomash and Keating 2009) The huge library of more than 5,000 characters enables the company to incorporate them to its offer of animated and live-action films, TV shows, comic books, merchandise, video games and even theme parks. Within Disney, several divisions will be able to incorporate the intellectual property in their work. Using the potential of superheroes and their immense number of story arcs is a great opportunity for Disney to succeed at targeting the problematic demographic. According to Graphic Policy’s 2011 research of comic book fans based on self-identification on Facebook, men account for almost 75% of comic book readers, which suggests that Disney could indeed appeal more to boys. However, when looked at the distribution of the age of comic book fans as seen in Figure 3, more than 63% of them are between 18 and 30 years old. This means that with the right use of Marvel characters, Disney would be able to widen the target demographic also to young men of that age. (Thomash and Keating 2009, Graser 2009a, Graphic Policy 2011)

![Figure 3: Comic book readers by age](image)
Source: Graphic Policy 2011

The access to Marvel’s huge library of characters can be utilized by Disney mainly in the film industry. Before the deal was made, Marvel had a number of license contracts with other film studios that produced and distributed movies on their own. Marvel, in return, obtained a small percentage of the earnings. The third-party companies were naturally interested primarily in the most famous characters Marvel could offer. As a result, following deals were the most relevant shortly before the Disney acquisition:
- Sony Pictures Entertainment was contractually entitled to produce films focused on Spider-Man and other characters affiliated to him. The contract was neither time-constrained nor otherwise limited.

- Twentieth Century Fox held license for characters connected with teams X-Men, Fantastic Four and with superhero Daredevil. The studio is only restricted by its production plans – the deal holds as long as Fox actively develops movies based on the aforementioned characters.

- Films that were recently created by Marvel Studios, that is, *Iron Man* (2008) and *Incredible Hulk* (2008), were distributed by Paramount Pictures. The studio had rights to distribute five more movies of the arising franchise and to keep about 8% of the earnings. (Graser 2009ab)

Despite these contracts, Disney can still create popular film content using other comic book heroes, ideally after consultation with employees of Marvel. This will surely come with a risk that the story or hero won’t attract the audience’s attention. However, Marvel’s bold move of introducing Iron Man as a cinematic character to the public paid off, with the movie earning more than $580 million worldwide. Another possibility is also the renegotiation of the contracts with the respective studios – this can result in Disney obtaining the rights to the licensed characters and being able to produce movies in-house. Since Disney has worked with several prominent directors over the years, such as Gore Verbinski, Tim Burton or Brad Bird, it might increase the quality of future Marvel inspired films by hiring approved creators and staff. The inclusion of superhero movies to Disney’s plans could considerably contribute to the goal of attracting the male demographic. Marvel, on the other hand, would achieve better promotion for its intellectual property, which could result in higher comic book sales and an overall higher awareness. (Graser 2009a)

The fact that The Walt Disney Company does not only produce and distribute films but also owns and operates several television networks and channels presents another unique opportunity for the company to use even more Marvel characters and introduce them to the audience with help of either animated or live-action television series. Ideal channels of distribution in this case are the ABC Network and the before-mentioned Disney XD channel, targeting primarily adults aged 18-34 and boys aged 6-14, respectively. Disney CEO Bob Iger confirmed plans regarding the Disney XD channel: “We actually have been looking to license more Marvel content for that channel in the future.” (Pepose 2009) Again, both
companies have an opportunity to benefit from this cooperation – Marvel could use another form of entertainment to make its characters more famous while Disney’s television channels would be more appealing to both younger and adult male audiences. The budget, however, often limits live-action TV shows in using special effects (e.g. CGI – computer-generated imagery), which are crucial for the fictional superhero stories. Disney should therefore further explore Marvel’s huge library of characters and carefully choose those that would fit the small screen in the best way possible. Such example is Luke Cage, a “street-level” superhero, operating in New York City practically in casual clothes. On the other hand, The CW’s Smallville series, which features the iconic DC Comics superhero Superman in his early years, shows that it’s possible to create a successful live-action TV series about a major comic book character with supernatural powers. Smallville aired for ten years, resulting in ten seasons in total. (Young 2009, Pepose 2009)

A promising concept, potentially combining both film and TV show segments, was the Marvel Cinematic Universe, a planned series of films that would depict several Marvel heroes in one fictional reality. The franchise started with the film Iron Man in 2008, following with The Incredible Hulk, released also in 2008. Although the rights to distribute five next movies belonged to Paramount Pictures at the time, Disney was free to make plans for the future, when the deal would expire, or develop TV shows and other forms that could strengthen the franchise. (Young 2009)

Another segment, where Disney might utilize the acquired valuable intellectual property are its theme parks. However, NBC Universal was contractually allowed to use Marvel characters in its parks, thus creating Marvel Super Hero Island, a part of the Universal Orlando Resort. Universal was not ready to give up this deal; this was confirmed also directly by Universal’s spokeswoman:

“Marvel Super Hero Island and the Marvel characters are an important part of the Universal Orlando experience. They will remain so. Our agreement with Marvel stands for as long as we follow the terms of our existing contract and for as long as we want there to be a Marvel Super Hero Island.” (Graser 2009a)

Nevertheless, Disney could still create theme park amusements inspired by other Marvel heroes which were not licensed to Universal, such as the already mentioned Iron Man. These
attractions would primarily target young boys. When looking at Marvel Entertainment and
the consequent advantages, the theme parks might boost the popularity of its characters,
similarly to other segments. Further areas to achieve similar cooperation benefit were the
video games, with Disney operating a well-established division that could introduce the
world of superheroes also to the users of video game entertainment. Last but not least,
Disney’s relationships with other companies might simplify Marvel’s operations. Such
example is Disney’s link with Wal-Mart, an American retail company where Marvel could
for instance sell its toys more easily or cheaper. (Graser 2009a, All Things Considered 2009)

To sum the financial and strategic incentives up, it’s apparent that the businesses of The
Walt Disney Company and Marvel Entertainment have many intersections which could be
used for development of both companies. With this deal, Disney would have means to
successfully create more valuable content appealing to the target demographics of boys and
young men. On the other hand, Marvel would primarily benefit from Disney’s global reach
and the enhanced promotion of the established characters, resulting in potentially higher
comic book sales and box office earnings of superhero movies. Also, Disney’s expertise in
publishing, film or marketing divisions might further improve the quality of Marvel
products. Financial indicators of Marvel Entertainment were above those of its peers, which
suggested that the company was a good acquisition target. Further synergies were to be
created by revenue enhancements of the combined company. The CEO of Disney, Robert
Iger, summarized his thoughts of the deal as follows: “Adding Marvel to Disney's unique
portfolio of brands provides significant opportunities for long-term growth and value
creation.” (Wilkerson 2009)

6 Acquisition process

In this chapter, relevant facts about the acquisition itself will be presented. These include the
type, timing and price of the acquisition, market reaction reflected in stock prices and
response from both companies’ management and fans.

Firstly, the acquisition can be considered horizontal, since Marvel and Disney operate in the
same industry. Furthermore, Marvel’s board of directors supported the acquisition; it can be
therefore classified as a friendly takeover. The acquisition of Marvel Entertainment was
announced on August 31st, 2009 by both Marvel and Disney. The CEO of the latter, Bob Iger, first touched upon the idea in February 2009 in a meeting with David Maisel, who was responsible for Marvel’s film production. The negotiations didn’t, however, start until June. In the process, both companies were advised by Bank of America – Merrill Lynch, which received a $20 million fee. Marvel’s representatives initially demanded more than $50 per share for the deal, preferably in Disney shares. After these terms being rejected by CFO Thomas Staggs, the talks continued with Disney offering to pay between $46 and $48 per Marvel share in form of cash and stock. Similarly rejected by Marvel’s board, the companies subsequently agreed on a price of $50 a share. The acquisition was finally greenlighted on August 30th, 2009 and announced the day after. Iger expressed the desire to complete the purchase by the end of 2009. (Berk and DeMarzo 2014, p.933, 945, Fritz 2009, Pepose 2009)

The acquisition was a cash and stock transaction; shareholders of Marvel would obtain $30 per share in cash and 0.7452 Disney shares for one Marvel share owned, based on closing price on August 28th, 2009. With Marvel having 78.458 million shares outstanding, the acquisition was overall valued on its announcement day as follows:

\[
78,458,000 \times (\$30 + 0.7452 \times \$26.84) = \$3,922,991,639
\]

$26.84 is the closing price of Disney stock on August 28th, 2009. When looking at the price per share, that is $30 + 0.7452 \times \$26.84 = \$50, it results in about 29% premium in comparison with Marvel’s market share price of $38.65 (28.8.2009). With a risk of overpayment, Disney’s credit rating was placed on negative watchlist by Standard & Poor’s. Bob Iger stated that the price paid was appropriate: “We paid a price that reflects the value they’ve created and the value we can create as one company. It’s a full price, but a fair price.” (Barnes and Cieply 2009) The acquisition was completed on December 31st, 2009. Since the number of Marvel’s outstanding shares and Disney’s price per share changed since August, The Walt Disney Company paid the following amount for the acquisition:

\[
78,501,000 \times (\$30 + 0.7452 \times \$32.25) = \$4,241,620,983
\]

(Thomash and Keating 2009, Data from WRDS, The Walt Disney Company 2010 Annual Report)
The timing of the acquisition was rather unusual, especially with the economy being in decline and last merger wave ending in 2008. However, the two-year development of Marvel’s stock price, depicted in Figure 4, indicates that the company was performing well, as its share price has been steadily rising since February 2009. Time Warner, one of Disney’s main competitors, owned and capitalized on the second biggest comic book publisher DC Entertainment for several years. Disney recognized the opportunities of acquiring Marvel and with its share price rising month after month, Disney wanted to buy the company as cheap as possible. In any case, the announcement was considered rather surprising. (Barnes and Cieply 2009)

![Figure 4: Marvel's share price - 2 year development](image)

Source: Data from WRDS

In Figure 5, market reaction to the acquisition is depicted with the prices of Marvel Entertainment stock two weeks before and after the acquisition. Highlighted are the values of the stock on the acquisition announcement day (31.8.2009) and one trading day before (28.8.2009). Two weeks before the acquisition, Marvel’s price stayed at the same level of approximately $38. It’s apparent that on August 31st, the price increased by 25% from $38.65 to $48.37 as a reaction to the acquisition announcement. In comparison with other companies, the increase is rather high – according to Berk and DeMarzo, target firms’ price goes up by 15% on average. Two weeks after the announcement, Marvel’s price rose moderately to almost $50 per share. (Berk and DeMarzo 2014, p.934, Thomash and Keating 2009)
When looking at the acquirer The Walt Disney Company, two weeks before the acquisition, the share price rose from about $25 to $27, as seen in Figure 6. However, during the announcement day the price dropped from $26.84 to $26.04, with further decrease in following days. This effect lies in line with the observation that the stock price of approximately 50% of the acquirers decreases on the announcement day. The drop might also be effect of the share issuance. Subsequently, the price increased to over $28 in next two weeks. (Berk and DeMarzo 2014, p.934, Thomash and Keating 2009, Boorstin 2009)
Stan Lee, ex-president of Marvel Comics and the creator behind numerous popular superheroes including Spider-Man, Hulk or Iron Man, supported the deal, in particular the opportunities of high quality franchises. Lee stated that the acquisition “gives Disney a library of literally hundreds of unique and colorful characters that have the potential to make great, high-concept movies and long-lasting franchises – and nobody knows how to play in that ballpark better than Disney.” (Graser 2009a) He emphasized also the advantages of Disney’s expertise: “Disney knows how to do movies. They know how to do colorful characters and I think the fans, if they think about it, they're going to love it.” (Dobuzinskis 2009) Lee is currently active as Marvel’s Chairman Emeritus. (Thomash and Keating 2009)

Fans of Marvel Entertainment, however, didn’t react positively to the acquisition announcement at first. The biggest reservations involved Disney using its power over Marvel to interfere in its characters. The superheroes and their stories were often rather violent and inappropriate for younger demographics and fans were worried Disney would change them to reach a wider audience. The complaints were addressed directly by Bob Iger, Disney’s CEO: “The goal here is not to rebrand Marvel/Disney, in fact, the opposite, to put an even brighter spotlight on Marvel as a brand and to really work with the Marvel team to help grow it more.” (MacDonald 2009) He also expressed that Disney believes in Marvel’s experiences: “We don't pretend to be more expert at this than they are.” (Pepose 2009) These statements were supported also by Marvel representatives, in particular by Joe Quesada, the comic house’s Editor-in-Chief: “Everybody take a deep breath, all your favorite comics remain unchanged.” (Rogers 2009) Disney’s 2006 acquisition of Pixar was illustrated as an example that the entertainment giant can work with the target company without altering its firm culture. (MacDonald 2009)

7 Valuation of Marvel Entertainment

This chapter consists of two parts. Firstly, the Discounted Cash Flows (DCF) model will be used to value Marvel Entertainment as a standalone company and the synergies with The Walt Disney Company as well. Secondly, multiples based on comparable firms and on similar transactions will be calculated.
7.1 Discounted Cash Flows Valuation

According to Berk and DeMarzo (2014), the DCF method “focuses on the cash flows to all of the firm’s investors, both debt and equity holders, allowing .. to avoid estimating the impact of the firm’s borrowing decisions on earnings.” (Berk and DeMarzo 2014, p.282) First, the weighted average cost of capital (WACC) will be computed which will be used to discount the estimated cash flows. The sum of the discounted cash flows and the continuation value results in the enterprise value of Marvel Entertainment.

7.1.1 Capital structure

The relative amount of equity, debt and other securities that are used to finance firm’s operations is called the capital structure. At the time of the valuation, Marvel Entertainment had debt (D) amounting to D = $213 million. The market value of equity (E) will be calculated as the number of Marvel’s outstanding shares times the closing price on December 31st 2008: (Berk and DeMarzo 2014, p.479)

\[ E = 79,104,000 \times 30.75 = 2,432,448,000 \]

The resulting debt-to-equity ratio for Marvel is therefore \( D/E = 8.76\% \). Yet, the WACC calculation assumes that the ratio stays constant over time. Because of that, a new D/E ratio for Marvel will be used, based on its industry peers, which were presented in Chapter 5.1 – The Walt Disney Company, Time Warner and DreamWorks Animation. It is expected that Marvel will adjust its D/E ratio to the level of comparable firms in the industry. The average capital structure of the chosen group of companies results in the debt-to-equity ratio of ca. 50.5%, or alternatively, debt-to-capital ratio (D/V) of 33.6% and equity-to-capital ratio (E/V) of 66.4%. This values will be used as the target capital structure in the valuation of future years for Marvel. (Berk and DeMarzo 2014, p.39f.)

7.1.2 Risk-free interest rate

The risk-free rate \( (r_f) \) for a given period is defined as a rate at which the borrowing does not include any risk in the period. As a proxy for the risk free rate, the average of historical
returns of 10-year US Treasury Bonds will be used. For years 1928-2014, the average value, taken from the sheets of Aswath Damodaran, is 5.28%. (Damodaran 2015)

### 7.1.3 Market risk premium

Another measure necessary to calculate the cost of equity is the market risk premium, computed as the difference of the expected return of market portfolio and the risk-free interest rate: $E[R_{Mkt}] - r_f$. The return of market portfolio will be determined as the 40 years average of the Standard & Poor’s (S&P) 500’s return including the dividend yield. (Berk and DeMarzo 2014, p.340)

<table>
<thead>
<tr>
<th>Year</th>
<th>Earnings Yield (%)</th>
<th>Dividend Yield (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>5.98</td>
<td>3.46</td>
</tr>
<tr>
<td>1971</td>
<td>5.46</td>
<td>3.10</td>
</tr>
<tr>
<td>1972</td>
<td>5.23</td>
<td>2.70</td>
</tr>
<tr>
<td>1973</td>
<td>8.16</td>
<td>3.70</td>
</tr>
<tr>
<td>1974</td>
<td>13.64</td>
<td>5.43</td>
</tr>
<tr>
<td>1975</td>
<td>8.55</td>
<td>4.14</td>
</tr>
<tr>
<td>1976</td>
<td>9.07</td>
<td>3.93</td>
</tr>
<tr>
<td>1977</td>
<td>11.43</td>
<td>5.11</td>
</tr>
<tr>
<td>1978</td>
<td>12.11</td>
<td>5.39</td>
</tr>
<tr>
<td>1979</td>
<td>13.48</td>
<td>5.53</td>
</tr>
<tr>
<td>1980</td>
<td>11.04</td>
<td>4.74</td>
</tr>
<tr>
<td>1981</td>
<td>12.39</td>
<td>5.57</td>
</tr>
<tr>
<td>1982</td>
<td>9.83</td>
<td>4.93</td>
</tr>
<tr>
<td>1983</td>
<td>8.06</td>
<td>4.32</td>
</tr>
<tr>
<td>1984</td>
<td>10.07</td>
<td>4.68</td>
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<tr>
<td>1985</td>
<td>7.42</td>
<td>3.88</td>
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<tr>
<td>1986</td>
<td>5.96</td>
<td>3.38</td>
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<td>1987</td>
<td>6.49</td>
<td>3.71</td>
</tr>
<tr>
<td>1988</td>
<td>8.69</td>
<td>3.68</td>
</tr>
<tr>
<td>1989</td>
<td>6.88</td>
<td>3.32</td>
</tr>
<tr>
<td>1990</td>
<td>6.86</td>
<td>3.74</td>
</tr>
<tr>
<td>1991</td>
<td>4.63</td>
<td>3.11</td>
</tr>
<tr>
<td>1992</td>
<td>4.79</td>
<td>2.90</td>
</tr>
<tr>
<td>1993</td>
<td>5.77</td>
<td>2.72</td>
</tr>
<tr>
<td>1994</td>
<td>6.91</td>
<td>2.91</td>
</tr>
<tr>
<td>1995</td>
<td>6.12</td>
<td>2.30</td>
</tr>
<tr>
<td>1996</td>
<td>5.49</td>
<td>2.01</td>
</tr>
<tr>
<td>Year</td>
<td>Earnings</td>
<td>Dividend Yield</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>1997</td>
<td>4.54</td>
<td>1.60</td>
</tr>
<tr>
<td>1998</td>
<td>3.60</td>
<td>1.32</td>
</tr>
<tr>
<td>1999</td>
<td>3.52</td>
<td>1.14</td>
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<tr>
<td>2000</td>
<td>4.25</td>
<td>1.23</td>
</tr>
<tr>
<td>2001</td>
<td>3.38</td>
<td>1.37</td>
</tr>
<tr>
<td>2002</td>
<td>5.23</td>
<td>1.83</td>
</tr>
<tr>
<td>2003</td>
<td>4.92</td>
<td>1.61</td>
</tr>
<tr>
<td>2004</td>
<td>5.58</td>
<td>1.60</td>
</tr>
<tr>
<td>2005</td>
<td>6.12</td>
<td>1.79</td>
</tr>
<tr>
<td>2006</td>
<td>6.18</td>
<td>1.77</td>
</tr>
<tr>
<td>2007</td>
<td>5.62</td>
<td>1.89</td>
</tr>
<tr>
<td>2008</td>
<td>5.48</td>
<td>3.11</td>
</tr>
<tr>
<td>2009</td>
<td>5.10</td>
<td>2.00</td>
</tr>
<tr>
<td>Average</td>
<td>7.1</td>
<td>3.17</td>
</tr>
</tbody>
</table>

**Table 9: Historical earnings and dividend yields**

Source: Data from Aswath Damodaran

The reported figures result in following values for the expected return of market portfolio and market risk premium:

\[ E[R_{Mkt}] = 7.1\% + 3.17\% = 10.27\% \]

\[ Market\ risk\ premium = E[R_{Mkt}] - r_f = 10.27\% - 5.28\% = 4.99\% \]

### 7.1.4 Beta

According to Berk and DeMarzo, “beta of a security is the expected % change in its return given a 1% change in the return of the market portfolio.” (Berk and DeMarzo 2014, p.337) Marvel’s beta is equal to 0.72. However, under the aforementioned assumptions that the capital structure of Marvel Entertainment will change, beta has to be unlevered and then re-levered. The unlevered beta is calculated with following formula:

\[ \beta_U = \frac{E}{E+D}\beta_E + \frac{D}{E+D}\beta_D \]

In 2008, Marvel had long-term debt in value of $213 million and equity of ca. $2.432 billion. Equity beta equals, as mentioned, 0.72. Debt beta will be estimated by determining the rating of Marvel’s debt using the interest coverage ratio:

\[ ICR = \frac{EBIT}{Interest\ Expense} = \frac{373.5}{19.0} = 19.66 \]
The value of 19.66 suggests that Marvel’s debt is highly rated with AAA rating. It can be therefore estimated, that the debt beta equals zero. With all necessary values, the unlevered beta of Marvel Entertainment will be computed: (Berk and DeMarzo 2014, p.38, 416)

$$\beta_U = \frac{E}{E + D} \beta_E = 91.95\% \times 0.72 = 0.66$$

Subsequently, the re-levering of beta will be performed, using the new debt-to-equity ratio of 50.54%:

$$\beta_E = \beta_U + \frac{D}{E} (\beta_U - \beta_D) = 0.66 + 50.54\% \times (0.66 - 0) \approx 1$$

### 7.1.5 Weighted average cost of capital

WACC reflects the average cost of capital the company pays to its investors and is calculated as follows: (Berk and DeMarzo 2014, p.422)

$$WACC = \frac{E}{E + D} r_E + \frac{D}{E + D} r_D (1 - \tau_C)$$

The assumptions regarding the corporate structure were described in Chapter 7.1.1, resulting in the equity ratio of ca. 66.43% and debt ratio of ca. 33.57%. $r_E$, the cost of equity, will be estimated with the capital asset pricing model (CAPM) using the risk-free rate, market risk premium and re-levered beta: (Berk and DeMarzo 2014, p.381)

$$r_E = r_f + \beta_E [R_{Mkt} - r_f] = 5.28\% + 1 \times 4.99\% \approx 10.25\%$$

For the calculation of Marvel’s cost of debt, the risk-free rate and the basis spread based on standard deviation of stock will be used. The risk-free rate is 5.28% and according to Damodaran (2015), the standard deviation of stocks in the entertainment industry was 105.76% in 2008, resulting in a basis spread of 4%:

$$r_D = 5.28\% + 4\% = 9.28\%$$

In its Annual report from the year 2008, Marvel stated that its tax rate was 37.6%. With the required data, the calculation of WACC is as follows: (Marvel Entertainment, Inc. 2008 Annual Report)

$$WACC = 66.43\% \times 10.25\% + 33.57\% \times 9.28\% \times (1 - 37.6\%) \approx 8.75\%$$
7.1.6 Free cash flows estimation

To compute future free cash flows of Marvel Entertainment, which will be discounted using the obtained WACC, following formula will be employed: (Berk and DeMarzo 2014, p.284)

\[ FCF = EBIT(1 - \tau_C) + Depreciation - CAPEX - \Delta NWC \]

Table 10 summarizes the Marvel’s data in years 2004-2008, five years before the acquisition. All data in $ million.

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>227.4</td>
<td>175</td>
<td>114</td>
<td>277</td>
<td>373.5</td>
</tr>
<tr>
<td>Depreciation</td>
<td>3.6</td>
<td>4.5</td>
<td>14.3</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>CAPEX</td>
<td>2.6</td>
<td>3.2</td>
<td>16.3</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>(\Delta NWC)</td>
<td>-72</td>
<td>-152</td>
<td>-48.8</td>
<td>-49.9</td>
<td>82.2</td>
</tr>
</tbody>
</table>

Table 10: Marvel's historical free cash flows 2004-2008

Source: Data from ADVFN.com

For the future free cash flows in the estimation period 2009-2013, following assumptions have been made: Marvel will continue to grow; the expected EBIT growth reported by Damodaran (2015) for the entertainment industry for the year 2009 was, however, -0.58%. The negative value was probably related to the generally decreasing economy caused by the bursting of US real estate bubble and will lower Marvel’s growth rate. The EBIT growth for the estimation period will therefore lie at moderate 3%. As for depreciation and capital expenditures (CAPEX), the average historical annual growth will be taken, that is 28% and 84%, respectively. The high value of CAPEX growth is also supported by the fact that Marvel is planning to create and release a number of blockbuster movies in the future. Last but not least, the change in net working capital (\(\Delta NWC\)) will stay positive, but will decrease over time, with the growth rate of -20%. The estimated free cash flows for the period 2009-2013 are summed up in Table 11. (Damodaran 2015)
Table 11: Marvel's estimated free cash flows 2009-2013

Source: Own calculations, data from ADVFN.com

### 7.1.7 Continuation value

The terminal (continuation) value of Marvel Entertainment will be calculated using the following formula: (Berk and DeMarzo 2014, p.285)

\[
V_N = \frac{FCF_{N+1}}{WACC - g_{FCF}} = \frac{FCF_N (1 + g_{FCF})}{WACC - g_{FCF}}
\]

With \( V_N \) being the continuation value of the company and \( g_{FCF} \) the constant long-run growth rate. For the valuation, the growth rate of 3% was chosen, based on the assumption of positive, but reduced growth of the company in the contracting economy. The resulting continuation value in $ million is therefore as follows:

\[
V_5 = \frac{$198.13 \times (1 + 3\%)}{8.75\% - 3\%} = $3549.11
\]

### 7.1.8 Value of the company

In the final part of the DCF valuation, the cash flows (FCF) and the termination value are discounted using WACC. Hence, the formula for the value of the firm is

\[
V_o = \sum_{t=1}^{N} \frac{FCF_t}{(1 + WACC)^t} + \frac{V_N}{(1 + WACC)^N}
\]

After using the figures computed before and computing the present value of the firm, the enterprise value of Marvel in $ million is obtained:

\[
Enterprise value of Marvel = $3084.75
\]
In order to calculate Marvel’s price per share, net debt of the company must be subtracted from the enterprise value. (Berk and DeMarzo 2014, p.417)

\[
Equity\ value = Enterprise\ value - (Debt - Cash) = $3308.31 - ($213 - $105.3) = $2977.05
\]

With Marvel Entertainment having 79.104 million shares outstanding, this equals company’s price $37.63 per share. Since at the time of the valuation (December 2008) Marvel’s stock was trading for $30.75 per share, Marvel was undervalued. The implied share price added ca. 22% premium.

### 7.1.9 Sensitivity analysis

The sensitivity analysis is performed in order to see how the enterprise value of Marvel Entertainment changes if the underlying assumptions are reasonably varied. First relevant variable is the growth rate of Marvel’s EBIT – the base case was that it is equal to 3%, with Marvel growing, at a rate reduced by industry and global trends. The lower bound was set to equal -1%, which corresponds to the expected EBIT growth in the entertainment industry, as given in data sheets by Aswath Damodaran. As the upper bound, 5.5% was chosen, in accordance with the fundamental growth in the entertainment industry recorded in Damodaran sheets and the assumption that Marvel as the leader on comic book market will continue to successfully grow. (Berk and DeMarzo 2014, p.253, Damodaran 2015)

The second measure, whose impact on the share price of Marvel will be examined, is the debt-to-equity ratio of the company. In the DCF valuation, it was assumed that Marvel will adjust its D/E ratio to 50.5%, in line with its peer group. For the sensitivity analysis, the lower bound was set to 9%, in case that the firm won’t change the ratio. As the upper bound, a higher D/E ratio of 80% was chosen, which is reported in the Damodaran sheets as an average value for the entertainment industry in the year 2008. With varying D/E ratio, also the weighted average cost of capital changes. The complete sensitivity analysis is depicted in Table 12. It’s apparent that the change in EBIT growth rate has significantly higher effect on the share price of Marvel Entertainment than the changing debt-to-equity ratio. (Damodaran 2015)
Table 12: Sensitivity analysis of DCF valuation

<table>
<thead>
<tr>
<th>DE ratio</th>
<th>EBIT growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>9%</td>
<td>8.62%</td>
</tr>
<tr>
<td>50.5%</td>
<td>8.75%</td>
</tr>
<tr>
<td>80%</td>
<td>8.81%</td>
</tr>
<tr>
<td>-1%</td>
<td>$29.75</td>
</tr>
<tr>
<td>3%</td>
<td>$38.53</td>
</tr>
<tr>
<td>5.5%</td>
<td>$44.72</td>
</tr>
<tr>
<td>10%</td>
<td>$29.07</td>
</tr>
<tr>
<td>20%</td>
<td>$37.63</td>
</tr>
<tr>
<td>30%</td>
<td>$43.67</td>
</tr>
<tr>
<td>10%</td>
<td>$28.67</td>
</tr>
<tr>
<td>20%</td>
<td>$37.23</td>
</tr>
<tr>
<td>30%</td>
<td>$43.20</td>
</tr>
</tbody>
</table>

Table 12: Sensitivity analysis of DCF valuation
Source: Own calculations

7.2 Value of synergies

The synergies resulting from the acquisition will be estimated with the cost savings in the overlapping segments of both companies. In Table 13, the costs in segments of both companies from the fiscal year 2008 are summarized and the overlap determined. The segment “Other”, reported in Marvel’s 2008 Annual Report, is omitted; it refers to the toy manufacturing activities which were discontinued as of 2009. (Marvel Entertainment, Inc. 2008 Annual Report)

<table>
<thead>
<tr>
<th></th>
<th>Disney</th>
<th>Marvel</th>
<th>Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer products</td>
<td>2,157</td>
<td>148.9</td>
<td>148.9</td>
</tr>
<tr>
<td>(Publishing, Licensing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Entertainment</td>
<td>6,262</td>
<td>151</td>
<td>151</td>
</tr>
<tr>
<td>Media Networks</td>
<td>11,361</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Parks and Resorts</td>
<td>9,607</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>29,387</td>
<td>299.9</td>
<td>299.9</td>
</tr>
</tbody>
</table>

Table 13: Costs overlap of Marvel and Disney in $ million

The synergies are computed under the assumption that the companies will be able to save the fixed costs from the overlap. According to Garnham (2005), the entertainment and media industry is capital intensive and requires a relatively high level of fixed costs. To capture possible variations, three values of fixed costs percentage have been estimated – 10%, 20% and 30%. Similarly as for the valuation of Marvel as a standalone company, it’s assumed
that the synergies will grow at the rate of 3% annually. A new weighted average cost of
capital is computed, reflecting different beta and tax rate applied for The Walt Disney
Company. The former assumption that D/E ratio will be ca. 50% still holds, resulting in the
new WACC of approximately 9.47%. Table 14 summarizes the present value of synergies
and their value per Marvel share. (Garnham 2005, p.24)

<table>
<thead>
<tr>
<th>Fixed cost percentage</th>
<th>PV in $ million</th>
<th>Value per share in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>477.43</td>
<td>6.04</td>
</tr>
<tr>
<td>20%</td>
<td>954.86</td>
<td>12.07</td>
</tr>
<tr>
<td>30%</td>
<td>1432.3</td>
<td>18.11</td>
</tr>
</tbody>
</table>

Table 14: Estimated value of acquisition synergies
Source: Own calculation using data from Marvel Entertainment, Inc. 2008 Annual Report,
The Walt Disney Company 2008 Annual Report

The value of synergies depends largely on the estimation of fixed costs – the price per share
ranges from $6.04 to $18.11. The average value lies at $12.07 per share.

To sum the DCF valuation up, the analysis showed that the lower bound of the acquisition
price should be $37.63 per share which reflects the value of Marvel Entertainment as a
standalone company. When using the higher value of capital intensity for the entertainment
industry, the upper bound is ca. $55.74 ($37.63 + $18.11). Since Disney valued Marvel at
$50 per share, the price is in the estimated range. However, whether the price was fair or not
heavily depends on the level of capital intensity. For instance, if the fixed costs were only
10% of the total costs, Disney would pay too much for Marvel, which would be valued at
$43.67

7.3 Valuation using multiples

In this chapter, multiples will be used to value Marvel Entertainment, i.e. various ratios of
the company’s value or price and other financial measures, such as earnings, earnings before
interest, taxes, depreciation and amortization (EBITDA) or sales. In the first part, the
multiples will be calculated based on similar firms operating in the same industry.
Afterwards, the transaction multiples will be determined, created using comparable acquisitions in the entertainment industry.

### 7.3.1 Peer group

For the multiples valuation based on Marvel’s peers, the same peer group will be used as for the comparison of financial performance in Chapter 5.1 and the determination of Marvel’s capital structure in Chapter 7.1.1. The included firms are The Walt Disney Company, DreamWorks Animation and Time Warner. Additionally, the multiples for the whole entertainment industry will be used, as reported in the data sets of Aswath Damodaran. Computed was one price based multiple, the price-earnings ratio, and three enterprise value (EV) multiples, the EV/EBITDA, EV/EBIT and EV/Sales multiples. The multiples are summarized in Table 15, with negative values omitted. (Berk and DeMarzo 2014, p.288f.)

<table>
<thead>
<tr>
<th>Multiple</th>
<th>Disney</th>
<th>DreamWorks</th>
<th>Time Warner</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E</td>
<td>10.4</td>
<td>13.9</td>
<td>-</td>
<td>18.8</td>
</tr>
<tr>
<td>EV/Sales</td>
<td>1.5</td>
<td>2.7</td>
<td>1.5</td>
<td>1.66</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>6.6</td>
<td>3.6</td>
<td>3.6</td>
<td>7</td>
</tr>
<tr>
<td>EV/EBIT</td>
<td>7.5</td>
<td>10.9</td>
<td>-</td>
<td>9.4</td>
</tr>
</tbody>
</table>

**Table 15: Valuation multiples of Marvel's peers**  
Source: Own calculations based on data from ADVFN.com, WRDS and Damodaran 2015

After multiplying the results with the respective measures of Marvel Entertainment and calculating its purchase price, following share prices were derived. For each multiple, the lower and upper bound will be given and the average value calculated, as summed up in Table 16. Only according to the EV/Sales multiple is Marvel overvalued, resulting in a premium of more than 115%. The price suggested by the EV/EBITDA multiple lied on average in line with the Marvel’s actual share price by the end of 2008 ($30.75 per share). Both the P/E ratio and EV/EBIT multiple imply that on average, the firm is undervalued by ca. 17.6% and 27.8%, respectively. The upper bound of these multiples lies close to the purchase price negotiated by Marvel and Disney at the end of the acquisition.
<table>
<thead>
<tr>
<th>Multiple used</th>
<th>Marvel’s implied stock price in $ per share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower bound</td>
</tr>
<tr>
<td>P/E</td>
<td>27.02</td>
</tr>
<tr>
<td>EV/Sales</td>
<td>11.46</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>20.55</td>
</tr>
<tr>
<td>EV/EBIT</td>
<td>34.27</td>
</tr>
</tbody>
</table>

Table 16: Range of Marvel’s stock price based on multiples

Source: Own calculations based on data from ADVFN.com, WRDS and Damodaran 2015

7.3.2 Transaction multiples

In this chapter, the multiples used to value the company will be derived from transactions comparable to the acquisition of Marvel Entertainment, that is, in the same industry. The purchase price of the deal will be expressed as a multiple with help of other financial measures of the target company. The first chosen deal was the acquisition of 51% of NBCUniversal by Comcast Corporation in 2010. NBCUniversal, an entertainment and information company, was owned by General Electric before the takeover. The firm was valued by the acquirer, Comcast, at ca. $30 billion. In 2010, NBCUniversal’s EBITDA was $3.35 billion. This results in an EV/EBITDA multiple of approximately 9. Using this multiple with Marvel’s EBITDA results in the purchase price of about $4.3 billion, that is, $54.51 per share. This price is slightly above the $50 per share value of the actual Marvel acquisition. (Arango 2009, Kaplan Singh 2011)

The second comparable transaction is Comcast’s more recent attempt to acquire Time Warner Cable in 2014. The former offered to pay $45.2 billion as a purchase price, which is equivalent to roughly $160 per Time Warner Cable’s share. Although announced in February 2014, Comcast released a statement in April 2015 that the deal was terminated. Using the acquisition price of the deal and earnings data about Time Warner Cable results in the EV/EBITDA multiple of ca. 5.7 and EV/EBIT of ca. 9.8. Consequently, Marvel’s purchase price varies between $34.94 (EV/EBITDA) and $46.46 (EV/EBIT) per share, below the $50 per share value proposed by Disney. (Neate and Rushe 2014, ADVFN 2015)
Overall, the valuation by multiples based on comparable firms showed that the share price of Marvel, as a standalone company, should range between $11.46 and $50.33 per share. The average value, however, was $31.12 which is roughly the price of Marvel at the time of the valuation, that is, the end of 2008. This suggests that according to multiples valuation, Marvel’s stock was priced fairly on the stock market. The use of transaction multiples resulted in the implied purchase price of $34.94 - $54.51 per share, with $45.3 per share as the average, supporting the opinion that The Walt Disney Company paid too much for the acquisition. For this price, the resulting overestimation was:

$$78.458 \times (50 - 45.3) = 369 \text{ million}$$

The price paid, however, was within the estimated range so it can be concluded that Disney paid a fair price for the acquisition.

### 8 Measuring the success of the acquisition

The success of Disney’s purchase of Marvel Entertainment will be determined by performing an event study, as a way to measure the potential effect of Marvel’s acquisition on the value of The Walt Disney Company. The value of the firm will be represented by the returns on its stock and the impact of the acquisition on the long-term development of the returns will be studied. As the event date, the official completion of the purchase was chosen, that is December 31st, 2009. The estimation window, through which the firm’s returns will be estimated, was set as 131 to 5 months before the acquisition. The post-event window was set 32 months after, that is, from February 2010 to September 2012 since in October 2012, the takeover of Lucasfilm was already announced. The necessary data was obtained from the CRSP database, which is available on the page of Wharton Research Data Services (WRDS). All calculations were performed using EViews 8 software. (The Walt Disney Company 2009 Annual Report)

Firstly, the normal returns are calculated; these are expected returns in case that Disney didn’t buy Marvel. The expected values are computed using market model, where the normal returns of the estimation window are related to the return of the market portfolio, which is represented by the return on S&P 500 composite index. Subsequently, the abnormal returns
are determined as the difference between the actual return and the normal return in the event and post-event window. (Campbell et al. 1997, p.151-155)

Next, the cumulative abnormal returns (CAR) are calculated as the sum of the estimated abnormal returns over the post-event window i.e. from February 2010 to September 2012. The value of CAR is positive, approximately 0.2. To determine, whether these cumulative returns are significant, the test statistic will be computed, using the following formula for standardized cumulative abnormal returns (SCAR): (Campbell et al. 1997, p.160)

$$SCAR(\tau_1, \tau_2) = \frac{CAR(\tau_1, \tau_2)}{\sigma(\tau_1, \tau_2)}$$

The $\tau_1$ and $\tau_2$ refer to the time frame, which here is the post-event window, starting February 2010 and ending September 2012. $\sigma$ is the standard deviation calculated in the estimation window and adjusted for the post-event window. Lastly, the value of $SCAR$ is compared with the critical value of the T-distribution, with $\alpha=0.05$ and 30 degrees of freedom (32 months in the post-event window minus 2). Since $SCAR = 4.94$ and the critical value is equal to 1.697, hence lower, the results are significant. The null hypothesis that $SCAR = 0$ can therefore be rejected. Disney’s stock was indeed affected by the acquisition of Marvel Entertainment in a positive way; the purchase can therefore be considered successful. (Campbell et al. 1997, p.160f.)

**9 Recent development**

In this chapter, the aftermath of the acquisition will be described, with emphasis on various segments Marvel Entertainment and The Walt Disney Company operate in.

The movie production segment of Marvel Entertainment has been very productive and successful in the years after the acquisition. Since January 2010, when the purchase was completed, to June 2015, nine films from Marvel Studios have been released, with *Avengers: Age of Ultron* being the most recent one. The films are part of the shared fictional Marvel Cinematic Universe. The highest-grossing film of the franchise was *Marvel’s The Avengers*, released in 2011, with box office of more than $1.5$ billion. The movie thus became the third highest-grossing film in history, preceded only by *Avatar* and *Titanic*. Its sequel, *Avengers:*
Age of Ultron, was also a huge success, with $1.35 billion box office, being the fifth highest-grossing film. As a whole franchise of 11 movies, Marvel Cinematic Universe currently ranks as the highest-grossing film franchise overall, with worldwide box office of more than $8.5 billion, resulting in earnings of ca. $774 million per movie. Eleven more films are in development for release in the years 2015-2019. (Box Office Mojo 2015)

In the television segment, the Marvel-Disney cooperation also bore fruit in form of several TV shows, with Marvel providing comic book characters and plot ideas and Disney utilizing its TV networks. As of June 2015, the Disney XD channel, which targets young boys, airs three animated TV shows inspired by Marvel characters – Ultimate Spider-Man, Avengers Assemble and Hulk and the Agents of S.M.A.S.H. Live-action TV shows were created for the ABC network as well, most notably Agents of S.H.I.E.L.D. with already two seasons and Agent Carter. Both ABC series are connected to the Marvel Cinematic Universe and were renewed for third and second season, respectively, with another ABC show being created. In order to avoid an oversaturation of comic book inspired shows on the abovementioned channels, Disney decided to use another platform to create space for even more Marvel characters – the Internet streaming service Netflix. In April 2015, the first series starring Marvel superhero Daredevil was released, receiving universal acclaim by both fans and critics. Later that month, it was announced that the second season will be produced. Other future plans include the shows A.K.A. Jessica Jones, set to premiere in 2015 which should attract female demographics, Luke Cage, Iron Fist and a crossover mini-series Defenders. (Disney XD 2015, Goldberg 2015, Graser 2013, Cavanaugh 2015)

Marvel’s cooperation with other divisions of The Walt Disney Company resulted also in the biggest animated movie of the year 2014, with the worldwide box office of more than $650 million. Big Hero 6, created by Walt Disney Animation Studios was influenced by a comic book team of superheroes of the same name. The film won the Academy Award for Best Animated Feature in February 2015. (Khatchatourian 2015, Box Office Mojo 2015)

Advantages resulting from Disney’s financial power also reduced the limitation regarding contracts with other studios. During the acquisition, Paramount Pictures was entitled to distribute future Marvel movies. In October 2010, Disney bought the rights to distribute two of these films – The Avengers and Iron Man 3, thus obtaining higher control over the characters and movies. Subsequently in 2013, Disney bought the rights for four remaining
Marvel films, i.e. *Iron Man, Iron Man 2, Thor* and *Captain America: The First Avenger*. More recently, in February 2015, Marvel Studios closed a deal with Sony Pictures Entertainment that Spider-Man will appear in and become a part of Marvel Cinematic Universe. Before the contract, the right to use Spider-Man and affiliated characters in live-action films were exclusively owned by Sony. (Pomerantz 2010, MarketWatch 2013, Marvel 2015)

The impact of Disney’s success on its stock performance is depicted in Figure 7. In January 2010, when the acquisition of Marvel was completed, the price for Disney’s shares traded for almost $30 per share. Continuously rising, with major decrease only in 2011, the price in 2014 was more than triple the value in 2010 – $94.19 per share at the end of December 2014. In the graph, also the stock price of Time Warner, one of Disney’s main competitors in the entertainment industry, can be seen. Disney’s stock outperforms Time Warner’s almost every month during the five year interval.

![Figure 7: Share price of Disney and Time Warner 2010-2014](image)

Source: Data from WRDS

After successfully buying Pixar in 2006 and Marvel in 2009, Disney continued its acquisition streak in October 2012 by taking over Lucasfilm. The studio behind the famous sci-fi saga Star Wars, owned by its director George Lucas, was bought for approximately $4.05 billion. Similarly to the Marvel acquisition, the price was paid via cash and Disney shares. The acquisition included other companies owned by Lucasfilm as well, for instance
video game developer LucasArts, special effects firm Industrial Light & Magic or sound editing firm Skywalker Sound. The Walt Disney Company plans to release the next installment of the Star Wars franchise in December 2015, titled *Star War: The Force Awakens*. (Savitz 2012, ABC News 2014)

### 10 Conclusion

This thesis followed a series of papers studying the mergers and acquisitions and focused on the acquisition of Marvel Entertainment by The Walt Disney Company from 2009. The strategic and financial situation of both firms proved that Marvel was a good acquisition target and that Disney had a great opportunity to utilize the character library using its expertise in various segments of the entertainment industry. Additionally, one of Disney’s biggest rivals, Time Warner, already owned an influential comic book publisher DC Comics. Hence, it was important also for Disney to be able to efficiently target male demographics. Marvel indeed seemed like an ideal opportunity to reasonably widen the company’s portfolio of franchises.

The valuation of Marvel Entertainment using the Discounted Cash Flow method and multiples showed that the price The Walt Disney Company paid for Marvel was within the estimated range. On the other hand, the valuation method using only transaction multiples gave the result that Disney overpaid by approximately $369 million. In any case, strategic and financial incentives indicated that the two companies were a very good fit. Moreover, the analysis of the Disney’s recent development suggested that Marvel’s phenomenal success did have a positive impact on the company. When finally looking at the box office of Marvel’s top selling movies, the purchase can be considered a very good decision, thus answering both research questions given at the beginning.

In the following years, it will be interesting to observe Disney’s future actions with Marvel’s huge proprietary library. With careful choice of new characters and their innovative introduction to the audiences using various media, Disney might generate substantial earnings from the highly profitable comic book inspired franchises. On the other hand, Marvel could find a stable platform to promote its products and financial support needed to create new movies and TV shows.
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Abstract (Deutsch)


Abstract (English)

The study presents a thorough analysis of the acquisition, undertaken by the entertainment giant The Walt Disney Company. In 2009, the firm purchased the leading US comic book publisher and licensor Marvel Entertainment for more than $4 billion. After describing the entertainment industry and both companies, strategic and financial reasons of the purchase are summarized, proving that Marvel could gain financial support, strong background and entertainment expertise from Disney. On the other hand, Disney could utilize Marvel’s characters to efficiently target male demographics. Using the Discounted Cash Flows method and multiples, the valuation of Marvel showed that Disney paid a fair price for the acquisition in 2009. The recent development of both Marvel and Disney clearly indicates that the firms are indeed a good fit and that the acquisition was a good decision. This is evident mainly on the popularity and success of Marvel’s films and TV shows and on Disney’s financial performance.
Curriculum Vitae

Persönliche Daten

Name          Bezilla, Jakub
Adresse      Sladkovicova 32
              053 11 Smizany
              Slowakei
Kontakt      +421 908 818 216
              jakubbezilla@gmail.com
Geburtsdatum  09.06.1991
Nationalität  slowakisch

Ausbildung

2013 – dato          Universität Wien, Österreich
                     Betriebswirtschaftslehre, MSc.
                     Kernfachkombination: Corporate Finance und Health Care
                     Management

2010 – 2013          Universität Wien, Österreich
                     Internationale Betriebswirtschaftslehre, BSc.

                     Abteilung
                     Matura abgeschlossen mit deutschem Reifeprüfungszeugnis

Berufserfahrung

2013 – dato          Slovensky Skauting – Slowakische Pfadfinder, 75. Gruppe
                     Spišska Nova Ves, Slowakei
                     Einfache Buchführung
                     Organisation von Bildungskursen für junge Leader
2014 – 2015  **MUDr. Katarina Bezillova**, Ophthalmologe, Slowakei
Verwaltungsarbeiten

2009 – 2011  **FEED LAB, s.r.o.**, Spisska Nova Ves, Slowakei
Assistent bei Probenzubereitung und Testen

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Wien, 2015